

# WHY ARE CEE RAILWAYS LOSING THEIR MARKET SHARES?

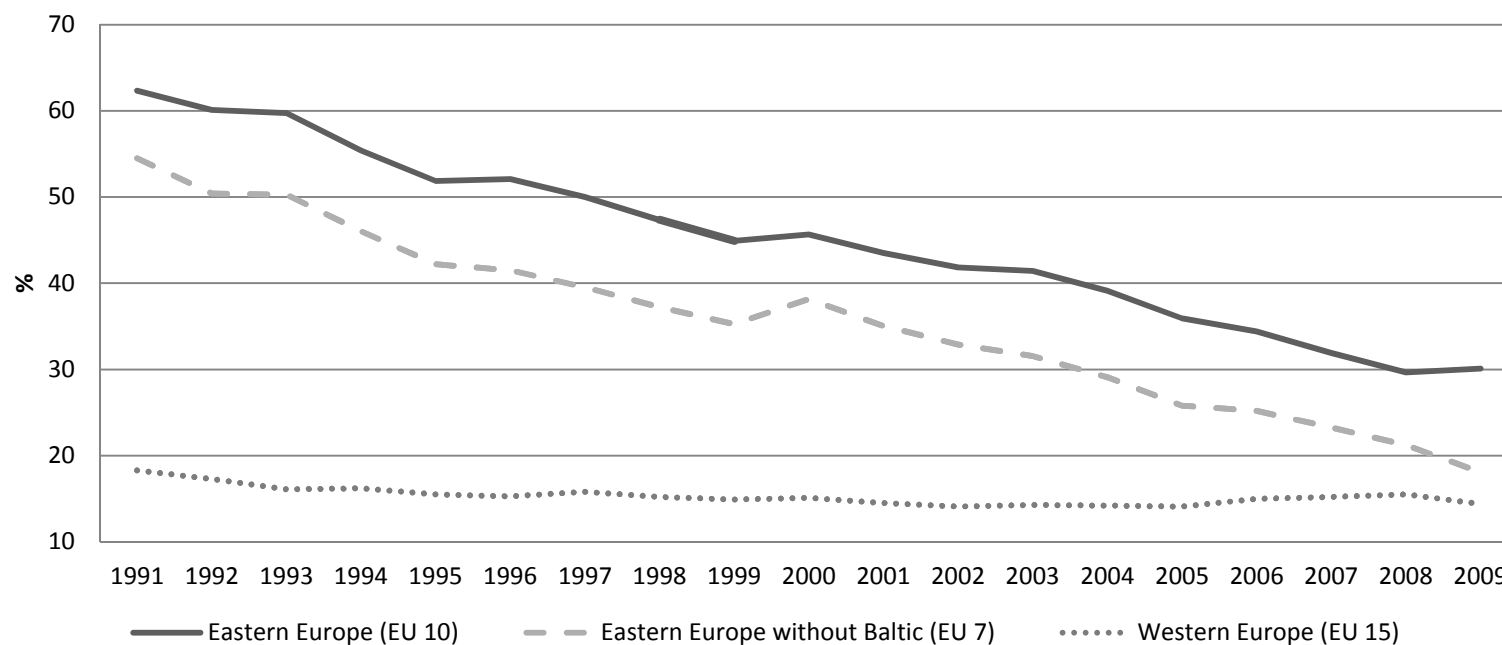
Zdenek Tomes

Masaryk University Brno

**Telč; 8.11.2012**

# Why are CEE railways losing their market shares?

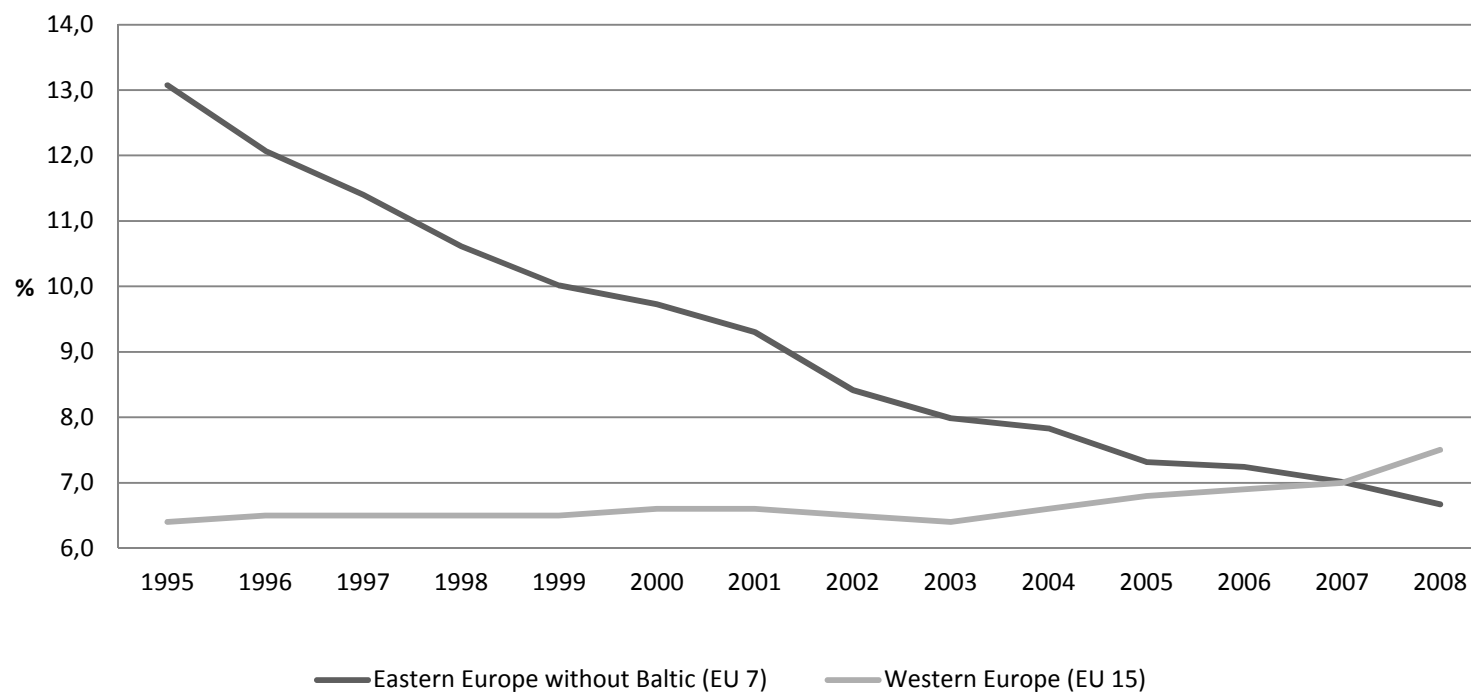
Graph: Modal share of rail in freight transport market (%)



Source: Eurostat

# Why are CEE railways losing their market shares?

Graph: Modal share of rail in passenger transport market (%)



