Greaves Cotton Ltd.

Initial Opinion **BUY**

Firing on all cylinders

Equity | India | Industrial Machinery
19 March 2007

Merrill Lynch

Achala Kanitkar >> 91 22 6632-8687
Research Analyst
DSP Merrill Lynch (India)
achala_kanitkar@ml.com

S. Arun >> +91 22 6632 8657
Research Analyst
DSP Merrill Lynch (India)
s_arun@ml.com

Poised for growth

We are initiating coverage on Greaves Cotton (Greaves) with a Buy and PO of Rs410 (potential 32% upside). Our PO is based on premise that current multiples (15x FY07E) will likely sustain through FY08. We expect Greaves to post 29% EPS CAGR over FY07-09E, driven by its strong competitive positioning in engines (80% of revenues) and accelerated demand in infrastructure business.

Highly competitive in engines

Greaves is one of the largest light diesel engine producers in India, catering to automobile (mainly three wheelers) and industrial applications. Competitive advantage stems from proprietary technology and low cost of manufacture.
We expect 22% revenue CAGR over FY07-09E on back of company's foray into four wheeler engines, increased demand from power sector, and contribution from its recently acquired German engine manufacturer, Bukh-Farymann Diesel (BFD).

Infrastructure business expected to grow strongly

An array of new products and incremental capacities coupled with ongoing reforms in infrastructure sector would set the stage for a surge in divisional revenues. We expect 38% CAGR over FY07-09E. We also expect improvement in its margins, aided by improving economies and better product mix.

Valuations attractive

The stock trades at 11x FY08E and 9x FY09E EPS, which is attractive given our expectations of 27.8% revenue CAGR and 29% earnings CAGR. Greaves compares favorably to peers comprising other engine manufacturers, and major auto ancillaries, both, on earnings growth and return ratios.

Estimates (Jun)

(Rs)	2005A	2006A	2007E	2008E	2009E
Net Income (Adjusted - mn)	621	851	985	1,310	1,654
EPS	13.60	17.42	20.16	26.83	33.87
EPS Change (YoY)	NM	28.1%	15.7%	33.1%	26.2%
Dividend / Share	7.00	7.00	9.50	9.50	12.00
Free Cash Flow / Share	16.01	12.17	(9.26)	15.60	17.31

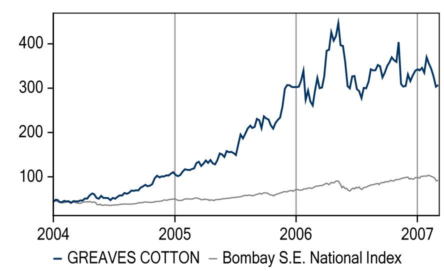
Valuation (Jun)

	2005A	2006A	2007E	2008E	2009E
P/E	22.03x	17.20x	14.87x	11.17x	8.85x
Dividend Yield	2.34%	2.34%	3.17%	3.17%	4.00%
EV / EBITDA*	14.99x	10.90x	8.43x	6.62x	5.36x
Free Cash Flow Yield*	4.94%	4.02%	-3.06%	5.15%	5.71%

* For full definitions of *iQmethod* SM measures, see page 23.

Stock Data

Price	Rs306.15
Price Objective	Rs410.00
Date Established	19-Mar-2007
Investment Opinion	C-1-7
Volatility Risk	HIGH
52-Week Range	Rs236.10-Rs465.00
Mrkt Val / Shares Out (mn)	US$338 / 48.8
Average Daily Volume	20,193
ML Symbol / Exchange	XGRVF / BSE
Bloomberg / Reuters	GRV IN / GRVL.BO
ROE (2007E)	41.2%
Net Dbt to Eqty (Dec-1899A)	9.9%
Est. 5-Yr EPS / DPS Growth	20.0% / 11.0%
Free Float	49.9%



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Refer to important disclosures on page 24 to 25. Analyst Certification on page 22. Price Objective Basis/Risk on page 22.

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iQprofile SM Greaves Cotton Ltd.

Key Income Statement Data (Jun)	2005A	2006A	2007E	2008E	2009E
(Rs Millions)					
Sales	6,604	8,415	11,611	15,289	18,848
Gross Profit	1,315	1,734	2,325	3,032	3,724
Sell General & Admin Expense	(293)	(328)	(507)	(717)	(866)
Operating Profit	908	1,273	1,613	2,066	2,572
Net Interest & Other Income	108	48	(121)	(81)	(66)
Associates	NA	NA	NA	NA	NA
Pretax Income	1,016	1,321	1,492	1,985	2,506
Tax (expense) / Benefit	(395)	(470)	(507)	(675)	(852)
Net Income (Adjusted)	621	851	985	1,310	1,654
Average Fully Diluted Shares Outstanding	46	49	49	49	49
Key Cash Flow Statement Data					
Net Income (Reported)	621	851	985	1,310	1,654
Depreciation & Amortization	114	132	204	249	286
Change in Working Capital	80	(257)	(322)	(458)	(461)
Deferred Taxation Charge	308	350	60	79	100
Other Adjustments, Net	(124)	(137)	121	81	66
Cash Flow from Operations	998	939	1,048	1,262	1,646
Capital Expenditure	(267)	(345)	(1,500)	(500)	(800)
(Acquisition) / Disposal of Investments	0	(414)	800	0	0
Other Cash Inflow / (Outflow)	239	91	0	0	0
Cash Flow from Investing	(28)	(668)	(700)	(500)	(800)
Shares Issue / (Repurchase)	100	219	0	0	0
Cost of Dividends Paid	(202)	(480)	(534)	(534)	(674)
Cash Flow from Financing	(591)	(500)	(334)	(684)	(774)
Free Cash Flow	731	594	(452)	762	846
Net Debt	125	215	522	374	269
Change in Net Debt	(708)	87	307	(147)	(106)
Key Balance Sheet Data					
Property, Plant & Equipment	1,050	1,310	2,597	2,783	3,208
Other Non-Current Assets	758	937	94	94	94
Trade Receivables	625	920	1,320	1,874	2,466
Cash & Equivalents	662	335	228	226	231
Other Current Assets	1,207	1,455	2,068	2,845	3,683
Total Assets	4,302	4,957	6,308	7,822	9,682
Long-Term Debt	595	480	680	530	430
Other Non-Current Liabilities	NA	NA	0	0	0
Short-Term Debt	191	70	70	70	70
Other Current Liabilities	2,064	2,246	2,937	3,812	4,782
Total Liabilities	2,850	2,796	3,687	4,411	5,282
Total Equity	1,452	2,161	2,621	3,411	4,400
Total Equity & Liabilities	4,302	4,957	6,308	7,822	9,682
iQmethod* SM - Bus Performance					
Return On Capital Employed	24.0%	33.1%	35.0%	37.0%	38.1%
Return On Equity	48.2%	47.1%	41.2%	43.5%	42.4%
Operating Margin	13.9%	15.3%	14.0%	13.5%	13.7%
EBITDA Margin	15.5%	16.7%	15.7%	15.1%	15.2%
iQmethod* SM - Quality of Earnings					
Cash Realization Ratio	1.6x	1.1x	1.1x	1.0x	1.0x
Asset Replacement Ratio	2.3x	2.6x	7.3x	2.0x	2.8x
Tax Rate (Reported)	38.9%	35.6%	34.0%	34.0%	34.0%
Net Debt-to-Equity Ratio	8.6%	9.9%	19.9%	11.0%	6.1%
Interest Cover	7.9x	16.0x	13.3x	25.5x	39.0x

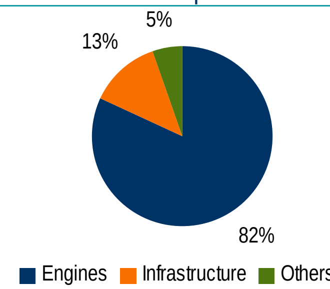
Key Metrics

* For full definitions of *iQmethod* SM measures, see page 23.

