



OTRACO

State of the Earthmover Tyre Industry

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MINING MAGAZINE CONGRESS 2010

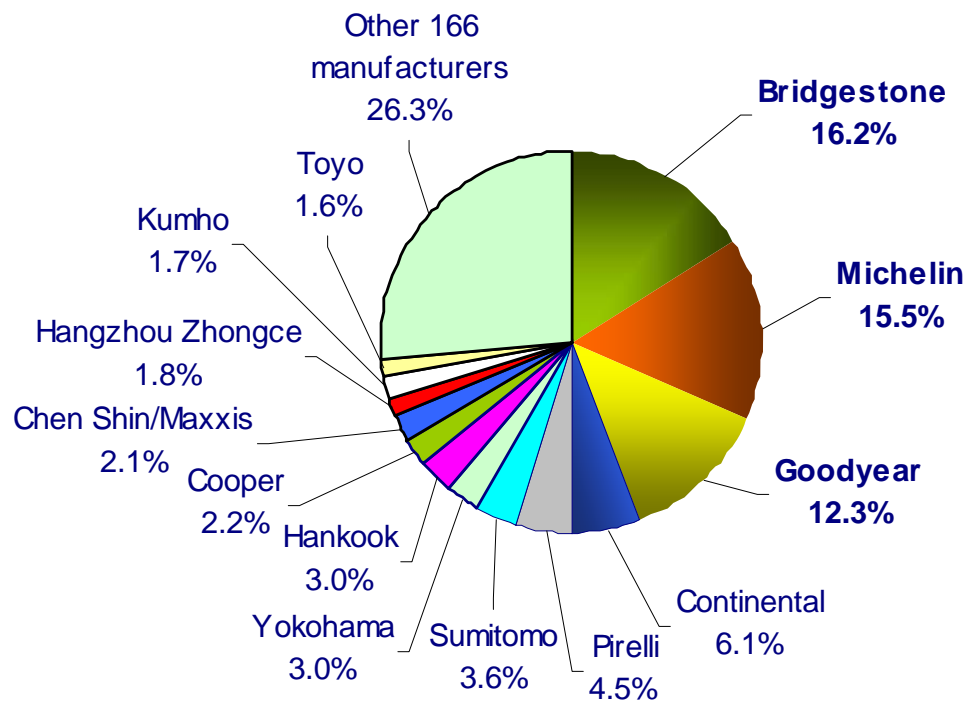
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Global Tyre Industry - Manufacturers

Global tyre industry 2009 (US\$126.5B)
 Manufacturers (all tyre categories)

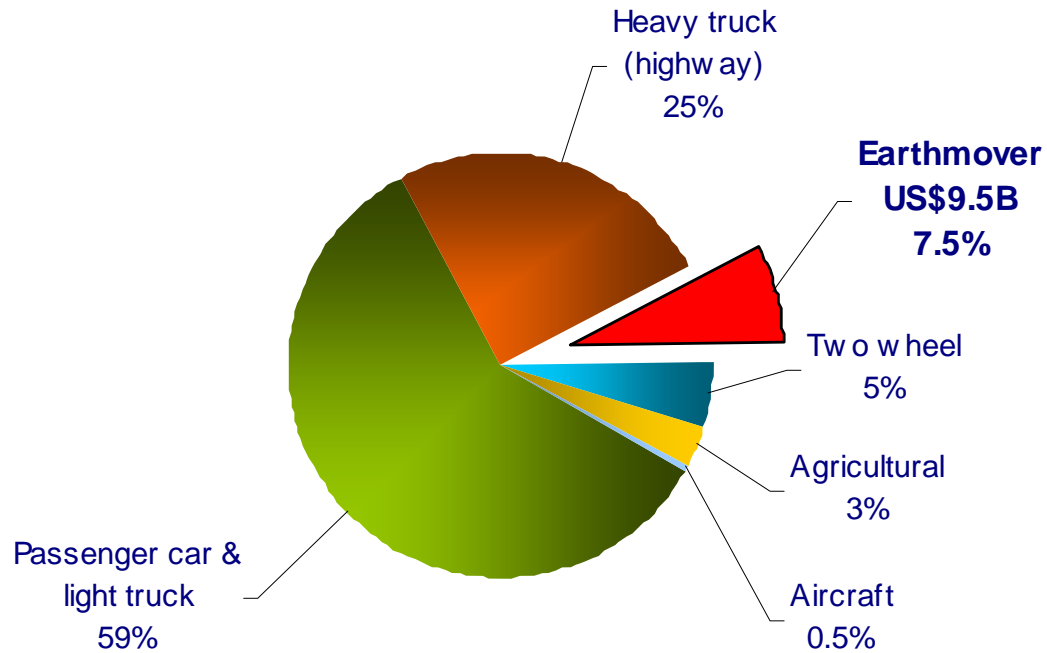


Data source: ERJ

Global Tyre Industry - Categories

Global tyre industry 2009 (US\$126.5B)

