

# Margin matters

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## Disclaimer & Disclosures.

This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, that form part of it.

- ▶ **Rising input cost and base effect to restrain 2H FY07 earnings, bigger impact on two-wheeler companies**
- ▶ **New capacity in tax-free zones from FY08 to help two-wheeler companies overcome cost constraints**
- ▶ **We introduce a new rating structure – Overweight on Mahindra&Mahindra (M&M) and Hero Honda; Neutral on Bajaj Auto and Neutral(V) on TVS Motor; and Underweight on Tata Motors and Underweight (V) on Maruti Udyog**

*HSBC Global Equity Research is changing the methodology by which it establishes ratings for stocks. The stocks covered in this report are subject to the revised methodology. This may or may not drive a ratings change, whether or not there has been a change in the expected target price for the stock. The revised methodology is summarised in the disclosures at the end of this report. The essential elements of the methodology involve benchmarking a 12-month expected total return (rather than a 2-year notional target price) against a regional or country long-term cost of equity. We have made no changes to the methodologies through which analysts derive target prices – our views on fair values and appropriate target prices are unchanged by this revised methodology.*

The automobile sector has underperformed the Sensex in the last three months, as input cost pressure has led to disappointing results across the board, except for M&M. The base effect and continuing margin pressure is expected to lead to further weakness in earnings growth in 2H FY07; two-wheeler manufactures are expected to be worst hit.

We expect two-wheeler companies to perform relatively better than four-wheeler companies in FY08, due to start of production in tax-free zones and lesser investment phase-related pressure.

We have arrived at our target price for each company on the basis of a three-stage DCF, and have used the cut off for upside to rate the stock. We are Overweight on M&M and Hero Honda; Neutral on Bajaj Auto and Neutral(V) on TVS Motor; Underweight on Tata Motors and Underweight (V) on Maruti Udyog.

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# Mixed trends

- ▶ Earnings growth in auto sector to lag Sensex in 2H FY07 and FY08, due to margin pressure and base effect
- ▶ Two-wheeler segment worse off than four-wheeler in 2H FY07, but likely to fare better from FY08 on higher tax savings and lower capex
- ▶ We establish Overweight rating on Hero Honda and M&M; Neutral on Bajaj and Neutral(V) on TVS; Underweight on Tata Motors and Underweight(V) on Maruti

## Lagging performance

Stock prices of automobile manufacturers have lagged the Bombay Stock Exchange Sensitive Index (BSE Sensex) since July 2006, on account of margin pressure. At the end of November 2006, the BSE Auto index appreciated by 0.6% and 8.9% over a month and three months, respectively, while the BSE Sensex appreciated by 9.5% and 20.5%. This underperformance was particularly stark in case of two-wheeler manufacturers.

A decline in profit margin in 1H FY07 on a y-o-y basis across the board, except for M&M and Maruti, has been the primary reason for the under performance.

Margin pressure concerns are likely to remain acute in 2H FY07 and spread to Maruti too. M&M is likely to remain the only exception and report margin expansion.

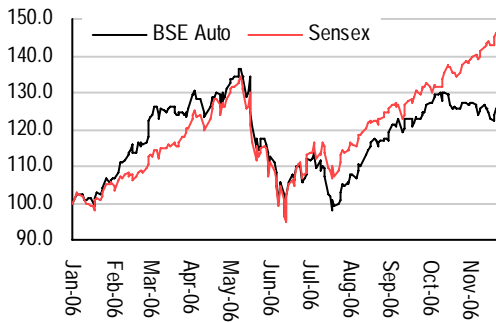
FY08 is likely to be better than FY07 for two-wheeler companies but not for four wheeler companies.

### Summary of key changes

(INR)	Rating		Fair value range		Target Price		Upside/(down side) to TP	Dividend per share	Total return	Volatility	Target valuation (FY08)
	New	Old	New	Old	New	Old					
Bajaj Auto	Neutral	Neutral	NA	2,622-3,220	3,000	2,921	9.3%	59.89	11.5%	Non Volatile	20.1
Hero Honda	Overweight	Overweight	NA	793-1,045	925	919	20.0%	25.65	23.3%	Non Volatile	15.4
M&M	Overweight	Overweight	NA	784-970	1,030	877	22.5%	12	23.9%	Non Volatile	15.9
Maruti	Underweight	Underweight	NA	869-992	925	931	-2.8%	6.11	-2.2%	Volatile*	14.9
Tata Motors	Underweight	Neutral	NA	NA	860	860	2.0%	16	3.9%	Non Volatile	14.4
TVS Motor	Neutral	Neutral	NA	103-114	105	108	6.2%	1.95	8.1%	Volatile*	11.1

\*Please refer to the Disclosure appendix for details  
Source: HSBC

BSE Auto index trailing Sensex



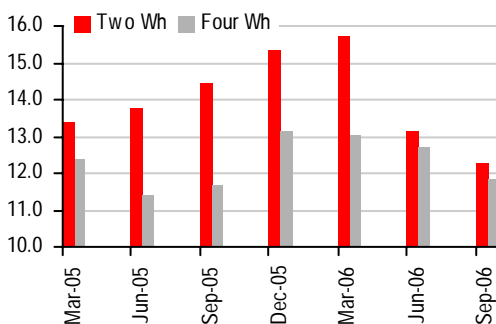
Source: Bloomberg, Price rebased to 100 on 1 January 2006

## Margin pressure is the issue

Automobile manufactures, excluding M&M and Maruti, reported a decline in EBITDA margin in April-September 2006 (1H FY07). Margin pressure increased further in 2Q FY07, compared to 1Q FY07. A comparison of the EBITDA margin in 1H FY07 with that of 2H FY06 suggests higher margin pressure across the board, going forward. The key reasons for the decline in EBITDA margin are:

- ▶ Sharp increase in raw material price, combined with a lack of ability to pass on costs
- ▶ Higher sales and marketing cost to neutralise the impact of rising interest rate on the automobile buyer
- ▶ Lack of operating leverage, as companies are at an investment phase

Quarterly EBITDA Margin trending down



Source: Company, Data for parent company

## Raw material cost hurts margin

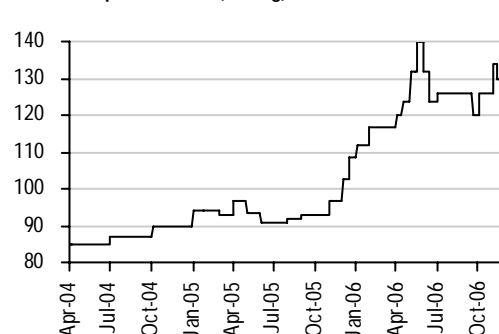
A sharp jump in the price of raw materials, such as aluminium, copper, chromium and rubber, since the beginning of FY07, combined with an inability to pass it on to customers, has led to a decline in EBITDA margin. Maruti and M&M managed to defy the trend through an improvement in product mix. However, the picture does not appear too exciting even for these two companies, when compared to 2H FY06 on a sequential basis. Manufactures did increase vehicle prices by 0.5-1.5% in June 2006, but it wasn't enough to neutralise the impact of the c4-5% increase in raw material cost.

Given that the price of most commodities is on the rise in 2H FY07, compared to a phase of decline in 2H FY06, margin pressure on account of raw material cost is likely to be higher in 2H FY07 compared to 1H FY07 even for automobile manufacturers.

## Aluminium, the biggest worry

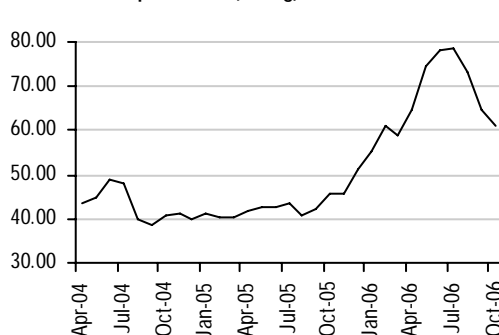
Aluminium price increased by almost 30% between January 2006 and May 2006. Depending on the type of vehicle, the total cost of raw materials increased by 0.5-4% on account of the increase in aluminium price. The impact of the rise in aluminium price was the highest for two-wheeler companies, as nearly 20% of the weight of a two-wheeler is dependent on aluminium usage. The least impact of rising aluminium price was on tractors, as the usage of aluminium in them is negligible. While aluminium prices have been rising since December 2005, the actual impact on auto companies began in June 2006, following the signing of a new long-term contract between automobile manufacturers and aluminium suppliers.

Aluminium price in India (INR/Kg)



Source: NALCO

Natural rubber price trend (INR/kg)



Source: CEIC

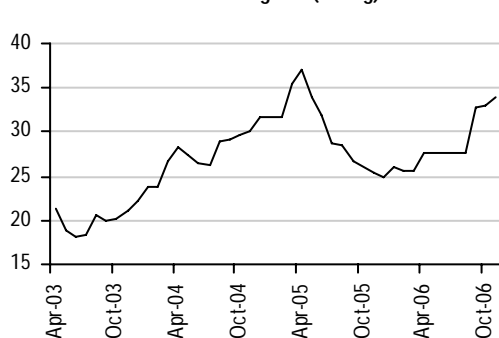
### Rubber prices take a toll too

In FY07, raw material and component cost per vehicle increased by 0.5% to 2.5%, depending on the type of vehicle, on account of c20% increase in tyre price. The maximum impact was on commercial vehicles, as they use a higher number of tyres. The least impact was on cars and two-wheelers. Tyre prices increased in line with the increase in the price of natural rubber. The average price of natural rubber in till November FY07 is up by 48%, compared to FY06. Although the price has declined by about 25% from its peak, it is still significantly higher than the average price of FY06. Tyre manufacturers are unlikely to reduce price even if rubber price declines by another 15%, as their profit margin is still at an all-time low.

### Steel price

Steel, the biggest source of cost pressure in FY05, has been favourable since FY06. However, since the beginning of October 2006, steel prices have gone up by 15-20%. Increase in steel prices is likely to put an additional cost pressure of 1-2%, going forward, with the maximum impact on commercial vehicles and tractors.