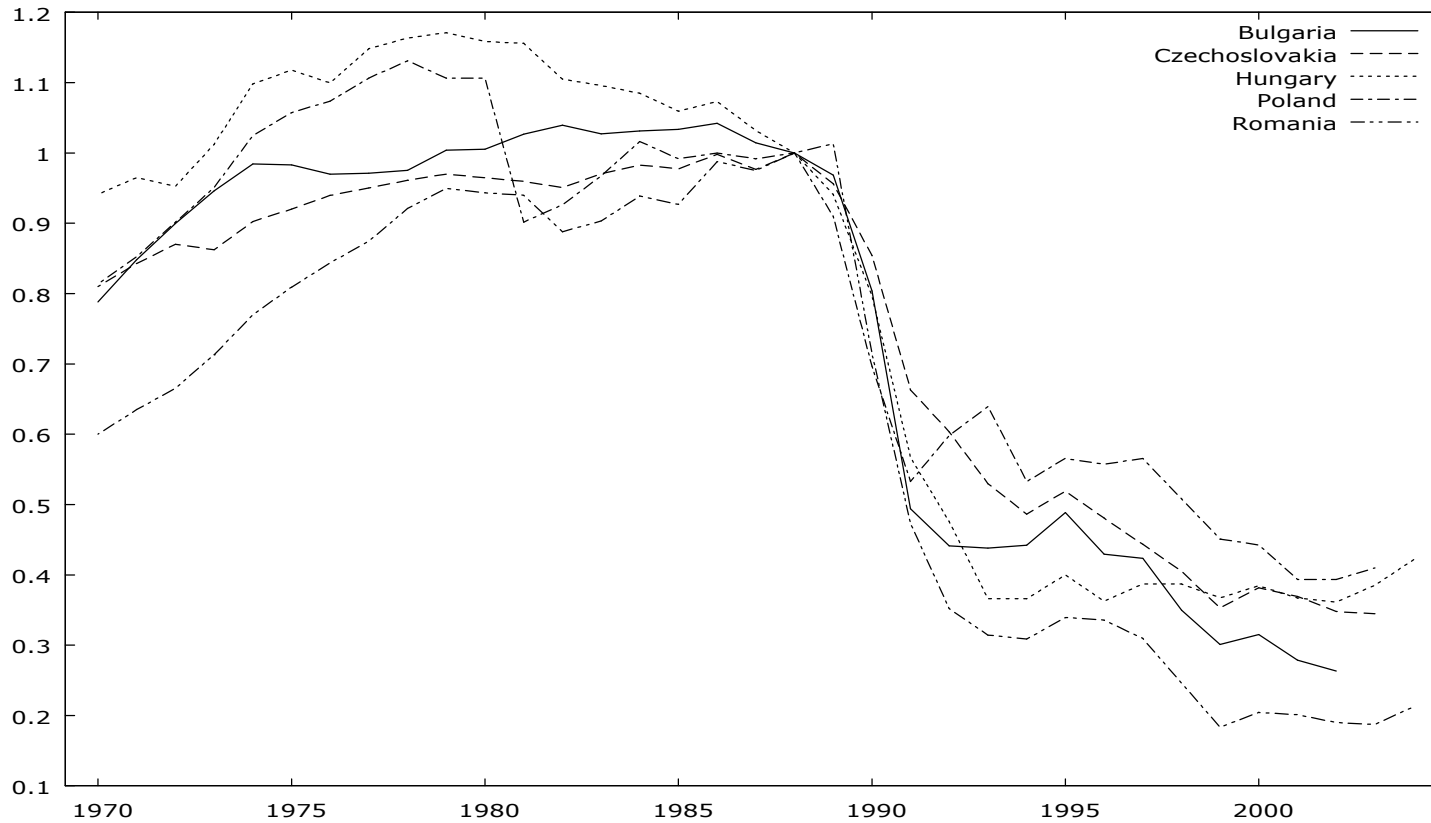
Source: Eurostat

# Modal shares (%) by countries

		FREIGHT									PASSENGER				
	<b>Δ09/ 00</b>	1990	1991	1995	2000	2005	2008	2009		<b>Δ08/ 00</b>	1990	1995	2000	2005	2008
PL	<b>-22,8</b>	66,5	61,9	56,7	42,2	30,8	24,0	19,4		<b>-5,5</b>	30,6	15,5	11,7	7,3	6,2
CZ	<b>-9,8</b>			41,6	31,9	25,5	23,3	22,1		<b>-1,2</b>	...	10,8	8,3	7,3	7,1
SK	<b>-22,1</b>			32,8	41,7	29,5	23,4	19,6		<b>-1,6</b>		12,6	8,1	6,1	6,5
HU	<b>-8,2</b>			35,6	28,8	25	20,6			<b>-0,6</b>	14,7	11,9	12,9	13,1	12,3
SI	<b>-12,1</b>	46,7	42,7	35,1	28,1	22,7	17,8	16,0		<b>0,0</b>	9,1	2,8	2,9	2,9	2,9
RO	<b>-29,7</b>	61,1	58,9	51,4	49,1	21,7	19,0	19,4		<b>-8,9</b>		26,5	16,5	9,6	7,6
BG	<b>-33,3</b>				45,2	25,4	20,5	11,9		<b>-3,6</b>	20,3	11,4	7,7	4,9	4,1
LT	<b>-13,3</b>	72	71,2	58,2	53,4	43,9	41,9	40,1				7,5		1,1	1,0
LV	<b>-3,7</b>		77	84,2	73,5	70,2	61,3	69,8							5,3
EE	<b>-10,0</b>			71,3	62,7	64,6	44,7	52,7				7,1		1,9	2,1