All tyre categories

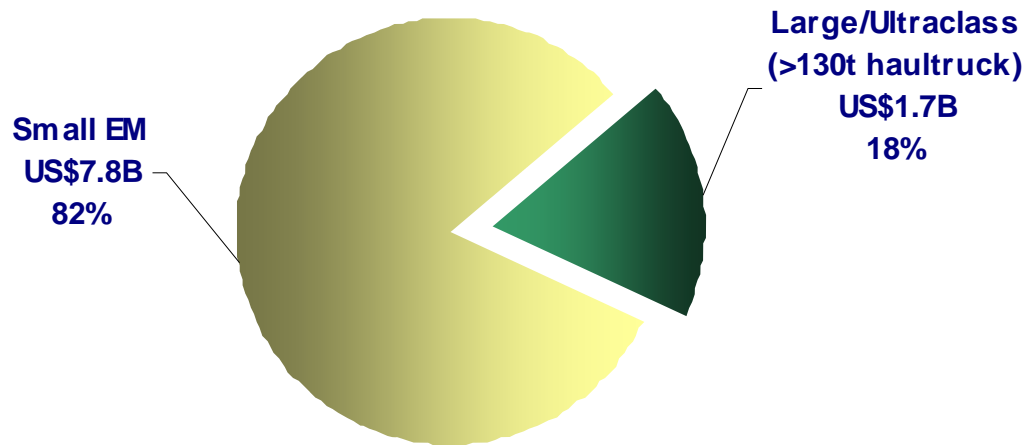


Data source: ERJ, HSBC, Otraco

EM Tyre Market

Earthmover tyres 2009 (US\$9.5B)

Large/Ultraclass vs. Small EM

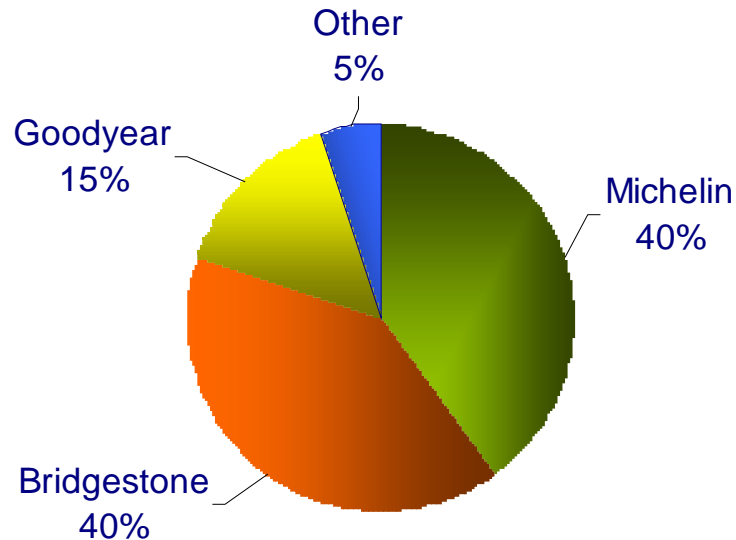


Data source: HSBC, Otraco

Large/Ultraclass EM Tyres

Large/Ultraclass EM tyres 2009 (US\$1.7B)

>130t haultrucks



Data source: HSBC, Otraco



EM Tyre Manufacturers – “*Big-3*”

- **Bridgestone-Firestone**
 - to 63”
 - mainly radial, some bias ply (eg. big FEL)
- **Michelin**
 - to 63”
 - radial only
- **Goodyear**
 - to 57” (*63” in 2011*)
 - mainly radial, some bias ply



