

Will the MHCV Tyre Industry finally go radial?

The Radial Revolution is finally catching on. As India radializes, wide ranging repercussions are expected.

In the past, the Medium and Heavy Commercial Vehicle (MHCV) segment in India has been tardy in adopting radial tyres. However, Arindam Chakrabarti, Abhishek Rathi and Amita Khattri of Tata Strategic Management Group argue in favour of explosive radialization post 2010 and describe possible structural shifts in the domestic tyre industry

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Radialization levels in tyres worldwide have stabilized with the US, EU and Japan operating at 95~100%. China at 70% is fast catching up with the developed world.

However, even though 95% of passenger cars sport radial tyres, India remains largely a cross-ply market. This is because radial penetrations in the MHCV segment, which account for 65% (by weight) of the market, remain at a paltry 4% (*Figure: 1*).

Is this likely to continue? Or are we likely to witness a dramatic change during the next decade?

Figure: 1– Growth in radialization (% of total)

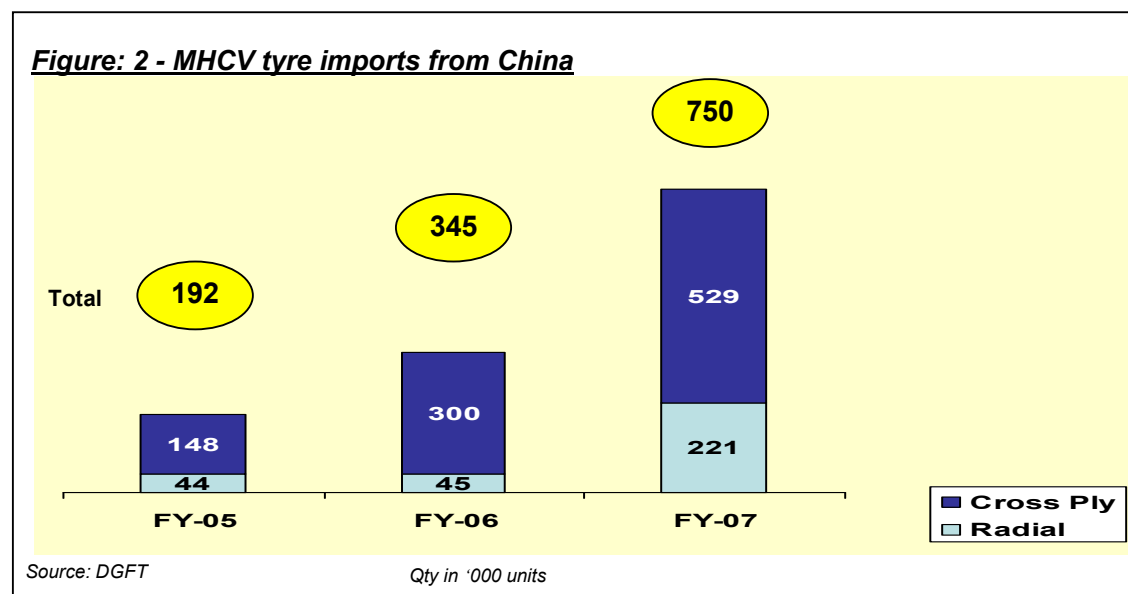
Segment	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07
Passenger Cars	51	65	70	75	85	87	90	95
MHCV	1	2	2	2	2	2	3	4

CrisInfac / Industry Sources

Lead Indicators:

- **Imports from China**

Analysis of MHCV tyre imports (*Figure: 2*) over the last 3 years indicates increasing acceptance for Chinese tyres. Chinese imports have clearly stamped their presence by growing over 3-fold in volume terms over the last three years. This has increased the competitive intensity and united domestic manufacturers in their demand for increased protection.

