

52 Wk High/Low

Avg. Vol. (Weekly)

# **Initiating Coverage**

Industry	Auto Ancillaries					
Market Data						
Market Cap.	₹ 4,756mn/US\$ 93.3mn					
Share Cap.	₹124 mn					

(Price Performance (RIC: SWAR.BO, BB: SWE IN)

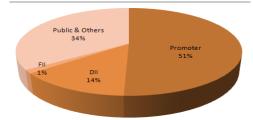
₹504/₹349

1216

(%)



Shareholding Pattern (As on Dec 31<sup>st</sup>, 2011)



Financials (₹ mn)	FY12E	FY13E	FY14E
Net Sales	4,590	5,663	6,541
EBIDTA	742	918	1,074
PBT	804	934	1,105
PAT	555	645	763
EPS (₹)	44.7	51.9	61.4
EBIDTA Margin (%)	16.2%	16.2%	16.4%
PAT margin (%)	12.1%	11.4%	11.7%
Price/Earnings (x)	8.6	7.4	6.2
EV/EBIDTA	6.4	5.2	4.4
ROE (%)	29.3%	27.7%	26.9%
ROCE (%)	29.0%	27.5%	26.7%

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# Swaraj Engines (SWE IN)

## **Proxy to Indian agri-story**

March 27, 2012

# Buy (CMP: 383/share)

Mkt Cap ₹4756mn; USD: 93.3mn Swaraj Engines ('SWE'), a Mahindra group company, manufactures internal combustion (IC) engines for 'Swaraj Tractors', since its inception in the mid 1980s. SWE was a part of the erstwhile 'Punjab Tractors Ltd' (PTL) until the latter was acquired by Mahindra & Mahindra (M&M) in 2009. Since the acquisition by M&M, SWE has grown at a CAGR of 42% against industry growth rate of 16%. M&M acquisition has clearly been value accretive to SWE as there was a de-growth in volumes during the 3 year period prior to the acquisition – industry volumes grew @ 12% CAGR v/s 3% de-growth in SWE volumes. Leveraging on strengths of M&M (42% market share in overall tractor volumes), SWE has grown its market share from 5% earlier to 9% now. Currently, SWE is undergoing major capex, funded entirely from internal accruals, culminating in Nov 2012 with a capacity of 75000 engines per annum, against capacity of 42000 in FY11. We are positive on the long-term prospects of the company and the industry, despite an expected moderation in near-term growth on the back of high growth witnessed during last three years.

### Fortunes linked to Indian agriculture

In our view, SWE is a perfect play on the India agriculture story. We are positive on the long-term prospects of Indian agriculture led by i) Gap in productivity levels in India despite having the second largest arable land in the world, resulting in need for higher farm mechanization; ii) Higher Minimum Support Prices (MSP) of farmers resulting in higher 'income effect'; iii) Policy initiatives such as NREGA scheme, agriculture being classified as priority sector lending, subsidy on interest repayment, diesel subsidies etc.

## Access to the world's largest tractor manufacturer

SWE enjoys access to the world's largest tractor manufacturer i.e. Mahindra & Mahindra (M&M) by virtue of the latter holding 33% in SWE. SWE caters to nearly 80% of the demand of 'Swaraj Tractors' division of M&M, and expects to garner 85-90% share of Swaraj Tractors. SWE believes in its own in-house technological capabilities to cope up with the upcoming challenges in terms of technology changes and believes that its technology is at par with that of global players.

## Presence in high HP segment, right geographies augurs well

SWE historically has been present across segments in terms of HP i.e. 20-30HP, 31-40HP, 41-50HP and >50HP. However, going forward it believes that incremental demand for tractors are more likely in the >40HP segment. This is mainly driven by i) Increase in use of tractors for non-agri purposes such as transport, construction/ infrastructure activities etc; ii) Shift in demand from the Northern to western/ southern region where the soil is hard and requires high power tractors. Incidentally, in these regions, its parent M&M enjoys a significant market share of 44-50%; iii) replacement of tractors, where typically farmers replace older tractors with new higher HP tractors.

## Positive on long-term prospects despite near-term moderation; Buy

We remain positive on the long-term prospects of the industry, despite moderation of growth rates in the near-term. Key long-term demand drivers include i) Huge demand potential for tractors in India – potential demand for 6mn tractors v/s an estimated 4mn tractors currently; ii) Low penetration levels in regions such as Bihar, South and West; iii) growing use of tractors for non-agri applications; and iv) Strong replacement demand – life of a tractor 10-15 years. We initiate coverage with Buy rating and DCF based TP of ₹925/share.



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# **INVESTMENT SUMMARY**

### Fortunes linked to Indian agriculture

SWE manufactures internal combustion engines for tractors manufactured by the 'Swaraj Tractors' division of Mahindra & Mahindra. These tractors are largely used for agricultural purposes, although the share of non-agricultural demand has been increasing of late. The key drivers of tractor demand in India include i) Gap in productivity levels (measured in terms of yield per hectare) in India despite having the second largest arable land in the world – resulting in need for higher farm mechanization; ii) Higher Minimum Support Prices (MSP) of farmers resulting in higher 'income effect'; iii) Policy initiatives such as NREGA scheme, agriculture being classified as priority sector lending, subsidy on interest repayment, diesel subsidies etc. The domestic tractor industry has witnessed a sales CAGR of 16% in the last three years, much higher than long-term average of 8.5% mainly led by the above factors.

### Access to the world's largest tractor manufacturer

SWE enjoys access to the world's largest tractor manufacturer i.e. Mahindra & Mahindra (M&M) by virtue of the latter holding 33% in SWE. SWE caters to nearly 80% of the demand of 'Swaraj Tractors' division of M&M, with the balance 20% being met from its second promoter – Kirloskar Oil Engines. Going forward, SWE expects to meet upto 85-90% requirement of 'Swaraj Tractors'. SWE believes in its own in-house technological capabilities to cope up with the upcoming challenges in terms of technology changes and believes that its technology is at par with that of global players. The company invests in research and development on a continuous basis.