Source: Eurostat

# Decline of demand



*Graph: Index of rail freight transport in CEE countries (1988 = 1,00)*

# Overcapacity

	Freight traffic	Passenger traffic	Staff	Length of network	Number of locomotives	Passenger fleet
Bulgaria	25,8	47,4	52,4	100,5	70,6	90,2
Czechoslovakia	51,9	59,4	62,7	100,8	65,2	85,9
Hungary	37,9	57,9	41,4	102,2	90,7	N/A
Poland	45,4	29,0	48,4	83,5	68,3	86,8
Romania	25,6	25,5	52,8	101,5	102,7	101,9

*Table: Index 2000/1985; (1985=100)*

# Rail economics

- High network density
- Low density of traffic
- Low labour productivity
- Economies of scale
- Share of passenger traffic

# World rail indicators 2005

	Total route (km)	Passen. km (mil)	Freight Tonne-km (mil.)	Staff	Traffic Density	Avg. fr. length of haul (km)	Avg. pax trip (km)
China	62.200	583.320	1.934.612	1.665.588	<b>40,5</b>	838	527
Japan	12.217	309.741	23.166	161.930	<b>27,2</b>	640	34
Russia	85.245	172.217	1.858.100	1.161.900	<b>23,8</b>	1.450	129
India	62.273	769.956	480.993	1.394.520	<b>19,8</b>	661	118
N.America	224.490	11.910	2.996.762	233.368	<b>13,4</b>	1.416	340
EU 15	150.224	326.941	243.648	779.470	<b>3,8</b>	283	51
EU 10	61.678	45.188	142.816	412.200	<b>3,0</b>	248	61

*Traffic density is expressed as the sum of net tonne km and passenger km divided by line km.*