Trend of hot roll coil steel 2.5 grade (INR/kg)



Source: JPC Online

### EBITDA Margin pressure led by raw material cost

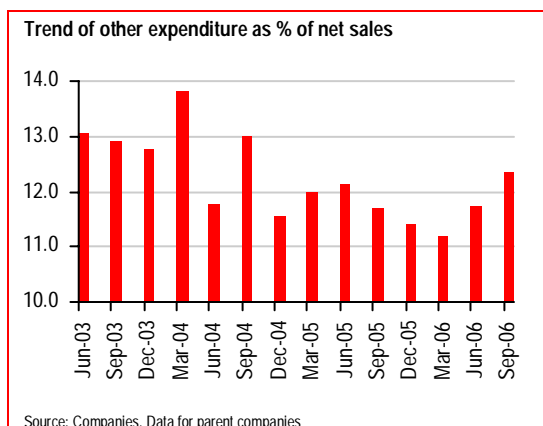
	EBITDA Margin (%)					Raw Material cost/Net sales (%)				
	1H FY07	1H FY06	y-o-y (bp)	2H FY06	h-o-h (bp)	1H FY07	1H FY06	y-o-y (bp)	2H FY06	h-o-h (bp)
Bajaj Auto	15.6	16.4	(72)	18.8	(315)	71.6	69.7	194	69.2	244
Hero Honda	13.1	15.1	(199)	16.2	(312)	71.5	70.3	127	68.7	282
M&M	12.4	11.0	141	12.0	47	67.8	69.2	(139)	69.8	(200)
Maruti	14.2	11.9	234	14.0	20	75.1	77.8	(273)	75.2	(6)
Tata Motors	12.0	12.3	(32)	12.9	(90)	67.9	66.4	141	69.1	(126)
TVS Motor	4.7	6.3	(161)	6.4	(170)	74.7	71.6	311	71.9	283

Source: Companies, data for parent companies

## Other expenses on an upswing

Automakers are also witnessing margin pressure on account of an increase in semi-fixed cost heads, classified as other expenditure, which include manufacturing costs, sales and distribution costs and advertisement expenses. Unlike in the period prior to FY07, a decline in other expenses as a percentage of sales is seeing a reversal of trend and is losing its role of neutralising the impact of rising raw material cost. The key reasons for such an increase are:

- ▶ Freight cost has gone up by almost 15% to 20% due to a rise in diesel prices as well as a ban on truck overloading
- ▶ Advertising cost has gone up substantially in FY07. The rate of a 10-second TV advertising spot has gone up by around 15-20%, compared to a 4-5% increase in the last three to four years
- ▶ Companies are incurring higher expenses in the form of offering subsidy to vehicle financing companies to neutralise the impact of rising interest rates
- ▶ Power and fuel costs are increasing at a faster rate in recent times



## Capex adds margin pressure too

Automobile manufacturers are investing in new capacity and new products, like never before. This

is leading to an increase in staff cost, depreciation cost and, in some cases, is leading to higher interest burden too. The investment phase has picked up significant momentum in FY07 and is likely to accelerate even further in FY08 and peak out in FY09.

## Tax savings to be a key positive

Almost all automobile manufacturers under our research coverage, with the exception of Maruti, are setting up manufacturing facilities in tax-free zones in the states of Uttaranchal and Himachal Pradesh. These factories will enjoy an outright excise duty exemption of 16% on 100% vehicles for a period of 10 years and a 100% income tax exemption for the first five years from the year in which commercial production starts.

Factories in tax-free zones are likely to enjoy a maximum additional EBITDA margin of 480bp, compared to other factories, due to excise duty exemption. The benefit will come from zero excise duty on about 30% of value addition, compared to 16% for a factory in non-tax-free zones.

Zero income tax, compared to about 30% average tax rate for auto companies now, will also be a major benefit.

M&M has already started production in a tax-free zone. Bajaj, Hero Honda, TVS and Tata are likely to commence production in tax-free zones from early FY08. There is a likelihood that the resulting tax benefits will be passed on to consumers, thereby helping boost sales growth.

Factories located in tax-free zones are likely to contribute to 6-8% of sales for the above-mentioned companies in FY08, to increase to about 12% by the end of FY09.

Summary earnings table

Net Profit (INRm)	1H FY07	1H FY06	Y-o-Y (%)	2H FY07e	2H FY06	Y-o-Y (%)	FY07e	FY08e	Y-o-Y (%)
Bajaj Auto	6078.5	4998.1	21.6%	6,447	6,245	3.2%	12,526	15,144	20.9%
Hero Honda	4537.1	4423.7	2.6%	5,095	5,290	-3.7%	9,632	12,004	24.6%
M&M	6452.8	4079.0	58.2%	8,273	6,031	37.2%	14,726	18,179	23.4%
Maruti	7370.1	4891.2	50.7%	7,632	7,275	4.9%	15,002	17,996	20.0%
Tata Motors	9174.7	6548.2	40.1%	12,630	10,832	16.6%	21,805	24,251	11.2%
TVS Motor	460.9	568.5	-18.9%	648	601	7.7%	1,109	1,796	61.9%

Source: Company, HSBC

## FY08 likely to be better for two-wheeler companies

We expect two-wheeler companies and M&M to report higher earnings growth than four-wheeler companies such as Maruti and Tata Motors. Ramp up of manufacturing in tax-free zones and relatively lower capex are key factors favourable to the two-wheeler sector. M&M is also like to benefit from a foray into car business from April 2007 and heavy commercial vehicle by December 2007.

We expect margin pressure at the EBITDA level to peak out in 2H FY07. Rising depreciation cost on account of capex is likely to restrain Tata Motors' and Maruti's margins.

We continue to value Indian automobile stocks by using a three-stage DCF, which includes: (a) an initial three-year period of explicit forecasts, (b) a 10-year period of semi-explicit forecasts and (c) a fade period extending over 12 years. The explicit period forecasts are for the immediate future, with detailed values for most line items. We assume that ROE converges to the COE at the end of the 12-year period.

We establish Overweight rating on Hero Honda and M&M; Neutral rating on Bajaj and Neutral(V) on TVS Motor; Underweight on Tata Motors and Underweight (V) on Maruti.

## Company-wise capacity in tax-free zones from early FY08

	Volume sold - FY06	Capacity in tax-free zone in FY08	Ration of FY08 tax-free zone capacity to FY06 production
Bajaj	2,281,230	500,000	22%
Hero Honda	3,000,438	500,000	17%
M&M	234,452	84,000	36%
Maruti	561,819	-	0%
Tata Motors	453,680	300,000*	na
TVS Motor	1,342,203	300,000	22%

\*Tata Motors's capacity in tax-free zone is for Ace small truck only  
Source: Companies, HSBC

Valuation summary

Company RIC	Year-end	PE(x)	Div Yield (%)	P/B(x)	EV/EBITDA(x)	ROE (%)	ROIC (%)
BJAT.BO	FY06	24.7	1.5	5.8	16.8	25.3	88.7
	FY07e	22.4	1.8	5.1	14.3	24.4	125.5
	FY08e	19.1	2.2	4.5	11.4	25.0	158.1
HROH.BO	FY06	15.9	2.7	7.7	9.8	55.5	220.5
	FY07e	16.0	2.7	6.1	10.0	42.6	122.6
	FY08e	12.8	3.1	4.8	7.8	42.0	131.6
MAHM.BO	FY06	20.0	1.2	5.5	11.6	33.3	19.5
	FY07e	14.1	1.2	4.1	8.3	33.7	20.5
	FY08e	11.4	1.4	3.2	7.0	31.5	18.9
MRTI.BO	FY06	22.6	0.4	4.9	12.5	24.3	49.0
	FY07e	18.4	0.5	4.0	10.3	24.0	49.7
	FY08e	15.4	0.6	3.2	8.3	23.1	44.6
TAMO.BO	FY06	18.6	1.5	5.3	10.3	33.1	27.5
	FY07e	15.6	1.8	3.7	8.0	28.7	29.5
	FY08e	14.2	1.9	3.1	6.8	23.9	26.7
TVSM.BO	FY06	19.8	1.4	3.5	11.5	18.4	9.4
	FY07e	17.9	1.5	2.7	9.8	17.1	9.7
	FY08e	10.5	2.0	2.3	5.9	23.6	17.6

Source: HSBC, Company



# Bajaj Auto

- ▶ Aggressive pricing amidst rising input cost to cause margin erosion and subdued earnings growth in FY07
- ▶ Production in tax-free zone to help boost earnings growth and stabilise profit margin in FY08
- ▶ We establish a Neutral rating under our new methodology, with a target price of INR3,000

We establish a Neutral rating and a DCF-based target price of INR3,000. Under our previous research model, our rating was Neutral and we had a fair value range of INR2,622-3,220, with a notional target price of INR2,921.

## Margin pressure takes a toll

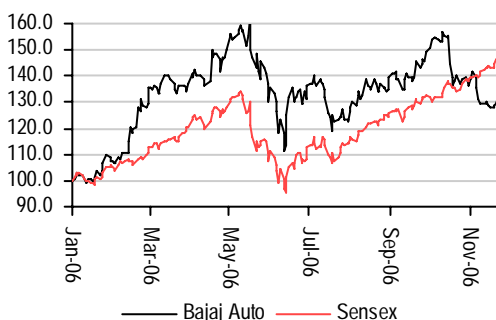
Bajaj Auto has considerably underperformed the Sensex since October 2006, following the announcement of quarterly results wherein it reported a 190bp y-o-y decline and 140bp q-o-q decline in EBITDA margin for the quarter ending September 2006. Margin erosion was on account of input cost pressure as well as price cuts.

Decline in margin on account of price cut is a major concern and continues to be an issue.

## Margin erosion in 2H FY07 too

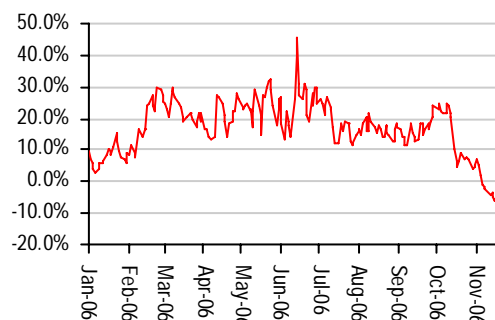
Factors responsible for margin erosion in 1H FY07 are very much intact in 2H FY07 as well. In addition to cost pressure, there is a high base to contend with. Bajaj Auto's EBITDA margin in 2H FY06 was 18.8%, significantly higher than 15.6% reported in 1H FY07. We expect the company to report 15.5% EBITDA margin in 2H FY07, a decline of 330bp y-o-y. The company is likely to face additional cost pressure on account of INR appreciation against USD, as exports are growing at a faster pace than domestic sales.

Bajaj Auto trailing Sensex post margin disappointment



Source: Bloomberg, Price rebased to 100 on Jan1, 2006

Bajaj Auto - rolling PE premium/(discount) to Sensex



Source: Bloomberg, HSBC

**Bajaj Auto – change in earnings estimate and assumption**

	FY07e			FY08e			FY08 v FY07 (New)
	Old	New	Difference	Old	New	Difference	
Two-wheelers sales volume (No. of units)	2,616,708	2,626,269	0.4%	3,222,945	3,284,591	1.9%	25.1%
Three-wheelers sales volume (No. of units)	323,610	325,025	0.4%	365,002	376,448	3.1%	15.8%
Total sales volume (No. of units)	2,940,318	2,951,293	0.4%	3,587,947	3,661,039	2.0%	24.0%
Net Sales (INRm)	100,391	101,200	0.8%	121,949	125,098	2.6%	23.6%
Average Realisation (INR)	34,143	34,290	0.4%	33,989	34,170	0.5%	-0.4%
Total EBITDA (INRm)	15,545	15,777	1.5%	18,599	19,336	4.0%	22.6%
EBITDA per Two-wheelers (INR/Unit)	5,287	5,346	1.1%	5,184	5,282	1.9%	-1.2%
EBITDA Margin (%)	15.5%	15.6%	NA	15.3%	15.5%	NA	NA
PAT (INRm)	12,421	12,526	0.8%	14,535	15,144	4.2%	20.9%
EPS (INR)	122.5	123.6	0.8%	143.4	149.4	4.2%	20.9%

Source: HSBC

## Better outlook for FY08

We expect Bajaj Auto to neutralise the impact of cost pressure in FY08, through savings from production in the tax-free zone of Uttaranchal, both at EBITDA as well as net profit margin levels. We have increased our FY08 EPS estimate by 4.2%, considering the increased visibility about commencing of production in its new factory in 1Q FY08. We expect Bajaj Auto's net profit to grow by 20.9% y-o-y in FY08.