### Presence in high HP segment, right geographies augurs well

SWE historically has been present across segments in terms of HP i.e. 20-30HP, 31-40HP, 41-50HP and >50HP. However, going forward it believes that incremental demand for tractors are more likely in the >40HP segment. This is mainly driven by i) Increase in use of tractors for non-agri purposes such as transport, construction/ infrastructure activities etc; ii) Shift in demand from the Northern to western/ southern region where the soil is hard and requires high power tractors; iii) replacement of tractors, where typically farmers replace older tractors with new higher HP tractors. SWE is not looking at entering the <20 HP segment unlike its competitors as it feels that it is a low margin segment with much lesser growth rates. Also, while the traditional markets of north are fairly penetrated in terms of tractor demand, other regions such as Bihar, Western region and Southern region are witnessing higher demand traction due to low penetration levels there. In both these regions, not only does M&M enjoy a significant market share (44-50%), it has also experienced significant growth in market shares over the last ten years.

# Industry growth rates to moderate in the near-term; Long-term fundamentals intact

Historically, the tractor industry has grown at a long-term average of 8.5%. However, the previous 3-year average has been significantly higher at 16% mainly boosted by policy initiatives and diesel subsidies. SWE expects the growth rates to moderate somewhat over the next 1-2 years i.e. 14-15% in FY12E (mainly due to subdued demand in Jan-Mar 2012 period) and 8-10% in FY13E. However, the growth rate is expected to be still higher than the long-term average of 8.5%. Besides, SWE is likely to exhibit higher growth rate of 18% in FY13E driven by higher share of Swaraj Tractor's requirement. Long-term prospects still remain attractive driven by i) Huge demand potential for tractors in India – potential demand for 6mn tractors v/s an

estimated 4mn tractors currently; ii) Low penetration levels in regions such as Bihar, South and West; iii) growing use of tractors for non-agricultural applications; iv) Farmers' requirement to dig deeper into the soil to make it more fertile; and v) Strong replacement demand – life of a tractor 10-15 years.

### Excellent track record, experienced management provides comfort

SWE has an excellent past track record in terms of higher than industry average growth rates – SWE volumes grew @ 42% CAGR, fastest in the industry, in the last 3 years v/s industry average of 16%. Besides, post the acquisition of PTL by M&M, the capacity utilization rates have improved manifold. Further, efficient working capital/ balance sheet management (negative working capital, NIL borrowed funds) gives a significant lever to withstand adverse business cycles. Backing of an experienced management (most senior management employees have been with SWE for over 20 years since Punjab Tractor days) with sound knowledge of the industry/ business offering significant comfort to minority investors

### Earnings to grow @ 17% CAGR over FY12E-14E; DCF based TP of ₹925/share; Buy

SWE has been able to optimally utilize its capacities in the past three years mainly due to robust domestic demand and efficient management. SWE is expanding its capacities by ~79% to 75,000 engines by end CY 2012. Although, SWE believes it has the wherewhital to increase its installed capacity to 100,000 engines, we believe there wouldnt be any need for additional capex atleast for the next 2 years. We believe SWE would be able to efficiently sweat its capacity of 75,000 engines over FY14E-15E to achieve the modelled volume growth of 10% in the same time frame. We have modelled the next phase of capacity expansion to begin in end FY15E that would culminate in a total capacity of 90,000 engines in FY16E.

Based on the above factors, we model revenue CAGR of 19% over FY12E-14E. We expect EBITDA margins in FY12E-14E to be lower than the trend seen in FY10-11 (16.2%-16.4% v/s 17.5-19% seen in FY10-11) mainly due to a slowdown in industry growth rates. However, higher than average industry growth rates would support earnings CAGR of 17% over FY12E-14E period. We expect SWE to report EPS of ₹45/share in FY12E, ₹52/share in FY13E and ₹61/share in FY14E. Our long-term DCF based target price of ₹925/share implies an upside of 141% from current levels. We initiate coverage with a 'Buy' rating on the company.

### Risks

Key risks include i) Dependence on single customer i.e. M&M; ii) Less allocation for rural development may temper growth rates going forward; iii) Decline in availability of agricultural credit due to macro-economic circumstances could affect growth rates, adversely; iv) Natural calamities e.g. drought, flood, etc.; v) Fall in Minimum Support Prices (MSP) of foodgrains could impact farmers' disposable income.

# **VALUATION & RISKS**

# DCF based TP of 925/share implies 141% potential upside

We value SWE through DCF method, because the company will fully benefit from ongoing capex in longer term. Also, our discussions with management indicate that SWE can expand its capacity to 100,000 engines at the same location, as and when the demand for the same arises.

Assuming 10% growth in sales from FY13-FY16 and 85% business of swaraj tractors, we arrive at SWE engine sales of 88,000. To service this demand, SWE will have to incurr a capex of 560mn in FY15-FY16 in addition to ongoing capex of 940mn.

Our DCF model assumes capacity of 75,000 engines to service demand upto FY15 and achieve a turnover of ₹755 Mn. Thereafter, SWE needs to expand capacity. Also, given its strengths, the company may start supplying engines for other agricultural and construction equipments going forward.

Table	1: DCF	Assumptions
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INR Mn	FY11	FY12E	FY13E	FY14E	FY15E	FY16E
Capacity	42,000	60,000	75,000	75,000	81,000	90,000
Sales (Units)	48,015	56,000	66,000	72,600	79,860	87,846
Net Revenue	3606	4590	5663	6541	7555	8727
EBITDA	631	742	918	1074	1229	1422
PAT	439	555	645	763	896	1052
EPS	35.36	44.68	51.9	61.41	72.16	84.69
EBITDA %	17.40%	16.20%	16.20%	16.40%	16.30%	16.30%
PAT %	12.10%	12.10%	11.40%	11.70%	11.90%	12.10%
CFO	306	473	607	713	806	926
FCFF (after op-capex)	314	200	138	845	752	805

Source: Systematix Institutional Research

### **Table 2: Assumptions**

Terminal Growth Rate	3%
Discount Rate	14%
Risk Free Rate	8%
Risk premiun	7%
Beta	0.7
Cost of Equity	13%
WACC	13%
Add: Liquidity Premium	1%
Discount Rate	14%
Source: Systematic Institutional Passarch	



# **Peer Group valuations**

### Table 3: Peer group valuations for FY12E

FY12E	P/E	P/BV	EV/EBITDA	EBITDA %	NPM %	ROA %	ROE %
Swaraj Engines*	8.6	2.5	6.4	16.2%	12.1%	29.0%	29.3%
Cummins	23.5	6.3	19.2	15.3%	12.9%	24.7%	28.0%
Kirloskar Oil Engines	15.6	1.9	7.5	12.8%	6.0%	0.0%	14.3%
Greaves Cotton	13.3	3.3	7.8	13.9%	8.4%	23.9%	27.5%
Domestic Average	15.2	3.5	10.2				
Deere & Co. US	11.2	4.1	11.0	15.0%	9.4%	11.4%	38.4%
CNH US	9.8	1.2	12.0	10.9%	5.4%	4.6%	11.3%
AGCO US	10.1	1.4	6.0	9.7%	5.0%	7.0%	15.0%
Source: Ploomborg *Systemativ Institutional Possarch							

