Pricing and rate fixing in Railways and Railways' dealing with Ports to improve freight loading

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Types of CARGO MOVEMENT

Transportation of goods through Rail can be broadly classified in following three categories based on their packaging and handling requirements.

Liquid Bulk

- Crude Oil, POL, Fuel Oil, Vegetable oils

Dry Bulk

- Coal, Fertilizers, Food Grains, Cement,

Break Bulk

- Steel coils, Bales, Bagged commodities, Containers

Break Bulk

Break Bulk can be further classified into two categories:

Non Containerised break bulk

- Can be transported in a container or placed directly on or inside the rail wagons like steel coils, cement bags, foodgrains bags, cotton bales, drums

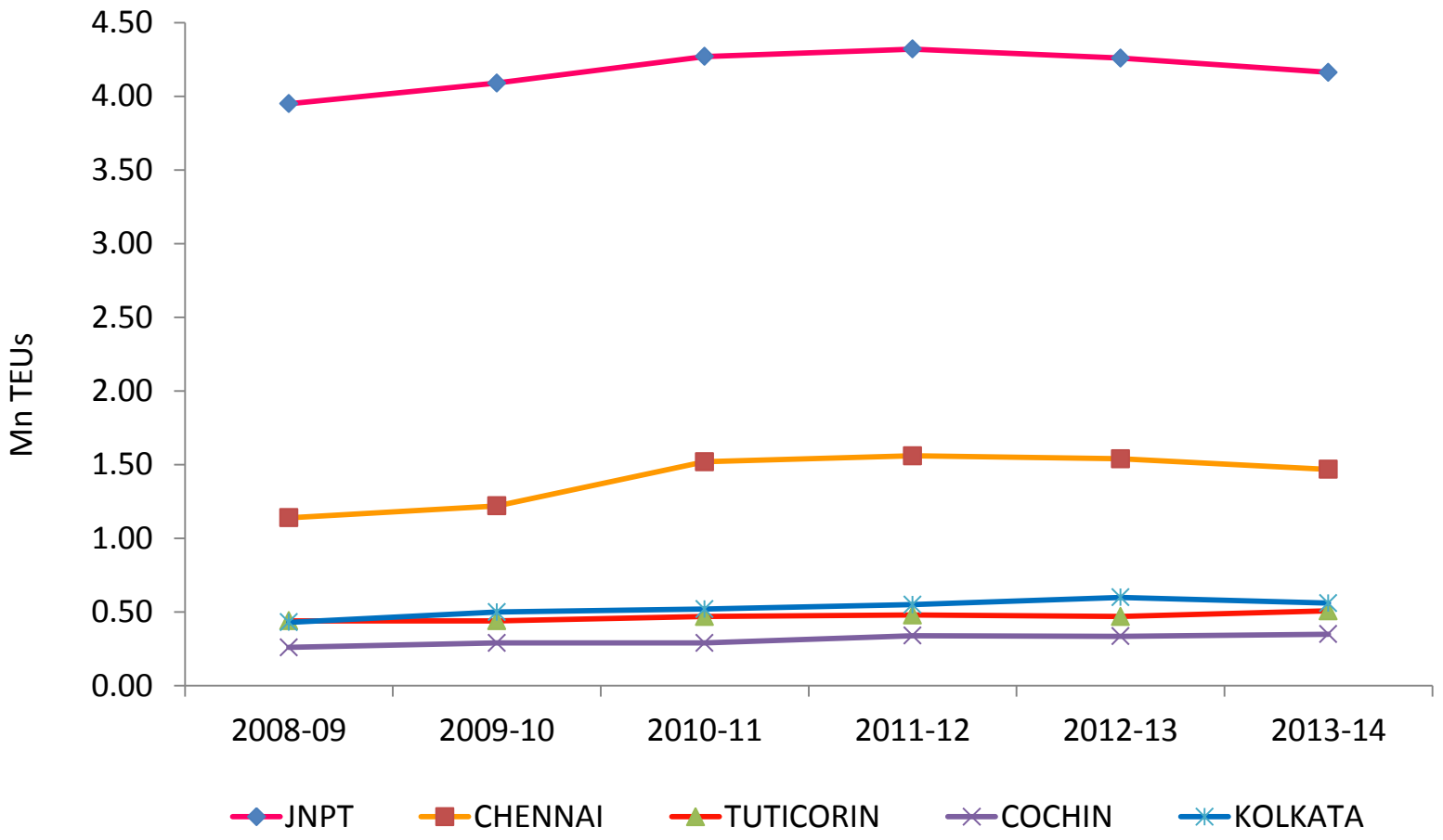
Containerised break bulk

- Any product stuffed into a 20’ / 40’ standardised container and sealed to be transported