## Neutral with TP of INR3,000

The target price for the stock is set using a sum-of-parts approach, dividing the business into three constituents ie automobile business, insurance business and marketable securities. We have used a three-stage DCF for the core automobile business. The insurance business is valued as per the value mentioned for Bajaj Allianz business by the HSBC insurance analyst. We have valued marketable securities net of sales tax deferred loan at book value.

We have assumed a cost of equity of 13.5% for estimating the DCF-based fair value for the automobile business. We have an explicit estimate till FY10. There is a semi-explicit period of 10 years starting FY11, in which we have assumed NOPLAT growth at a CAGR of 12% compared to FY10. We have assumed the start of the fade period in FY11. During the fade period, ROIC of

the company has been assumed to decline to the level of cost of capital. We have assumed the fade period to start in FY21 and last for 12 years. The DCF-based fair value of Bajaj Auto is INR1,870, taking FY08 as the base year. At this value, the stock will trade at 19.5x FY07 core EPS of INR96 and 15.5x FY08 core EPS of INR121.

### Bajaj Auto – Sum-of-parts fair value

	Fair value (INR/Share)
Automobile business	1,870
Insurance business	510
Finance and treasury	620
Total value	3,000

Source: HSBC

## Risk factors

The key downside risks include:

- (1) Further rise in input cost
- (2) Deterioration in product mix
- (3) More intense competition

## Financials & valuation: Bajaj Auto

Neutral

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	76,957	101,200	125,098	150,283
EBITDA	13,840	15,777	19,336	22,726
Depreciation & amortisation	-1,910	-2,110	-2,360	-2,610
Operating profit/EBIT	11,930	13,667	16,976	20,116
Net interest	4,104	4,227	4,354	4,616
PBT	15,807	17,791	21,330	24,731
HSBC PBT	15,807	17,791	21,330	24,731
Taxation	-4,791	-5,368	-6,186	-6,677
Net profit	11,016	12,422	15,144	18,054
HSBC net profit	11,243	12,526	15,144	18,054

### Cash flow summary (INRm)

Cash flow from operations	17,306	18,378	19,858	23,125
Capex	-2,033	-3,456	-3,998	-3,998
Cash flow from investment	-14,798	-16,739	-18,217	-20,757
Dividends	-4,615	-5,769	-6,923	-8,653
Change in net debt	-10,098	-10,495	-10,537	-12,328
FCF equity	15,500	15,025	15,860	19,126

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	11,397	12,743	14,381	15,769
Current assets	68,587	83,838	100,780	120,910
Cash & others	59,585	73,046	87,266	104,024
Total assets	80,158	96,756	115,336	136,854
Operating liabilities	12,289	16,770	20,692	24,793
Gross debt	14,672	17,638	21,321	25,751
Net debt	-44,913	-55,408	-65,945	-78,273
Shareholders funds	47,707	54,361	62,583	71,983
Invested capital	8,110	6,764	7,203	7,861

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
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#### Y-o-y % change

Revenue	29.1	31.5	23.6	20.1
EBITDA	46.3	14.0	22.6	17.5
Operating profit	56.8	14.6	24.2	18.5
PBT	45.5	12.5	19.9	15.9
HSBC EPS	37.8	11.4	20.9	19.2

#### Ratios (%)

Revenue/IC (x)	8.2	13.6	17.9	20.0
ROIC	88.7	128.3	172.6	195.0
ROE	25.3	24.5	25.9	26.8
ROA	15.1	14.0	14.3	14.3
EBITDA margin	18.0	15.6	15.5	15.1
Operating profit margin	15.5	13.5	13.6	13.4
EBITDA/net interest (x)				
Net debt/equity	-94.1	-101.9	-105.4	-108.7
Net debt/EBITDA (x)	-3.2	-3.5	-3.4	-3.4
CF from operations/net debt				

#### Per share data (INR)

EPS Rep (fully diluted)	108.66	122.53	149.38	178.08
HSBC EPS (fully diluted)	110.91	123.57	149.41	178.08
DPS	39.93	49.91	59.89	74.87
NAV	470.65	536.29	617.40	710.14

### Valuation data

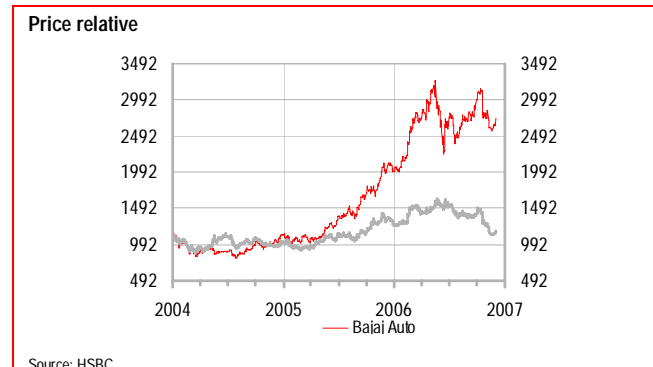
Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/sales	3.0	2.2	1.7	1.3
EV/EBITDA	16.8	14.1	10.9	8.8
EV/IC	28.7	32.8	29.4	25.4
PE*	24.7	22.2	18.4	15.4
P/NAV	5.8	5.1	4.4	3.9
FCF yield (%)	5.6	5.4	5.7	6.9
Dividend yield (%)	1.5	1.8	2.2	2.7

Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR)	2743.50	Target price (INR)	3000.00	Potent'l tot rtn (%)	9.3
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Reuters (Equity)	BJAT.BO	Bloomberg (Equity)	BJA IN
Market cap (USDm)	6,216	Market cap (INRm)	277,597
Free float (%)	70.2	Enterprise value (INRm)	222,189
Country	India	Sector	AUTOS
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241



Note: price at close of 01 Dec 2006

# Hero Honda

- ▶ Margin pressure to remain for rest of FY07 as slew of new-product launch-related costs compound impact of rising input costs
- ▶ New products likely to help arrest loss of market share; we expect 20% PAT growth in FY08, compared to marginal decline in FY07
- ▶ We establish an Overweight rating with a target price of INR925; risk reward appears favourable

We are establishing an Overweight rating and a DCF-based target price of INR925 for Hero Honda. Under our previous research model, our rating was Overweight and we had a fair value range of INR793-1,045, with a notional target price of INR919.

## Disappointing 1H FY07

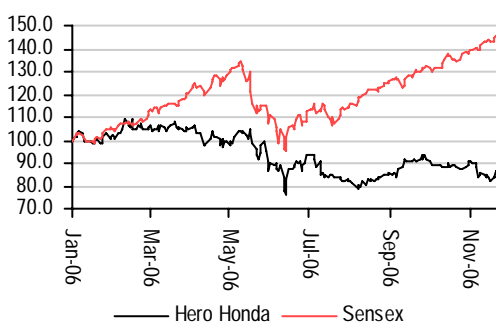
Hero Honda has significantly underperformed the Sensex in the last one year, owing to a decline in fundamentals. It has seen an erosion of market share as well as profit margin. In 1H FY07, the company's market share declined by 300bp to 46.8% compared to 49.8% in the domestic market in FY06. The company's EBITDA margin declined by 200bp y-o-y to 13.1% in 1H FY07.

The margin decline was due to a combination of input cost pressure and aggressive discount to arrest decline in market share.

## Margin pressure in 2H FY07e

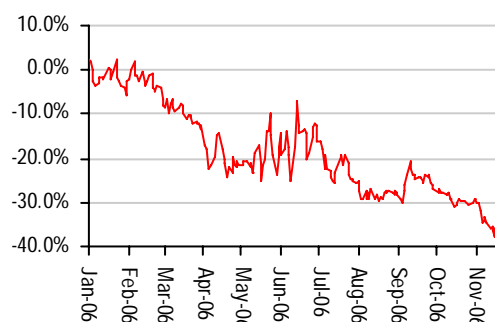
We expect the company's EBITDA margin to decline by 300bp y-o-y in 2H FY07 on account of higher product promotion cost, as it is launching six new products during the period, compared to only two new product in 1H FY07. Also, a change in product mix from old and more profitable products to new products is likely to hurt its margin in 2H FY07. However, an increased level of indigenisation is likely to help offset the cost pressure moderately.

Hero Honda – trailing Sensex



Source: Bloomberg, Price rebased to 100 on 1 January 2006

Hero Honda – rolling PE premium/(discount) to Sensex



Source: Bloomberg, HSBC

## Recovery likely in FY08

Hero Honda is currently saddled with the twin problem of market share loss and margin erosion. We expect the concern over market share to get addressed in 2H FY07, though margin decline could continue for the next two quarters. Four new products and variants launched recently and the proposed launch of four new products by April 2007 are likely to boost Hero Honda's market share. The four new products launched recently include Glamour FI, a 125cc motorcycle with fuel injection system launched in June 2006 and CBZ Extreme, a new 150cc motorcycle launched in October 2006. In November 2006, the company re-launched two products, Glamour, a 125cc motorcycle and Achiever, a 150cc motorcycle. While Glamour FI, the first of the four products launched in FY07 has already been available in showrooms since the last five months, retail sales of the remaining three will start from 1 November 2006. The company has also introduced a limited edition variant of its hugely popular model Passion Plus.

The most striking aspect of Hero Honda's new products is their contemporary style and features, which were sorely missing in its old range of products. The company is also fitting the new products with its new engine series, which delivers better performance than the old products. We expect these changes to the company's product portfolio to stem the loss of market share witnessed in 1H FY07.

Hero Honda is likely to see its product mix improve in favour of its 125cc and 150cc motorcycles, following the new launches. This is likely to result in a 2% increase in average unit price. The company will also start commercial production in its new factory in the tax-free zone of Haridwar in Uttaranchal. We estimate that it will produce c7% of its FY08 sales in this factory, which we believe will result in 200bp savings in

tax rate. A combination of higher realisation and lower tax rate, compared to FY07, is likely to drive 24.6% earnings growth in FY08e. This is despite an assumption of no improvement in EBITDA margin.

## Overweight, TP of INR925

We have used a three-stage DCF for valuing Hero Honda. We have assumed the cost of equity to be 13.5%. We have explicit estimate till FY10. In a semi-explicit period of 10 years, starting FY11, we have assumed NOPLAT growth at a CAGR of 12% compared to FY10. We have assumed the start of fade period in FY11. During the fade period, the ROIC of the company has been assumed to decline to the level of cost of capital. We have assumed the fade period to start in FY21 and last for 12 years. The DCF based fair value of Hero Honda is INR925, taking FY08 as the base year. At this value, the stock will trade at 18x FY07 EPS of INR48.2 and 14.5x FY08 EPS of INR60.1

## Risk factors

We expect the new products to be successful. Hero Honda's track record on new products has gone down substantially in the last two years. The factor that has gone against Hero Honda is the lack of contemporary features in its models. The company is addressing these concerns. However, the risk to our Overweight rating lies largely in the new products too. There is also the possibility of a slowdown in the two-wheeler segment, as the preference for four-wheelers grows at the cost of two-wheelers.