Source: Bloomberg, \*Systematix Institutional Research

### Table 4: Peer group valuations for FY13E

FY13E	P/E	P/BV	EV/EBITDA	EBITDA %	NPM %	ROA %	ROE %
Swaraj Engines*	7.4	2.0	5.2	16.2%	11.4%	27.5%	27.7%
Cummins	20.4	5.5	16.3	15.9%	13.1%	23.9%	28.3%
Kirloskar Oil Engines	12.2	1.6	6.5	13.1%	6.8%	0.0%	15.7%
Greaves Cotton	11.2	2.8	6.6	14.5%	8.7%	24.6%	26.9%
Domestic Average	12.8	3.0	8.6				
Deere & Co. US	10.4	3.3	10.6	15.5%	9.5%	11.0%	33.8%
CNH US	9.0	1.0	11.3	11.0%	5.6%	4.8%	10.8%
AGCO US	9.6	1.3	5.8	9.7%	5.1%	7.0%	14.3%

Source: Bloomberg, \*Systematix Institutional Research

# **Risk to Price target**

## Fortunes linked to agriculture

Tractor industry is affected adversely by drop in farm income. So, any factor affectiing farm income directly impacts tractor sales. In past the industry has been hit hard during 2000-03 and 2007-09, when agriculture was impacted by droughts and lower realizations.

We have assumed industry growth rate of 10% for FY13-FY16 period. A period of slower growth or even contraction, will affect earnings of SWE.

### Ability to maintain operating margins

We have assumed that the industry will be able to protect margins, but a severe slowdown or contraction in the industry may force the company to operate at lower margins.

Also, we have assumed that the industry will not resort to price wars during lean periods. But this may change going forward, on back of huge capacities lined up by both domestic and global players.

# **INDUSTRY OVERVIEW**

# History of the Indian tractor industry

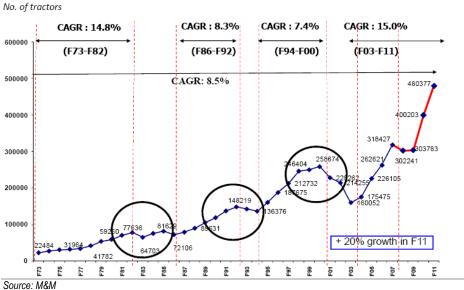
### Sea change in industry structure in the last 51 years

The Indian tractor industry has undergone a sea change since 1960s. It has undergone a dramatic metamorphosis from being completely import dependent to becoming the world's largest tractor manufacturer. Broadly, the following eras can best explain the evolution of the Indian tractor industry:

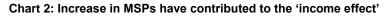
- **Prior to 1960s:** War surplus tractors and bulldozers were imported for land reclamation and cultivation in mid 1940's. Post independence, central and state tractor organizations were set up to develop and promote the supply and use of tractors in agriculture and up to 1960, the demand was met entirely through imports
- 1960s 1980s: This period witnessed the mushrooming of Indian tractor manufacturers with the commencement of the first set of indigenously produced tractors in 1961. In the year 1961, the total number of tractors manufactured in India amounted to just 880. However, by the end of the decade, the annual output increased to >20,000 with more than 146,000 tractors functioning in the country. With the entry of Escorts tractors in tractor manufacturing in India along with the help of Ford, the annual output of tractors exceeded 75,000 units in the mid 1980s. This was the period which witnessed India becoming a 'net-exporter' of tractors for the first time from being a net-importer.
- **1990s post liberalization era:** Post the liberalization of the economy in 1992 along with removal of the need for industrial licenses, the annual tractor output rose to 255,000 by 1997 with an estimated total population at 2mn tractors. During this period, India emerged as one of the world's largest manufacturers of tractors.
- 2000-2003 era: This period was particularly challenging as the tractor industry had witnessed significant de-growth. The total size of the industry shrank by 38% to 160,052 units in FY03 v/s 258,674 units in FY00. The de-growth in the tractor industry can be directly attributed to the recessionary trends prevalent in the Indian agricultural sector led by
  - i. Below average monsoons: On an average, monsoons during this period was much below average. In FY03, the average all-India monsoon was 32% below normal. States like Rajasthan, Gujarat, Punjab, Haryana, Western Uttar Pradesh, Maharashtra and Madhya Pradesh that constitute the backbone of the industry, had rainfall deficits of as high as 60% compared to normal rainfall
  - ii. Low farm incomes
- 2004 till date: This period was the best ever period for the tractor industry with CAGR of ~15%. The last time the industry witnessed similar growth rates was in the period 1973-82, when the industry grew @ 14.8%. The recovery started in mid-2004 and continued its upmove all the way till FY07. This period was characterized by:
  - i. strong monsoons;
  - ii. increased agricultural lending by both nationalized and private banks;
  - iii. increase in minimum support prices;

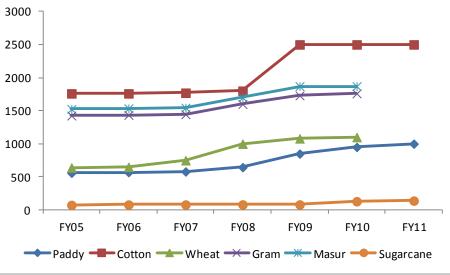
- Subsidy on interest payments; iv.
- Diesel subsidies; ٧.
- Farm loan waiver scheme; vi.
- vii. Migration of farm labour to urban areas resulting in need for higher farm mechanization levels;
- viii. Traction in non-farm appliactions of tractors viz. for infrastructure, construction activities

These factors led to higher agricultural GDP grow rates ultimately resulting in higher tractor sales.



