



Summary

The Indian tractor industry has experienced strong volume growth during FY10-9mFY12 on the back of favourable cyclical and structural demand drivers. While tractor volumes remained robust through most of FY12 despite macro-economic headwinds; the domestic tractor market is showing some signs of weakness over the last couple of months. The demand-side economics in the tractor industry continue to find favour from factors such as support from the Government of India (GOI) towards rural development and agri-mechanisation; scarcity of farm labour especially during the sowing season; increase in credit flow to agriculture; increase in non-agri application of tractors as in infrastructure projects; growth in niche power segments (<20HP and >50HP) and untapped territories; besides healthy export sales. However, off-late there are some concerns emerging over the earnings of farmers from the Rabi crop; growing NPAs of tractor loans with public sector banks; and demand fatigue after strong sales growth during the last 2.5 years.

On a regional basis, the western and southern parts of the country have performed above par while the eastern and central parts have reported muted growth figures in 9mFY12. Further, the northern region, which is the largest tractor market of the country, grew at a healthy pace during the period, benefiting from sustained replacement demand. The demand outlook from southern India continues to be robust over the medium term and many OEMs are shifting focus from saturated markets to relatively under penetrated geographies in southern states. In fact, roughly 50% of the incremental capacity expansion for the industry is expected to come up in southern India. The domestic tractor industry is currently in a capacity augmentation phase and supply-demand dynamics of the industry are expected to change with the commissioning of large manufacturing capacity in FY13. Sharp increase in production capacity may have a bearing on the pricing power of tractor OEMs, ultimately putting pressure on their profitability metrics. Even during 9mFY12, Indian tractor manufactures witnessed margin contraction in light of continued hardening of rubber and steel prices, notwithstanding price increases to offset hike in input cost as well as change in emission norms (only for greater than 50 HP category).

Overall ICRA believes that over the short to medium term the tractor industry is likely to face dual challenges of moderation in growth rates on one hand and large capacity additions on the other. We expect tractor volumes (domestic + export) to slowdown in the last quarter, resulting in a volume growth in the region of 10-11% for full year FY 12. Over the longer term, we maintain our industry growth target at 8-9%.

Table 1: Volumes

	Volumes					YoY Growth (%)				
	FY08	FY09	FY10	FY11	FY12e	FY08	FY09	FY10	FY11	FY12e
Domestic + Export	346,508	345,827	441,174	545,128	605,092	-2%	0%	28%	24%	11%

Source: CMIE Database; ICRA Estimates

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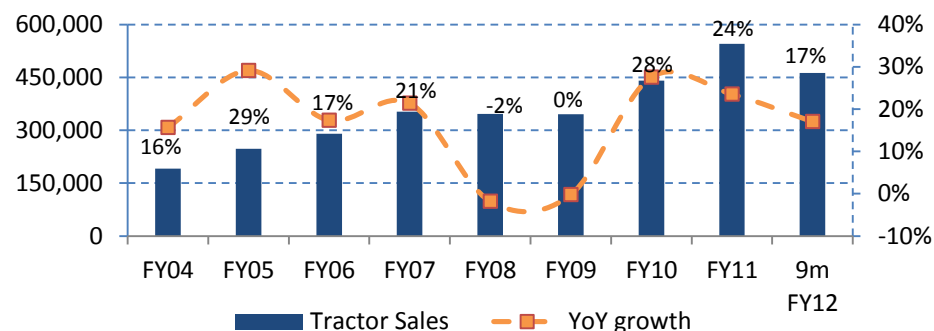
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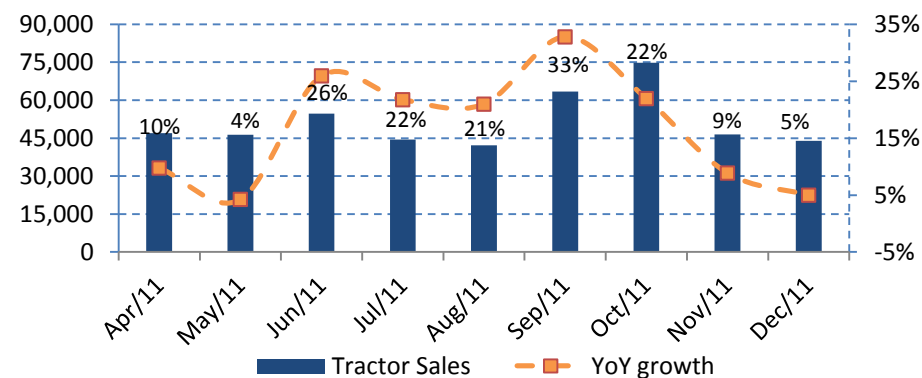
Indian Tractor Industry – Sales Performance

Chart 1: Trend in Yearly Tractor Sales Volumes (Domestic + Export)



Source: CMIE Database, ICRA Estimates

Chart 2: Trend in Monthly Tractor Sales Volumes (Domestic + Export)



Source: CMIE Database, ICRA Estimates

Growth momentum in tractor market continues

Volume growth in the Indian tractor industry has remained strong in 9m FY12 even when the automotive industry has experienced slackening demand on account of rising inflation, hardening interest rates and increasing fuel prices. After a period of downturn during FY08 and FY09, the up-cycle in the tractor market has extended over the last three years (FY10-9mFY12). Some of the cyclical factors that have contributed to healthy demand side economics are good south-west monsoons supporting farm output, strong rural liquidity sustained by higher minimum support price (MSP) for crops and double digit food inflation, besides adequate credit availability driven by NBFCs and private banks. Structural drivers like scarcity of farm labour in light of alternate employment opportunities, steady replacement demand and growing non-agricultural use of tractors have also supported tractor volumes. In addition, long-term drivers of the industry such as low tractor penetration, increasing budgetary allocation towards the rural sector and government support for farm mechanisation remain favourable.