*Source: Thomson (2010)*



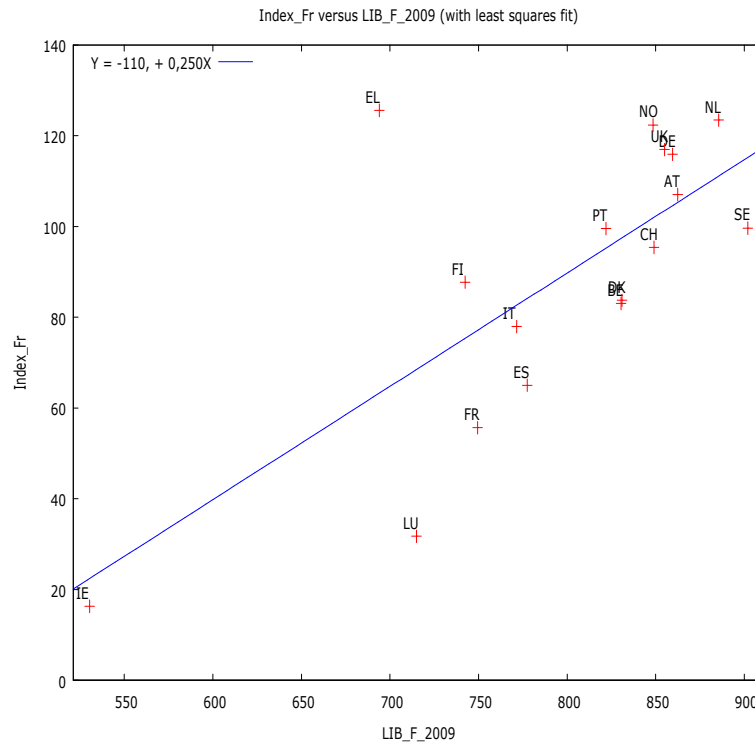
# Basic rail indicators - CEE 2009

Country	Length of Network (route-km)	Network density (km/country area)	Total traffic units (tkm+pkm); mil.	Traffic density (traffic units/route-km); mil	Traffic mix % share of passenger traffic: pkm/(tkm+pkm)
Latvia	1884	29,2	19,5	<b>10,4</b>	4
Lithuania	1767	27,1	12,3	<b>7,0</b>	3
Estonia	919	20,3	6,2	<b>6,7</b>	3
Poland	19764	63,2	62,1	<b>3,1</b>	30
Slovenia	1228	60,5	3,6	<b>2,9</b>	22
Slovakia	3623	73,9	9,3	<b>2,6</b>	25
Czech R.	9477	120,1	19,3	<b>2,0</b>	34
Hungary	7892	84,9	15,7	<b>2,0</b>	51
Romania	10776	45,2	17,2	<b>1,6</b>	35
Bulgaria	4150	37,4	5,3	<b>1,3</b>	40

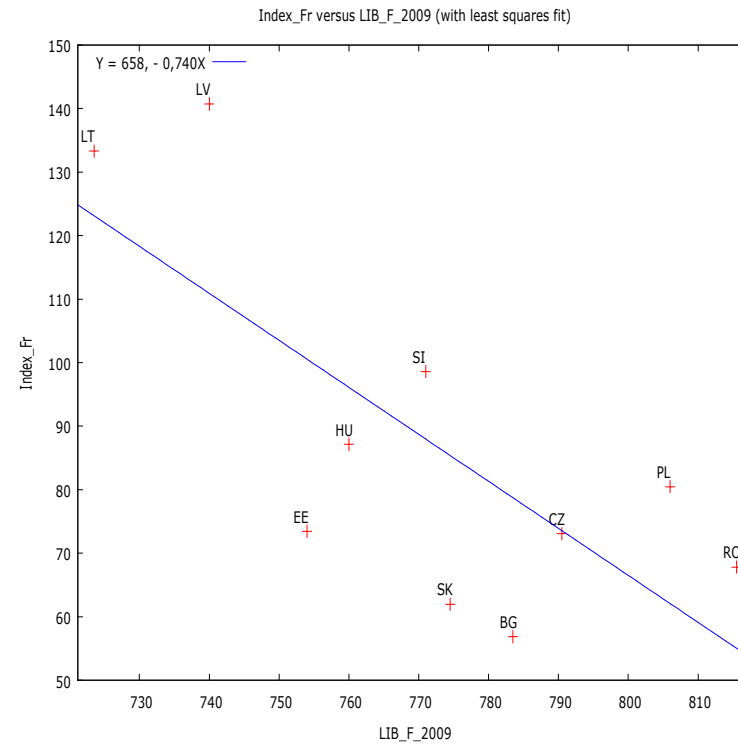
Source: EU Transport in figures

# Liberalization (LIB-F\_2009) and rail freight growth (Index 2009/2000)

## Western Europe



## Eastern Europe



# Economies of scale, competition and modal share

	Area (mil km <sup>2</sup> )	Intensity of competition –market share of new entrants 2009 (%)	Change in freight modal share 2000- 2009 (%)
Poland	312.7	24%	-22.8
Romania	238.4	41%	-29.7
Bulgaria	111.0	14%	-33.3
Hungary	93.0	14%	-8.2
Czech Rep.	78.9	5%	-9.8
Lithuania	65.3	0%	-13.3
Latvia	64.6	10%	-3.7
Slovakia	49.0	2%	-22.1
Estonia	45.2	49%	-10.0
Slovenia	20.3	0%	-12.1