TRENDS – INDIA vs OTHERS

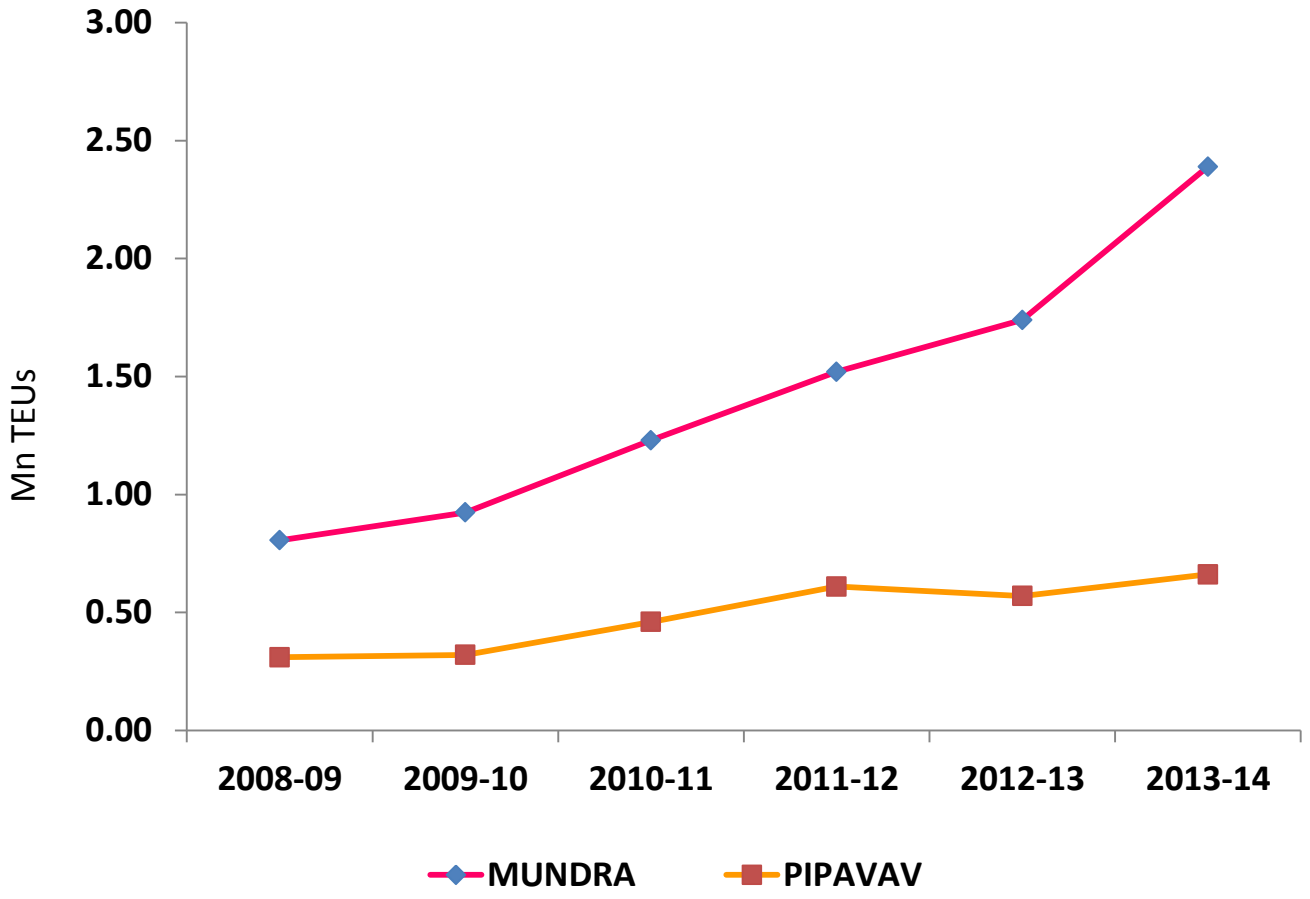
- The level of Containerization in India is still at a level of 45-48% in India compared to 65-75% in the developed countries.
- During 2009-13, container traffic at Indian ports grew at a CAGR of around 7%.
- Share of containers in total traffic increasing; From 18% in 2008-09 to 22% in 2012-13. In 2012-13, container traffic grew by 1.2% over 2011-12.
- Container traffic at non-major ports has been seeing a much higher growth rate as compared to the major ports, with a CAGR of close to 30% during 2005-10.
- More than 90% of this growth has come from through the Mundra and Pipavav ports in Gujarat.
- Currently, top 3 container ports i.e. JNPT, Mundra and Chennai together control almost 75% of India's total container traffic.

Container Traffic at Indian Major Ports



Major Ports: Containerised traffic at major ports shows a declining trend

Container Traffic at Indian Private ports



Minor ports: There is a continuous growth in containerised volumes at emerging minor ports like Mundra and Pipavav

ISSUES

- Traffic concentration on few ports
- Proliferation of CFS around ports / Discouragement of inland penetration of container for faster turnaround of inventory
- Capacity constraints at major ports
- Lack of adequate Rail Terminals / Inland Container Depots
- Resource sharing
- Lack of last mile connectivity