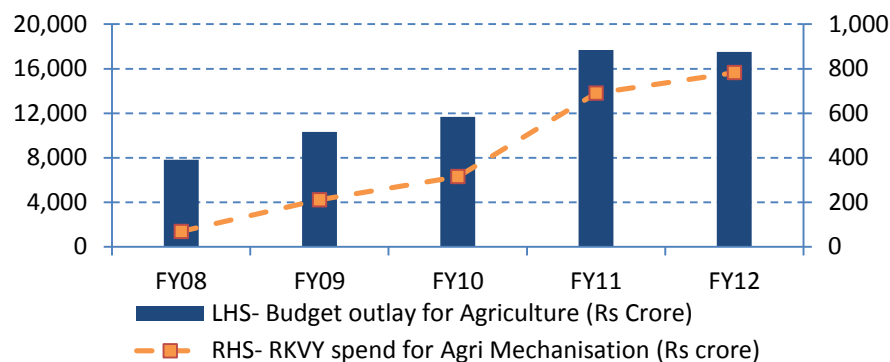
However, near term growth rate may see moderation

Notwithstanding growth moderation during Nov-11 and Dec-11, tractor sales have witnessed double-digit sales growth in most of the months during 9m FY12, with strong growth around the festive season. Oct-11 saw the industry report record monthly volumes in light of buoyant demand from both the export and domestic market. Sales volumes, however, tapered during Nov-11 and Dec-11 after a good festival season; considering that these months are usually weak in terms of tractor demand. Further, estimates for tractor sales for January month signal some shrinkage in tractor volumes. While rabi crop output is expected to be healthy, there are concerns that a bumper output shall put pressure on farm gate prices, ultimately resulting in lower-than-expected cash inflow for farmers. Some moderation in growth is thus likely in the coming months. Apart from issues related to earnings from rabi crop, there are also concerns on rising non-performing assets (NPA) of tractor loans with public sector undertaking (PSU) banks.

Indian Tractor Industry- Growth Drivers

Government support for agriculture and rural development: long-term driver for tractor industry

Chart 3: Trend in Spend on Agriculture by GOI



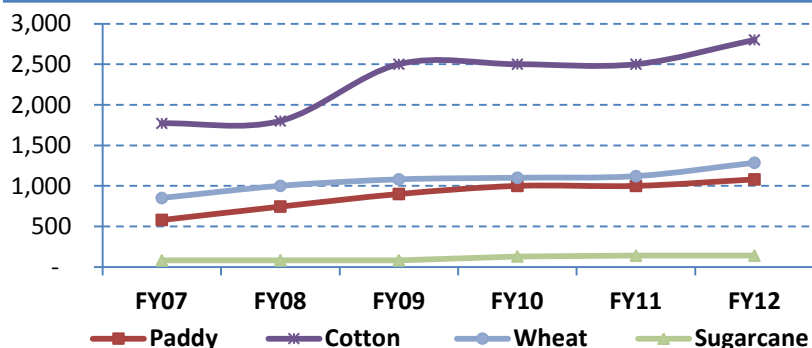
Source: Government Data

Agriculture employs over 50% of the domestic workforce and remains a key focus area for the GoI. In order to ensure self-sufficiency in food grain production in the backdrop of a rising population, state agencies have assumed a greater role as facilitators of technology adoption. GoI has consistently increased its budget outlay for agriculture and allied activities and also increased its allocations for schemes like Rashtriya Krishi Vikas Yojana (RYVY) to boost farm output and improve labour productivity. In conjunction, subsidies on fertilizers, electricity and diesel have also supported rural prosperity, and favorably influenced the demand-side drivers of farm mechanisation. Over the short term, increase in spending towards agriculture could be affected by lack of fiscal flexibility available with the government. However, over the long term, the rural sector should continue to see large investments towards overall infrastructure development and improved accessibility of various farm mechanisation tools such as tractors and power tillers.

Buoyancy in rural income supports tractor growth; earnings could come under pressure in the short term

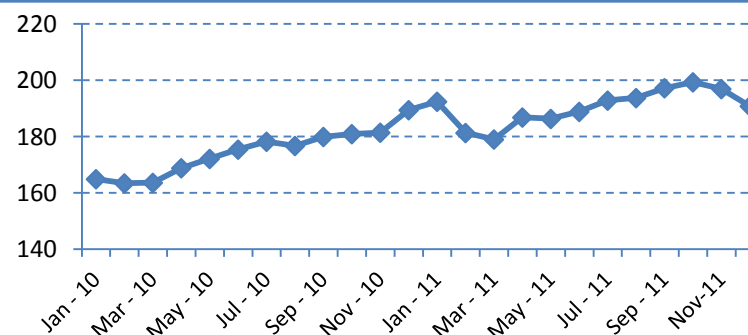
Improvement in rural liquidity on the back of increase in minimum support prices (MSP) offered by the government and high food inflation has continued in the current fiscal, as evident from the charts below. Higher income levels coupled with appreciating land value has enabled a larger farm audience to adopt tilling and planting machinery. While these factors have spurred tractor demand in the past; industry performance in the coming months will be contingent upon the earnings from the Rabi crop. Increase in input costs and a decline in farm gate prices, given the expectations of bumper harvest along with food inflation coming off peak levels, could put pressure on the profitability of farmers and affect demand of tractors in Q4FY12.