## Financials & valuation: Hero Honda

Overweight

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	87,140	98,692	117,920	136,995
EBITDA	13,645	13,064	15,640	18,527
Depreciation & amortisation	-1,146	-1,350	-1,550	-1,700
Operating profit/EBIT	12,498	11,714	14,090	16,827
Net interest	1,359	2,150	2,700	2,900
PBT	14,122	14,165	17,149	20,145
HSBC PBT	14,122	14,165	17,149	20,145
Taxation	-4,409	-4,533	-5,145	-5,842
Net profit	9,713	9,632	12,004	14,303
HSBC net profit	9,713	9,632	12,004	14,303

### Cash flow summary (INRm)

Cash flow from operations	9,954	11,898	15,054	17,763
Capex	-3,929	-3,808	-3,500	-2,000
Cash flow from investment	-4,281	-8,817	-10,845	-12,475
Dividends	-4,313	-4,794	-4,553	-5,691
Change in net debt	-1,923	-3,580	-7,345	-10,475
FCF equity	5,760	7,789	11,195	15,345

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	9,936	12,394	14,344	14,644
Current assets	28,831	33,430	41,750	53,191
Cash & others	22,206	25,928	33,273	43,747
Total assets	38,767	45,824	56,093	67,835
Operating liabilities	10,834	12,627	15,103	17,830
Gross debt	1,858	2,000	2,000	2,000
Net debt	-20,348	-23,928	-31,273	-41,747
Shareholders funds	20,093	25,172	31,485	38,959
Invested capital	5,727	7,268	7,718	6,258

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Y-o-y % change</b>				
Revenue	17.4	13.3	19.5	16.2
EBITDA	17.2	-4.3	19.7	18.5
Operating profit	16.2	-6.3	20.3	19.4
PBT	16.0	0.3	21.1	17.5
HSBC EPS	19.8	-0.8	24.6	19.1

### Ratios (%)

Revenue/IC (x)	22.3	15.2	15.7	19.6
ROIC	220.5	122.6	131.6	171.0
ROE	55.5	42.6	42.4	40.6
ROA	27.1	22.8	23.6	23.1
EBITDA margin	15.7	13.2	13.3	13.5
Operating profit margin	14.3	11.9	11.9	12.3
EBITDA/net interest (x)				
Net debt/equity	-101.3	-95.1	-99.3	-107.2
Net debt/EBITDA (x)	-1.5	-1.8	-2.0	-2.3
CF from operations/net debt				

### Per share data (INR)

EPS Rep (fully diluted)	48.64	48.24	60.12	71.63
HSBC EPS (fully diluted)	48.64	48.24	60.12	71.63
DPS	20.52	20.52	25.65	30.78
NAV	100.63	126.06	157.68	195.11

### Valuation data

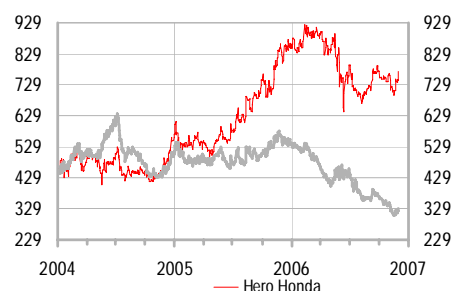
Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/sales	1.5	1.3	1.0	0.8
EV/EBITDA	9.8	10.0	7.8	6.1
EV/IC	23.3	17.9	15.9	17.9
PE*	15.9	16.0	12.8	10.8
P/NAV	7.7	6.1	4.9	4.0
FCF yield (%)	3.7	5.1	7.3	10.0
Dividend yield (%)	2.7	2.7	3.3	4.0

Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR)	771.15	Target price (INR)	925.00	Potent'l tot rtn (%)	20.0
Reuters (Equity)	HROH.BO	Bloomberg (Equity)	HH IN		
Market cap (USDm)	3,448	Market cap (INRm)	153,989		
Free float (%)	45.1	Enterprise value (INRm)	130061		
Country	India	Sector	AUTOS		
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241		

### Price relative



Source: HSBC

Note: price at close of 01 Dec 2006

**Disclaimer & Disclosures.** This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, that form part of it.

# Mahindra&Mahindra

- ▶ Key drivers of margin improvement in 1H FY07 are intact and likely to sustain in 2H FY07 and beyond
- ▶ Acquisition of new auto part companies and expansion of business scope in JV with Renault has raised long-term outlook
- ▶ We establish an Overweight rating with a target price of INR1,030; incremental revenue drivers key to further re-rating

We are establishing an Overweight rating and a SOTP-based target price of INR1,030 for M&M. Under our previous research model, our rating was Overweight and we had a fair value range of INR784-970, with a notional target price of INR877.

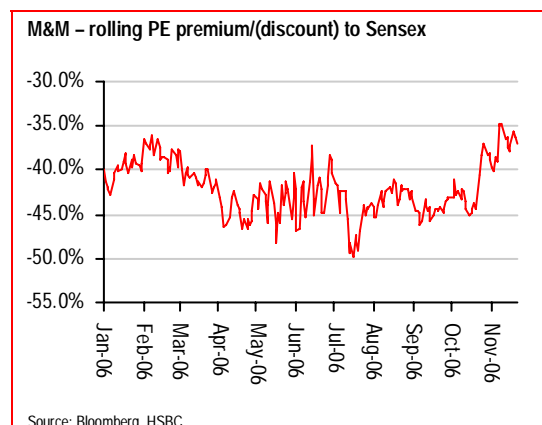
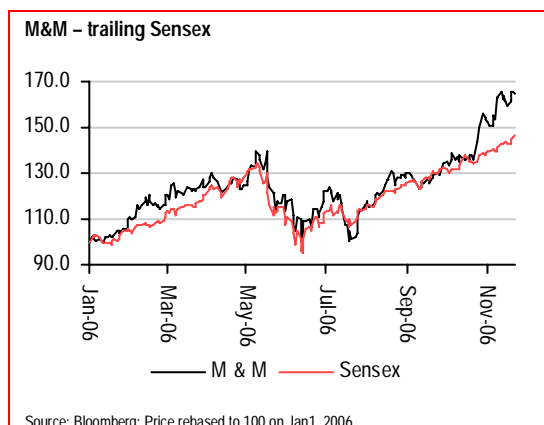
## Defying trend

M&M has significantly outperformed the Sensex during the last one year on the back of (1) unlocking of value in key subsidiaries through public offer, (2) expansion in the scope of business through announcement of acquisition and joint ventures, and (3) improvement in profit margin

despite input cost pressure. In 1H FY07, the standalone company's EBITDA margin improved by 140bp y-o-y and 50bp h-o-h to 12.4%.

M&M has managed to overcome input cost pressure through a combination of factors, which are unique to it, compared to other auto companies. The following are the factors responsible for margin improvement in the parent company (standalone entity).

- ▶ M&M has already started production in the tax-free zones since the middle of FY06. It is currently producing three-wheelers and tractors in these regions. It is the first auto company to begin production in a tax-free zone



- ▶ Tractor as a business segment is seeing the benefit of consolidation from a phase of intense competition, while other auto segments are seeing a further intensification of competition. This is the reason why M&M has managed to pass on rise in input cost
- ▶ M&M is seeing significant increase in the contribution of diesel generator sales to total sales. This business is more profitable compared to other businesses of the company
- ▶ Transfer of its light commercial vehicles (LCV) business unit from the standalone entity to a JV company (Mahindra International) in 4Q FY06 has helped improve the profit margin of the standalone entity. The LCV business unit incurred losses at operating level in FY06
- ▶ M&M is trying to leverage the scale of business on account of diversification into auto parts business for the first time and bargaining harder for raw material procurement. This is likely to increase further as M&M is also acting as the procurement agency for Navistar and Renault

## Outlook favourable

We expect M&M to report 13% EBITDA margin for the parent company in 2H FY07 and maintain it in FY08 and FY09. Our EBITDA margin assumption is 40bp less than 2Q FY07 EBITDA margin of 13.4% for the standalone entity, but 60bp higher than 1H FY07 and 100bp higher than 2H FY06. We have adjusted our assumption for the impact of a sharp increase in stock, which led to 50bp additional EBITDA margin for the standalone entity in 2Q FY07. We expect positive bias to margin to continue as the key drivers of margin improvement are likely to neutralise cost pressure as they have done in the recent past.

## Positives of new revenue drivers

In last one month, M&M has acquired two new companies in the auto parts space and has expanded the scope of agreement with its JV partner Renault. This has significantly added to our previous assumption.

### Auto parts business

M&M is rapidly expanding the auto parts business, through a combination of organic and inorganic route. In the last three months, the company has acquired three companies with a cumulative annual turnover INR17bn, thereby taking the overall turnover to INR29bn. The auto parts business, being conducted under a division named Systech, has a target annual turnover of USD1bn by 2010. The recent development and expansion plans suggest that Systech might achieve its target by end of FY09.

Systech has three core business lines, including auto parts manufacturing, third-party sourcing of auto parts and design and development.

Currently, the division has a total annual ferrous casting capacity of 140,000 tonne. The company expects this to double in five years. Systech has a total annual forging capacity of 200,000MT, which is likely to go up to 300,000MT by FY10. The company is also in the process of doubling its gear making and stamping capacity in next three years.

We expect M&M to see strong growth in sourcing as well as designing of auto parts. M&M is going to help Navistar procure USD330m from India by 2009. It will also provide third-party procurement services to Renault.

The design and development service business is also witnessing rapid growth; it has set up a dedicated offshore software development centre for Navistar recently.



**Mahindra auto parts – Systech division**

	M&M stake	Acquisition date	Brief business description	Turnover (INRm)	Net profit (INR m)	Annual capacity	Production
<b>Auto component business unit (ACBU)</b>							
Mahindra Ugine - Steel	50.7%		Alloy Steel	5,401	431	90,000 MT	111,188MT
Mahindra Ugine - Stampings	50.7%	Feb-06	Sheet metal stampings	846	220	31,000	24,382MT
Siroplast	30.6%		Composites	204	9		
SAR transmission	51.0%	Jan-05	Gear cutting	409	7	1.8m units	1.65m units
Mahindra Forgings	47.1%	Apr-05	Forgings + Machining	2,043	(119)	40,992MT	23,500MT
Stokes	99.2%	Jan-06	Forgings + Machining	2,020	(53)	20,000MT	na
Jeco Holdings	67.9%	Sep-06	Forgings + Machining	10,512	n.a	100,000MT	na
Schoeneweiss	na	Sep-06	Forgings + Machining	4,500	n.a	40,000MT	na
DGP Hinoday	66.0%	Nov-06	Ferrous Castings, ferrites	2,500	n.a	24,000MT	na
<b>Strategic sourcing business unit (SSBU)</b>		n.a	Third party Sourcing of auto parts	n.a	n.a	n.a	na
<b>Engineering Services Business unit (ESBU)</b>							
Mahindra Engineering Design and Development co	100.0%		Design development	238	44		
Plexion Technologies	99.0%	Mar-06	Design development	141	(5)		
<b>Total</b>				<b>28,815</b>	<b>534</b>		

Source: Company, HSBC

**Valuing auto parts business**

M&M is currently conducting its auto parts business through various subsidiaries and has plans to simplify the holding structure, going forward. For the purpose of valuation, we have taken out the listed subsidiaries as we will be valuing them as per the current market price. For the residual auto parts business, we have estimated the effective holding by M&M to be 65%. Currently, out of the total revenue of INR29bn, INR8.5bn is attributable to listed subsidiaries. Revenue of Systech, excluding listed subsidiary, is currently INR20.3bn, out of which INR380m is from design development (which has 20% net profit margin). Considering the overall blend of auto parts business, both as per geographical and profitability difference, we have estimated the revenue and profit in FY08, the year in which the company is likely to enter stable state.