Company Description

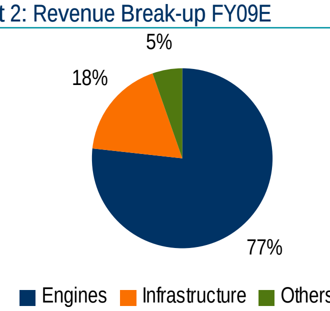
Greaves Cotton Ltd is one of India's leading and well-diversified engineering companies. It manufactures a wide range of auto and industrial products. Its core competencies are in diesel and petrol engines (about 80% of revenues), gensets, agro equipment and construction equipment. It is one of the major three-wheeler engine suppliers in the country.

Chart 1: Revenue Break-up FY06



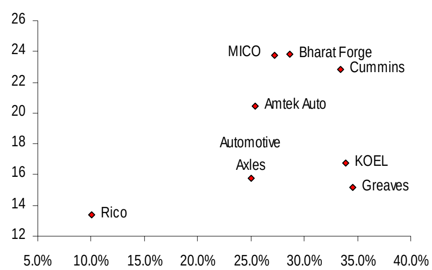
Source: Merrill Lynch

Chart 2: Revenue Break-up FY09E



Source: Merrill Lynch

Chart 3: High growth; low PE stock



Source: Merrill Lynch, Bloomberg

Investment summary

Valuations are attractive

Greaves trades at 11x FY08E and 9x FY09E EPS. It is attractively valued given the strong growth prospects and attractive valuation compared to its peers. Our PO is based on premise that current multiples (15x FY07E) will likely sustain through FY08. Our DCF value estimate is Rs420/share.

Engines is area of core competence

Greaves is one of the largest independent engine suppliers (by volume) in the country, catering to automobile and industrial applications. The company's strong technical know-how in light engines, low-cost manufacturing capabilities, owing to its well-developed indigenous vendor base, and after market support with a distribution network of over 800 dealers are its key competitive advantages. We expect the company's business to grow on the back of increasing demand for low cost transportation vehicles, such as three wheelers and four wheeled carriers. On the industrial side (30% of divisional revenues), we expect growth to be driven by the power sector (mainly for captive use), the construction industry, and the agro-business (eg pumps). We estimate the division to post 22% revenue CAGR over FY07E-09E. Greaves recently acquired an under-utilised German engine manufacturer, Bukh-Farymann Diesel, which would enable diversifying product profile as well as presence across markets.

Infrastructure spend to boost revenues

In India, Greaves is one of the major manufacturers of construction equipment too. Currently, 20-25% of the equipment requirement is imported, and the balance comes from select companies such as L&T, Telecon and Greaves. We expect Greaves to register 38% CAGR (FY07E-09E) on the back of its healthy order book, as well as the introduction of new products. Although construction equipment currently is a low margin business (at 9.3%) for Greaves, we expect margins to improve on the back of improving product mix and enhanced operating efficiencies through better capacity utilization.

We estimate 29% EPS CAGR over FY07-09E

Greaves has been a successful turnaround theme, driven by product acceptability in a period of economic growth. The company is in the midst of expansion and new product introductions for multiple applications e.g 1 tonne four wheeler, construction equipment like truck mixer, batching plants, etc. We expect the company to deliver 27.8% revenue CAGR and 29% EPS CAGR over FY07-09E.

Table 1: Valuations over next three years

	2006	2007E	2008E	2009E
EBITDA Margin	15.9%	15.0%	15.0%	15.0%
PAT Margin	8.7%	8.5%	8.6%	8.8%
P/E (x)	17.0	14.7	11.1	8.8
EV/EBITDA (x)	10.5	8.3	6.4	5.2
P/BV	6.7	5.5	4.3	3.3
Debt/Equity	0.3	0.3	0.2	0.1
ROE (%)	48%	42%	44%	43%
ROCE (%)	51%	53%	56%	58%

Source: Merrill Lynch

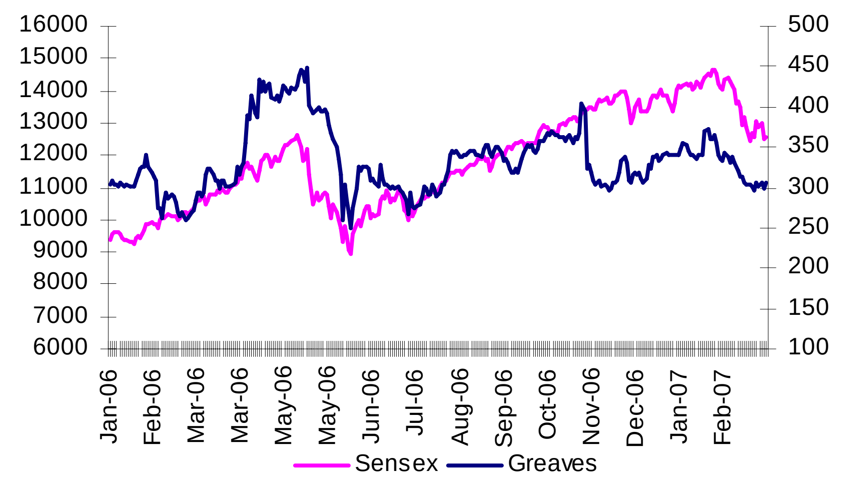
Valuation

Greaves stock is attractively valued at 11x FY08E and 8.8x FY09E EPS. This is driven by bullish prospects on its core operating segments. We expect the stock to sustain its FY07E multiple of 15x through FY08E, on account of superior earnings growth in the company. Our DCF method valuation also supports our PO of Rs410.

Stock has underperformed the market due to concerns

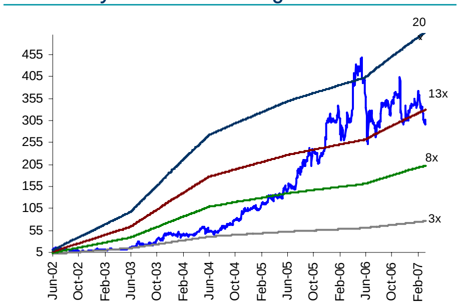
Greaves stock has come off after a strong showing last year, which was on the back of its robust operating performance. The recent decline has largely been on account of concerns of key customer Piaggio planning to setup an engine manufacturing unit in India (much like what Greaves would supply). We discuss this issue in a later section, and believe that the concern is overstated. We expect Greaves to reduce dependence on Piaggio through expansion in its domestic clients, foraying into exports through its German subsidiary and also expansion of its infrastructure division.

Chart 4: Sensex and Greaves Stock price comparison



Source: Merrill Lynch, Bloomberg

Chart 5: 1 year forward rolling PE



Source: Merrill Lynch

Stock can trade at 15x

As shown in Chart 5, the stock price has risen significantly over the last few years, following the turnaround in its business. The stock has traded historically in the range of 15x given the expectations of a turnaround and high growth in profits on a lower base. Greaves currently trades at 1-year forward P/E of 11x. However, we believe the stock can trade at higher multiples, given its transition from just an engine manufacturer to a more diversified operator in one of the high growth infrastructure industries, coupled with the strong 29% earnings CAGR over FY07-09E.

Attractively placed against its peers

We have compared Greaves with select peers, based on size and similar business model. As seen from Table 2, the stock trades at a discount to peers, despite stronger growth rates and higher ROE (Automotive Axles an exception).