Commodity distribution at Major ports

PERIOD	Bulk Liquids	Bulk solids			Container	Other Cargo
	P.O.L.	IRON ORE	FERTILIZER	COAL		
FY 2008	1,68,751	91,796	16,630	64,925	92,269	84,943
FY 2009	1,76,138	94,036	18,227	70,399	93,140	78,593
FY 2010	1,75,081	1,00,333	17,717	71,709	1,01,242	95,008
FY 2011	1,79,168	87,059	19,991	72,728	1,14,113	96,973
FY 2012	1,79,104	60,401	20,386	78,785	1,20,097	1,01,364
FY 2013	1,85,981	28,472	14,738	86,660	1,19,821	1,10,118
FY 2014	1,87,312	24,662	13,739	1,04,728	1,14,641	1,10,421

Year	Bulk Liquids	Bulk solids	Container	Others
FY 2008	33%	33%	18%	16%
FY 2009	33%	34%	18%	15%
FY 2010	31%	34%	18%	17%
FY 2011	31%	32%	20%	17%
FY 2012	32%	29%	21%	18%
FY 2013	34%	24%	22%	20%
FY 2014	34%	26%	21%	19%

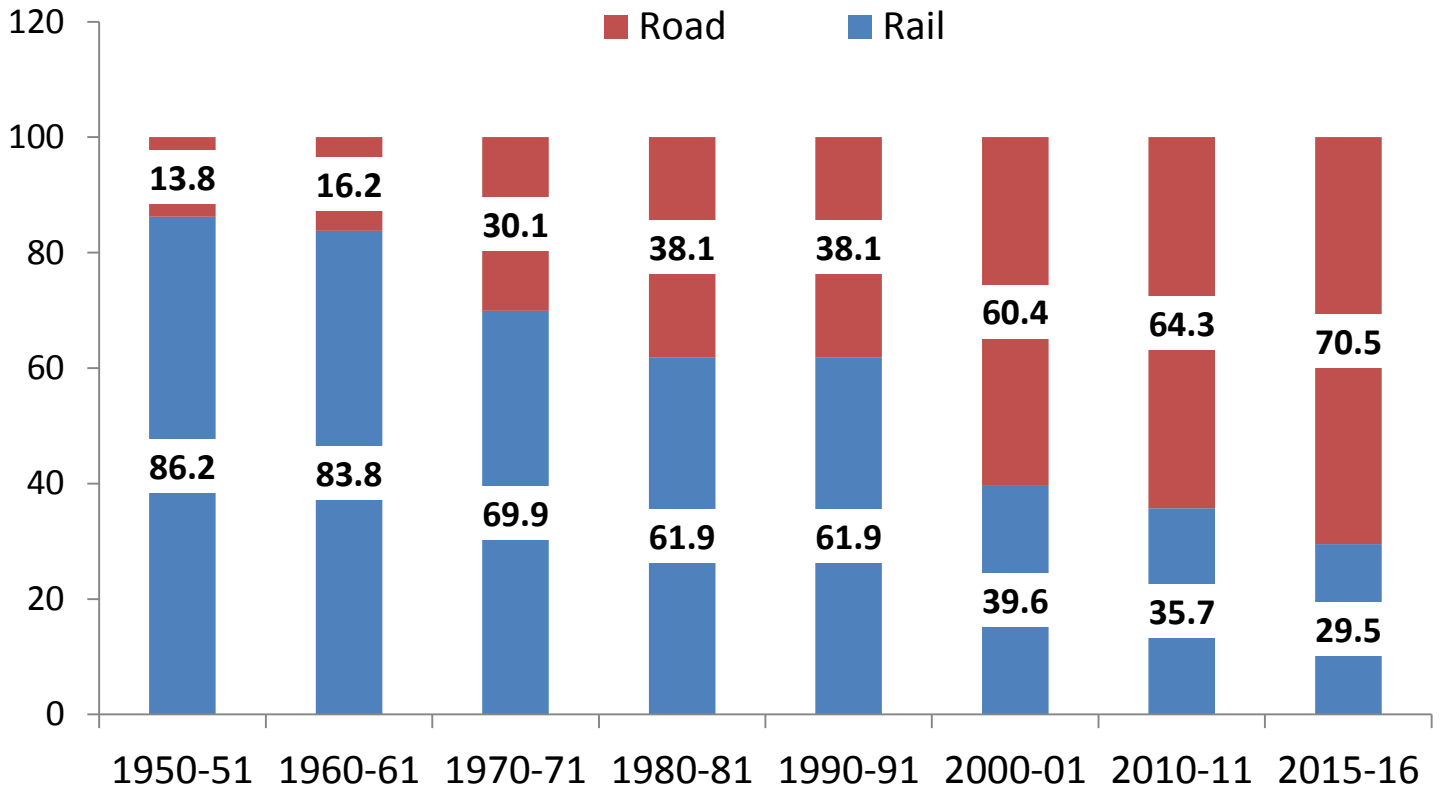
Commodity Ranks in IR Cargo Basket

SN	Commodity	2014-15			2015-16		
		Originating Tonnage	Earnings	Share %	Originating Tonnage	Earnings	Share %
1	Coal	545.81	47,937.51	50%	551.83	49,349.65	50%
2	Raw material for steel plants except iron ore	18.28	1,866.75	2%	20.29	2,004.81	2%
3	Pig Iron & finished steel	42.84	6,544.44	4%	44.79	7,182.29	4%
4	Iron ore	112.77	7,892.86	10%	116.94	6,896.27	11%
5	Cement	109.8	8,738.18	10%	105.35	8,851.47	10%
6	Foodgrains	55.47	8,138.33	5%	45.73	7,754.27	4%
7	Fertilizers	47.41	5,152.07	4%	52.23	6,553.41	5%
8	Mineral oil (POL)	41.1	5,515.66	4%	43.24	5,926.97	4%
9	Containers	48.38	4,333.22	4%	45.83	4,843.67	4%
10	Balance other goods	73.4	6,981.13	7%	75.28	7,577.74	7%
TOTAL		**1095.26**	**1,03,100.15**		**1101.51**	**1,06,940.55**	

Tonnage in Million
Earnings in Rs. Cr.