# Possible explanation

- Lower environmental concern
- High infrastructure charges
- Cross-subsidies

# Policy options

Comparison of models of regulatory bodies and infrastructure managers in Europe

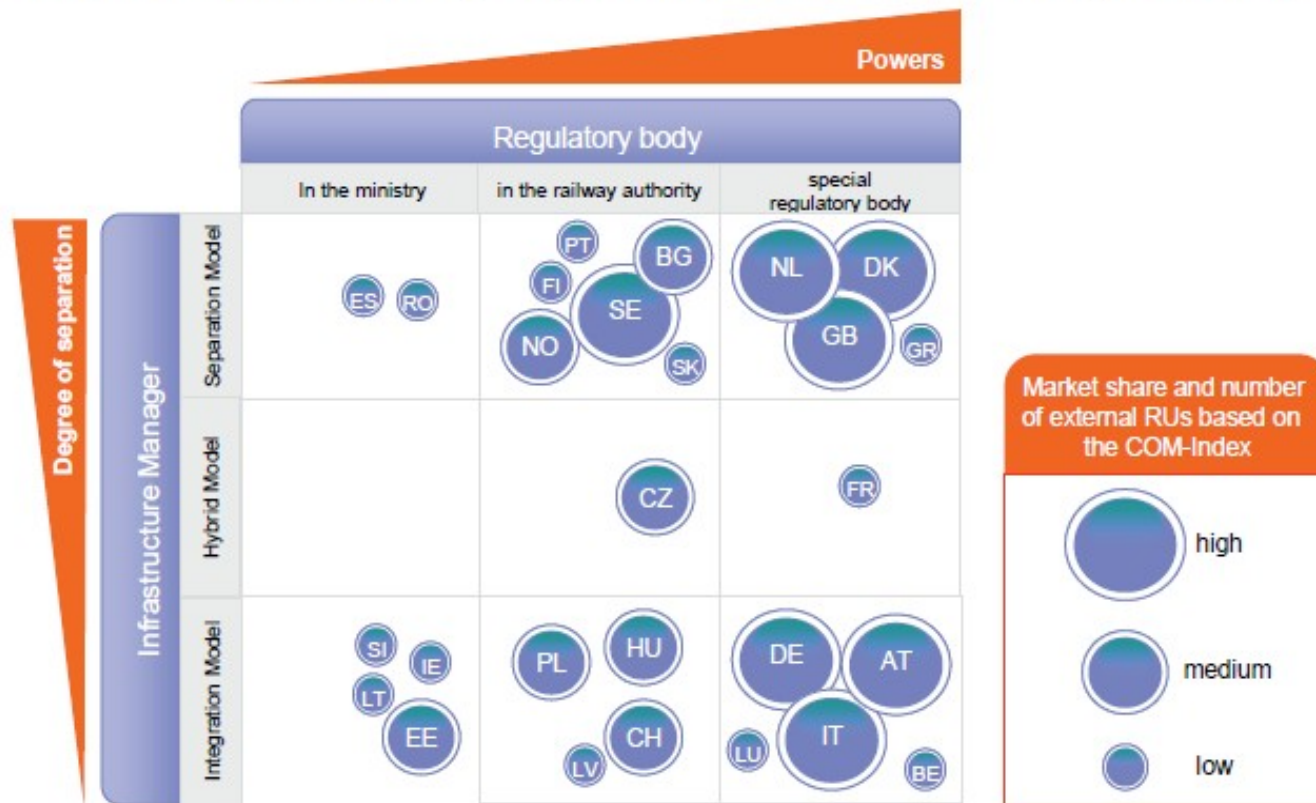


Figure 13





Zdroj: IBM 2011

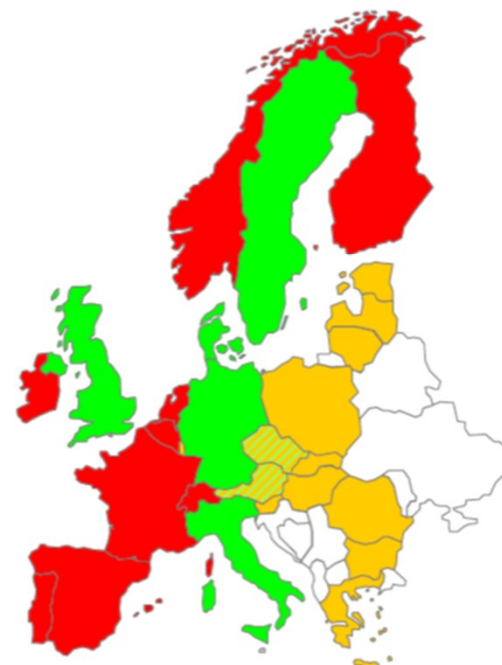
# Competition - passenger



In most Eastern European countries purely commercial national passenger transport service is permitted, however, in Eastern Europe no external RUs are currently offering these services.