Chart 4: Trend in MSP of Key Crops (Rs/quintal)



Source: Department of Agriculture and Cooperation

Chart 5: Inflation Index: Food Articles

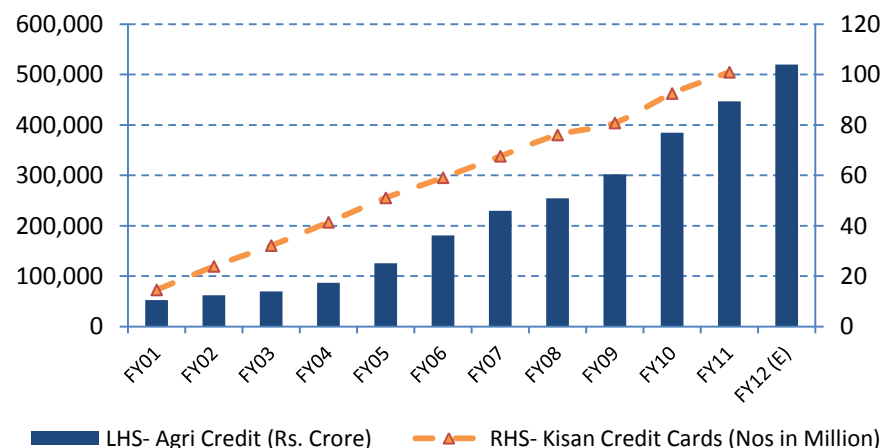


Source: Government data

Indian Tractor Industry- Growth Drivers

Credit flow to agriculture fuels industry volumes; emerging concerns over rising NPAs

Chart 6: Institutional credit flow to agricultural sector



Source: Department of Agriculture and Cooperation; ICRA Research

There exists a strong correlation between farm mechanisation and availability of agri-credit. While scheduled commercial banks are mandated by the Reserve Bank of India (RBI) to meet a target of 18% of their net banking credit for the agricultural sector, growth is driven by increased lending by non-banking finance companies, especially in the southern states. Institutional credit to the farm sector has increased at a CAGR of 19.9% from FY06 to Rs. 4,46,779 crore in FY11 and expected to cross Rs. 5,00,000 crore in FY12. Apart from increase in the magnitude of credit availability, the sector has also benefited from introduction of innovative credit delivery schemes such as the Kisan Credit Cards (KCC). However, the availability of credit has not been uniform throughout the country. Better finance penetration in Punjab, Haryana and Uttar Pradesh has led to higher farm mechanisation in these states. However, limited activity of financiers in certain pockets like the eastern region has prevented these states from achieving their potential tractor penetration.

Interest rate tightening done by the RBI has led to increase in vehicle financing costs for customers. Unlike the passenger vehicle (PV) sector, wherein the decline in demand has been quite prominent, the tractor space has remained largely unaffected so far. In recent quarters, the proportion of tractors purchased using cash payments has increased to 20-25% of sales as compared to 10% earlier.

Off-late, there are some concerns over growing NPAs of tractor loans with public sector banks while the NPAs of private sector banks and NBFCs have not seen any significant increase. However, any significant increase in delinquencies over the next few months could deter lenders, and constrain the growth of the sector.

Tractor penetration increases; scope for further improvement

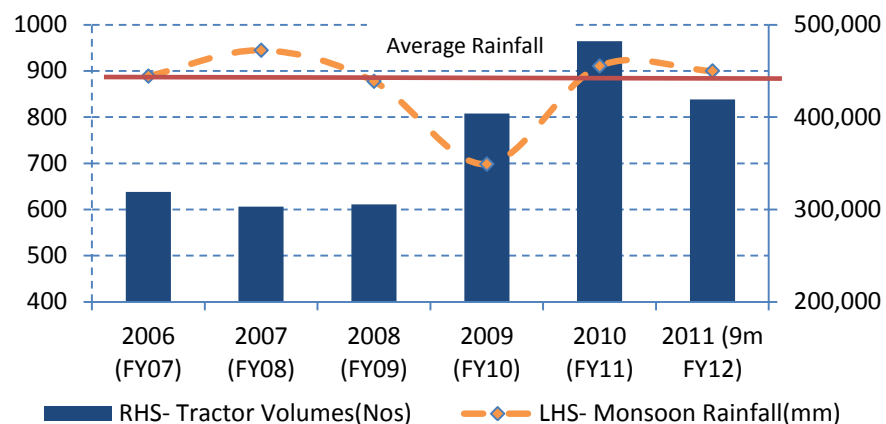
India's current tractor penetration is estimated at ~20 tractors per 1000 hectares of agricultural land. While this is close to the averages in some countries, the statistic belies the fact most of the land holdings in India are smaller than those in foreign countries. Also penetration numbers vary widely across states, with states like Punjab, Haryana or Western UP enjoying significantly higher penetration compared to the rest of the country. These penetration figures however may not be fully representative of tractors used in farming, as the practice of renting tractors is common in India

Some regions like Eastern Uttar Pradesh, West Bengal, Orissa, Madhya Pradesh, Karnataka and Andhra Pradesh have relatively low penetration levels. Also, there exists headroom for growth of smaller HP tractors among small and marginal farmers. Further, even if tractor density was to remain constant, demand in the industry is expected to remain sound on account of shortening tractor replacement cycle.