EM Tyre Manufacturers – *Others*

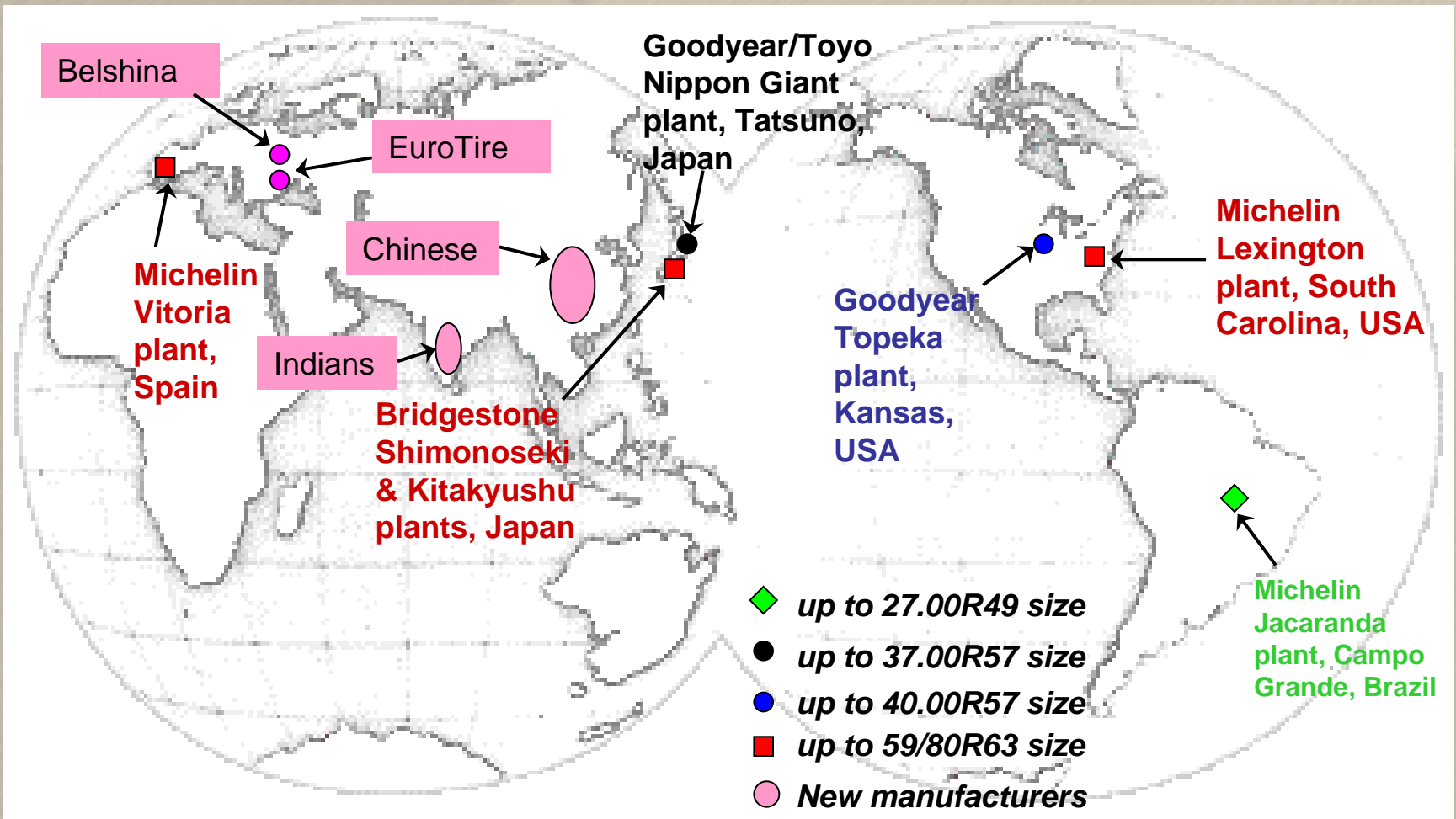
- **Yokohama & Toyo**
 - to 57”
 - radials in small sizes, bias ply for large
- **Titan**
 - to 63”
 - nylon radial casing
- **Belshina**
 - to 57”;
 - mainly bias ply, radials being developed
- ***Others***
 - many to 57”, some plan 63”
 - mainly bias ply, radials being developed
 - most Chinese, Indians entering, 1 Eastern Europe