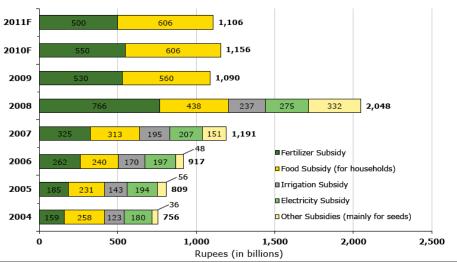






Source: Agriculture ministry

### Chart 3: Positive government policy support boosted tractor sales in the current era



Source: John Deere

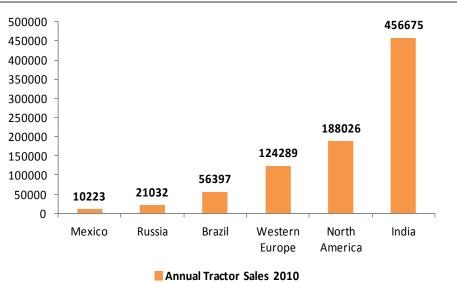
Manufacturer	Collaborator	Year
Eicher Tractors Ltd	Gebr,Eicher Tractor,West Germany	1961
Gujarat Tractors Ltd	Motokov-Praha, Czechoslovakia	1963
TAFE	Messey ferguson,UK	1961
Escorts Ltd	Moloimport Arazawa Zaklady Mechaniczne, Ursus Poland	1964
Mahindra & Mahindra	International harvestor,UK	1965
Escorts Tractors Itd	Ford UK	1971
Hindustan Machine Tools	Motokov-Praha, Czechoslovakia	1971
Kirloskar Tractors Itd	Klochner-Humboldt Deutz.Germany	1974
PunjabTractors Itd	CEMRI.INDIA	1974
Pittle Tractor Ltd	Own Know how	1974
Harsha Tractors Itd	Moto Import,Rassia	1975
Auto tractor Ltd	British Leyland, UK	1981
Pratap Steel Rolling Mill	Own Know how	1983
VST Tillers	Mitsubishi,Japan	1983
United Auto tractor Ltd	Jznina tractorul,Romania	1986
Asian tractor Ltd	Own Know how	1989
Bajaj Tempo Itd	Own Know how	1987
International Tractors	Own Know how	1998
Larson & Tubro Ltd	John Deere US	1999
New Holland Tractors	New Holland Tractors, Italy	1999
Greaves Ltd	Same Deutz Fhar, italy	1999
Source: Industry data		

Source: Industry data

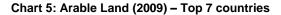
## India home to the largest tractor market in the world

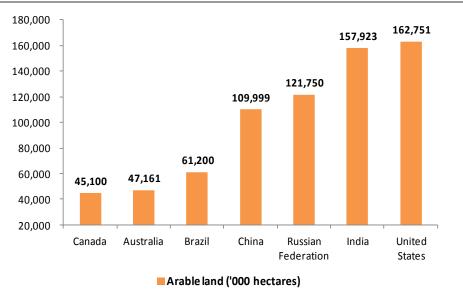
India is the largest tractor market in the world with annual sales of 480,000 units in FY11. The second largest tractor market in the world is North America with annual output of 188,000 units (2010). This reflects the huge gap in the market size of India v/s other major tractor markets in the world. The main driver behind the huge market size of tractors in India is the fact that India holds the second largest arable land in the world, land holdings are higly fragmented, and tractor population is far lower than estimated potential.

### Chart 4: Annual Tractor sales 2010



Source: World bank, Systematix Research





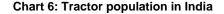
Source: World Bank

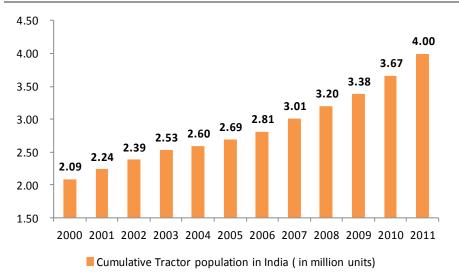
# High fragmentation levels reason behind huge size

The primary reason for tractor demand in India is the sheer size of India's arable land and the high levels of fragmentation seen here. As the data below indicates, the total land held by Marginal, Small and Semi-medium farmers is 63% of the total land holding in India. Since ownership of a tractor is also seen as a status symbol in India, higher number of land holdings automatically translates to higher tractor ownership. This is evident in the fact that while US holds the largest arable land in the world, the total number of tractors is ~4.5mn and is saturated at these levels, in India there is a potential demand for 6mn tractors in the long-term v/s 4mn currently. This is because in the US the land holdings are largely consolidated and thus the tractor market there is quite mature while in India, the land holdings are fragmented. This leads to higher demand for tractors in India.

### Table 6: Distribution of Land Holdings - India

Land Holding Size Category	Total H	olding
	Nos.	Area
Marginal	64%	20%
Small	19%	20%
Semi- Medium	11%	23%
Medium	5%	24%
Large	1%	13%
All Classes	100%	100%
Source: Systematix Institutional Research		

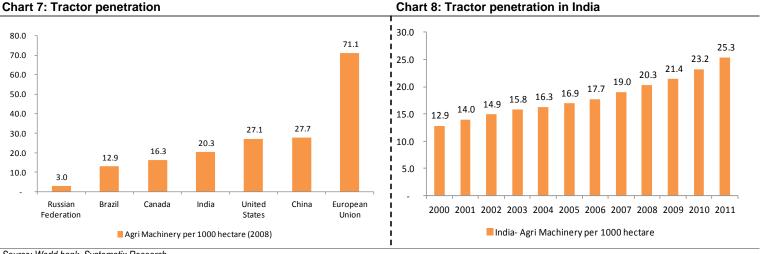




Source: World Bank, Systematix Institutional Research

# Penetration levels not the highest though

India's dominance in the world tractor market is not reflected in its tractor density measured in terms of penetration of tractors per 1000 hectares. Despite a consistent growth in the penetration levels in the last decade, India still remains lower than the likes of EU, US, China in terms of penetration levels. The main reason for low penetration levels compared to other countries is low irrigation levels resulting in higher dependence upon monsoons in India. Consequently, vagaries in monsoons impact farm output and thus farmers' income levels



### **Chart 7: Tractor penetration**

Source: World bank, Systematix Research

### Table 7: Irrigation Status - India

Land Holding Size Category	% of Holding receiving irriga		
	Nos.	Area	
Marginal	57%	52%	
Small	53%	43%	
Semi- Medium	53%	40%	
Medium	55%	38%	
Large	47%	28%	
All Classes	55%	41%	

Source: Systematix Institutional Research

Also, regions of irrigation levels in India have tractor penetration. In North irrigated land varies from 30-90% (in different states) and this region has been largest tractor market till date.