Table 2: Peer comparison

Company name	Mkt Cap (Rsmn)	P/E FY07E	PEG FY07E	EPS Growth FY07E	ROE FY07E
Mico*	2342.3	23.8	0.8	30%	30%
Bharat Forge	1538.1	23.8	1.6	15%	24%
Cummins	1127.1	22.8	0.9	25%	25%
Amtek Auto	957.2	20.5	0.8	27%	31%
KOEL	512.2	16.8	0.4	38%	17%
Automotive Axles	195.3	15.7	0.6	27%	52%
Average		16.3	0.5	33%	35%
Greaves	336.2	15.2	0.4	36%	42%

* CY06 nos

Source: Bloomberg, Merrill Lynch

Buy with a price target of Rs410

Our DCF analysis is justified, given the longevity of growth in the infrastructure segment, as also the steady growth expected in its engines segment. Based on this, we arrive at a value of Rs420/share for Greaves.

Table 3: DCF Valuation

Rs.mn	FY06	FY07E	FY08E	FY09E	FY10E	FY11E	FY12E	FY13E	FY14E	FY15E	FY16E
EBITDA	1325.4	1732.5	2285.1	2828.0	3246.1	3733.0	4404.9	5180.2	5908.9	6972.5	5924.2
Capex	(362.0)	(1500.0)	(500.0)	(800.0)	(600.0)	(400.0)	(300.0)	(400.0)	(500.0)	(500.0)	(300.0)
Change in NWC	34.2	(214.8)	(454.3)	(465.1)	(159.8)	(175.8)	(193.4)	(212.7)	(234.0)	(257.4)	(283.1)
Tax	470.2	507.2	675.0	852.2	986.1	1142.5	1363.3	1618.5	1857.2	2209.0	1842.0
Free Cashflows (FCF)	480.0	(605.8)	551.4	631.1	1425.8	1945.7	2485.1	2891.9	3267.0	3962.2	4324.9
PV of FCF	480.0	(534.8)	429.7	434.2	865.8	1043.1	1176.0	1208.1	1204.8	1289.8	1242.8

WACC	13.3%
Terminal growth rate	3.5%
NPV of cash flows	19824
Terminal value	12707.2
Net Debt	-679.6
Shares O/S	48.84
Equity Value	20503
Value per share	420

Source: Merrill Lynch

Sensitivity to our assumptions

Our PO assumes a terminal growth rate of 3% and WACC of 13.3%. Table 4 shows the high level of sensitivity on these parameters.

Table 4: WACC Sensitivity

Terminal Growth rate	WACC		
	12.7%	13.3%	14.0%
4%	456	420	381
4%	474	435	394
5%	518	472	423
6%	574	518	460
7%	651	579	507

Source: Merrill Lynch

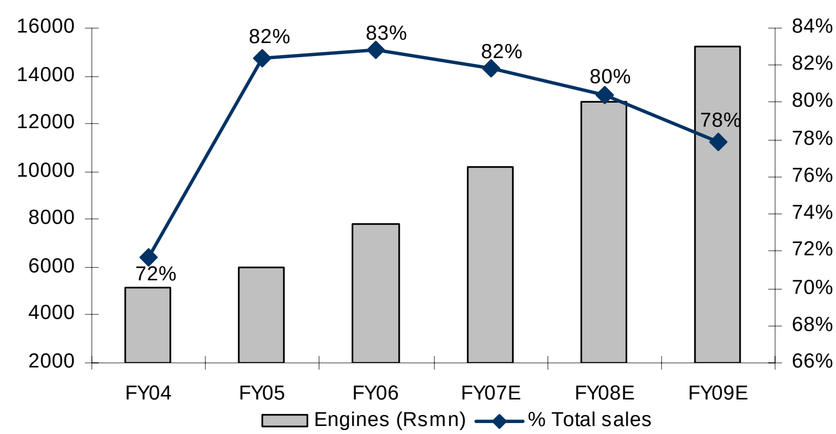
Engines: new applications to drive business

Greaves is the only independent automotive engine supplier (mainly for three wheelers), having the capability to manufacture diesel and petrol engines, as well as engines fitted for LPG/CNG vehicles. Divisional revenue of Rs.7.78bn and PBIT of Rs.1.2bn, accounted for 83% of revenues and over 90% of the company's PBIT in FY06. Piaggio is its largest customer and contributes nearly 30% of aggregate revenues. This division comprises three segments:

- Light diesel engines (4-11 HP),
- Large diesel engines (15-816 HP) and
- Engines for non-autos e.g. agro equipments (1-4 HP).

Greaves is primarily known for light diesel engines used in automotive applications, which constitute nearly 60% of its overall revenues and around 70% of the engine division.

Chart 6: Engine sales as percentage of total sales



Source: Company, Merrill Lynch

Strong technical know-how and manufacturing base

Greaves has a strong knowledge base in single cylinder diesel engines used for low cost transportation and its engines are extensively used in the three wheeler segment. The main strengths of the company in this segment are:

- **Product quality and technology** – Being a major supplier of engines for Piaggio's three wheelers (nearly 95% of its requirement), Greaves has built strong technology base in the light diesel engine segment. It not only has the technology to make diesel/petrol engines but also manufactures engines compatible with LPG and CNG.
- **Pricing** – Greaves has over the years built a strong vendor base for its products, which has not only helped in cost reduction but has also improved productivity. With nearly 90% of its raw material being sourced indigenously, it has a pricing advantage compared to peers.
- **Strong after-market support** – Greaves also has a strong after market support of nearly 800 dealers across the country to cater to post sales requirements of customers.

Light engines - 70% of divisional sales

Sole independent supplier of engines for three wheelers in the country

Light diesel engines segment is the largest revenue contributor for Greaves (FY06 sales Rs 5.5bn, up 30% YoY). This segment essentially caters to automotive applications. The company manufactures light engines for diesel/petrol and also CNG/ LNG applications. Greaves is the only independent engine supplier for three wheelers, with key OEM customers (except Bajaj Auto and Force Motors).

Three wheelers – main growth driver

Three wheelers constitute 80% of small-sized commercial vehicles, with annual sales of 4.37lakh units. Over the past 4 years, the segment has registered 19% CAGR, driven by intra-city transport covering short distances, both for passenger and goods carriers.

Goods carriers has been expanding

The goods carrier segment has been expanding, and accounts for 31% of three wheeler units sold (up from 20%, 4 years ago). This is largely reflected in its 36.3% CAGR in last 4 years (compared to 13.7% CAGR for passenger). The expansion has been aided by segmentation – the ½ ton and the 1 ton segment, which has enabled broad-base user applications.