Tyre Specs – Larger sizes

Tyre size	Truck class (tonne)	Diameter (mm)	Weight (tonne)	Load rating (kg)
40.00R57	220	3,560	3.5	60,000
50/90R57	270	3,810	4.1	77,000
53/80R63	290	3,750	4.3	83,000
55/80R63	325	3,890	4.7	95,000
59/80R63	360	4,025	5.3	100,000

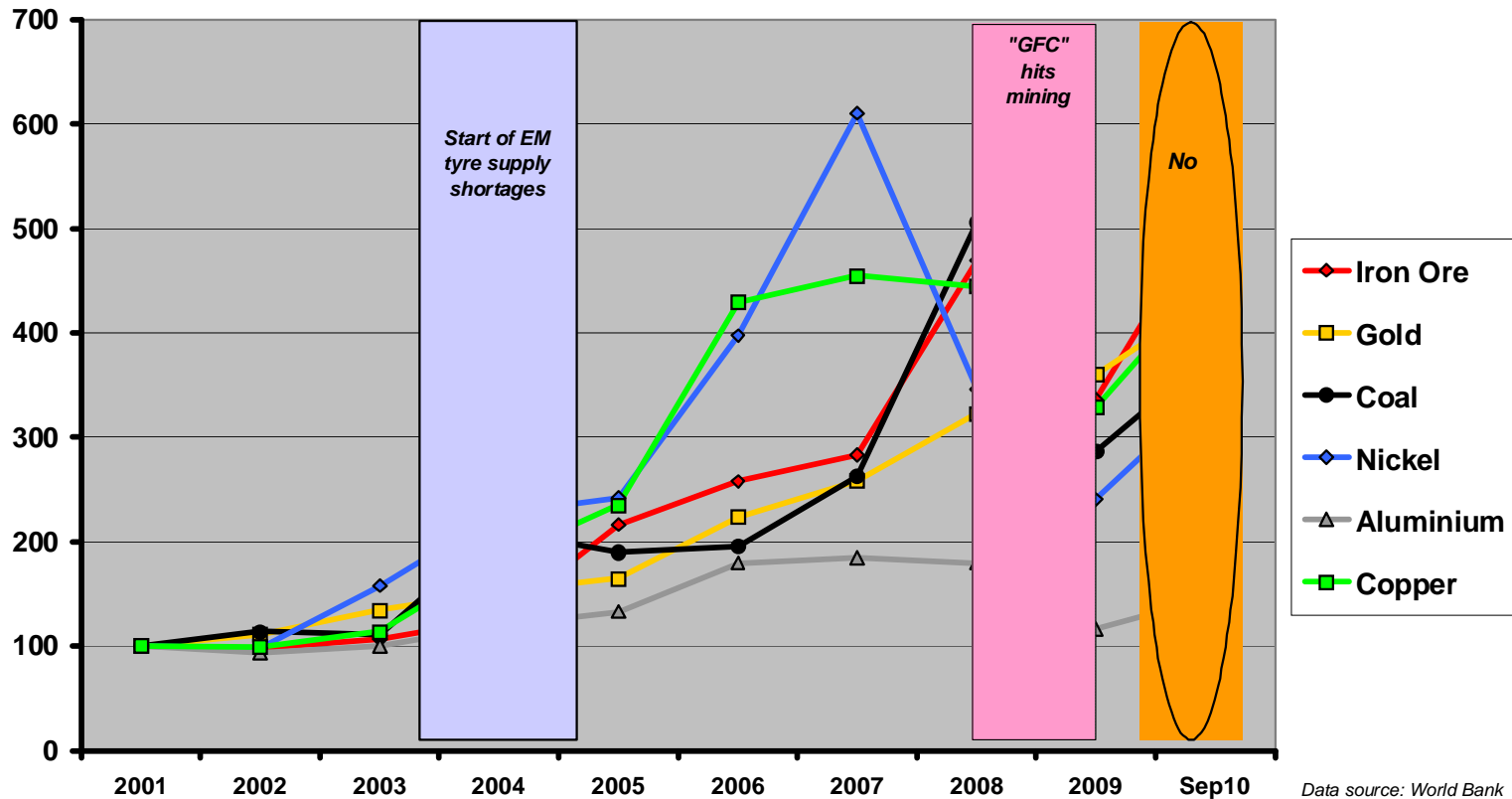
EM Tyre Plants



Commodity Prices

(what makes mining go 'round)