**Valuation of Systech ex listed companies**

	INRm
Revenue in FY10	31,836
PAT Margin in FY10	6.0%
PAT in FY10	1,910
Target multiple for FY10 EPS	10.0
Value of auto part business	19,102
Effective stake of M&M	65.0%
<b>Value attributable to M&amp;M</b>	<b>12,416</b>

Source: HSBC

**Renault JV**

M&M and Renault have entered into an agreement to expand their current scope of business substantially. Currently, M&M has a 51/49 JV with Renault to produce 50,000 units of the Logan car annually. As per the new agreement, M&M and Renault are going to set up another Greenfield factory with 500,000 units of car production capacity and 300,000 units of powertrain making facility in the next three-five year period, under a 50/50 principle.

**Renault Logan suitable to India**

In June 2005, M&M had entered into a 51/49 JV with Renault to manufacture the Logan car India. This JV is likely to start commercial production in April 2007, with an annual capacity of 50,000 cars. The total capex on the project is likely to be INR5bn. Logan is likely to be extremely cost competitive, as it involves very low product development and fixed asset investment. The key advantages of Logan are:

- ▶ Research and development cost incurred for Logan is only USD180m. This is extremely competitive, compared to USD370m spent on the development of Tata Indica and USD120m spent on Mahindra Safari

- ▶ The total investment cost, including plant and machinery for Renault in Romania translates to cINR100,000, which is similar to that of Maruti and less than half that of Tata Motors and Hyundai
- ▶ Renault has sold over 350,000 units of Logan globally within two years of production. Tata Motors took five years to sell as many units of its popular model Indica

The extremely low cost structure of Logan will help M&M price the product aggressively in India. The company is setting up initial capacity for 50,000 cars at an investment of only INR5bn. Logan is also going to have variants like multi-purpose vehicle, saloon etc, apart from a Sedan.

The basic principles that helped Renault save on cost are:

- ▶ Fast development time, which led to low product development cost. Logan was developed within 18 months, compared to two-three years for others
- ▶ Use of fewer parts, component standardisation, while offering the most of the sought-after features

#### Mahindra Renault – JV Valuation

	INRm
Volume sales in FY10	150,000
Average net selling price (INR)	325,000
Revenue in FY10	48,750
PAT Margin in FY10	6.0%
PAT in FY10	2,925
Target multiple for FY10 EPS	10.0
Value of auto part business	29,250
Effective stake of M&M	51.0%
<b>Value attributable to M&amp;M</b>	<b>14,918</b>

Source: HSBC

## Truck joint venture

M&M entered into a JV with International Truck (a subsidiary of Navistar) in 2005. At the time of setting up this JV, M&M transferred its own LCV business at a total consideration of INR484m.

This JV will manufacture heavy trucks in India as well as LCVs for a total investment of INR4bn. The total manufacturing capacity of the JV is likely to be 50,000 units, including 15,000 units of LCV capacity. Commercial production of heavy trucks is likely to start by the end of CY07. In FY06, this JV had a total turnover of INR721m and incurred a net loss of INR3.3m.

#### Mahindra – valuation of international truck JV

	INRm
Volume sales in FY10	40,000
Average net selling price (INR)	700,000
Revenue in FY10	28,000
PAT Margin in FY10	6.0%
PAT in FY10	1,680
Target multiple for FY10 EPS	10.0
Value of auto part business	16,800
Effective stake of M&M	51.0%
Value attributable to M&M	8,568

Source: HSBC

## China tractors

In December 2004, M&M formed a JV with Jiangling Motor, China, with an 80% stake and started operation in June 2005. In the first year, the JV sold 2,718 tractors, including 820 exports. In the current year, the company is likely to produce 7,200 tractors, a jump of 2.5 times. In FY06, the JV had a total turnover of INR297m and a net loss of INR117m. Sharp ramp up in production is likely to help improve the JV's bottom line performance from now on.

#### M&M – valuation of China tractors business

	INRm
Volume sales in FY10	20,000
Average net selling price (INR)	220,000
Revenue in FY10	4,400
PAT Margin in FY10	5.0%
PAT in FY10	220
Target multiple for FY10 EPS	8.0
Value of auto part business	1,760
Effective stake of M&M	80.0%
Value attributable to M&M	1,408

Source: HSBC

## Overweight with TP of INR1,030

We have valued M&M using a sum-of-the-part method. We have valued the parent company (utility vehicle and farm equipment business) using DCF and FY08 as the base year. We have valued listed subsidiaries as per current market price for setting a one-year target price, considering a conglomerate discount factor. We have valued unlisted subsidiaries assuming c20% discount to prevailing peer p/e valuation, on account of the possibility of conglomerate discount.

We have assumed the cost of equity to be 13.5% for estimating the DCF-based fair value for automobile business. We have explicit estimate till FY10. There is a semi-explicit period of 10 years starting FY11 in which We have assumed the NOPLAT to grow at 12% CAGR compared to FY10 NOPLAT. We have assumed the fade period to start in FY11. During the fade period ROIC of the company has been assumed to decline to the level of cost of capital. We have assumed the fade period to start in FY21 and last for 12 years. DCF based fair value of M&M, parent company is INR460 taking FY08 as the base year.

## Risk factors

Key downside risks to our target price and rating for Mahindra & Mahindra are increase in competition in the automobile business and cyclical decline in tractor demand, with FY07 being the fourth year of growth phase.

#### Mahindra & Mahindra – Estimate of fair value as per sum of part

	No of shares held by M&M (m)/ % stake	Current Market price (INR)	Value of investments (INR m)	INR/share of M&M
<b>Auto Business (a)</b>			<b>139,287</b>	<b>561</b>
Parent company automotive and farm equipment business			114,394	460
Mahindra Renault	51%	Unlisted	14,918	61
Mahindra International	51%	Unlisted	8,568	35
Mahindra China	80%	Unlisted	1,408	6
Mahindra USA @15x FY06 PAT	100%	Unlisted	413	2
<b>Auto parts business excluding listed subsidiaries (b)</b>	<b>65%</b>	<b>Unlisted</b>	<b>12,416</b>	<b>51</b>
<b>Other unlisted subsidiaries ©</b>		<b>Unlisted</b>	<b>5,870</b>	<b>24</b>
Mahindra Holiday resorts @ 16x FY06 PAT	100%	Unlisted	3,360	14
Mahindra Intertrade @10x FY06 PAT	100%	Unlisted	2,510	10
<b>Listed subsidiaries (d)</b>			<b>96,801</b>	<b>394</b>
Mahindra Financial Services	58.24	245.0	14,269	58
Mahindra Ugine	16.5	120.3	1,981	8
Siro Plast	1.3	72.6	97	0
Mahindra GESCO	17.1	981.5	16,744	68
Tech Mahindra	53.8	1,122.8	60,381	246
Mahindra Forgings	13.2	252.9	3,330	14
<b>Total Value - (a) + (b) + © + (d)</b>			<b>254,374</b>	<b>1,030</b>

Source: HSBC, Bloomberg Listed co price at the end of 30 Nov 2006

## Financials & valuation: Mahindra & Mahindra

Overweight

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	126,484	161,951	201,564	243,611
EBITDA	20,462	30,281	36,560	44,027
Depreciation & amortisation	-2,833	-3,493	-4,150	-4,806
Operating profit/EBIT	17,629	26,788	32,410	39,221
Net interest	-2,194	-2,976	-3,726	-4,349
PBT	18,069	25,532	28,934	35,123
HSBC PBT	18,069	25,532	28,934	35,123
Taxation	-4,029	-6,191	-7,458	-9,066
Net profit	12,697	16,226	18,179	21,866
HSBC net profit	10,110	14,726	18,179	21,866

### Cash flow summary (INRm)

Cash flow from operations	1,510	19,216	18,476	25,061
Capex	-8,666	-9,000	-9,000	-8,999
Cash flow from investment	-8,629	-10,146	-9,000	-8,999
Dividends	-1,648	-3,245	-4,226	-4,812
Change in net debt	7,750	14,349	7,607	5,169
FCF equity	-9,743	8,716	9,476	16,062

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	26,055	31,562	36,412	40,605
Current assets	109,123	127,580	157,584	200,370
Cash & others	23,680	9,000	10,000	22,000
Total assets	135,178	159,142	193,996	240,975
Operating liabilities	27,764	35,504	44,001	52,068
Gross debt	55,758	55,426	64,033	81,202
Net debt	32,078	46,426	54,033	59,202
Shareholders funds	36,972	49,092	62,551	78,863
Invested capital	83,734	114,638	139,995	166,907

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Y-o-y % change</b>				
Revenue	32.2	28.0	24.5	20.9
EBITDA	51.1	48.0	20.7	20.4
Operating profit	58.0	52.0	21.0	21.0
PBT	76.0	41.3	13.3	21.4
HSBC EPS	45.7	42.2	23.4	20.3

### Ratios (%)

Revenue/IC (x)	1.8	1.6	1.6	1.6
ROIC	19.5	20.5	18.9	19.0
ROE	33.3	34.2	32.6	30.9
ROA	14.2	15.0	13.9	13.7
EBITDA margin	16.2	18.7	18.1	18.1
Operating profit margin	13.9	16.5	16.1	16.1
EBITDA/net interest (x)	9.3	10.2	9.8	10.1
Net debt/equity	70.5	76.4	69.7	60.4
Net debt/EBITDA (x)	1.6	1.5	1.5	1.3
CF from operations/net debt	4.7	41.4	34.2	42.3

### Per share data (INR)

EPS Rep (fully diluted)	52.71	65.75	73.67	88.61
HSBC EPS (fully diluted)	41.97	59.67	73.67	88.61
DPS	10.00	15.00	17.00	20.00
NAV	153.47	198.94	253.48	319.58

### Valuation data

Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/sales	1.9	1.6	1.3	1.1
EV/EBITDA	11.6	8.3	7.1	6.0
EV/IC	2.8	2.2	1.9	1.6
PE*	20.0	14.1	11.4	9.5
P/NAV	5.5	4.2	3.3	2.6
FCF yield (%)	-4.7	4.2	4.6	7.8
Dividend yield (%)	1.2	1.8	2.0	2.4

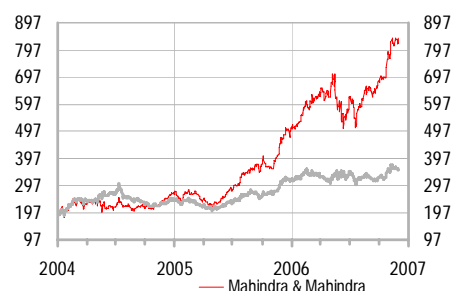
Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR) 841.05 Target price (INR) 1030.0 Potent'l tot rtn (%) 22.50

Reuters (Equity)	MAHM.BO	Bloomberg (Equity)	MM IN
Market cap (USDm)	4,595	Market cap (INRm)	205,223
Free float (%)	76	Enterprise value (INRm)	251,649
Country	India	Sector	AUTOS
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241

### Price relative



Source: HSBC

Note: price at close of 01 Dec 2006

**Disclaimer & Disclosures.** This report must be read with the disclosures and the analyst certifications in the Disclosure appendix, and with the Disclaimer, that form part of it.