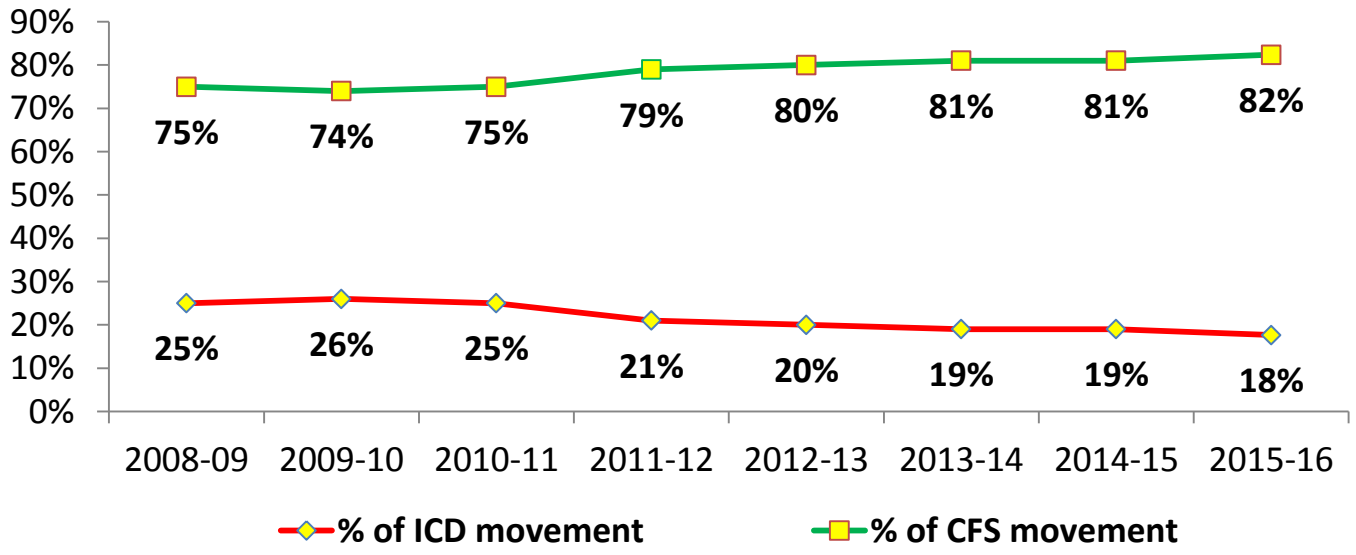
Declining Rail Share over years

The international trade has been shifting away from ICD (by Rail) to port side CFS (by Road) relying more on road transport. Railway's share in the inter-modal sector of International trade has dwindled from 25% in 2008 to 18%.



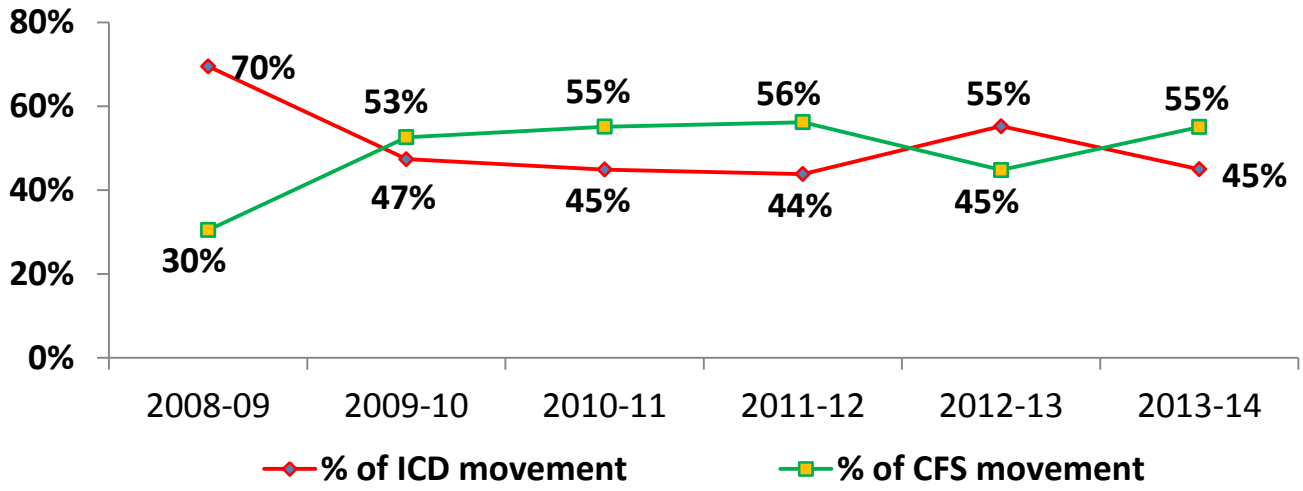
Modal Split of container traffic at JNPT Port