Table 5: Small Commercial Vehicle market size

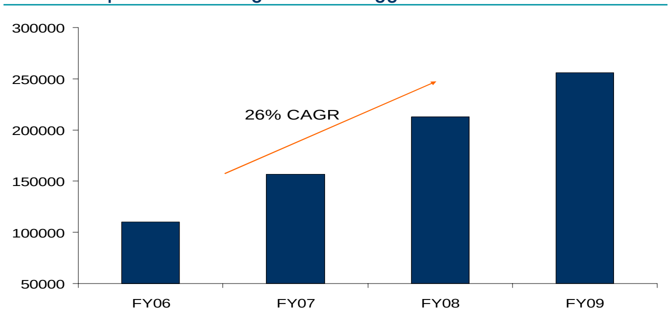
	FY03	FY04	FY05	FY06	CAGR (03-06)
Passenger Carrier	207351	236275	236894	288427	14%
% change	*20%*	*14%*	*0%*	*22%*	
Goods Carrier	62143	100565	138182	148859	36%
% change	*44%*	*62%*	*37%*	*8%*	
Total 3Ws	269494	336840	375076	437286	19%
% change	*25%*	*25%*	*11%*	*17%*	
LCVs below 5tn.	35865	56917	76772	109098	43%
% change	*39%*	*59%*	*35%*	*42%*	
Total Small Sized CVs	305359	393757	451848	546384	23%
% change	*26%*	*29%*	*15%*	*21%*	

Source: Merrill Lynch, SIAM

Piaggio – Greaves largest customer, and key OEM

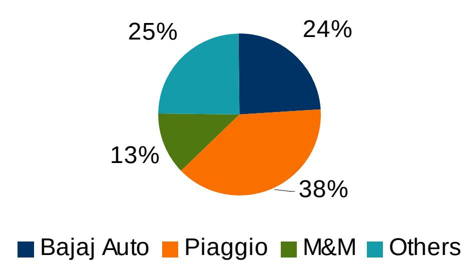
Piaggio has rapidly grown to become the second largest domestic manufacturer, driven by goods carriers (38% segment share). This has enabled the company to consistently improve overall market share from 15% in FY02 to 25% currently. Piaggio is Greaves' largest customer (~30% of engine revenues, 95% of Piaggio's requirement). M&M (Greaves second largest customer) too has grown faster than the market.

Chart 7: Expected volume growth in Piaggio



Source: Merrill Lynch

Chart 8: Goods three wheeler market



Source: Merrill Lynch, SIAM

We expect 1 ton growth to slow

The 1 tonne segment has slowed down over the past year or so, mainly due to competition from more cost effective four wheelers e.g Tata Motors 1 tonne *Ace*. Anticipating this shift, more companies are entering the four wheeler space. Piaggio is expected to introduce a competitive product later this month.

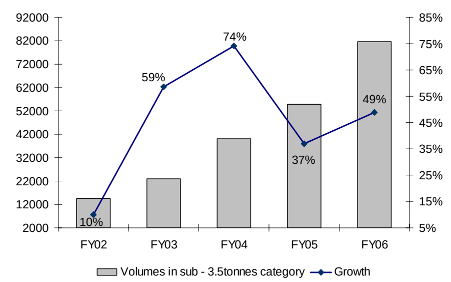
The ½ ton segment is doing well

On the other hand, three wheeler majors are left to rely for now on the ½ ton segment (27% of industry volumes, and still growing). M&M's last year introduction Alfa has enabled it to restore parity with competition, after slipping sharply on the back of four wheeler competition.

Foray into four wheelers

Small-sized four wheelers, mainly used as goods carriers, have registered ~40% CAGR over the past 4 years. As indicated earlier, this has been mainly driven by Tata Motors' *Ace*. Other popular products in this space are pick-ups from Tata Motors and M&M (~90% share). We expect this segment to continue to grow strongly, driven by development of hub-and-spoke model in commercial vehicles, whereby such vehicles will substitute larger ones for last mile connectivity.

Chart 9: 4Ws- growth in sub three tonne seg.



Source: Merrill Lynch, SIAM

Piaggio's four wheeler will use Greaves engine

Greaves has developed a twin-cylinder engine for Piaggio's soon to be introduced 1 tonne four-wheeler *Quargo*. Greaves will be the sole supplier, as alternate competitor Lombardini has not been able to offer a cost competitive product to Piaggio. The engine has gone through a rigorous development and testing process over the past 3 years, and Piaggio reportedly finds it suitable to compete with Tata Motors' *Ace*. Significantly, it is the engine which enabled Piaggio to win against much stronger and established competition in three wheelers i.e. Bajaj Auto.

This will throw up more opportunities

If successful, we expect Greaves to be able to market this product to other OEMs who propose to enter this segment. In fact, we believe that Tata Motors, which presently uses a variant of the Indica passenger car engine for *Ace*, could also use Greaves to develop a suitable product for niche applications.

Piaggio plans to compete with Greaves

Piaggio recently announced its plans to set up a diesel engine production facility at an outlay of $80-85mn. This facility would have an annual production capacity of around 200,000 engines and is expected to be operational by Year 2010.

Long term impact: negative for Greaves

Clearly, this decision by Piaggio will have far reaching implications on Greaves, as the company could potentially lose ~Rs 2bn or 10% of revenues (and growing). Greaves will have to substitute this loss through other engine customers and revenue streams outside of auto engines. However, all of this will be evident outside our forecast period, albeit factored in valuations.

Medium term impact: Not so bad

We believe that the threat from Piaggio is not as serious as it seems, for the following reasons:

1. Capacity envisaged can only be ramped up gradually, especially for products which require precision engineering and thorough testing. We expect optimum utilization only 12-18 months from commissioning i.e. Year 2012;

2. Continuous supply of spares and servicing capability has to be ensured. For this reason alone, Piaggio will need an alternate supplier to support its requirements; and

3. The initial product is expected to be a twin cylinder engine, mainly used in 1 ton vehicles, both four and three wheelers. The single cylinder engine sourcing will continue from Greaves (presently 100% of sales to Piaggio)

What will Greaves do?

Latest acquisition of German diesel engine manufacturing company to aid in diversifying its products and client profile further

Greaves has already begun working towards reducing its dependence on Piaggio through various options. These include:

1. Expanding its client base in the domestic market e.g. Tata Motors,

2. Foray into exports (recent acquisition explained later is targeted towards this),

3. Increasing focus in the infrastructure segment, a hitherto marginal revenue earner for the company.

Large engines -19% of divisional sales

Large diesel engines registered 40% YoY growth in FY06 at Rs1.5bn. Greaves manufactures diesel engines in 15KVA-550KVA capacity for various applications:

- Power generation (gensets under *Whispower* brand)
- Industrial, construction and pumpsets
- Defence, as one of largest approved suppliers (~4% of divisional sales)

Large market – few organized players

The market for power generation engines is mostly unorganized and fragmented. Other than Greaves, there are only a few organized players like Cummins and Kirloskar Oil Engines.

Table 6: Main players in diesel engine segment

Small Engines (upto 20HP)	Greaves Cotton, Regional Players
Medium Engines (20 to 830 HP)	Cummins, Kirloskar Oil Engines, Greaves Cotton
Large engines (>2400 HP)	Wartsila, Caterpillar, Kirloskar Oil Engines

Source: Company

Increasing capacity and new products to boost revenues

Greaves plans to expand capacity in this segment by over 10% (current capacity is ~1lakh engines) by end of FY07. This expansion would not only help in increasing volumes but the company also plans to introduce a new genset range in compact water cooled engines, and in large engines for the construction equipment segment.

Agro equipment- 11% of divisional sales

This segment currently forms a small part of the division. Greaves is essentially present in portable petrol/kerosene engine pumpset segment. They are either marketed as complete pumpsets for agricultural sector or as bare engines for miscellaneous applications. The performance of this segment is mainly dependent on the agriculture growth in the country.

Increased product profile and distribution network

To improve volume growth, the company is increasing its penetration levels in rural areas through expansion of dealer network and is also targeting export markets for pumpsets. It recently launched Greaves Power Tiller, sourced through a manufacturer in China. We expect moderate growth in this segment and that it will not be a major revenue driver for the company.

Infrastructure: accelerated growth prospects

Operates in the construction segment

Greaves is present in construction and concreting segments. The company provides equipment for companies involved in road as well as real estate construction. It also supplies equipment to various contractors that provide construction equipment on a rental basis. This segment contributed 13% to overall revenues with 28% YoY growth to Rs.1.2bn in FY06.