### Table 8: Tractor sales affected by availability of irrigation facilities

	Irrigated Land	Tractor Sales (as % of total)
North	30-90%	35%
West	30-60%	20%
East	10-30%	12%
South	10-60%	20%
Central	0-30%	13%

Source: Systematix Institutional Research

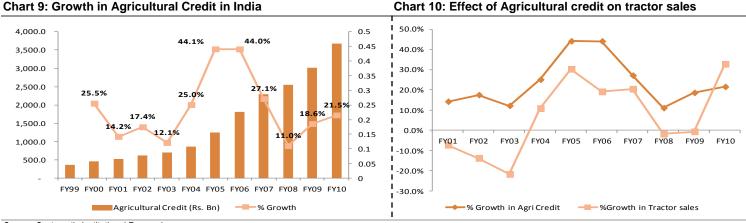
### India tractor industry growth rates higher than world average

Worldwide tractor sales grew by 12% in CY11 and is expected to grow 0-5% in CY12, whereas, growth in APAC is expected to moderate from 12% to 5% in CY12. The average growth rate in India is likely to be around 14-15% in FY12E and 10% in FY13E, higher than world and APAC average growth rates. Even in the long-term, the Indian tractor industry has enjoyed growth rate of ~8.5% CAGR, despite seasonal variations that cause demand moderation/shrinkage. The growth in the last decade accelerated to 15% CAGR, owing to focus on improving agricultural productivity and higher capital investment in the industry. (see Chart 1)

## Lead indicators driving tractor industry growth rates

The broad lead indicators that have played a significant part in the growth of the Indian tractor industry include:

- Agricultural credit disbursements by banks;
- Government policy support through and outside budget; •
- Monsoons; and
- Irrigation projects •



### **Chart 9: Growth in Agricultural Credit in India**

## Instances of government policy support to the tractor industry

### Bihar an apt example of policy thrust to farm mechanization

- Bihar represents 4% of total area under cultivation and contributes ~5% to total foodgrain output from India. The state has higher than national average yield for pulses and coarse cereals, and lower for wheat/rice.
- Agriculture is the backbone of Bihar, employing 81% of workforce and generating 42% of state GDP. Major crops being rice, wheat, and maize.
- State is rich in soil and water resources, its average yields of Rice, Wheat, Maize in the state are only about 32%, 44%, and 40% of the potential yields, respectively. Average yield of rice and wheat is 1.1 MT/ha and 2.1 MT/ha against production potential of 4-5 MT/ha.
- **Strengths** Soil is light, alluvium, and high in organic matter and hence suitable for intensive cultivation. Also, high water table translates into high irrigation potential.

**Weaknesses** – Very low average size of holdings ~0.75 ha, making farm operations difficult and uneconomical (the state has more than 70% of agriculture land categorized as small & marginal holding). And high population density of 880/square km against national average of 324/square km.

**Opportunities** – Region receives ample rainfall thus proper water management can result in 100% irrigation, translating into 2x-3x rise in productivity.

**Threats** – Agriculture needs higher support from state budget, but lower contribution in future may limit that. Also, the region receives floods during monsoon.

- Mechanization is important in Bihar's context, productivity affected by late sowing of cereals, because it helps in timely land preparation, sowing and harvesting of crops. Also, tractor penetration in Bihar is ~5 (per 1000 ha) against national average of 25.
- Productivity potential is high because of high water table, high irrigation potential, highly fertile land owing to annual floods in Ganges. But low realized productivity due to inefficient practices and inputs. Hence there is a need for improved farming techniques, including high farm mechanization.
- The state government is motivating use of better inputs and practices for farming, through various policies. One such ongoing scheme to promote mechanization provides subsidy on various farm equipments (~₹ 60,000 on tractor). Also, there are various other initiatives to improve farm productivity and income, which eventually will translate into higher demand for mechanization.
- Such replication in other states is beneficial for both agriculture and farm mechnaization in long run.

# Excise duties on tractors NIL since 2004; however excise duty on tractor parts still applicable

The tractor industry was reeling under the impact of high excise duties on tractors (16%), which was partially responsible for the anemic growth rates of the industry during the 2000-03 period. Hence in 2004, the government completely removed the excise duty on tractors i.e. the excise duty was reduced to NIL from 16%. However, the effective benefit arising out of the exemption from excise duty was only 4%. This was because, the excise duty on tractor parts was still retained at 12%, although this was subject to CENVAT credit. Thus, the effective impact of the excise duty reduction was only 4% (16%-12%). Besides, our interactions with industry experts reveal that this benefit was not passed on to consumers by the tractor manufacturers. Thus, the excise duty reduction proved to be a boon in the right time to tractor manufacturers as they could retain the benefits therefrom due to a benign demand scenario for tractors then.

Despite complete exemption from excise duty on tractors, tractor manufacturers continue to bear the impact of excise duty on tractor parts not manufactured in the same location i.e. location of manufacture of tractors. This has resulted in an 'inverted duty structure' – excise duties on tractor parts is 12% for FY13, while that on tractors is NIL. Removal of excise duties on tractor parts manufactured at multiple locations has been a long standing demand of the tractor industry (read M&M), which the government is yet to act on.

# M&M continues to be the largest tractor manufacturer – both in India and world

M&M is the largest player in the Indian tractor market with a pan-India market share of 42%. M&M's dominance in the tractor industry is evident in the fact that the second largest player i.e. TAFE has a market share of ~20%. Further, M&M has also been increasing market share in the right geographies i.e. those geographies that are witnessing higher growth rates i.e. South, West and East. By virtue of being the largest supplier of tractor engines to the 'Swaraj Tractors' division of M&M, SWE too has access to these markets.

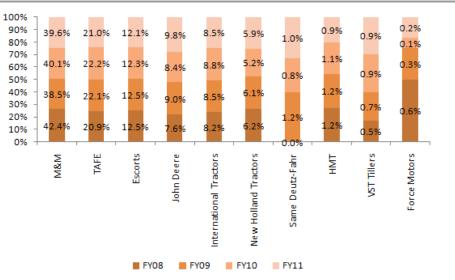


Chart 11: Domestic Tractor market share

Source: Systematix Institutional Research

## Upcoming trends in the Indian tractor industry

### Tractor industry moving outside traditional northern markets

Traditionally, the tractor industry was concentrated in the Northern belt of India mainly due to better soil fertility and existence of better irrigation facilities. However, a look at the data for last ten years reveals that the share of the northern region has declined from 49% to 35%. The regions that have captured the market share are the Southern and Western regions. The shift in regional demand pattern is mainly due to i) lower tractor penetration rates in North due to presence of a mature market where demand mainly emanates from the replacement market; and ii) High demand growth rates witnessed in South, West, East mainly due to low penetration rates in these regions.