Indian Tractor Industry- Growth Drivers

Monsoons among the factors supporting tractor industry growth; reducing linkages between the two

Chart 7: Trend in Monsoon Rainfall and Domestic Tractor Sales



Source: India Meteorological Department; CMIE Database; ICRA Research

The timing, spatial distribution and magnitude of rainfall under the South-West monsoon are some variables that influence the Kharif crop output, and in-turn have a bearing on the domestic tractor market. While it is intuitive to correlate a good monsoon year with strong tractor sales, with reducing dependence of on rain-fed farming, the impact of monsoons on tractor industry is reducing. Although the shift from rain-fed agriculture to irrigated farming has been gradual (~50% of cultivated area in India is still dependent on rains), the percentage of area under irrigation is particularly high in states such as the Punjab (98% under irrigation), Haryana (88.5%), Uttar Pradesh (74.9%) and Bihar (63.1%), which have amongst the largest population of tractors in the country. Also, a scanty monsoon usually leads to appreciation in the prices of food grains, thereby reducing the impact on the farmers. Further, in case of delayed monsoon, there is a shift towards other Kharif crops with smaller crop cultivation cycles. The ability of a farmer to invest in farm mechanisation is also contingent on the cash flows from the winter Rabi crop.

As can be seen from Chart 7, growth in tractor volumes has not strictly followed the performance of monsoons, as represented here by all India area weighted rainfall. Notwithstanding a weak (22% lower than long period average) and delayed monsoon in 2009 (FY10), tractor sales were buoyant during that period; albeit after a period of subdued industry sales in FY08-FY09. Nevertheless, India has experienced healthy monsoon rainfall over the last two years (2010 & 2011), which has certainly helped rural prosperity. In 2011, the rainfall was adequate and well-spread, thereby leading to healthy agricultural produce across the country.

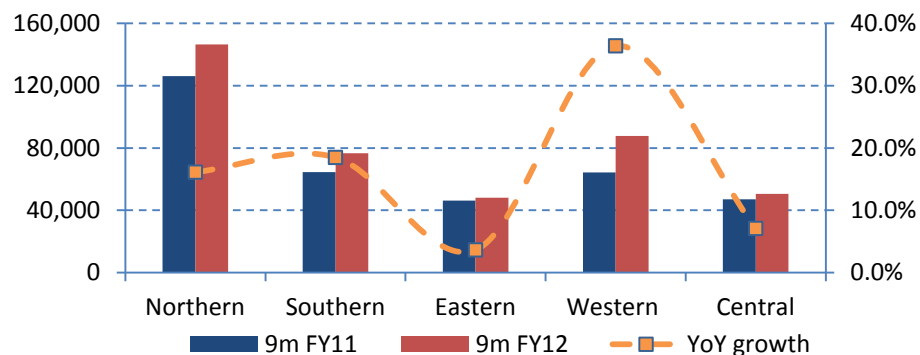
Table 2: Other Drivers Contributing to Industry Growth

Factors	Remarks
Scarcity of farm labour	Alternate employment opportunities following urban migration and other Government-run schemes such as the National Rural Employment Guarantee Act (NREGA) have necessitated greater farm mechanisation
Increasing non-agricultural application	Increasing use of tractors for haulage in infrastructure and construction projects
Strong replacement demand	Roughly 40% of domestic demand is from the replacement market. The average life-cycle of a tractor has reduced to ~8-9 years from ~11-12 years.
Export Sales	Addition of new export destinations and increased offerings by domestic manufacturers in the higher HP segment has spurred export growth in FY11 and 9mFY12