Table 7: Product Profile

Concrete Mixing	Shotcrete pump,
Batching Plants	Tunnel forms moulds,
Transit Mixers	Plate compactors,
Concrete pumps	Pneumatic tyre roller,
Vibratory Compactors	Recyclers
and Crucibles	and Refuge compactors

Source: Merrill Lynch, Company

Strong clientele to support growth

Greaves' list of clientele includes large domestic construction companies such as Hindustan Construction Company, Nagarjuna Constructions and various NHAI contractors.

Select companies operate in this segment

Few major domestic construction equipment manufacturers cater to 75-80% of the market such as Greaves, Telcon (Tata group) and L&T, the balance coming from imports. Global majors market products through technical and marketing collaboration including Schwing Stetter, CIFA, Bomag, etc.

Collaboration with CIFA and Bomag provides a technical edge

Greaves had a technical collaboration with CIFA SpA of Italy, under which it manufactured and sold various products in India, and other neighboring countries. It also has collaboration with Bomag GmbH of Germany in India, under which it manufactures and markets some of their products like compactors and recyclers. These agreements have given the company a technical edge against the local competitors.

Infrastructure investment to boost equipment demand

Construction is the second largest economic activity in India after agriculture, accounting for ~11% of GDP (*Source: Crisinfac*). Over the past 3 years, sectoral investment has registered 11% CAGR. We expect growth to continue, albeit at a slower rate, restricted by the higher base. The activity can be divided into:

- **Infrastructure segment** - Infrastructure accounts for 25% of aggregate investment in the construction sector. Government regulations drive investments in this sector with major focus on roads, water supply and irrigation. Amongst these, roads are the primary focus. Over FY06-11, investment in roads is expected to register 24% CAGR (Source: Crisinfac-Roads Annual Review'06). Cumulative investment is estimated at Rs1,847bn ($40bn).

- **Real estate & housing** - Real estate accounts for ~60% of the total investment in the construction segment and comprises residential, commercial and retail buildings (malls and multiplexes). Robust demand is expected from the residential sector, and the IT/ITES as well as retail sector for commercial space. Housing has been on an upswing over the last five years, aided by population growth, growing urbanisation, and rising income levels, driven by growth in the services sector. (Source: Crisinfac-Construction Annual Review'06).

- **Industrial construction** - Growth in this segment is dependent on the need for expansion in various industries. Currently, the main industries that have targeted expansions include telecom, power, ports and oil & gas.

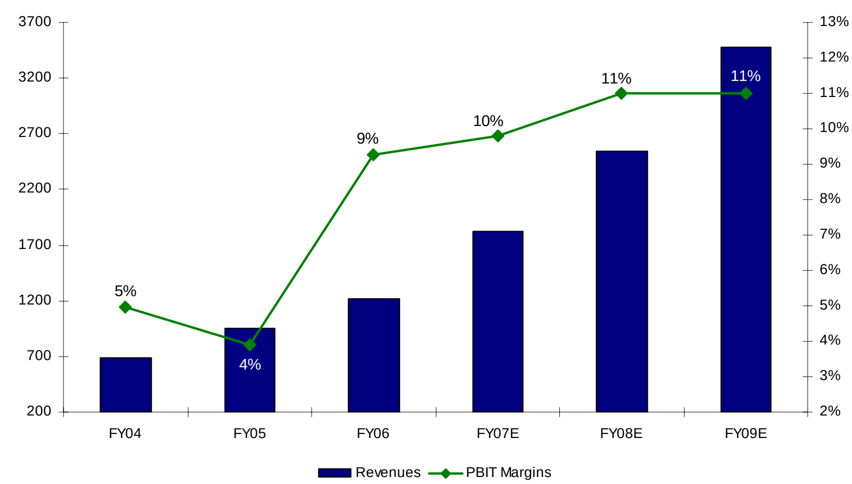
We expect Greaves to register 38% CAGR

Boom in construction, housing and investments in infrastructure (i.e. roads, railways, ports, airports, hydel projects) is positive for Greaves. We expect 38% growth over FY07-09E on the back of:

- **Execution of order backlog** – Greaves' order position of Rs 2bn, is equivalent to 14.5% of sales. These largely relate to its existing products like tandem rollers, vibratory compactors etc. We expect these to be executed by the end of FY07. The company is also adding ~Rs 100-150mn every month to its backlog.

- **New product launches** – Greaves introduced new products like batching plants, higher capacity concrete pumps, metro pumps and vibratory compactors last year. We believe the full benefit of these products would be available from this fiscal.

Chart 10: Revenue and PBIT margins in the infrastructure equipment segment



Source: Merrill Lynch, Company

Capacity expansion in place

Greaves currently has a capacity to manufacture around 200 vibratory compactors and tandem rollers. It also manufactured around 500 units of concrete mixers in FY06. In order to increase its product profile further Greaves recently commissioned a facility in Tamil Nadu to manufacture transit mixers with a capacity of around 200 transit mixers per month.

Margins expected to improve

We expect PBIT margins of this division to improve on account of better realization from products like batching plants, truck mixers, etc, given the improvement in product mix. Moreover, with improvement in capacity utilization, the company should enjoy economies of scale, and enhance operating efficiencies.

Financial forecasts

We expect Greaves to register 27% revenue CAGR over FY07-09E, driven by improvement in sales mix in engines division i.e. four wheelers, and strong ramp up in the infrastructure segment. We expect margins to remain stable, aided by leverage impact of its infrastructure business. Overall, the company is expected to post 29% earnings CAGR over FY07-09E.

Table 8: Revenue mix over next three years

	FY06	FY07E	FY08E	FY09E	CAGR (FY06-09)
Engines	7,668	10,546	13,772	16,541	29%
Total Auto	3,955	6,121	7,933	9,362	33%
3W	3,955	5,869	6,562	7,234	22%
4W	-	252	1,371	2,128	
Non-Auto	3,712	4,425	5,839	7,179	25%
Domestic	3,712	3,925	4,839	5,679	15%
BFD	-	500	1,000	1,500	
Infrastructure	1,218	1,820	2,545	3,473	42%
Others (Traded Goods)	511	572	760	1,012	26%
Gross Sales	9,396	12,937	17,076	21,027	31%
% Growth		*38%*	*32%*	*23%*	

Source: Merrill Lynch

Engines expected to maintain 20% growth rate

We expect 27% annual increase in volumes, driven by entry into four wheelers, and continuing demand momentum for ½ ton three wheelers. We have assumed the 1 ton segment to slow down. In the non-auto business, we expect demand from gensets and other applications like construction equipment. As a result, we estimate 22% revenue CAGR during our forecast period.

German acquisition: hidden value

Greaves recently acquired a German engine maker, Bukh-Farymann Diesel (BFD). BFD primarily caters to the non-auto applications such as marine generators, pump systems, water purification systems etc. BFD revenues are just Rs 500mn. Although rated capacity is 11,000 units, utilization levels are reportedly much lower, as its products are priced out by competitors such as Lombardini and Deutz. Greaves strategy is to achieve a multiple of this size, by:

1. Leveraging own low cost structure to supply components, and thereby make BFD more competitive in the export markets

2. Use technology and know how to improve domestic positioning in the non-autos segment

Infrastructure division major growth driver

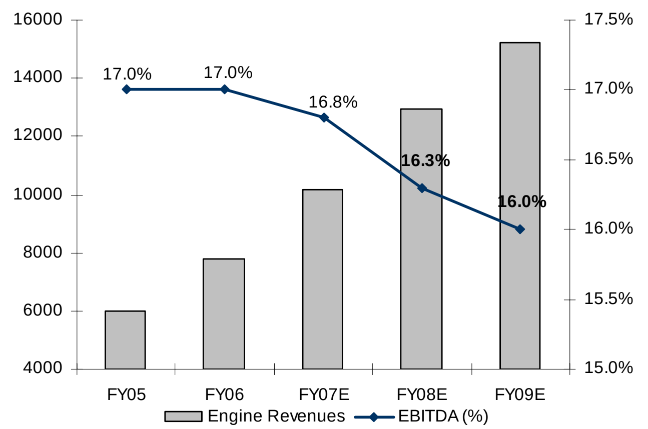
We expect 38% revenue CAGR over FY07-09E, and divisional contribution to increase to 17.8% (from present 13%). Launch of new products and utilization of expanded capacity will increase revenues.