Source: Systematix Institutional Research

### Shift in demand towards higher HP segment

There are broadly four segments in tractors viz. <30 HP, 31-40HP, 41-50HP and > 50HP. Traditionally, majority of tractor demand has been concentrated in the 31-40HP segment (>51% market share). However, there has been a visible shift in demand patterns towards higher HP tractors segments. This is mainly driven by i) Increase in use of tractors for non-agri purposes such as transport, construction/ infrastructure activities etc; ii) Shift in demand from the Northern to western/ southern region where the soil is hard and requires high power tractors; iii) replacement of tractors, where typically farmers replace older tractors with new higher HP tractors. Also, while the traditional markets of north are fairly penetrated in terms of tractor demand, other regions such as Bihar, Western region and Southern region are witnessing higher demand traction due to low penetration levels there. In both these regions, not only does M&M enjoy a significant market share (44-50%), it has also experienced significant growth in market shares over the last ten years.

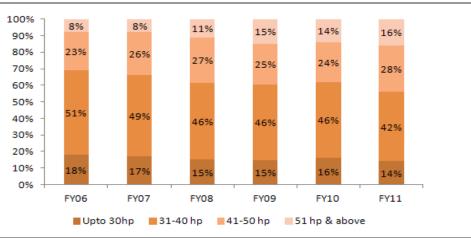
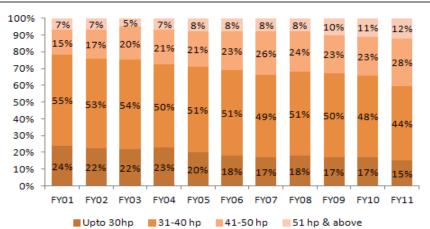
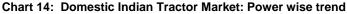


Chart 13: Overall Indian Tractor Market: Power wise Trends

Source: Systematix Institutional Research





Source: Systematix Institutional Research

# Growth rates to moderate in the near-term; long-term prospects still intact

Historically, the tractor industry has grown @ 8.5% over a longer time frame. However, the last eight year period (FY03-11) has witnessed a higher CAGR of 15% mainly due to agriculture friend policy initiatives of the UPA government viz. farm loan waiver scheme, NREGA that increased the disposable incomes of farmers', priority sector status to agriculture, higher availability of credit to farmers etc. The FY08-11 period particularly witnessed higher growth rates – average 3 year CAGR of 16% in tractor volumes.

However, going forward, the industry expects growth rates to moderate in the nearterm. The average industry growth rate in FY12E is expected to be around 14-15%, while the corresponding growth rate in FY13E is likely to be around 10%. This is mainly due to high input costs for farmers, decline in farmers' realizations due to high output and high interest rates.

However, even this would be significantly higher than the long-term average of 8.5%. Long-term growth prospects of the tractor industry remain robust due to i) low penetration levels in regions such as Bihar, South and West; ii) Very low penetration in the eastern part of the country, despite high soil fertility; iii) growing use of tractors for non-agricultural applications; iii) Farmers' requirement to dig deeper into the soil to make it more fertile; and iv) Strong replacement demand – life of a tractor 10-15 years.



# Majority supplier of engines to Swaraj division of M&M

SWE is in business of manufacturing internal combustion (IC) engines for tractors – 'Swaraj Tractors' only. It was earlier a part of Punjab Tractors, but after the acquisition of PTL's stake by M&M the company forms a part of the group since 2009. The acquisition by M&M was a strategic decision to own a plant in North India and to augment market share through a strong brand – 'Swaraj Tractors'.

SWE caters to ~80% engine demand of Swaraj Tractors and contributes 9% to total tractor engines produced in India, across different segments. The company continues to cater to demand from Swaraj Tractors only, and expects to garner 85% business of Swaraj Tractors going forward.

## Technological competence at par with global players

The business is technology intensive and the industry had benefited from global exposure since 1970s. It therefore is also at par with global players in terms of technology. Also, the company is constantly investing in R&D to improve engine performance and to comply with emission norms.

# Present in all segments of engines except <20 HP

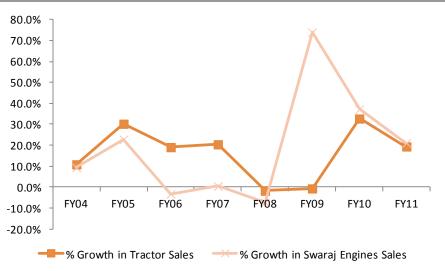
The industry is segmented by horsepower (HP) into low HP 20-30 HP segment, mid segment 30-40 HP, high segment 40-50HP, and >50HP. Also, some manufacturers have started offering tractors in 15-20HP range. SWE is present in all segments except 15-20HP, which is a low margin segment and doesn't fit well into SWE's strategy. This indicates that SWE's long-term strategy is not geared to commodity segments which earn lower margins and thrive only on volume growth. This is also evident in the growth rates of various segments where the <20HP category has witnessed a 1 year growth of 26% v/s 3 year CAGR of 40%. In contrast, the 41-50HP segment has witnessed a 1 year growth of 46%, which is higher than the 3 year CAGR of 17%. The >51HP segment also witnessed higher one year growth of 42% v/s 3 year CAGR of 22%.

# Impressive turnaround post M&M acquisition

### Growth rates post acquisition higher than during PTL days

The benefits of M&M's acquisition of Swaraj tractors is visible in the growth rates pre and post the acquisition. The average CAGR over the period FY03 to FY08 for the industry was 15% v/s Swaraj growth rate of only 4%. However, post FY08, the picture dramatically changed. The CAGR in the 3 year period FY08-11 for the industry was 16% while that of Swaraj was 42%. This clearly highlights the benefits of the acquisition to Swaraj tractors.

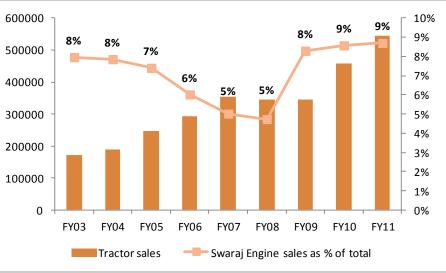




Source: Company data, Systematix Institutional research

### Increase in market share post acquisition

The market share of Swaraj tractors before its acquisition by M&M was only 5% in FY08. Further, the market share depicted a consistent declining trend since FY03. However post the acquisition, the market share increased to 9% (including exports) by FY11.