YEAR	ICD Movement	CFS movement	Total Container movement	% of ICD movement	% of CFS movement
2008-09	9,98,439	29,54,331	39,52,770	25%	75%
2009-10	10,56,152	30,05,191	40,61,343	26%	74%
2010-11	10,51,589	32,18,222	42,69,811	25%	75%
2011-12	9,27,013	33,93,889	43,20,902	21%	79%
2012-13	8,67,113	33,92,201	42,59,314	20%	80%
2013-14	7,85,583	33,76,116	41,61,699	19%	81%
2014-15	8,32,883	36,33,812	44,66,695	19%	81%
2015-16	7,91,334	37,00,234	44,91,568	18%	82%



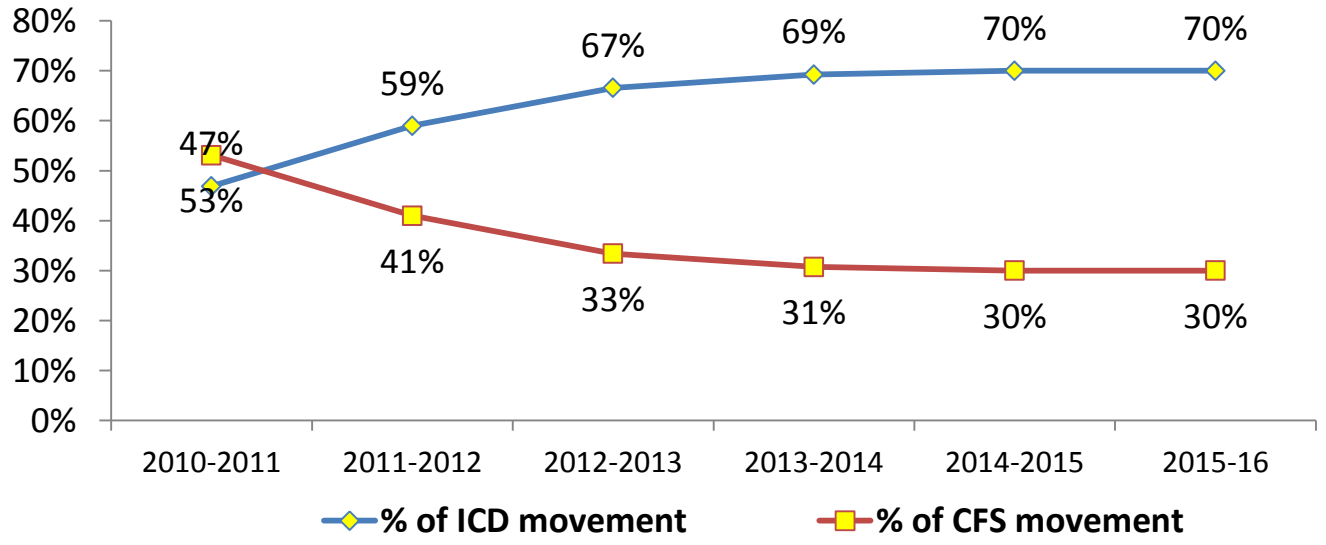
Modal Split of container traffic at Mundra Port

YEAR	ICD Movement	CFS movement	Total Container movement	% of ICD movement	% of CFS movement
2008-09	1,68,891	74,016	2,42,907	70%	30%
2009-10	2,12,244	2,35,655	4,47,899	47%	53%
2010-11	3,04,050	3,73,432	6,77,482	45%	55%
2011-12	3,98,557	5,11,170	9,09,727	44%	56%
2012-13	5,77,514	4,68,149	10,45,663	55%	45%
2013-14	6,87,539	8,41,373	15,28,912	45%	55%
2014-15 (Dec 14)	5,86,600	7,65,981	13,52,581	43%	57%



Modal Split of container traffic at PIPAVAV Port

YEAR	ICD Movement	CFS movement	Total Container movement	% of ICD movement	% of CFS movement
2010-11	2,86,200	3,24,043	6,10,243	47%	53%
2011-12	3,36,617	2,33,863	5,70,480	59%	41%
2012-13	4,40,762	2,21,103	6,61,865	67%	33%
2013-14	5,39,964	2,39,739	7,79,703	69%	31%
2014-15	6,03,996	2,58,855	8,62,851	70%	30%
2015-16	4,86,230	2,08,384	6,94,614	70%	30%