We expect margins to stablise

Greaves' EBITDA margins have consistently improved, thanks to the rising contribution from both its operating segments. We expect margins to remain stable despite competitive pressures of entering a new segment in engines segment and also the three wheeler numbers especially for the above 1 tonne range to be under pressure. We however expect the infrastructure segment to support the overall margins of the company through improving product mix resulting in superior realization and operating efficiencies on account of better capacity utilization.

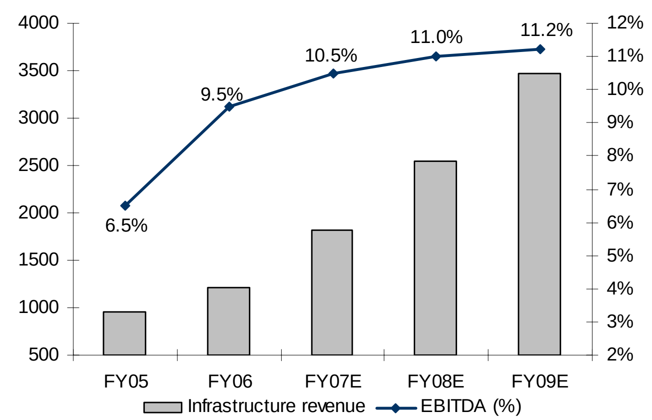
- **Margins in engines division will remain under pressure -** We expect a slowdown in growth in three wheeler segment due to introduction of four wheelers in the one-ton category. Thereby impacting company's volumes. Although realization from diesel engines for the four wheeler segment is expected to double, it will still not be as profitable, due to lower volumes and higher cost structure. With increasing input costs and introduction of new products in the engines segment, we expect margins to remain under pressure.

Chart 11: Revenue and EBITDA margin trend in engine division



Source: Merrill Lynch

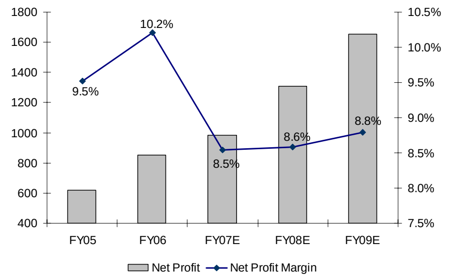
Chart 12: Revenue and EBITDA margin trend in infrastructure division



Source: Merrill Lynch

- **Margins to improve in the infrastructure division** - Improving product mix resulting in superior realization and operating efficiencies on account of better capacity utilization should help improve margins in the infrastructure division.

Chart 13: PAT and PAT margin trend



Source: Merrill Lynch, Company

Earnings expected to double over the next three years

We expect Greaves' net profit to near double by FY09E to Rs.1.65bn compared to Rs850mn in FY06 on the back of:

- **Overall improvement in revenue mix**, shifting to higher realization products like four wheeler engines, large diesel engines, as well as new products in the infrastructure equipment segment.
- **Stronger operating performance of the infrastructure division,** through better mix and superior capacity utilization. Post its technical collaboration with CIFA, we also expect the company to make some savings with components being indigenously sourced as against importing them through CIFA.
- **Decline in interest costs.** Improving cash flows should help the company to reduce its debt burden. We expect the interest cost to reduce by around 16% to Rs.66mn.

1H inline with full year estimates

Revenues grew 35.4% to Rs6bn on the back of 100% growth in the infrastructure segment to Rs1bn, and 30% growth in the engines segment to Rs4.8bn.
The operating profit for the year was up by 36.8% YoY to Rs.869mn, while margins were stable at 14.3%.

Interest cost for the 1st half has doubled to Rs.83mn, however, this has been on account of some one time expenses the company had to incur, and depreciation was up by 22% to Rs.76mn. With nearly 70% increase in its other income to Rs.49mn. PBT for 1st half was up by 34% to Rs. 759mn. This is attributed to enhanced performance in the infrastructure division, where PBIT tripled to Rs118mn, while the engine business profits grew 34% to Rs819mn.

Tax for the first half however, was down by 11% YoY to Rs.215mn, as last year, the company had earned an extraordinary income, on account of which the total tax rate was around 43% as against 28% for the current year. PAT thus rose 69.7% to Rs543mn.

Table 9: First half performance

Rs. In mn	1H FY06	1H FY07	% YoY
Total Revenues	4482.4	6070.9	35.4%
EBITDA	635.4	869.4	36.8%
PBT	565.3	759.4	34.3%
PAT before extraordinary income	320.4	543.7	69.7%
Segmental Revenues			
Engines	3752.2	4874.3	29.9%
Infrastructure	506.0	1012.2	100.0%
Segmental PBIT			
Engines	611.7	819.4	34.0%
Infrastructure	38.2	118.1	209.2%

Source: Merrill Lynch

Overall revenues to grow by 38% & earnings by 16% in FY07E

In FY07, we expect consolidated revenues to increase by 38% to Rs11.5bn, while the net profit is expected to grow by 15.7% to Rs.985mn. this would be on the back of:

- The 37.5% revenue growth in engines division to Rs.10.5bn, and
- Infrastructure division is expected to post 49.5% revenue growth to Rs1.8bn.

Aggressive expansion planned across segments

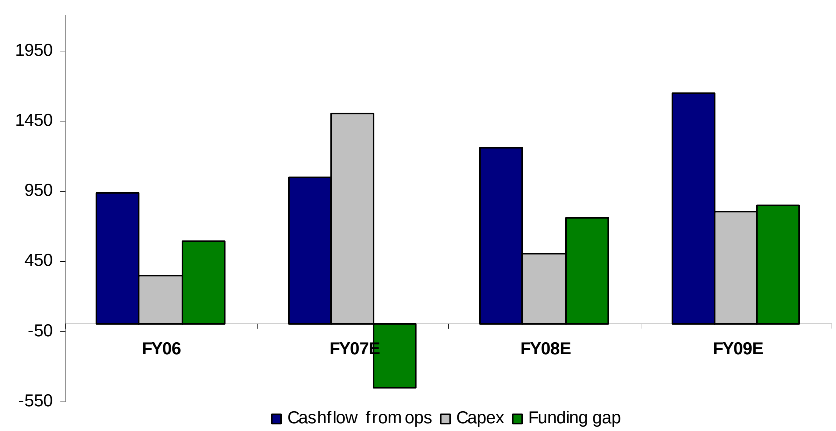
Greaves has planned capex of Rs1.5bn in FY07, significantly higher than its past track record. Of this:

- Fifty percent is likely to be invested in the engines segment. It would be mainly used towards putting up the capacities for twin cylinder engines for the four wheeler engine to be introduced by Piaggio. And also towards improving capacities in large diesel segment. The expansion is expected to be completed by June'07.
- The company plans to invest around 30% of its capex in the infrastructure segment to introduce new products from its Chennai plant. This plant has already been commissioned in Jan'07.
- The balance capex will be invested in its recently built R&D centre at Aurangabad.

Free cash flows expected to increase

Greaves has investments valued at Rs894mn, and cash of Rs335mn. We expect the company to fund FY07 capex through a combination of debt and free cashflows. Chart 14 depicts that company cashflows would be able to meet its capex requirements except in FY07. The company's recent acquisition of German engine manufacturer BFD was valued at €4.24mn (Rs 245mn), the cash outgo for the company is estimated at ~Rs158mn. Funding for this acquisition would mostly be done through internal accruals.