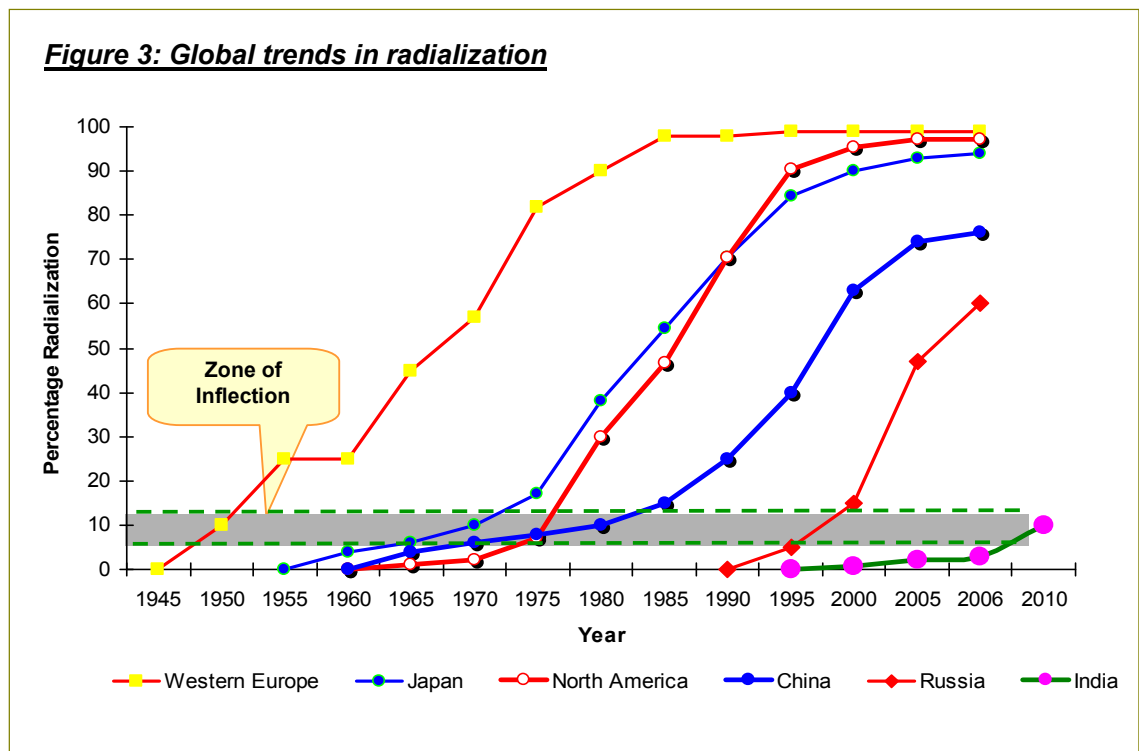


While imports have largely been of the cross-ply variety, the recent sudden spurt of radial imports is worth noting. Radial tyre import which was fairly stable at 45,000 per annum in FY'05 and FY'06 has shot up 5-fold in FY'07 clearly hinting at a possible shift in trend.

- **Learning from global experience & Zone of Inflection**

A study of usage of radial tyres across various markets indicates that adoption has remained modest till a radialization level of 9~11% is achieved (*Figure: 3*). In the past, markets have exhibited growth along a S-curve once this level or “zone of inflection” is breached.

Going by current trends, India is expected to enter this zone of inflection by 2010-11 after which domestic demand for MHCV radial tyres may emulate the experience of other countries.



Source: Industry Literature

Factors that will promote radialization:

- *Proven Benefits:* There is wide spread acceptance among end users that radial tyres offer significant operational and cost benefits as compared to cross-ply tyres given quality road infrastructure.

Percentage radialization is expected to move in tandem with the National Highway Development Program (NHDP). National Highways in the country account for ~40% of total road traffic. Investments under NHDP are expected to make at least 25% of the road length under National Highways “radial-worthy” by 2012.

Benefit comparison between Cross Ply & Radial tyres

Performance Factors	Radial	Cross Ply
Life	✓	
Fuel Consumption	✓	
Safety	✓	
Total cost of Ownership	✓	
Maneuverability	✓	
Overloading		✓

✓ - indicates better performance

- *Factory fitted radials as a differentiated offering:* Primary surveys suggest that commercial vehicle manufacturers are planning to introduce radial tyres for 30%~40% of new MHCV sales by 2010.
- *Overloading restrictions coupled with better road infrastructure:* With stricter curbs against overloading of trucks in place along major freight corridors, the benefits of cross-ply tyres will wane in the medium term.
- *Growth in multi-axle vehicles:* Increased containerization of domestic road freight movement is expected to drive demand for multi-axle trailers. Globally, tractor-trailers have performed better with radial tyres.