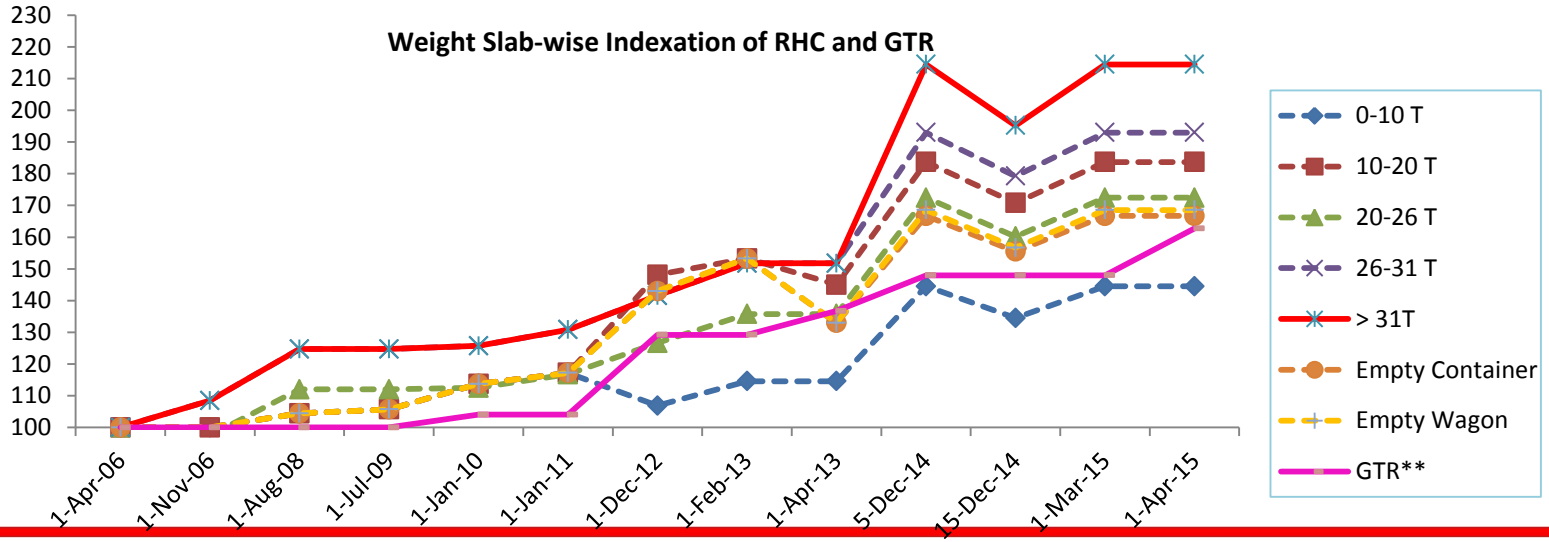


Weight Slab-wise Indexation of RHC and GTR

	RHC*								
Year	0-10 T	10-20 T	20-26 T	26-31 T	> 31T	Empty Container	Empty Wagon	GTR**	WPI Indexed
1-Apr-06	100	100	100	100	100	100	100	100	100
1-Nov-06	100	100	97	108	108	100	100	100	104
1-Aug-08	104	104	112	125	125	104	104	100	120
1-Jul-09	106	106	112	125	125	106	106	100	119
1-Jan-10	114	114	113	126	126	114	114	104	125
1-Jan-11	117	117	117	131	131	117	117	104	135
1-Dec-12	107	148	127	142	142	143	143	129	156
1-Feb-13	115	153	136	152	152	153	153	129	158
1-Apr-13	115	145	136	152	152	133	133	137	159
5-Dec-14	144	184	172	193	214	167	169	148	167
15-Dec-14	135	171	160	179	195	155	157	148	167
1-Mar-15	144	184	172	193	214	167	169	148	163
1-Apr-15	144	184	172	193	214	167	169	163	163

* Indexation for RHC is for lead distance of 1350 KM

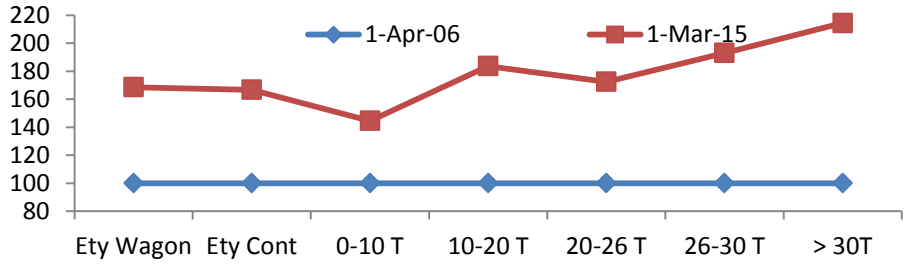
** GTR comparison is for 100 Class of Goods Tariff over an average lead of 1350 KM

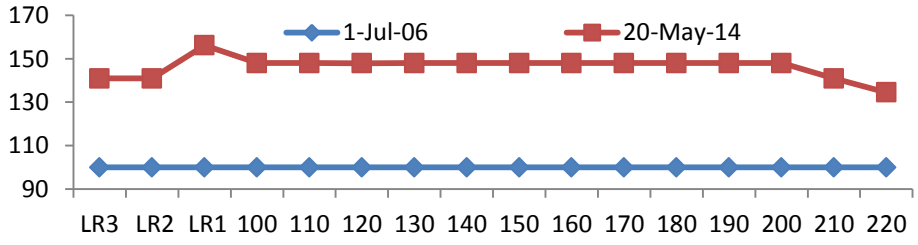


Change in the RHC Vs GTR Structure over 2006 to 2015

Weight Slab	RHC		INDEX	
	1-Apr-06	1-Mar-15	1-Apr-06	1-Mar-15
0-10 T	12084	17461	100	169
10-20 T	12084	22195	100	167
20-26 T	15635	26958	100	144
26-30 T	15635	30173	100	184
> 30T	15635	33533	100	172
Empty Container	7856	13096	100	193
Empty Wagon	7251	12223	100	214