Indian Tractor Industry – Region-Wise Performance

Shift in Spotlight to Under-penetrated Markets

Chart 8: Trend in Domestic Tractor Sales across Geographies

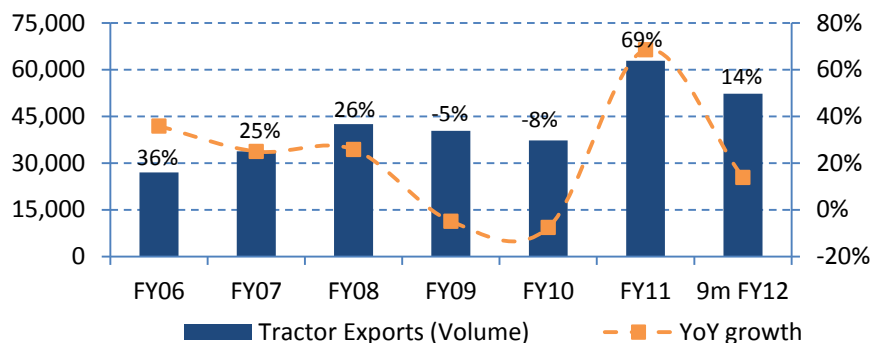


Source: CMIE Database; ICRA Estimates

States such as the Punjab, Haryana and Uttar Pradesh have achieved high tractor penetration levels, thus leading to gradual decline in the rate of growth of tractor sales in northern part of the country. The region, however, continues to account for over 35% of the domestic tractor volumes – partly supported by relatively high farm prosperity and shorter replacement cycle in these regions – with second hand tractors finding its way to neighboring states. During 9mFY12, volume growth in the western region was robust, with Gujarat recording the highest sales growth (62% YoY) amongst other states, benefiting from increased acreage of cotton and groundnut crops. Maharashtra also saw better-than-industry growth figures on account of increased non-agri tractor usage and faster adoption of small tractors. The southern region reported 18.5% YoY growth during 9mFY12 on the back of low base and increased activities of finance agencies and tractor manufacturers. The performance of the eastern region, however, remained lackluster, with sales in Orissa declining by 15% YoY in 9mFY12 in view of large-scale crop damage caused by floods. Even Bihar, which is the largest tractor market in Eastern India, reported muted growth of 6% in this period. Although western and southern states continue to display higher than industry growth rates; these regions have experienced sharp growth deceleration in Jan-12 and this trend is likely to continue over the next couple of months. Nevertheless, the southern region is expected to witness strong growth rate over the medium term with increasing focus of OEMs on untapped markets in southern India. Further, replacement sales shall continue to buttress tractor demand in the northern region, but volumes growth is expected to remain below par.

Exports increase with addition of new destinations

Chart 9: Trend in Tractor Exports from India



Source: CMIE Database; ICRA Estimates

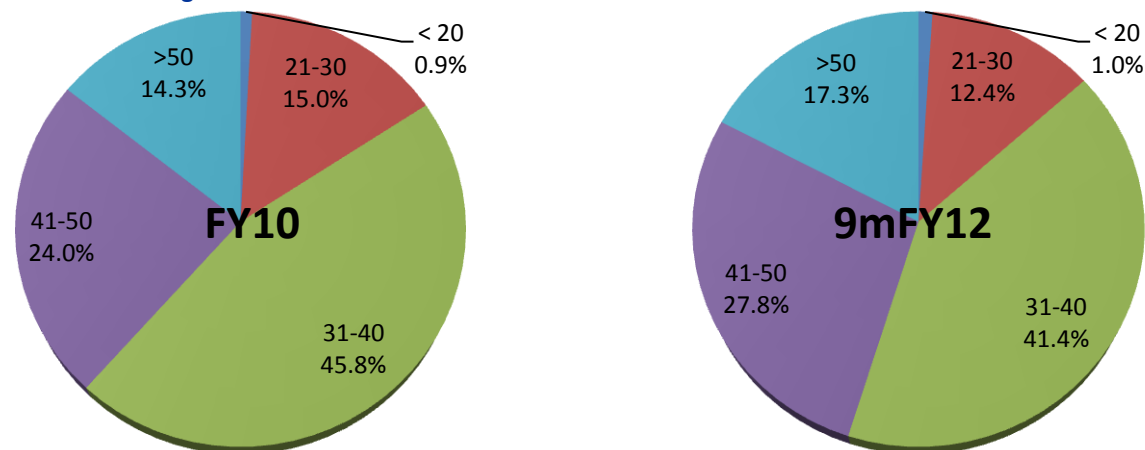
Exports contribute about ~11% to the total tractor sales of the country. Volumes saw a decline in FY09-FY10 on account of global economic downturn; even as the government tried to encourage tractor exports by announcing a four per cent duty refund under the duty entitlement passbook scheme. Sales to overseas markets, however, staged a smart recovery in FY11 and the growth momentum continued to be healthy in FY12.

While Nepal, Bangladesh, Sri Lanka and the United States remain major export destinations, the expanding footprint of Indian tractor manufacturers in African and new South-East Asian markets is expected to drive export growth over the medium-to-long term. Export to neighbouring countries such as Thailand, Malaysia and Indonesia is also supported by the Asian Free Trade Agreement, giving way to falling duty structure among member countries. Further, export volumes are expected to benefit from the introduction of higher HP tractors by Indian manufacturers. TAFE, M&M, and John Deere are the major tractor exporters from India.

Indian Tractor Industry - HP-wise Performance

Sales to witness polarization towards high- and low-powered segments

Chart 10: Movement in HP-wise Segment Mix



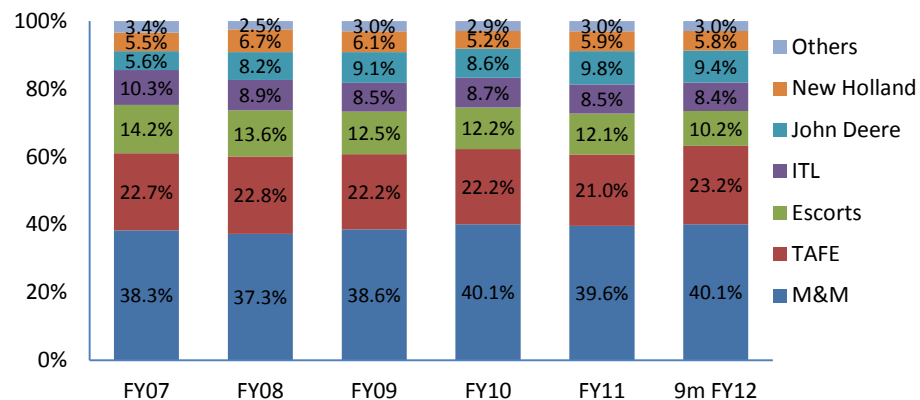
Note: Due to classification issues in industry data, sales in <20HP segment is higher than that represented above Source: CMIE Database, ICRA Research