# Maruti Udyog

- ▶ Margin improvement in the last four quarters on the back of import duty cut, higher productivity and favourable product mix
- ▶ Base effect likely to catch up from 3Q FY07, though higher volume growth on the back of new products
- ▶ We establish an Underweight(V) rating with a target price of INR925; rising competition and increase in exports key threat to margin

*We establish an Underweight(V) rating and a DCF-based target price of INR925 for Maruti Udyog. Under our previous research model, our rating was Underweight and we had a fair value range of INR869-992, with a notional target price of INR931.*

## On top so far

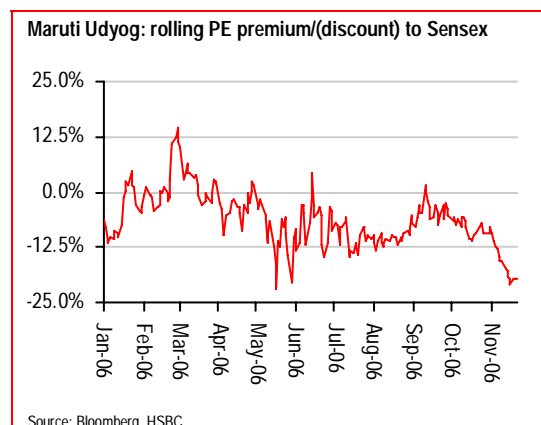
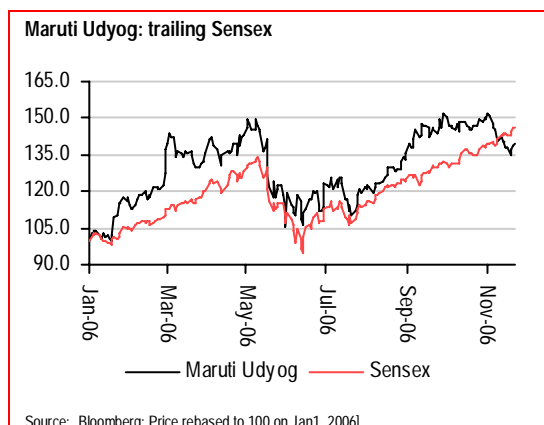
Maruti consistently outperformed the Sensex till the end of October 2006, on account of 230bp y-o-y EBITDA margin expansion despite cost pressure. The company has been witnessing y-o-y margin expansion during the last four quarters.

The most noteworthy aspect of Maruti's performance is the higher PAT margin expansion, compared to expansion in EBITDA margin, led by a decline in depreciation as a percentage of sales.

However, a premature end to the possibility of Nissan using Maruti as a manufacturing hub led to slight underperformance in recent times.

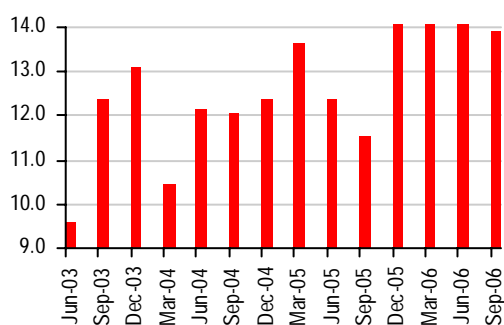
## Margin expansion phase over

Factors responsible for EBITDA margin and net margin expansion are in the base from 3Q FY07 onwards. The following are the factors responsible for margin expansion:



- ▶ Decline in volume of exports as a proportion of sales to c5% since 3Q FY06 compared to 8-10% in the previous four quarters, which led to a decline in raw material cost as a percentage of sales. This is because exports have higher raw material to sales ratio vis-à-vis domestic sales
- ▶ Substitution of imported steel with domestic steel at a lower price in FY06
- ▶ Decline in import duty on components by 500bp in March 2005 and 250bp in March 2006 to the current level of 12.5%. This helped Maruti, as imported materials form about 20% of its raw material cost

Maruti – quarterly EBITDA Margin trend



Source: Company

## Margin pressure ahead

There are likely to be three sources of margin pressure, going forward.

- ▶ Change in product mix in favour of exports and diesel car
- ▶ Increase in raw material cost by 1.3% from October 2006
- ▶ Increase in depreciation following commercial production from new factory in October 2006 and new product launch

### Faster growth of exports

In 2H FY07, Maruti's target is 50% y-o-y growth in exports, compared to 15% y-o-y decline in 1H FY07. If it meets its export target, the contribution of exports to sales is likely to increase to 7% in 2H FY07 from 5% in 1H FY07. Exports are less profitable compared to domestic sales, hence likely to hurt margin.

### Diesel car could be less profitable

Maruti will launch a diesel car in 4Q FY07. This is expected to be positive for volume, but could be negative for margin as Maruti will buy the entire diesel engine unit, as against its own manufacturing of petrol engines. Diesel engines are also likely to have higher import content. On account of lower value addition and higher import content, diesel cars are likely to be less profitable for the company.

### Maruti – key assumptions

Key operating data	FY07e	FY08e	FY09e
No of car sold	645,757	749,421	877,061
Volume growth	15%	16%	17%
Average Realisation (INR)	231,531	244,071	243,748
Change in realisation (y-o-y)	4%	5%	0%
EBITDA per vehicle	35,929	36,778	34,770
EBITDA Margin	15.5%	15.1%	14.3%
PAT Margin	10.0%	9.8%	9.4%
Net sales growth	20%	22%	17%
EBITDA growth	21%	19%	11%
PAT Growth	23%	19%	12%

Source: HSBC

## New products to boost volume

Maruti plans to launch a new compact car, Zen Estilo, in December 2006. This will be followed by the launch of the diesel variant of the compact car Swift in 4Q FY07. The company is also likely to launch two new sedans in FY08. The number of new product launches is expected to keep the company in top position in FY08.

## Higher competition by end CY07

Maruti's lead over competition in the small and compact car segments is likely to come to an end by the end of CY07. This will be led by the launch of new compact cars by Hyundai, Tata Motors and GM by end CY07. The entry of the Renault Logan sedan, at price possibly comparable to Maruti's compact cars, in April 2007 is also expected to emerge as a threat.

## Underweight – TP INR925

We have used a three-stage DCF for valuing Maruti. We have assumed the cost of equity to be 13.5%. We have explicit estimate till FY10. There is a semi-explicit period of 10 years starting FY11 in which We have assumed the NOPLAT to grow at 12% CAGR compared to FY10 NOPLAT. We have assumed the fade period to start in FY11. During the fade period ROIC of the company has been assumed to decline to the level of cost of capital. We have assumed the fade period to start in FY21 and last for 12 years. DCF based fair value of Maruti is INR925 taking FY08 as the base year.

We establish an Underweight(V) rating on Maruti with a DCF-based target price of INR925.

## Risk factors

The key downside risks are increased competition. The number of new product launches planned for 2007 is far higher than for the current year. The other risk factor includes a possible reduction in excise duty on bigger cars to the level of small cars.

## Financials & valuation: Maruti Udyog

Underweight(V)

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	124,954	149,513	182,912	213,782
EBITDA	19,207	23,201	27,562	30,495
Depreciation & amortisation	-2,891	-2,954	-4,005	-4,605
Operating profit/EBIT	16,316	20,247	23,557	25,890
Net interest	1,590	1,496	2,152	2,905
PBT	17,906	21,743	25,709	28,795
HSBC PBT	17,906	21,743	25,709	28,795
Taxation	-5,740	-6,740	-7,713	-8,638
Net profit	12,191	14,983	17,898	19,979
HSBC net profit	12,191	14,983	17,898	19,979

### Cash flow summary (INRm)

Cash flow from operations	16,672	18,547	21,727	24,508
Capex	-3,945	-15,229	-8,830	-5,000
Cash flow from investment	-9,259	-19,903	-18,793	-22,423
Dividends	-1,153	-1,443	-1,764	-2,084
Change in net debt	-11,080	-2,303	-9,963	-17,423
FCF equity	12,727	3,318	12,897	19,508

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	20,491	32,644	38,639	39,033
Current assets	61,908	61,899	77,352	99,850
Cash & others	39,214	37,321	47,285	64,708
Total assets	84,206	96,043	117,491	140,384
Operating liabilities	20,875	23,349	28,564	33,385
Gross debt	6,696	2,500	2,500	2,500
Net debt	-32,518	-34,821	-44,785	-62,208
Shareholders funds	55,730	69,269	85,404	103,298
Invested capital	22,310	33,873	40,142	40,791

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Y-o-y % change</b>				
Revenue	10.1	19.7	22.3	16.9
EBITDA	12.3	20.8	18.8	10.6
Operating profit	30.7	24.1	16.4	9.9
PBT	33.8	21.4	18.2	12.0
HSBC EPS	38.5	22.9	19.5	11.6

### Ratios (%)

Revenue/IC (x)	5.5	5.3	4.9	5.3
ROIC	49.0	49.7	44.6	44.8
ROE	24.3	24.0	23.1	21.2
ROA	16.5	16.9	17.0	15.7
EBITDA margin	15.4	15.5	15.1	14.3
Operating profit margin	13.1	13.5	12.9	12.1
EBITDA/net interest (x)				
Net debt/equity	-58.2	-50.2	-52.3	-60.0
Net debt/EBITDA (x)	-1.7	-1.5	-1.6	-2.0
CF from operations/net debt				

### Per share data (INR)

EPS Rep (fully diluted)	42.20	51.86	61.95	69.15
HSBC EPS (fully diluted)	42.20	51.86	61.95	69.15
DPS	3.99	5.00	6.11	7.21
NAV	192.90	239.76	295.61	357.54

### Valuation data

Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/Sales	1.9	1.6	1.3	1.0
EV/EBITDA	12.5	10.3	8.3	6.9
EV/IC	10.8	7.0	5.7	5.2
PE*	22.6	18.4	15.4	13.8
P/NAV	4.9	4.0	3.2	2.7
FCF yield (%)	4.7	1.2	4.7	7.1
Dividend yield (%)	0.4	0.5	0.6	0.8

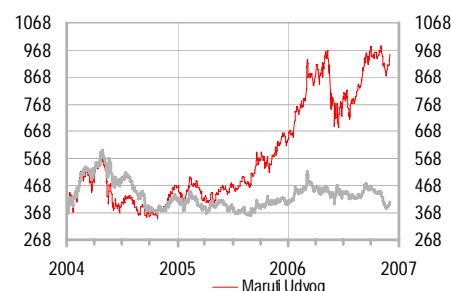
Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR)	951.95	Target price (INR)	925.00	Potent'l tot rtn (%)	-2.8
Reuters (Equity)	MRTI.BO	Bloomberg (Equity)	MUL IN		
Market cap (USDm)	6,158	Market cap (INRm)	275,028		
Free float (%)	27.5	Enterprise value (INRm)	238,706		
Country	India	Sector	AUTOS		
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241		