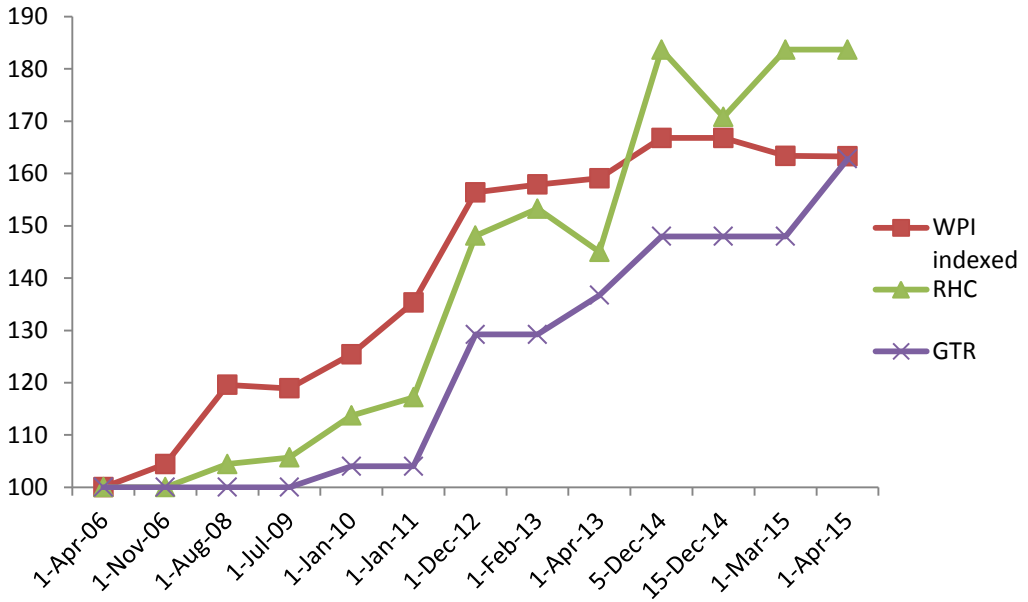
CLASS	GTR		INDEX	
	1-Jul-06	20-May-14	1-Jul-06	20-May-14
LR3	552.9	779.2	100	141
LR2	631.8	890.5	100	141
LR1	710.8	1110.3	100	156
100	789.8	1168.7	100	148
110	868.8	1285.6	100	148
120	947.8	1402.4	100	148
130	1026.7	1519.3	100	148
140	1105.7	1636.2	100	148
150	1184.7	1753.1	100	148
160	1263.7	1869.9	100	148
170	1342.7	1986.8	100	148
180	1421.6	2103.7	100	148
190	1500.6	2220.5	100	148
200	1579.6	2337.4	100	148
210	1658.6	2337.4	100	141
220	1737.6	2337.4	100	135





Comparison of WPI, GTR & RHC

Date	WPI indexed	RHC	GTR
1-Apr-06	100	100	100
1-Nov-06	104	100	100
1-Aug-08	120	104	100
1-Jul-09	119	106	100
1-Jan-10	125	114	104
1-Jan-11	135	117	104
1-Dec-12	156	148	129
1-Feb-13	158	153	129
1-Apr-13	159	145	137
5-Dec-14	167	184	148
15-Dec-14	167	171	148
1-Mar-15	163	184	148
1-Apr-15	163	184	163