The Indian tractor market has traditionally been a medium HP market, with 31-40 HP tractors accounting for over 45% of industry volumes. The industry is, however, witnessing polarization, with higher growth in the upper and lower HP segments, and the rate of growth in medium HP segment remaining moderate. A farmer's choice of tractor size is typically a trade-off between the utility of the tractor (which includes haulage capacity requirement) and its price. Despite higher prices, several factors have led to a structural shift in the industry towards higher powered tractors. The factors include the increasing tractor penetration in southern India, which has traditionally been a higher HP market (due to higher power requirement in paddy fields); replacement demand for higher HP tractors from the northern region; increasing use of tractors in non-agricultural applications and growth in export of higher HP tractors. ICRA expects the change in emission norms for tractors in the >50 HP category and the passing on of cost increases by OEMs to customers (3%-4% increase in Oct 2011) to result in some drop in demand, or trading down by customers over the short term. Nevertheless, growth in the greater than 40 HP tractor market is expected to remain sound. Shift towards higher HP segment augurs well for the tractor industry as it results in higher EBIDTA (earnings before depreciation interest and tax) per tractor. With greater portfolio concentration towards higher HP offerings, market participants like John Deere, New Holland and Eicher are expected to benefit from this change in customer purchase pattern.

Strong underlying demand in the less than 20 HP category has prompted the entry of organised players like M&M; a segment which is currently catered to largely by un-organised players. Accordingly, sale of less than 20 HP tractors saw strong 25.7% YoY growth in 9mFY12; albeit on a small base. With roughly 39% of the area under cultivation contributed by small and marginal farmers (less than 2 hectare land holding) the opportunity in this space are significant; more so in light of very low tractor penetration at present. Also with scarcity of farm labour and rising cost of bullock carts, the trend of ownership of small and less expensive tractors by marginal farmers is catching up. Apart from lower initial costs, these tractors deliver better fuel efficiency when compared to their higher powered cousins, making it viable for small farmers to upgrade from a bullock cart to a tractor. While currently M&M and VST tillers are the only two large players that have presence in this sub Rs 2 lakh tractor market others like ITL and Escorts are expected to enter this segment soon. However, restricted application to soft soil conditions, competition from second hand market of higher HP tractors, and limited credit worthiness of marginal farmers are some of the factors that shall also influence the growth in the sub 20 HP tractor market.

Indian Tractor Industry- Competitive Landscape

Chart 11: Trend in Market Share of Tractor OEMs



Source: CMIE Database; ICRA Estimates

Competitive Pressures from Supply Side Growth

The Indian tractor industry has 13 national and a few regional participants. The market share is, however, concentrated amongst the top-five manufacturers, accounting for over 90% of total volumes. With relaxation of the FDI in agriculture to boost productivity, large international participants such as AGCO Corporation, CNH Global and John Deere entered the Indian market long time back. Most of these international manufacturers have continued to maintain their presence in India either through their wholly-owned subsidiaries or through joint ventures and technical collaborations with Indian companies, as can be seen from Table-3. While the tractor industry has relatively low entry barriers in terms of technology, costs involved in branding, distribution network and spare parts availability act as barriers. Also, as most of the sales are based on word-of-mouth feedback, a new entrant is expected to take considerable time to establish itself and pose a serious threat to industry incumbents.

The tractor industry has witnessed consolidation in 2005 and 2007 with merger of manufacturers such as Eicher Tractors and Punjab Tractors and with TAFE and M&M, respectively. While the competitive landscape for the industry is unlikely to change in the near term, the industry is expected to face the pressures from significant increase in tractor manufacturing capacity

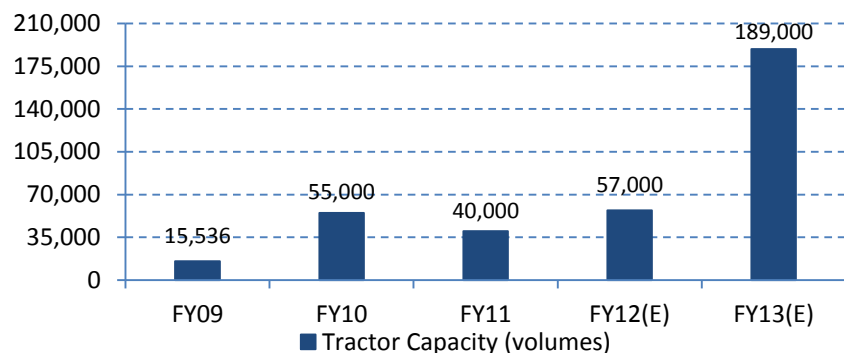
Table 3: Linkages of Domestic Tractor Manufacturers with Global OEMs

Company	Collaborator/Promoter	SOP	Remarks
TAFE	Messey Ferguson. UK	1961	AGCO Corporation, owner of Massey Ferguson, is amongst the top three farm equipment manufacturers in the world.
Escorts	Ford Motors Company ,USA	1971	In 1995, Escorts Limited bought the stake of its JV partner, Ford Motor Company (FMC), USA and made Escorts Tractors Limited its subsidiary
John Deere	Deere & Company, USA	1999	Commenced as a 50:50 JV with Larsen & Toubro Limited; Deere & Company acquired nearly all of the shares of its JV partner in 2005.
New Holland	Case New Holland Global	1999	New Holland Fiat India is a 100% subsidiary of USD 15bn. CNH Global, a majority owned subsidiary of the Fiat Group
VST Tillers	Mitsubishi Agricultural Machinery Company Ltd, Japan	1967	Entered into financial and technical collaboration to manufacture tractors in 1984
SAME	Same Deutz- Fahr. Italy	1999	In 2002, SAME bought the shareholding of Greaves in their JV