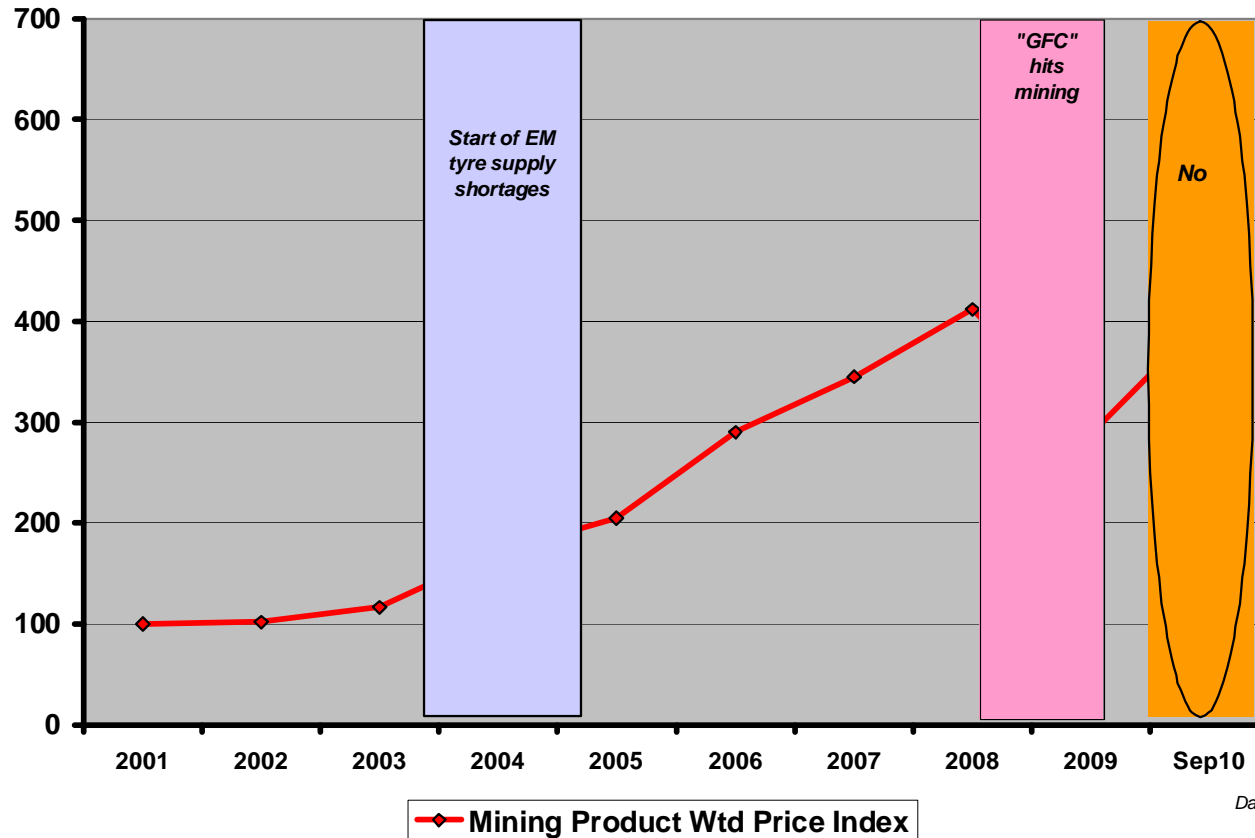
Commodity Price Indices 2001-2010 (2001: base of 100)





Commodity Price as Tyre Demand Indicator

Commodity Price Index 2001-2010 (2001: base of 100)