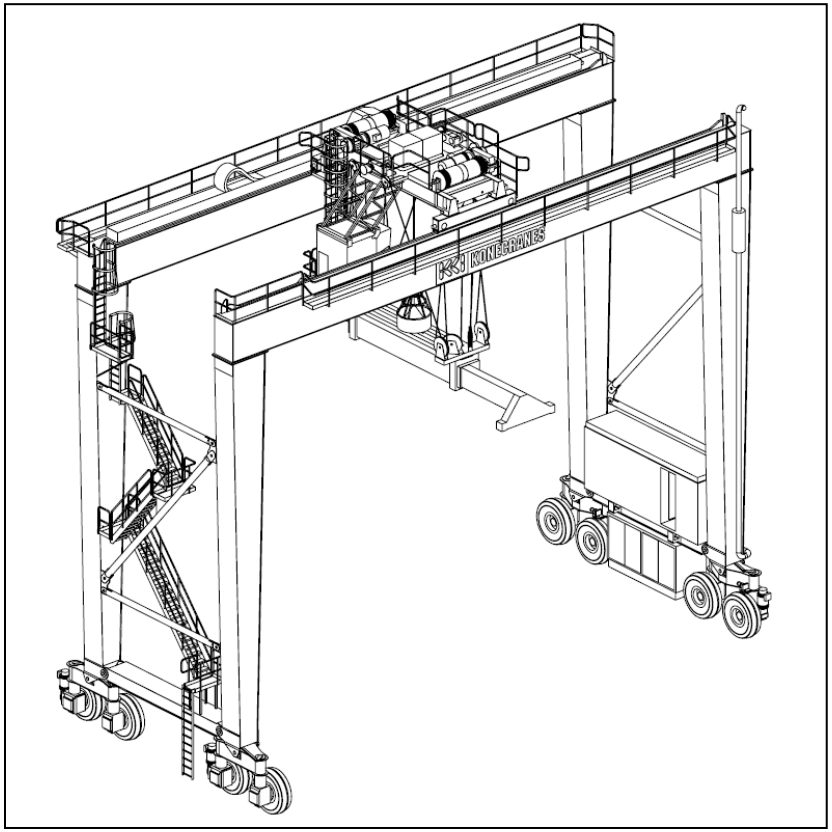


*WPI is indexed taking base as Apr 2006

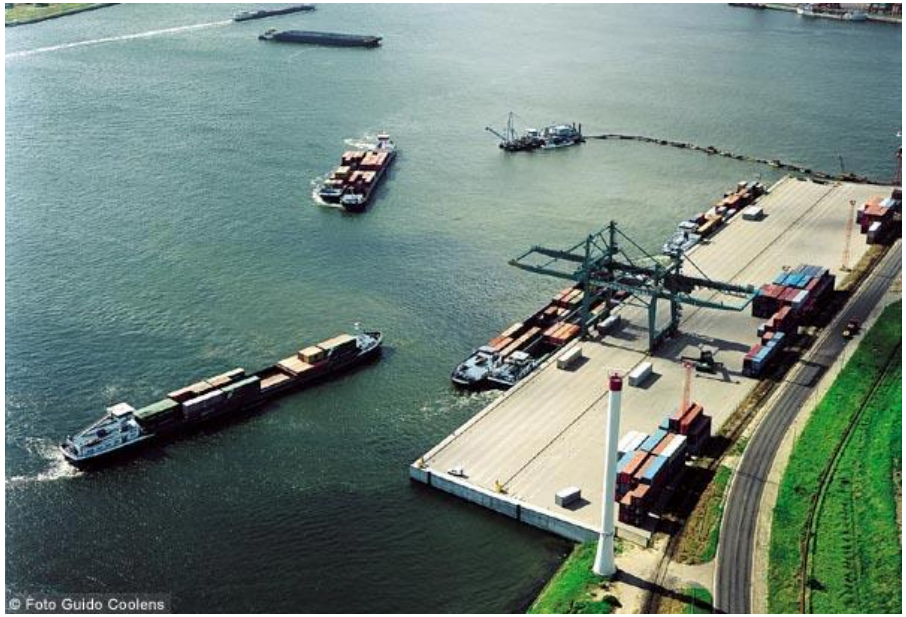
**RHC index is taken for 10-20 T for lead distance of 1350 kms

MODERNISATION OF EQUIPMENT USED IN LOGISTICS

GANTRY CRANES



SHORE CRANES



MODERNISATION OF EQUIPMENT USED IN LOGISTICS

RMG CRANES

RTG CRANES

MODERNISATION OF EQUIPMENT USED IN LOGISTICS

REACH STACKER

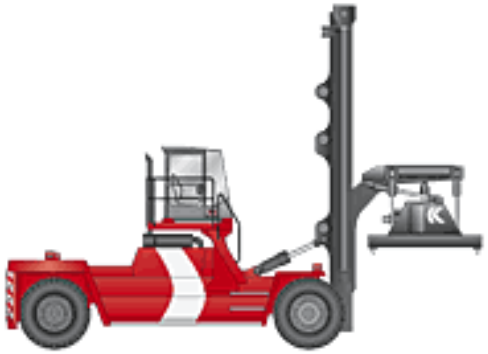
RTG CRANES

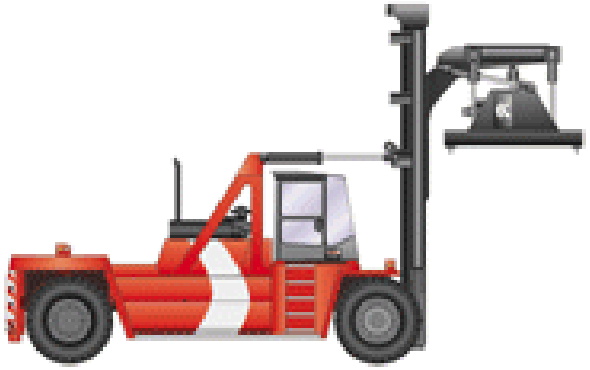
MODERNISATION OF EQUIPMENT USED IN LOGISTICS

STRADDLE CARRIER

MODERNISATION OF EQUIPMENT USED IN LOGISTICS

MAST LIFT TRUCK





MODERNISATION OF EQUIPMENT USED IN LOGISTICS

ROAD RAILERS