Source: ICRA Research; Note: SOP- Start of Production

Indian Tractor Industry – Manufacturing Capacity

Chart 12: Trend in Addition of Tractor Manufacturing Capacity by Key OEMs



Note: chart does not include volumes of John Deere's brownfield expansion and ITL's Greenfield expansion. Source: ICRA Research, CMIE Database

Table 4: Capacity Enhancement Projects Announced by Market participants

Company	Location	Capacity Units/annum	Investment Rs. Crore	Completion Date
Recently completed				
Rajkot Tractors	Rajkot	12,000	NA	Nov-11
ITL	Hoshiyarpur	20,000	NA	Sep-11
Escorts	Faridabad	25,000	NA	Jun-11
Greenfield				
ITL	Bihar	25,000	55	NA
M&M	Zaheerabad AP	1,00,000	300	Jul-12
John Deere	Dewas, MP	50,000	350	Sep-12
VST Tillers	Hosur, TN	30,000	100	Dec-12
New Holland	Greater Noida, UP	30,000	220	Dec-13
Escorts	Undecided	50,000	NA	~May-13
Brownfield				
SAME	Ranipet, TN	9,000	20	Jun-12
John Deere	Pune, Mah	NA	90	Sep-12
HM	Pinjore, Haryana	15,000	NA	Nov-13

Source: ICRA Research, Media Articles

Industry in capacity augmentation phase

Prolonged industry up-cycle and favourable demand outlook over the medium term have prompted market participants to enhance their manufacturing capacity. Almost all the major manufacturers have announced capex plans for the next 1-2 years and the industry's capex budget for the FY12-FY14 period is estimated at Rs. 1400 crore. During YTD FY12, additional manufacturing capacity of 57,000 units has come on-stream. As per estimates, a large capacity of 2.8 lakh units is expected to get commissioned in 2012-2014. Of this, about 50% is expected to come up in southern India. To improve its penetration in the southern states, M&M is currently setting up a greenfield manufacturing facility at Zaheerabad, Andhra Pradesh with a capacity of 1 lakh units. VST Tillers also has plans to open an additional plant with capacity of 0.3 lakh units at Hosur in Tamil Nadu.

Tractor manufacturers are dependent on ancillaries, which are mostly SMEs, for components such as castings, steering assemblies, gearboxes and brake assemblies. The ability of tractor component suppliers to augment manufacturing capacity at a commensurate pace would be critical for the successful implementation of growth plans of Indian tractor manufacturers.

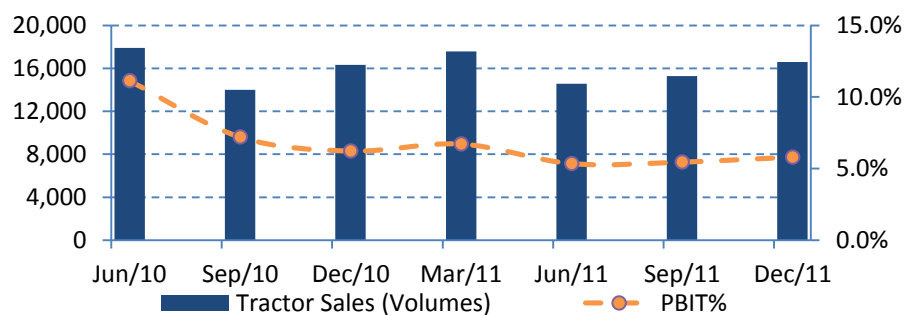
India is gradually gaining acceptance in the international tractor export market. Accordingly, apart from cash outflows related to capex, ICRA also expects the industry to increase its investments into R&D to meet global safety standards and emission norms.

Indian Tractor Industry – Financial Performance

Notwithstanding strong demand during 9mFY12, hardening of steel and rubber prices has affected the profitability of tractor manufacturers. Although market participants have increased prices and benefited from higher operating leverage from expanded sales, most have not managed to completely off-set the hike in input costs or raised prices with a lag. In ICRA's view, the price increases by some tractor OEMs between Oct-11 and Jan-12 and commodity prices coming off peak levels should help the industry report some improvement in margins from their 2011 levels in the current quarter. However, the supply-demand dynamics in the domestic market shall undergo a shift with large manufacturing capacity coming on-stream in H2 2012, which could affect the pricing power of Industry participants, ultimately putting pressure on operating profitability.

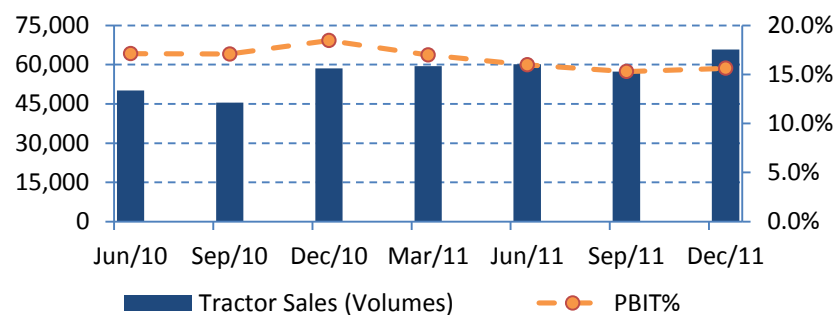
Escorts has lost market share (190 basis points) in 9mFY12 on account of its limited presence in the high growth regions of southern and western India and slower growth in matured markets of northern India. Even in the northern region, the company had to face increasing competition from other players. Although M&M improved its market share by 20bps to 40.1% in 9mFY12, its YoY volume growth during Q3FY12 at 11.7% was lower than the overall industry growth of 12.7%.