(V)=Volatile. Please refer to the Disclosure appendix for details

### Price relative



Source: HSBC

Note: price at close of 01 Dec 2006

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# Tata Motors

- ▶ Aggressive pricing in light vehicle segment to hurt margin, despite booming heavy vehicle sales
- ▶ Accelerating investment phase and increase in the number of new product launches to put additional margin pressure in FY08
- ▶ We establish an Underweight rating with a target price of INR860. Margin pressure, and threat of competition from railway to transport sector key concerns

## Uncertain times

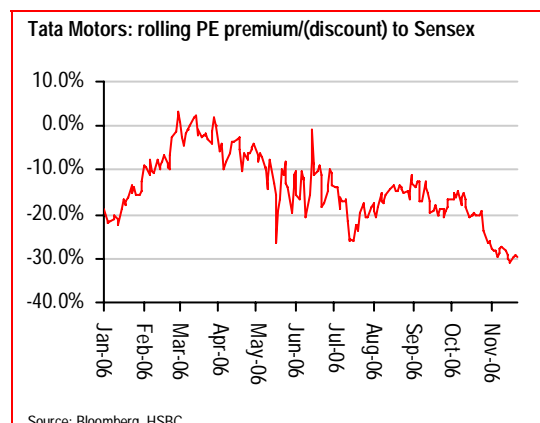
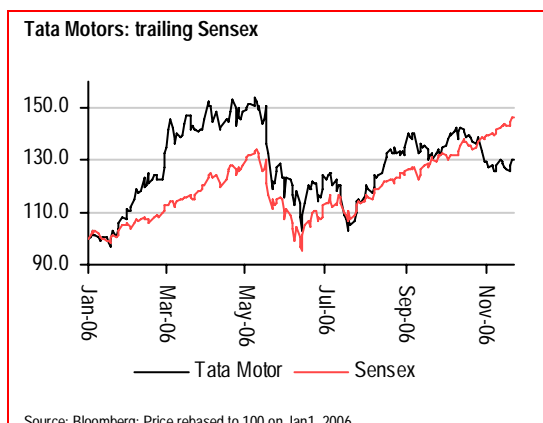
Tata Motors has been underperforming the Sensex since October 2006, despite reporting a 36% y-o-y growth in consolidated earnings in the quarter ending September 2006. A decline of about 130bp y-o-y and 180bp q-o-q in EBITDA has led to this underperformance. Despite margin pressure, the company has continued to increase the level of discount in its light vehicle segment.

Aggressive pricing is neutralising the positives of strong growth in the medium and heavy commercial vehicle segments. There is also the

element of uncertainty about cyclical nature of commercial vehicle sales in FY08, which is impacting stock price performance.

## Margin pressure to continue

We believe that margin pressure is the single biggest concern for Tata Motors. Margin pressure is likely to come from three sources: (1) input cost, (2) increase in product launch cost as the company will be launching more than five products per annum during the next three years and will also go global, (3) increase in depreciation cost as we believe the company will



double its gross fixed assets in the next three-four years, which is higher than the rate at which revenue is likely to rise.

## Underweight – TP INR860

We rate Tata Motors as Underweight with a target price of INR860 based on a three-stage DCF. We have assumed a cost of equity of 13.5% and fade period expiring in FY33. We have explicit forecast till FY10 and semi-explicit forecast till FY16. We have assumed NOPLAT growth at a CAGR of 13% between FY10 and FY16. We have assumed a fade period starting from FY17 and ending in FY38. At our one-year target price of INR860, the stock will trade at 14.4x FY08 EPS of INR59.6, which is significantly higher than the average one-year forward PE of 11.6x for the last three years. At our target price, the stock will trade at 7x FY08 EV/EBITDA, which is marginally higher than the last three-year average of 6.3x one-year forward EV/EBITDA.

## Risk factors

The biggest risk to Tata Motors is likely to be a possible decline in the market share of road sector, following a proposed doubling of freight carrying capacity by Indian Railways in the next five-year period. Aggression from railway could make truck ownership less remunerative, which could lead to a decline in demand for trucks.

The HSBC economist also believes that the current GDP growth is too high to sustain. This kind of macro uncertainty is a significant risk for commercial vehicle manufacturers, a leveraged play on economy growth.

## Financials & valuation: Tata Motors

Underweight

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	237,182	316,676	375,964	439,276
EBITDA	30,539	38,373	44,683	52,516
Depreciation & amortisation	-6,951	-8,022	-10,644	-13,444
Operating profit/EBIT	23,588	30,351	34,039	39,072
Net interest	-3,096	-4,215	-4,846	-5,313
PBT	23,904	29,150	32,488	36,502
HSBC PBT	23,904	29,150	32,488	36,502
Taxation	-6,400	-7,145	-7,936	-8,884
Net profit	17,281	21,805	24,251	27,268
HSBC net profit	17,380	21,805	24,251	27,268

### Cash flow summary (INRm)

Cash flow from operations	24,000	30,416	41,929	48,588
Capex	-15,417	-25,000	-30,000	-40,000
Cash flow from investment	-33,712	-43,132	-34,697	-55,792
Dividends	-5,525	-6,703	-7,233	-9,042
Change in net debt	-12,622	-12,673	-6,762	7,336
FCF equity	1,919	7,914	7,894	3,935

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	54,359	71,338	90,694	117,250
Current assets	112,301	145,446	166,498	177,233
Cash & others	60,733	87,332	101,174	102,335
Total assets	183,398	228,521	264,928	301,220
Operating liabilities	36,667	43,215	49,335	56,029
Gross debt	63,294	77,219	84,300	92,796
Net debt	2,561	-10,113	-16,874	-9,539
Shareholders funds	61,176	90,767	112,489	130,715
Invested capital	69,261	86,238	106,682	136,119

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Y-o-y % change</b>				
Revenue	21.4	33.5	18.7	16.8
EBITDA	22.3	25.7	16.4	17.5
Operating profit	24.4	28.7	12.2	14.8
PBT	26.8	21.9	11.5	12.4
HSBC EPS	17.2	19.3	9.9	12.4

### Ratios (%)

Revenue/IC (x)	3.8	4.1	3.9	3.6
ROIC	27.5	29.5	26.7	24.4
ROE	33.1	28.7	23.9	22.4
ROA	11.9	12.2	11.4	11.2
EBITDA margin	12.9	12.1	11.9	12.0
Operating profit margin	9.9	9.6	9.1	8.9
EBITDA/net interest (x)	9.9	9.1	9.2	9.9
Net debt/equity	4.1	-10.9	-14.8	-7.2
Net debt/EBITDA (x)	0.1	-0.3	-0.4	-0.2

### Per share data (INR)

EPS Rep (fully diluted)	45.14	54.16	59.55	66.79
HSBC EPS (fully diluted)	45.39	54.16	59.55	66.95
DPS	13.00	15.00	16.00	20.00
NAV	159.78	225.46	276.20	320.95

### Valuation data

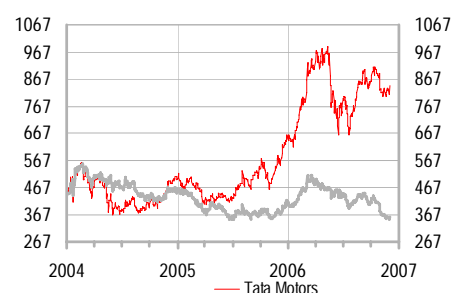
Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/sales	1.3	1.0	0.8	0.7
EV/EBITDA	10.3	8.0	6.8	6.0
EV/IC	4.5	3.6	2.9	2.3
PE*	18.6	15.6	14.2	12.6
P/NAV	5.3	3.7	3.1	2.6
FCF yield (%)	0.6	2.5	2.5	1.2
Dividend yield (%)	1.5	1.8	1.9	2.4

Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR)	842.85	Target price (INR)	860.00	Potent'l tot rtn (%)	2.0
Reuters (Equity)	TAMO.BO	Bloomberg (Equity)	TTMT IN		
Market cap (USDm)	7,271	Market cap (INRm)	324,720		
Free float (%)	57.5	Enterprise value (INRm)	306,992		
Country	India	Sector	AUTOS		
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241		

### Price relative



Source: HSBC

Note: price at close of 01 Dec 2006

# TVS Motor Company

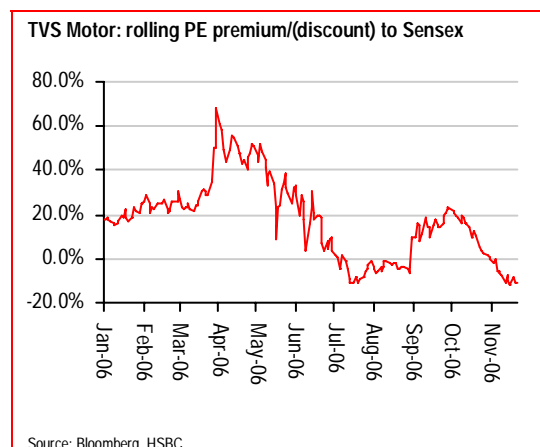
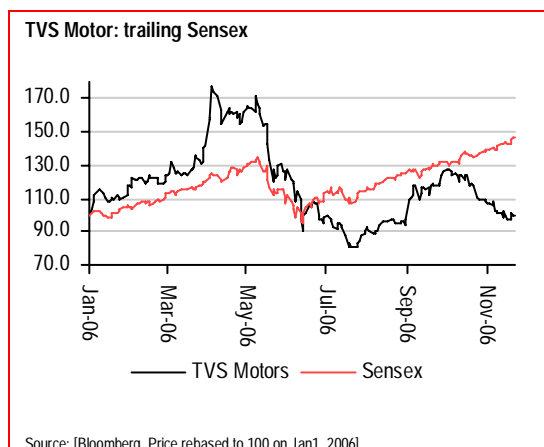
- ▶ Unfavourable product mix and inability to pass on cost hits margin, leading to decline in earnings
- ▶ All ingredients of margin improvement from 4Q FY07 onwards exist, but for execution risks
- ▶ We establish Neutral(V) rating with a target price of INR105; impact of increase in competition is a key risk factor

*We establish a Neutral (V) rating and a DCF-based target price of INR105 for TVS. Under our previous research model, our rating was Neutral and we had a fair value range of INR103-114, with a notional target price of INR108.*

## Margin disappointment

TVS Motor reported a 20% y-o-y decline in net profit in 1H FY07, despite a 28% y-o-y increase in net sales on account of a 160bp y-o-y decline in EBITDA margin to 4.7%. Change in product mix in favour of less profitable entry-level motorcycles and input cost pressure impacted the company's performance. In 1H FY07, the

contribution of entry-level motorcycles increased to 75% from 56% in 1H FY06, following the company's strategy of offering more features at a lower price tag. Change in product mix in favour of entry-level motorcycles neutralised the benefit of a 900bp increase in the contribution of premium motorcycles to total sales. Decline in sales of executive segment motorcycles compounded the problem for the company.