Domestic Tyre Industry: In a state of paralysis?

As per current estimates, the overall demand for MHCV tyres is expected to reach ~14.5 million numbers by 2010-11. With radialization levels breaching the 11% mark (*Figure: 3*), domestic demand for MHCV radials is expected to be 1.5 million - marking the likely beginning of the S-curve.

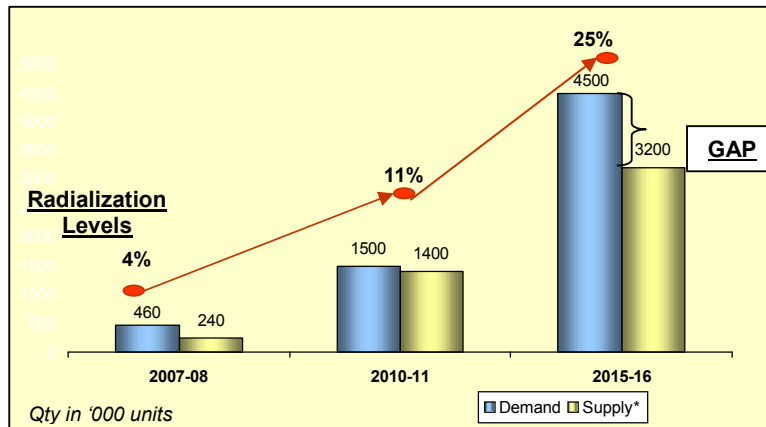
Operating along this curve, it is possible that the MHCV segment may achieve ~25% radialization levels by 2015. This is expected to result in a whopping jump in annual MHCV radial tyre demand upto ~45 lakh tyres.

The domestic players, who dominate the MHCV tyre industry today, are skeptical about this explosive demand actually materializing. With planned capacities of only ~20 lakh radial tyres/year coming up by 2010 -11, their response has been cautious.

This cautious approach may leave domestic tyre companies vulnerable in the years to come. Original Equipment Manufacturers and other Bulk Buyers have expressed concerns on the ability of domestic tyre manufacturers to support them. Banking on the emergence of a stronger rupee, they are planning for imports as a serious alternative. Large trading organizations have already chalked out plans to market Chinese tyres by importing them in a big way.

Meanwhile, global tyre majors, who have global capacities on tap, are observing the Indian market and biding their time before making any investment decisions.

Figure 4: Possible Demand-Supply Scenario (MHCV Radials)



- 25% radialization levels in 2015 will require huge capacity additions
- Planned capacities by domestic players may not cope with the surge in demand
- Huge investments required to ramp-up capacities will be a big challenge for the domestic industry

Given the structural upheavals likely, industry observers need to search for answers for the following strategic issues:

- Where will the supplies come from? Will imports be able to bridge the gap or will there be further domestic capacity additions? In case of the latter,
 - Will domestic players have access to technology when MNCs have been averse to providing technology through licensing or JV agreements?
 - Will they have the appetite to commit huge investments upfront?
- Major radial capacities in MHCV segment by domestic majors, which have been publicly announced, are likely to be on stream by 2010 only. By then, going by current trends, imports will have a large enough brand-share in the domestic market. Assuming, incremental capacities being set up are enough to meet demand, will the domestic players be able to wrest market share from imports?
- With increasing radialization, there is likely to be a glut in cross-ply tyre capacity. Where will the domestic players scout for new markets? With the threat of surplus capacities looming large, the incumbents will be hard pressed to manage costs and eke out profits
- In spite of their global dominance, MNCs like Michelin, Bridgestone etc. have maintained a low profile in the MHCV segment. Will they now finally bite the bullet and commit investments in India?

Clearly the structure of the industry is headed for a major transformation. Players who assess these discontinuities dispassionately and correctly will emerge as the winners.