Chart 13: Trend in Quarterly Sales Volume and PBIT% (Agri-Machinery) of Escorts



Source: Company Press Releases; ICRA Estimates

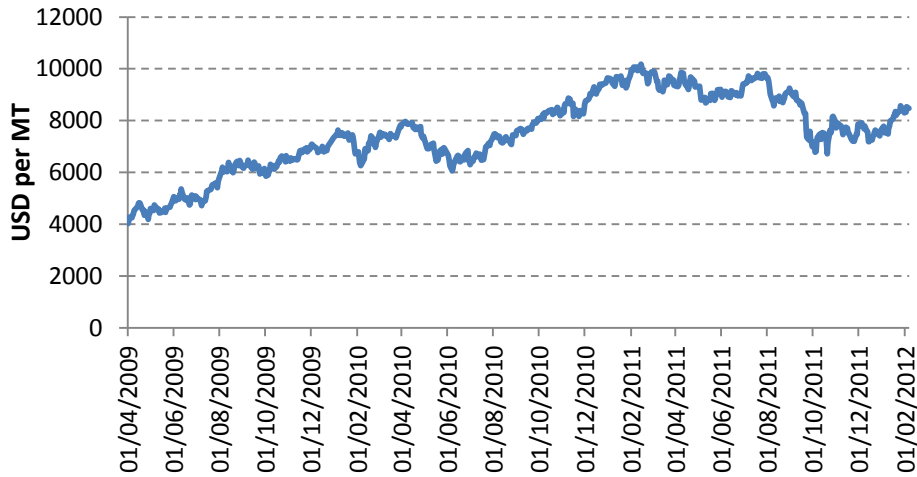
Chart 14: Trend in Quarterly Sales Volume and PBIT% (Farm Equipment) of M&M



Source: Company Press Releases; ICRA Estimates

Annexure-1: Trend in Commodity Price Movement

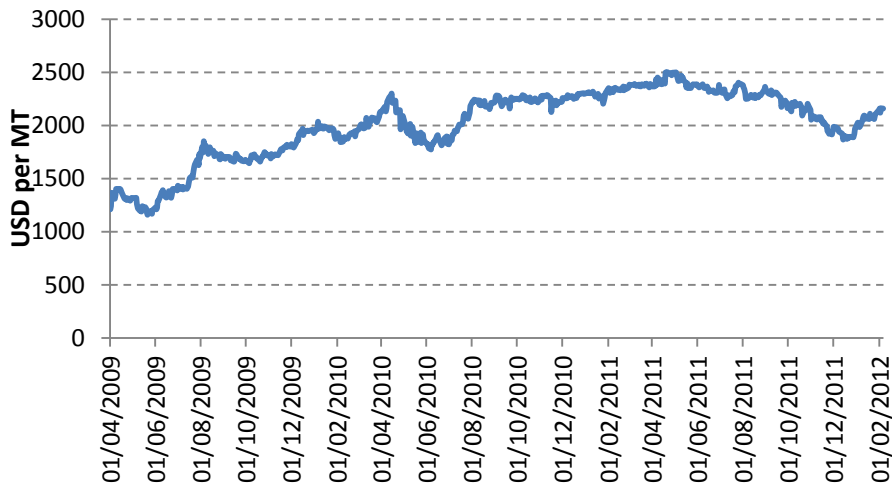
Trend in Price Movement of LME Copper



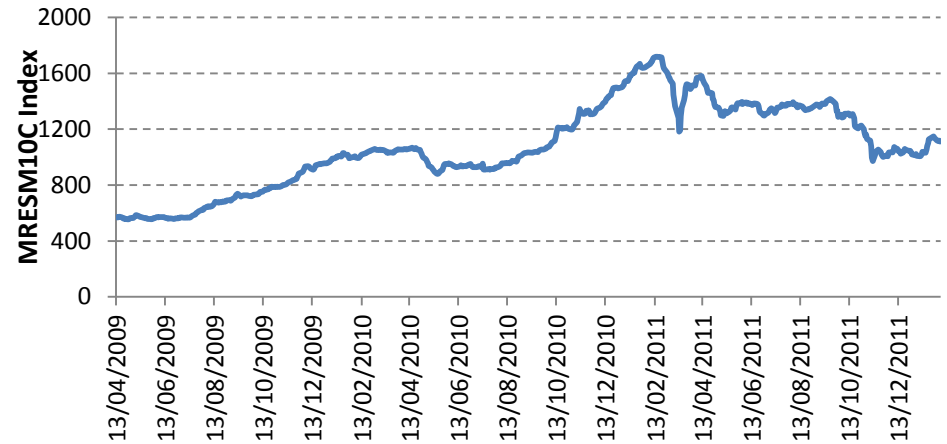
Trend in Price Movement of LME Steel Billet



Trend in Price Movement of LME Primary Aluminum



Trend in Price Movement of Rubber (Malaysian Rubber Board, Standard Rubber)



Source: Bloomberg

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