Chart 14: Free cashflows to fund most of the capex

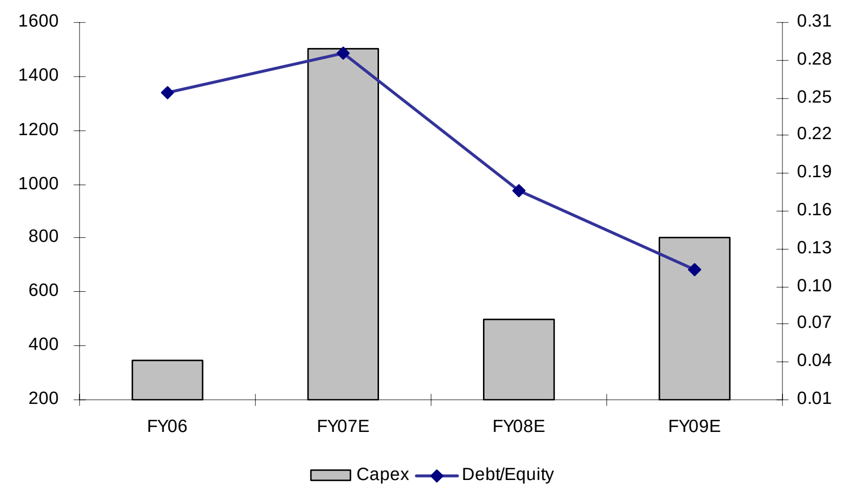


Source: Merrill Lynch

Debt/equity ratio to remain healthy

Debt equity ratio of the company we expect to come down to 0.6x by FY09E from 1.1x in FY07. This improvement will be mainly on account of healthy cash flows generated by the company.

Chart 15: Capex and debt/equity

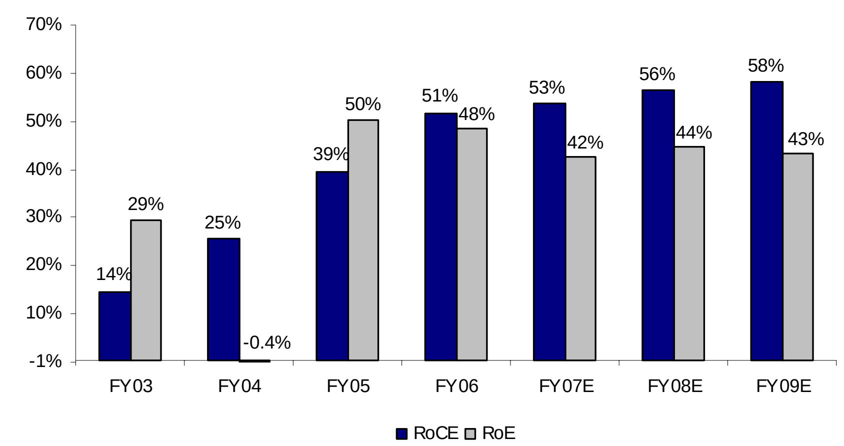


Source: Merrill Lynch

Return ratios to be impacted near term

ROCE and ROE will likely decline in FY07. The pressure would be felt more on the ROE, owing to partial utilization of capacities. These are expected to improve with enhanced capacity utilization. ROCE, however, is expected to improve to 58%.

Chart 16: Return ratios to take a hit in near term



Source: Merrill Lynch

Table 10: Dupont Analysis

	FY06	FY07E	FY08E	FY09E
PAT/EBIT (%)	66.8%	61.0%	63.4%	64.3%
EBIT/Sales (%)	15.3%	14.0%	13.5%	13.7%
Sales/Assets(%)	307.4%	341.9%	380.5%	384.0%
Assets/Networth (%)	153.2%	143.8%	135.1%	127.0%
ROE	48.1%	42.0%	44.1%	42.9%

Source: Merrill Lynch

Risks

The main risks to our assumptions are:

- **Slowdown in the order book size in the infrastructure division** – We expect this division to be a major revenue driver for the company over the next three years. However, any slowdown in this segment could delay project implementation, which could have an adverse impact on our estimates.
- **Reduction in Piaggio's revenue share** – Currently, Piaggio contributes nearly 30% of the company's revenue. Any fall in volumes would adversely impact our estimates. Also post 2010, Piaggio has plans to set up its own engine manufacturing unit in India. We believe this might have an impact on Greaves volumes as supplies to Piaggio would be affected.

Financials

Table 11: Earnings Statement

Rs. Mn	FY05	FY06	FY07E	FY08E	FY09E
Sales	6522.6	8334.5	11525.6	15258.5	18817.8
Raw Material Cost	4364.5	5669.7	8021.8	10681.0	13266.6
Labour cost	519.2	568.1	653.3	751.3	841.5
Other expenses	698.5	771.3	1118.0	1541.1	1881.8
Total operating expenses	5582.2	7009.1	9793.1	12973.4	15989.8
EBITDA	940.4	1325.4	1732.5	2285.1	2828.0
% Margins	14.4%	15.9%	15.0%	15.0%	15.0%
Depreciation	113.6	132.4	204.3	248.8	285.5
Gross Interest	114.8	79.4	121.2	81.0	66.0
Other Income	81.6	80.1	85.0	30.0	30.0
Recurring PBT	793.6	1193.7	1491.9	1985.4	2506.5
Add: Extraordinaries	222.5	127.4	0.0	0.0	0.0
Less: Taxes	395.2	470.2	507.2	675.0	852.2
-Current Tax	87.4	120.6	447.6	595.6	751.9
-Deferred Tax	307.8	349.6	59.7	79.4	100.3
Net Income (Reported)	620.9	850.9	984.7	1310.3	1654.3
Recurring Net income	398.4	723.5	984.7	1310.3	1654.3

Source: Company, Merrill Lynch

Table 12: Balance Sheet

Rs. Mn	FY05	FY06	FY07E	FY08E	FY09E
Assets					
Total Current Assets	2493.8	2710.0	3616.1	4944.7	6379.9
Total Current Liabilities & Provisions	2063.8	2246.0	2937.3	3811.6	4781.6
Net Current Assets	430.0	464.0	678.8	1133.1	1598.3
Investments	390.1	894.3	94.3	94.3	94.3
Deferred tax assets	392.5	42.9	0.0	0.0	0.0
Net Fixed Assets	1050.2	1309.8	2597.5	2783.2	3207.5
Total Assets	2262.8	2711.0	3370.6	4010.6	4900.1
Liabilities					
Borrowings	786.6	549.9	749.9	599.9	499.9
Equity Share capital	456.4	488.4	488.4	488.4	488.4
Face value per share (Rs.)	*10.0*	*10.0*	*10.0*	*10.0*	*10.0*
Reserves & Surplus	1019.8	1672.7	2132.3	2922.3	3911.8
Less: Misc Exp.	0.0	0.0	0.0	0.0	0.0
Networth	1476.2	2161.1	2620.7	3410.7	4400.2
Total Liabilities	2262.8	2711.0	3370.6	4010.6	4900.1