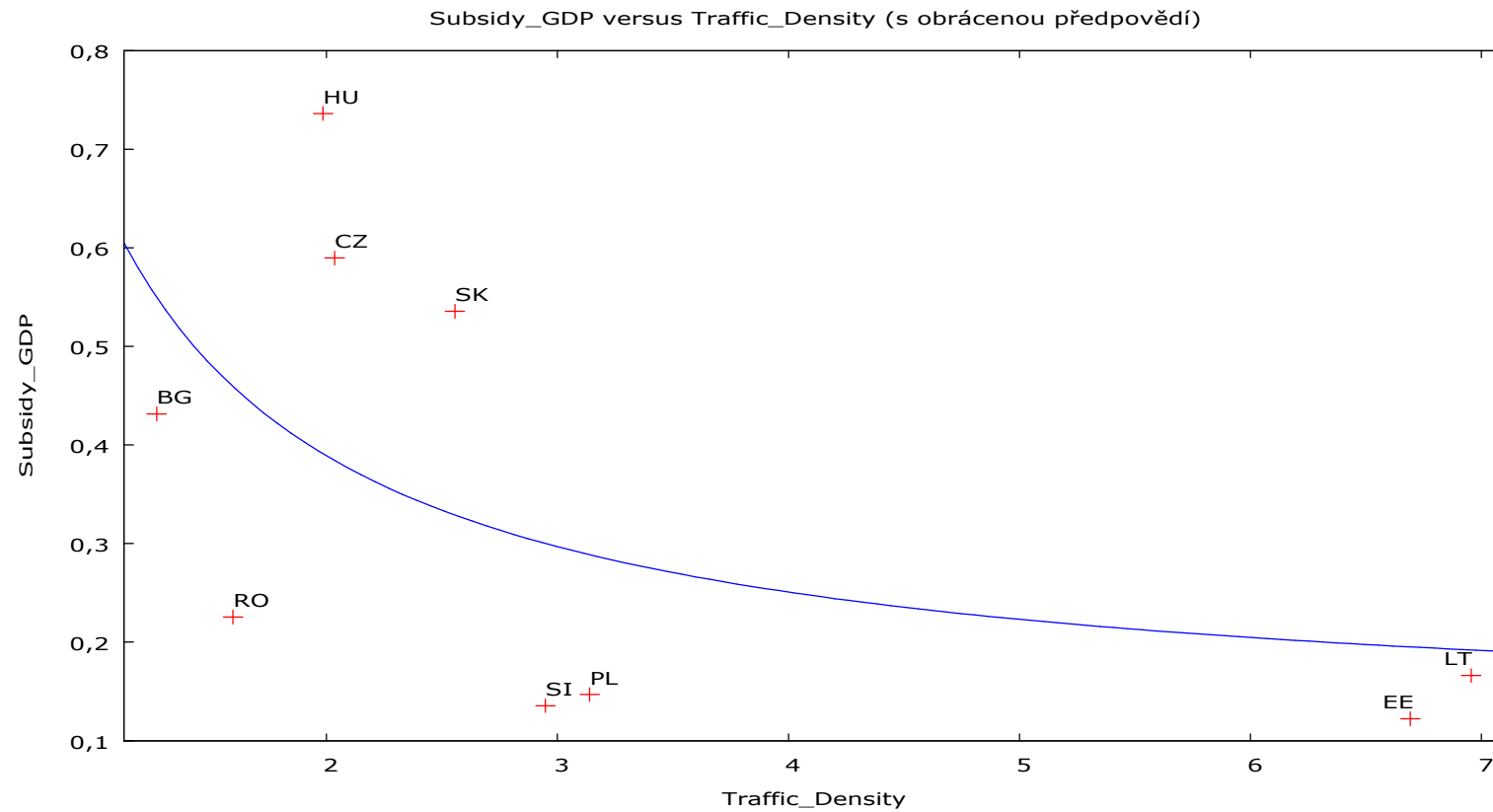
	Market closed for commercial national rail passenger services.
	Open access, but no external RUs providing commercial national rail passenger services.
	Open access with external RUs providing commercial national rail passenger services.
	AT and CZ: commencing end of 2011, external RUs providing purely commercial national rail passenger services.