TVS Motor – change in earnings assumption

	FY07e			FY08e			FY08 vs FY07 (New)
	Old	New	Difference	Old	New	Difference	
Sales Volume-Motorcycles (No. of units)	960,000	1,020,000	6.3%	1,146,500	1,236,500	7.8%	21.2%
Sales Volume-Mopeds (No. of units)	304,589	333,598	9.5%	310,681	340,270	9.5%	2.0%
Sales Volume-Scooters (No. of units)	249,441	266,560	6.9%	269,396	287,884	6.9%	8.0%
Sales Volume-Three-wheelers (No. of units)	0	0	NA	42,000	42,000	0.0%	NA
Total Sales Volume (No. of units)	1,514,030	1,620,157	7.0%	1,768,577	1,906,654	7.8%	17.7%
Net Sales (INRm)	38,084	41,048	7.8%	47,668	51,634	8.3%	25.8%
Average Realisations (INR/Unit)	25,154	25,336	0.7%	26,953	27,081	0.5%	6.9%
EBITDA (INRm)	2,312	2,019	-12.7%	3,647	3,073	-15.7%	52.2%
EBITDA (INR/Unit)	1,527	1,246	-18.4%	2,062	1,612	-21.8%	29.4%
EBITDA Margin (%)	6.1%	4.9%	NA	7.7%	6.0%	NA	NA
PAT (INRm)	1,316	1,109	-15.7%	2,243	1,796	-19.9%	61.9%
EPS (INR)	5.5	4.7	-15.7%	9.4	7.6	-19.9%	61.9%

Source: Company

## Outlook positive

TVS Motor stands to gain from the following factors, going forward:

- ▶ Change in product mix away from entry-level products, as the company has launched a higher price variant of its entry-level motorcycle *Starcity*
- ▶ TVS Motor could benefit from the implementation of VAT in Tamil Nadu, where it has a manufacturing base, from January 2007
- ▶ Start of commercial production from the tax-free zone of Himachal Pradesh from April 2007
- ▶ Launch of three-wheelers, a more profitable product, in 2Q FY08 could boost profit margin too

## Uncertain on execution

TVS Motor has successively delayed product launches as well as taken more time for setting up new factory compared to expectations. One such delay, contrary to our existing assumption, is related to the start of its Himachal factory to April 2007 from December 2006. Another disappointment is the change in the plan to launch three-wheelers in 2Q FY08, contrary to earlier

guidance of 3Q FY07. We have reduced our earnings assumption taking into account these delays.

## Neutral (V) – TP INR105

We rate TVS Motor as Neutral(V) with a target price of INR10,5 based on a 20% discount to a three-stage DCF. We have assumed a cost of equity of 13.5% and fade period expiring in FY38. We have explicit forecast till FY10 and semi-explicit forecast till FY16. We have assumed NOPLAT growth at a CAGR of 13% between FY10 and FY16. We have assumed a fade period beginning from FY17 and ending in FY38. We have assumed 20% discount to DCF on account of execution risks and possible delay in the introduction of VAT in Tamil Nadu, contrary to assumption.

## Risk factors

The key downside risk to our rating could come from further increase in competition, as both Bajaj and Hero Honda have lined-up far more product launches than TVS. Further increase in raw material cost and slowdown in demand because of rising interest rate are cause of concern too.

## Financials & valuation: TVS Motor

Neutral (V)

### Financial statements

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Profit &amp; loss summary (INRm)</b>				
Revenue	32,350	41,048	51,634	60,963
EBITDA	2,062	2,019	3,073	4,080
Depreciation & amortisation	-939	-990	-1,129	-1,312
Operating profit/EBIT	1,123	1,029	1,945	2,767
Net interest	-210	-212	-236	-313
PBT	1,685	1,607	2,529	3,347
HSBC PBT	1,702	1,607	2,529	3,347
Taxation	-515	-498	-733	-971
Net profit	1,170	1,109	1,796	2,377
HSBC net profit	1,187	1,109	1,796	2,377

### Cash flow summary (INRm)

Cash flow from operations	1,628	3,672	4,562	6,228
Capex	-1,172	-2,500	-2,000	-2,000
Cash flow from investment	-2,860	-2,168	-2,000	-2,000
Dividends	-332	-347	-462	-578
Change in net debt	2,477	-1,407	-648	-1,771
FCF equity	-400	597	1,615	3,206

### Balance sheet summary (INRm)

Intangible fixed assets	0	0	0	0
Tangible fixed assets	7,938	9,447	10,319	11,006
Current assets	6,556	7,624	11,326	15,197
Cash & others	244	1,000	3,100	6,000
Total assets	17,936	20,181	24,754	29,313
Operating liabilities	5,245	6,658	8,318	9,821
Gross debt	3,850	3,200	4,653	5,782
Net debt	3,607	2,200	1,553	-218
Shareholders funds	6,726	8,424	9,757	11,556
Invested capital	9,006	9,413	10,226	10,382

### Ratio, growth and per share analysis

Year to	03/2006a	03/2007e	03/2008e	03/2009e
<b>Y-o-y % change</b>				
Revenue	12.5	26.9	25.8	18.1
EBITDA	-2.9	-2.1	52.2	32.7
Operating profit	-8.5	-8.4	89.1	42.3
PBT	-10.6	-4.6	57.4	32.4
HSBC EPS	3.8	-6.6	61.9	32.4

### Ratios (%)

Revenue/IC (x)	3.9	4.5	5.3	5.9
ROIC	9.4	7.7	14.1	19.1
ROE	18.4	14.6	19.8	22.3
ROA	8.1	6.6	8.7	9.6
EBITDA margin	6.4	4.9	6.0	6.7
Operating profit margin	3.5	2.5	3.8	4.5
EBITDA/net interest (x)	9.8	9.5	13.0	13.0
Net debt/equity	53.6	26.1	15.9	-1.9
Net debt/EBITDA (x)	1.7	1.1	0.5	-0.1
CF from operations/net debt	45.1	166.9	293.8	

### Per share data (INR)

EPS Rep (fully diluted)	4.93	4.67	7.56	10.01
HSBC EPS (fully diluted)	5.00	4.67	7.56	10.01
DPS	1.40	1.46	1.95	2.43
NAV	28.32	35.47	41.08	48.66

### Valuation data

Year to	03/2006a	03/2007e	03/2008e	03/2009e
EV/sales	0.7	0.6	0.4	0.3
EV/EBITDA	11.5	11.2	7.1	4.9
EV/IC	2.6	2.4	2.1	1.9
PE*	19.8	21.2	13.1	9.9
P/NAV	3.5	2.8	2.4	2.0
FCF yield (%)	-2.0	2.9	7.9	15.7
Dividend yield (%)	1.4	1.5	2.0	2.5

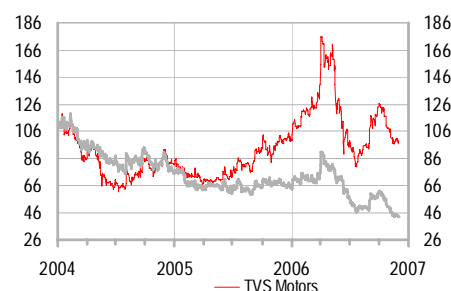
Note: \* = Based on HSBC EPS (fully diluted)

### Issuer information

Share price (INR)	98.90	Target price (INR)	105.00	Potent'l tot rtn (%)	6.2
Reuters (Equity)	TVSM.BO	Bloomberg (Equity)	TVSL IN		
Market cap (USDm)	526	Market cap (INRm)	23,493		
Free float (%)	43.7	Enterprise value (INRm)	22584		
Country	India	Sector	AUTOS		
Analyst	Sanjay Satpathy	Contact	91 22 2268 1241		

(V)=Volatile. Please refer to the Disclosure appendix for details

### Price relative



Source: HSBC

Note: price at close of 01 Dec 2006

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# Disclosure appendix

## Analyst certification

The following analyst(s), who is(are) primarily responsible for this report, certifies(y) that the views expressed herein accurately reflect their personal view(s) about the subject security(ies) and issuer(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Sanjay Satapathy

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This report addresses only the long-term investment opportunities of the companies referred to in the report. As and when HSBC publishes a short-term trading idea the stocks to which these relate are identified on the website at [www.hsbcnet.com/research](http://www.hsbcnet.com/research). Details of these short-term investment opportunities can be found under the Reports section of this website.

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## Rating definitions for long-term investment opportunities

### Stock ratings

HSBC assigns ratings to its stocks in this sector on the following basis:

For each stock we set a required rate of return calculated from the risk free rate for that stock's domestic, or as appropriate, regional market and the relevant equity risk premium established by our strategy team. The price target for a stock represents the value the analyst expects the stock to reach over our performance horizon. The performance horizon is 12 months. For a stock to be classified as Overweight, the implied return must exceed the required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile\*). For a stock to be classified as Underweight, the stock must be expected to underperform its required return by at least 5 percentage points over the next 12 months. Stocks between these bands are classified as Neutral.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation of coverage, change of volatility status or change in price target). Notwithstanding this, and although ratings are subject to ongoing management review, expected returns will be permitted to move outside the bands as a result of normal share price fluctuations without necessarily triggering a rating change.

\*A stock will be classified as volatile if its historical volatility has exceeded 40%, if the stock has been listed for less than 12 months (unless it is in an industry or sector where volatility is low) or if the analyst expects significant volatility. However,

stocks which we do not consider volatile may in fact also behave in such a way. Historical volatility is defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility has to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Prior to this, from 7 June 2005 HSBC applied a ratings structure which ranked the stocks according to their notional target price vs current market price and then categorised (approximately) the top 40% as Overweight, the next 40% as Neutral and the last 20% as Underweight. The performance horizon is 2 years. The notional target price was defined as the mid-point of the analysts' valuation for a stock.

From 15 November 2004 to 7 June 2005, HSBC carried no ratings and concentrated on long-term thematic reports which identified themes and trends in industries, but did not make a conclusion as to the investment action that potential investors should take.

Prior to 15 November 2004, HSBC's ratings system was based upon a two-stage recommendation structure: a combination of the analysts' view on the stock relative to its sector and the sector call relative to the market, together giving a view on the stock relative to the market. The sector call was the responsibility of the strategy team, set in co-operation with the analysts. For other companies, HSBC showed a recommendation relative to the market. The performance horizon was 6-12 months. The target price was the level the stock should have traded at if the market accepted the analysts' view of the stock.

## Rating distribution for long-term investment opportunities

**As of 01 December 2006, the distribution of all ratings published is as follows:**

<b>Overweight (Buy)</b>	45%	(13% of these provided with Investment Banking Services)
<b>Neutral (Hold)</b>	38%	(14% of these provided with Investment Banking Services)
<b>Underweight (Sell)</b>	17%	(11% of these provided with Investment Banking Services)

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### Disclosure checklist

Company	Ticker	Recent price	Price Date	Disclosure
BAJAJ AUTO	BJAT.NS	2646.45	30-Nov-2006	3, 4, 6, 7
MAHINDRA & MAHINDRA	MAHM.NS	821.15	30-Nov-2006	3, 4, 6, 7
MARUTI UDYOG	MRTI.NS	926.15	30-Nov-2006	3, 4
TATA MOTORS	TAMO.NS	809.15	30-Nov-2006	4
TVS MOTOR	TVSM.BO	97.50	30-Nov-2006	3, 6, 7

Source: HSBC

- 1 HSBC\* has managed or co-managed a public offering of securities for this company within the past 12 months.
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- 8 A covering analyst/s has received compensation from this company in the past 12 months.
- 9 A covering analyst/s or a member of his/her household has a financial interest in the securities of this company, as detailed below.
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