Source: Company, Merrill Lynch

Table 13: Cash Flow Statement

Rs. Mn	FY05	FY06	FY07E	FY08E	FY09E
Net income	398.4	723.5	984.7	1310.3	1654.3
Depreciation	113.6	132.4	204.3	248.8	285.5
Deferred Taxes	307.8	349.6	59.7	79.4	100.3
Cash Earnings	819.8	1205.5	1248.7	1638.5	2040.1
Minority Interest	0.0	0.0	0.0	0.0	0.0
Share of associate profit	0.0	0.0	0.0	0.0	0.0
Changes in working capital	79.6	(256.6)	(322.1)	(457.6)	(460.5)
Other adjustments, Net	98.2	(9.8)	121.2	81.0	66.0
Cash Flow from operations	997.6	939.1	1047.8	1262.0	1645.5
Capital expenditure	(266.9)	(344.7)	(1500.0)	(500.0)	(800.0)
Change in investments	239.2	(323.3)	800.0	0.0	0.0
Cash Flow from investing	(27.7)	(668.0)	(700.0)	(500.0)	(800.0)
Share issue/buyback	100.3	218.9	0.0	0.0	0.0
Dividends	(202.2)	(479.6)	(533.6)	(533.6)	(674.0)
Change in debt	(489.4)	(239.1)	200.0	(150.0)	(100.0)
Others	(159.9)	(97.6)	(121.2)	(81.0)	(66.0)
Cashflow from financing	(751.2)	(597.4)	(454.8)	(764.6)	(840.0)
Change in cash & cash equivalents	218.7	(326.3)	(107.1)	(2.6)	5.6
Free cash flow	730.7	594.4	(452.2)	762.0	845.5

Source: Company, Merrill Lynch

Table 14: Ratios

	FY05	FY06	FY07E	FY08E	FY09E
Raw Material/Sales	66.9%	68.0%	69.6%	70.0%	70.5%
Labour Cost/Sales	8.0%	6.8%	5.7%	4.9%	4.5%
Other exps/Sales	10.7%	9.3%	9.7%	10.1%	10.0%
Asset turnover ratio (x)	6.2	6.4	4.4	5.5	5.9
Net Profit Margin	6.1%	8.7%	8.5%	8.6%	8.8%
RoCE (%)	39.0%	51.2%	53.1%	56.0%	57.7%
Net debt/Equity (x)	0.3	0.4	1.1	0.8	0.6
RoE (%)	49.9%	48.1%	42.0%	44.1%	42.9%

Source: Company, Merrill Lynch

Company background

Leading supplier to OEMs

Greaves Cotton, is a part of the BM Thapar Group (which includes Crompton Greaves). It is a multi-product, multi-location company that manufactures industrial products for automotive and core sector applications. It is the only independent supplier for light diesel engines (less than 1 ton), supplying to the three wheeler autos industry. The company supplies engines to key OEMs in the domestic market**.** It is also one of the leading manufacturers of construction equipment in the country. The company has six manufacturing locations in India and an extensive dealership network.

Core competence in engines & infrastructure equipment

Greaves has core competence in manufacturing diesel engines for automotive applications and industrial applications and is also into the manufacture of construction equipment. It expects to enter the growth-oriented four wheeler segment soon, with twin cylinder engines for small commercial vehicles.

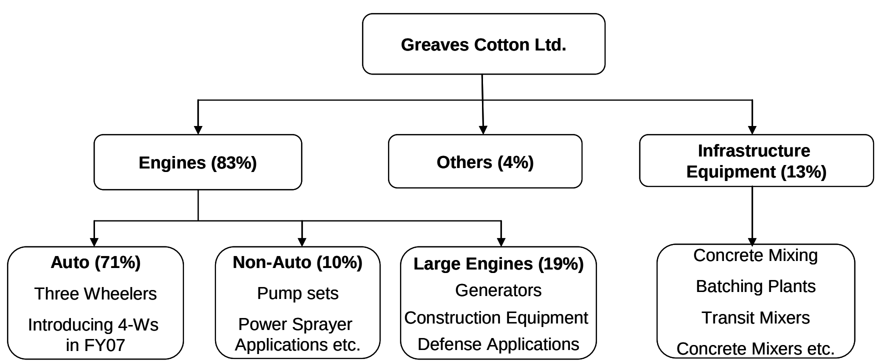
Table 15: Main business groups of the company

Business Groups	% to Total Sales	Product Lines
Light Engines Group	59%	Diesel engines: 4.4 to 11HP
Power Generation Group	16%	Large Diesel Engines, Generating sets upto 1000 kva
Infrastructure Equipment	13%	Concreting pumps, transit mixers, vibratory compactors and crucibles
Agro Equipment Group	8%	Petrol / Kerosene Engines: 1 to 4 HP, Gensets, Pumpsets and Power Tillers

Source: Company, Merrill Lynch

Ready for strong growth post turnaround

Greaves incurred losses during 2000-2002, mainly on account of failed diversifications such as Rajasthan Polymers and Resins Ltd., tractors business with SAME, and three wheeler venture with Piaggio. However, after losses for 3 years, the company's operations turned around to become profitable in FY05. This has been possible through its core segments of engines and infrastructure. We expect both segments to continue with their healthy growth over period of next three years and expect overall profits to grow at 29% CAGR over FY07-09E.



Management

The BoD comprises of a Managing Director and seven Non-Executive Directors, including three promoters. Mr. Karan Thapar, one of the promoters is Non-Executive Chairman of the company. The day-to-day management is vested with Mr. P.Sachdev, Managing Director and CEO of the company, who is a professional and has been with the company for nearly 40 years now.

Price Objective Basis & Risk

Our price objective of Rs.410 is on the basis that company's multiples (15x FY07E) will likely sustain through FY08 and we have also used DCF method, which gives us a value of Rs420/share.

The risks to achieving our price objective are a slowdown in the order book size in the infrastructure division and a reduction in Piaggio's revenue share.

Analyst Certification

I, Achala Kanitkar, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

Special Disclosures

In accordance with the SEBI (Foreign Institutional Investors) Regulations and with guidelines issued by the Securities and Exchange Board of India (SEBI), foreign investors (individuals as well as institutional) that wish to transact the common stock of Indian companies must have applied to, and have been approved by SEBI and the Reserve Bank of India (RBI). Each investor who transacts common stock of Indian companies will be required to certify approval as a foreign institutional investor or as a sub-account of a foreign institutional investor by SEBI and RBI. Certain other entities are also entitled to transact common stock of Indian companies under the Indian laws relating to investment by foreigners. Merrill Lynch reserves the right to refuse copy of research on common stock of Indian companies to a person not resident in India. American Depositary Receipts (ADR) representing such common stock are not subject to these Indian law restrictions and may be transacted by investors in accordance with the applicable laws of the relevant jurisdiction. Global Depository Receipts (GDR) and the Global Depository Shares of Indian companies, Indian limited liability corporations, have not been registered under the U.S. Securities Act of 1933, as amended, and may only be transacted by persons in the United States who are Qualified Institutional Buyers (QIBs) within the meaning of Rule 144A under the Securities Act. Accordingly, no copy of any research report on Indian companies' GDRs will be made available to persons who are not QIBs.

***iQ**method*℠ Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) * (1 - Tax Rate) + Goodwill Amortization	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5-Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A
Quality of Earnings		
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt, Less Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit		
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap. = Current Share Price * Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price * Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

***iQ**method*℠ is the set of Merrill Lynch standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

***iQ**database*® is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by Merrill Lynch.

Important Disclosures

Investment Rating Distribution: Machinery/Diversified Manufacturing Group (as of 31 Dec 2006)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	21	58.33%	Buy	6	28.57%
Neutral	14	38.89%	Neutral	3	21.43%
Sell	1	2.78%	Sell	0	0.00%

Investment Rating Distribution: Global Group (as of 31 Dec 2006)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	1306	42.74%	Buy	406	31.09%
Neutral	1509	49.38%	Neutral	446	29.56%
Sell	241	7.89%	Sell	53	21.99%

* Companies in respect of which MLPF&S or an affiliate has received compensation for investment banking services within the past 12 months.

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