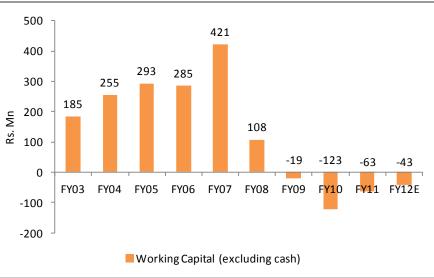


Source: Systematix Institutional research

### Balance sheet profile too witnessed a positive turnaround post acquisition

The acquisition not only improved the growth rates but also improved the balance sheet profile. The net working capital of SWE showed a significant improvement post the acquisition.

### Chart 17: SWE's Working capital requirement



Source: Systematix Institutional research

### Better geographical spread due to access to M&M

SWE has a much better geographical spread by virtue of being the largest supplier of tractor engines to 'Swaraj Tractors' brand of M&M - the largest tractor manufacturer in India and the world.

# Plans to grow capacity by 79% over FY11-FY13E; eventual target of 100,000 engines

Its manufacturing facility is located at Mohali, where it plans to augment capacity to 60000 and 75000 engines by end of Mar'12 and Nov'12, respectively, at a total cost of ₹340mn by Mar'12 and ₹580mn by Nov'12. SWE produced ~41000 units in 9MFY12 and is likely to produce ~56,000 units by March 2012. Our interactions with the management indicated that SWE has the wherewhital to increase installed capacity upto 100,000 engines at its existing location to meet the demand, as and when the need arises.

# Promoter/ Key management personnel background

### Mr. G.P. Gupta

Mr. Gupta is Non-Executive Independent Chairman of the Board of Swaraj Engines Ltd. He is on the Board of the Company as Independent Director since September 2001 and was appointed as the Chairman of the Board in July 2007. Shri Gupta served as Chairman of Unit Trust of India and Chairman & Managing Director of Industrial Development Bank of India. He holds Masters degree in Commerce and has and varied experience in the fields of Financial Management, Banking, Industrial & Financial Restructuring. Shri Gupta is also the Chairman of Emkay Global Financial Services Limited and Director of Baroda Pioneer Assets Management Co. Limited, SIDBI Venture Capital Limited, PTC India Limited, Birla Sun Life Insurance Co. Ltd., Aditya Birla Nuvo Limited, Su-Raj Diamonds & Jewellery Limited, Landmark Property Development Co. Limited, Idea Cellular Limited, Lodha Developers Limited, Lodha Elevation Buildcon Pvt. Limited, Aditya Birla Capital Advisors Pvt. Limited and Avam Technologies Pvt. Limited.

### Mr. Bishwambhar Mishra

Mr. Mishra is Non-Executive Vice Chairman of the Board of Swaraj Engines Ltd.

He joined the Company's Board in July 2007 and was appointed Executive Director of the Company designated as Vice Chairman in January 2009. Shri. Bishwambhar Mishra, a Mechanical Engineer with a Postgraduate Diploma in Business Management from XLRI, Jamshedpur, is currently the Chief Executive Officer of Swaraj Division of Mahindra & Mahindra Ltd. (M&M). Having joined M&M in 1999, Shri Mishra has held important positions therein including that of Chief Operating Officer of Farm Equipment Sector and President of China Business Operations. Before joining M&M, Shri Mishra has served Indian Auto majors like Tata Motors, Daewoo Motors and Hindustan Motors. Shri Mishra is also a Director of Swaraj Automotives Ltd.

### Dr. Pawan Goenka, Director

Dr. Goenka is Non-Independent Non-Executive Director of Swaraj Engines Ltd. He is a Mechanical Engineer from I.I.T. Kanpur, Ph.D from Cornell University, U.S.A. and Graduate of Advanced Management Programme from Harvard Business School. Having joined Mahindra & Mahindra Ltd. in 1993, Dr. Goenka was appointed President of its Automotive Sector in September 2005 and was appointed President of its Automotive & Farm Equipment Sectors with effect from 1st April, 2010. Prior to joining M&M, he served with General Motors R&D Centre at Detroit, U.S.A. He is also the current President of Society of Indian Automobile Manufacturers (SIAM). Dr. Goenka is also the Chairman of Mahindra & Mahindra South Africa (Pty.) Limited, Mahindra Vehicle Manufacturers Limited and Mahindra Navistar Engines Pvt. Limited and Director of Mahindra Engineering Services Limited, Sylvan Realty Pvt. Limited, Mahindra Renault Pvt. Limited, Mahindra & Mahindra Financial Services Limited, Mahindra Navistar Automotives Limited, Mahindra First Choice Wheels Limited and Mahindra Two Wheelers Limited.

### Mr. M.N. Kaushal

Shri Kaushal is a Member of the Institute of Chartered Accountants of India and the Institute of Company Secretaries of India. Having joined the erstwhile Punjab Tractors (since merged with Mahindra & Mahindra Limited) in 1981, **he is currently Chief Financial Officer of Swaraj Division** of Mahindra & Mahindra Ltd. and has made contributions in business planning, cost control and management & judicious allocation of financial resources.

### Table 9: Mutual fund holding

Fund Name	No. of Shares (Mn)	% Holding
Reliance MF	1.154	9.30%
SBI MF	0.394	3.18%
Source: Systematix Institutional Research		

### Table 10: Working capital cycle

Inventory	45-50 days
Debtors	5-10 days
Creditors	45-50 days
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### Table 11: Dividend history

Dividend History	INR/Share
16-Jul-11	10
16-Jul-10	8
04-Jun-09	5
05-Jun-08	5
01-Sep-06	7.5
The company distributes 33% of profits on an average	

## Source: Systematix Institutional Research

### Table 12: Equity history

Date	Equity Capital	Reason	Ratio	
12-Aug-08	124.2	Bonus Issue	2:1	
Courses Custometic Institutional Deserve				

Source: Systematix Institutional Research

### Table 13: Strategic tie-ups & Shareholding

Promoter Holding	No. of Shares (Mn)	% Holding
Mahindra & Mahindra	4.126	33.22%
Kirloskar Industries Ltd.	2.16	17.39%
Source: Systematix Institutional Research		