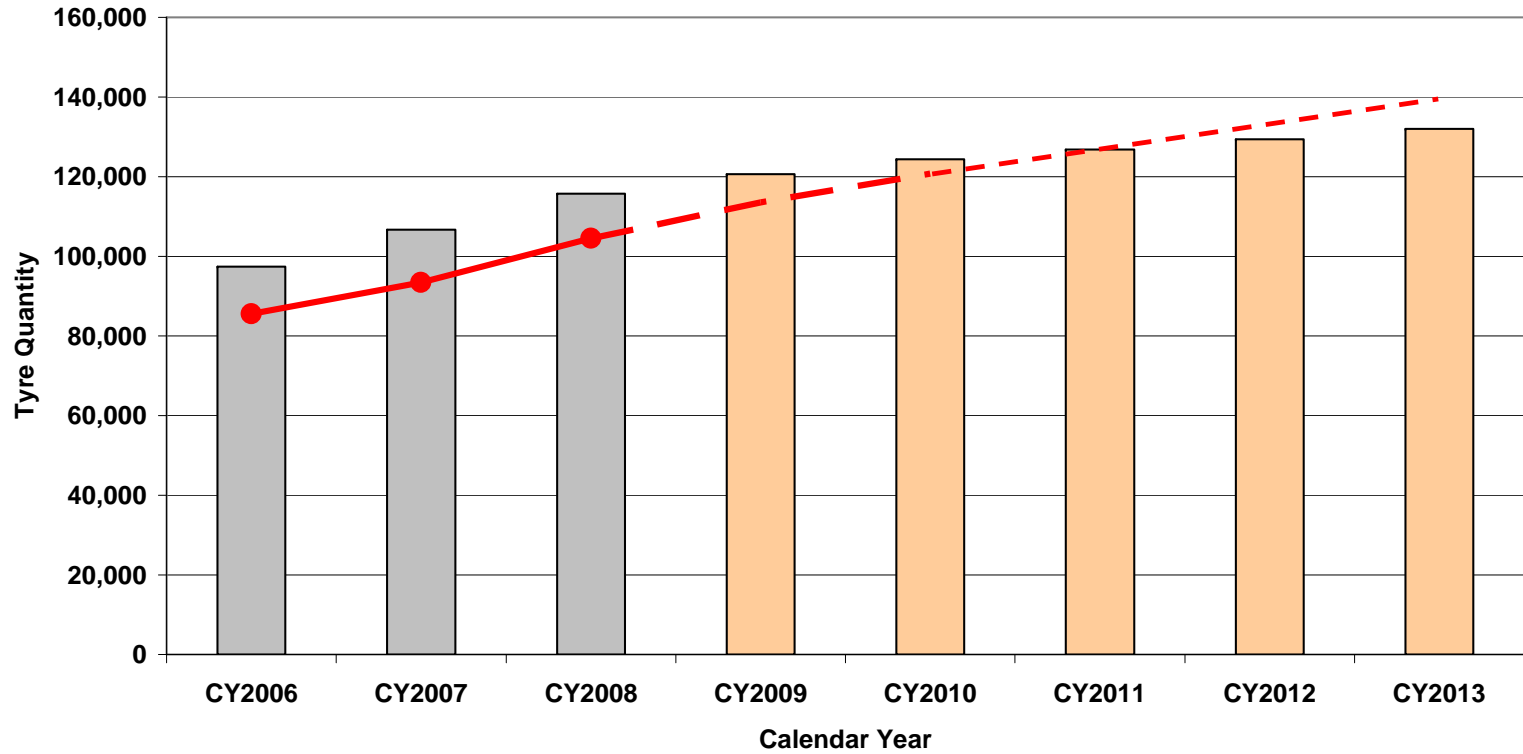


Data source: World Bank & Otraco

EM Tyre Supply vs. Demand – Oct 08

**Tyre
Surplus**

Global Supply Vs Demand - 27.00x49 to 59/80x63



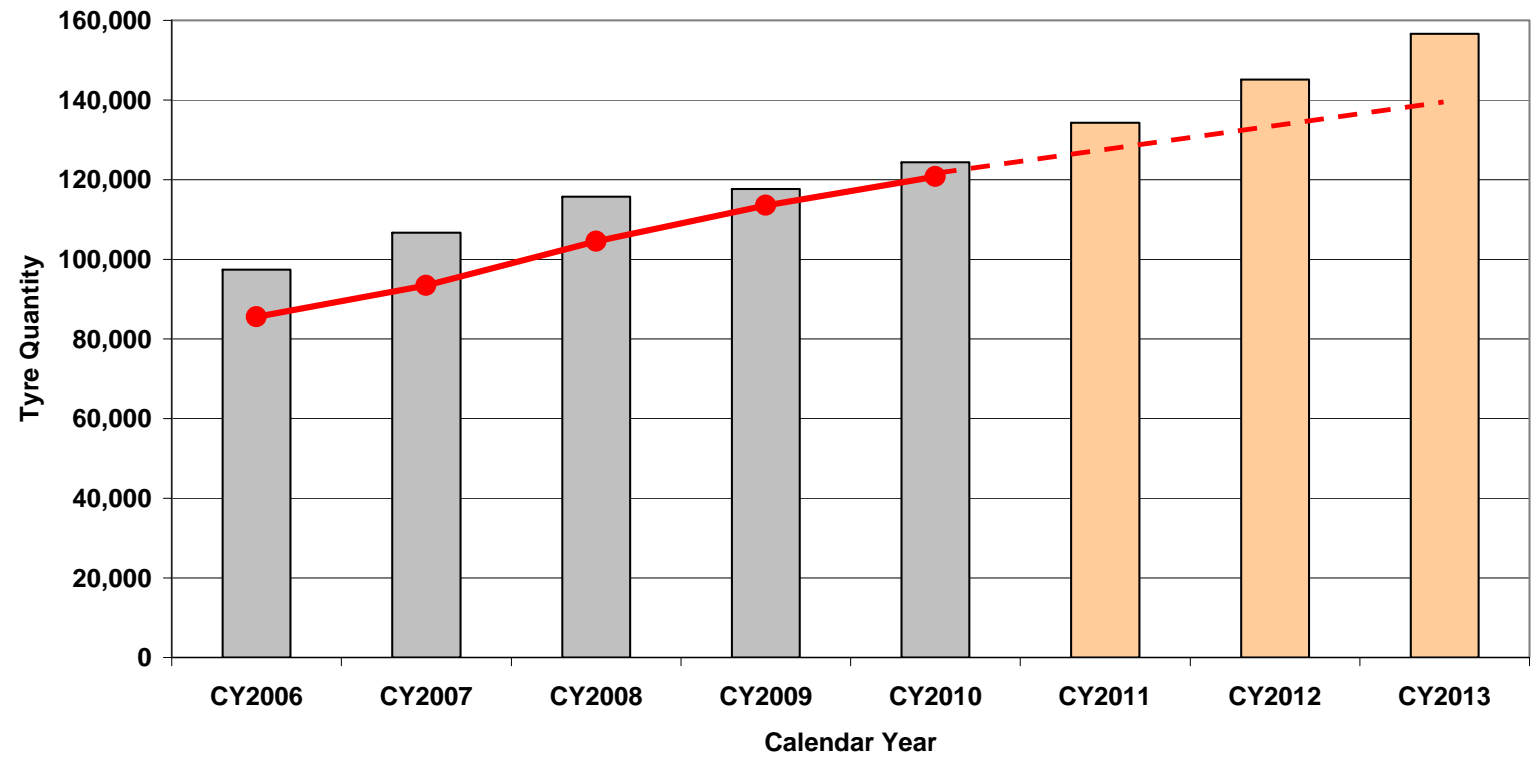
Demand of Equip Big-3 Radials
 Supply of Equip Big-3 Radials

Otraco estimates

EM Tyre Supply vs. Demand – Now

Tyre Shortage

Global Supply Vs Demand - 27.00x49 to 59/80x63



Demand of Equiv Big-3 Radials
 Supply of Equiv Big-3 Radials

Otraco estimates



EM Tyre Demand

- Growing proportion of large haultrucks
 - 230-255t: *57" tyres*
 - 290-360t (ultra-class): *63" tyres*
- Mining expansion
 - Africa
 - Asia
 - South America
 - Australia, Canada
- New mega-projects
 - *Moatize Mozambique, Oyu Tolgoi Mongolia*



Lessons Learnt

- Benefit from past 10 year's experience
- Elastic demand; inelastic supply
- Lock in improvements we have made
- Long term tyre supply agreements
- Warranties



Things to Stay Focused On

- Tyre selection
- Tyre maintenance
- Tyre operation
- Tyre awareness
- Tyre supply agreements
- Recycling



Supply Outlook

- Shortfalls (since 2004)
 - Eased with GFC (Aug 08)
 - Back again in earnest
- Problematic supply sizes
 - Small to mid-size haultrucks (90-150t)
 - Ultra-class haultrucks (>300t)
 - Mid-size loaders
- 63" tyres
 - New entrants, but Michelin & Bridgestone have solid lead
- Other brand(s) as major player?
 - Chinese / Other?

End of Presentation - Thank You



Reducing Your Tyre Costs