### Chart 18: PE band chart





# **FINANCIALS**

### Table 14: Profit & Loss

₹ in Mn.	FY11	FY12E	FY13E	FY14E	FY15E
Sales (Net)	3630	4590	5663	6541	7555
Materials	2733	3488	4304	4966	5740
Salary, Wages, etc.	170	233	283	322	378
Manufacturing Expenses	45	63	78	87	103
Selling & Admin Expenses	52	64	80	92	106
Total Operating Costs	2999	3848	4745	5467	6327
EBITDA	631	742	918	1074	1229
D&A	45	45	76	100	100
EBIT	586	697	843	974	1129
Interest paid(received)	(57)	(107)	(91)	(132)	(170)
PBT	644	804	934	1105	1299
Tax	204	249	290	343	403
Reported net profit	439	555	645	763	896
Balance Available for Appropriations	439	555	645	763	896
Appropriation of Profit					
Transfer to General Reserve	260	0	0	0	0
Proposed Dividend	124	157	182	216	253
Tax on proposed dividend	20	26	30	35	41
Payout %	33%	33%	33%	33%	33%
Balance Carried to Balance Sheet	35	372	433	512	602
Share Capital	124	124	124	124	124
Weighted Average No. of Shares (Mn)	12	12	12	12	12
EPS	35.4	44.7	51.9	61.4	72.2
Comparable EPS	35.4	44.7	51.9	61.4	72.2

### Table 15: Balance sheet

FY11	FY12E	FY13E	FY14E	FY15E
762	780	706	1300	1757
0	0	0	0	0
19	19	19	19	19
1522	1895	2327	2839	3441
1541	1914	2347	2858	3460
264	599	1084	984	1108
699	737	685	1297	1774
578	578	578	578	578
1541	1914	2347	2858	3460
	762 0 19 1522 <b>1541</b> 264 699 578	762     780       0     0       19     19       1522     1895       1541     1914       264     599       699     737       578     578	762     780     706       0     0     0       19     19     19       1522     1895     2327       1541     1914     2347       264     599     1084       699     737     685       578     578     578	762     780     706     1300       0     0     0     0     0       19     19     19     19     19       1522     1895     2327     2839       1541     1914     2347     2858       264     599     1084     984       699     737     685     1297       578     578     578     578



### Table 16: Cash Flow

₹ in Mn.	FY11	FY12E	FY13E	FY14E	FY15E
РВТ	644	804	934	1105	1299
Depreciation	45	45	76	100	100
Interest	(57)	(107)	(91)	(132)	(170)
Dividend received	(24)	0	0	0	0
(Profit)/Loss from sale of Fixed Assets	0	0	0	0	0
Operating Profit before Working Capital Changes	607	742	918	1074	1229
Adjusment for: Trade & Other receivables	(61)	(22)	(24)	(20)	(23)
Adjusment for: Inventories	(152)	(97)	(105)	(85)	(99)
Adjusment for: Trade payables	127	99	107	87	102
Direct Taxes Paid	(215)	(249)	(290)	(343)	(403)
Cashflow from Operations	306	473	607	713	806
		(0.0.0)	(500)	0	
Purchase of FixedAssets	(72)	(380)	(560)	0	(224)
Purchase of investment	(1)	0	0	0	0
Sale of Fixed Assets	0	0	0	0	0
Dividend received	24	46	35	41	38
Interest (Received)	58	61	56	91	132
Cashflow from Investing	9	(273)	(469)	132	(54)
Free Cashflow	314	200	138	845	752
Increase/(Decrease) in bank borrowing for working capital	0	0	0	0	0
Dividend payments	(116)	(182)	(212)	(251)	(295)
Interest (Paid)	(0)	0	0	0	0
Cashflow from Financing	(116)	(182)	(212)	(251)	(295)
Opening Cash Balance	564	762	780	706	1300
Closing Cash Balance	762	780	706	1300	1757
Net change in cash	198	18	(73)	594	457



### Table 17: Ratios

	FY11	FY12E	FY13E	FY14E	FY15E
Total Asset Turnover	2.36	2.40	2.41	2.29	2.18
Fixed Asset Turnover	13.74	7.66	5.22	6.65	6.82
Working Capital Turnover	5.19	6.23	8.27	5.04	4.26
Capacity Utilization	114%	93%	88%	97%	99%
Inventory Turnover	7.78	7.78	7.78	7.78	7.78
Receivables Turnover Ratio	44.77	44.77	44.77	44.77	44.77
Accounts Payable Turnover Ratio	7.61	7.61	7.61	7.61	7.61
Days of Inventory in Hand	46.90	46.90	46.90	46.90	46.90
Days of Sales Outstanding	8.15	8.15	8.15	8.15	8.15
Days Payables Outstanding	47.96	47.96	47.96	47.96	47.96
Cash Conversion Cycle	7.09	7.09	7.09	7.09	7.09
EBITDA %	17.5%	16.2%	16.2%	16.4%	16.3%
EBIT %	16.3%	15.2%	14.9%	14.9%	14.9%
NPM %	12.1%	12.1%	11.4%	11.7%	11.9%
ROA	28.5%	29.0%	27.5%	26.7%	25.9%
ROE	28.8%	29.3%	27.7%	26.9%	26.0%
Interest Coverage Ratio	-10.23	-6.53	-9.21	-7.40	-6.66
Total-debt/Equity	0.00	0.00	0.00	0.00	0.00
Long-term assets/Equity	0.17	0.32	0.47	0.35	0.32
EPS	35.36	44.68	51.90	61.41	72.16
PE	10.8	8.6	7.4	6.2	5.3
Dividend Yield	3%	3%	4%	5%	5%
BV	122.57	152.56	187.40	228.62	277.06
P/BV	3.12	2.51	2.04	1.68	1.38
EV/EBITDA	7.54	6.41	5.18	4.43	3.87
P/CF	15.57	10.05	7.84	6.67	5.90



# Institutional Research

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	Stock Rating	e	
BUY (B)The stock's total return is expected to exceed 20% over the next 12 months.ACCUMULATE (A)The stock's total return is expected to be within 10-20% over the next 12 months.HOLD (H)The stock's total return is expected to be within 0-10% over the next 12 months.SELL (S)The stock's total return is expected to give negative returns over the next 12 months.NOT RATED (NR)The analyst has no recommendation on the stock under review.			
ATTRACTIVE (AT)     Fundamentals/Valuations of the sector are expected to be attractive over the next 12-18 months.       NEUTRAL (NL)     Fundamentals/Valuations of the sector are expected to neither improve nor deteriorate over the next 12-18 months.       CAUTIOUS (CS)     Fundamentals/Valuations of the sector are expected to deteriorate over the next 12-18 months.			

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