# PSO policy

1. Insufficient government funds
2. No high speed lines
3. Obsolete rolling stock
4. Still socialist management
5. Soft budget constraints

# Traffic density and subsidies

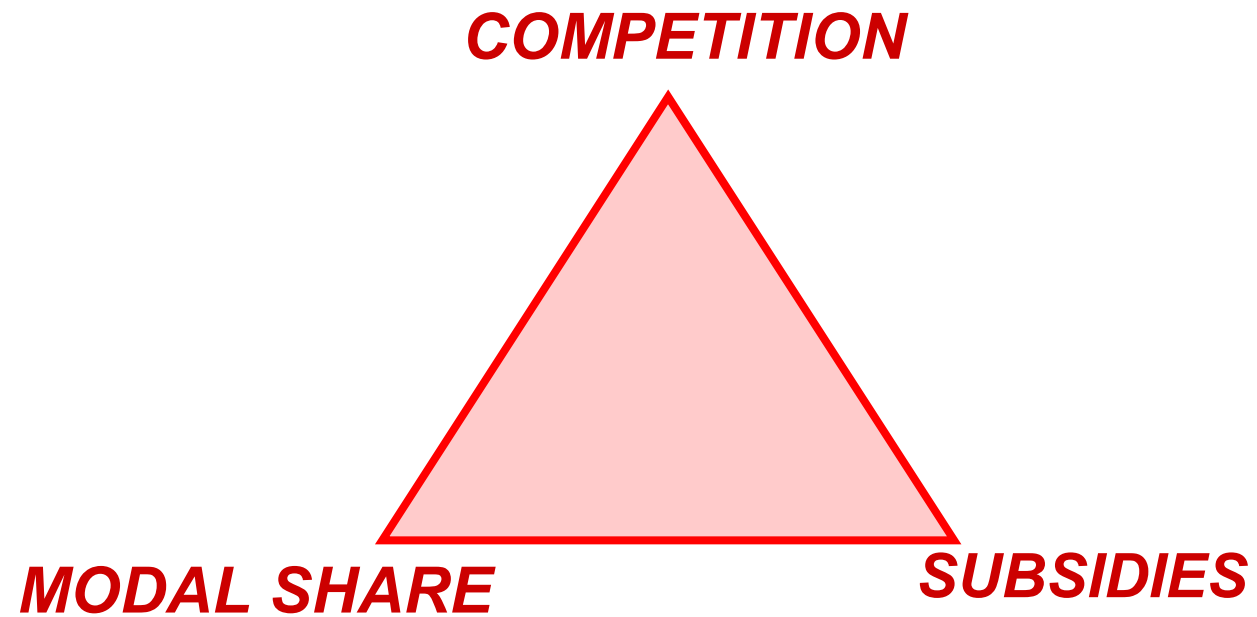




# Why are CEE railways losing its market shares?

- Overcapacity → low economies of density and low labor productivity
- Fragmentation of the market → low economies of scale, low network effects
- Weak financial situation of the incumbent → low investment, slow reaction to challenges
- Cherry picking strategies of new entrants → end of cross-subsidization,

# Policy dilemma







# I. Transition from CPE

1. Change of the economy
2. Demand decline
3. Overcapacity

# 1. Change of the economy

# III. Policy

1. European railway policy
2. Liberalization
3. Competition
4. Privatization

# Liberalization

LIB-F x LIB – P

2004, 2007, 2011



# Competition - freight

	EASTERN EUROPE	WESTERN EUROPE
> 30%	Estonia (49%); Romania (41%)	Sweden (35%)
20-30%	Poland (24%)	UK (25%); Netherlands (25%); Germany (22%)
10-20%	Hungary (14%); Bulgaria (14%)	Austria (14%); Italy (12%); France (10%)
1-10%	Latvia (10%); Czech R. (5%); Slovakia (2%)	Belgium (6%); Spain (6%); Denmark (5%);
0%	Lithuania (0%); Slovenia (0%)	Finland (0%); Portugal (0%); Ireland (0%); Greece (0%); Luxembourg (0%)

# Competition - passenger

Open access – but (almost) no entry and almost no competitive tendering

# Privatization

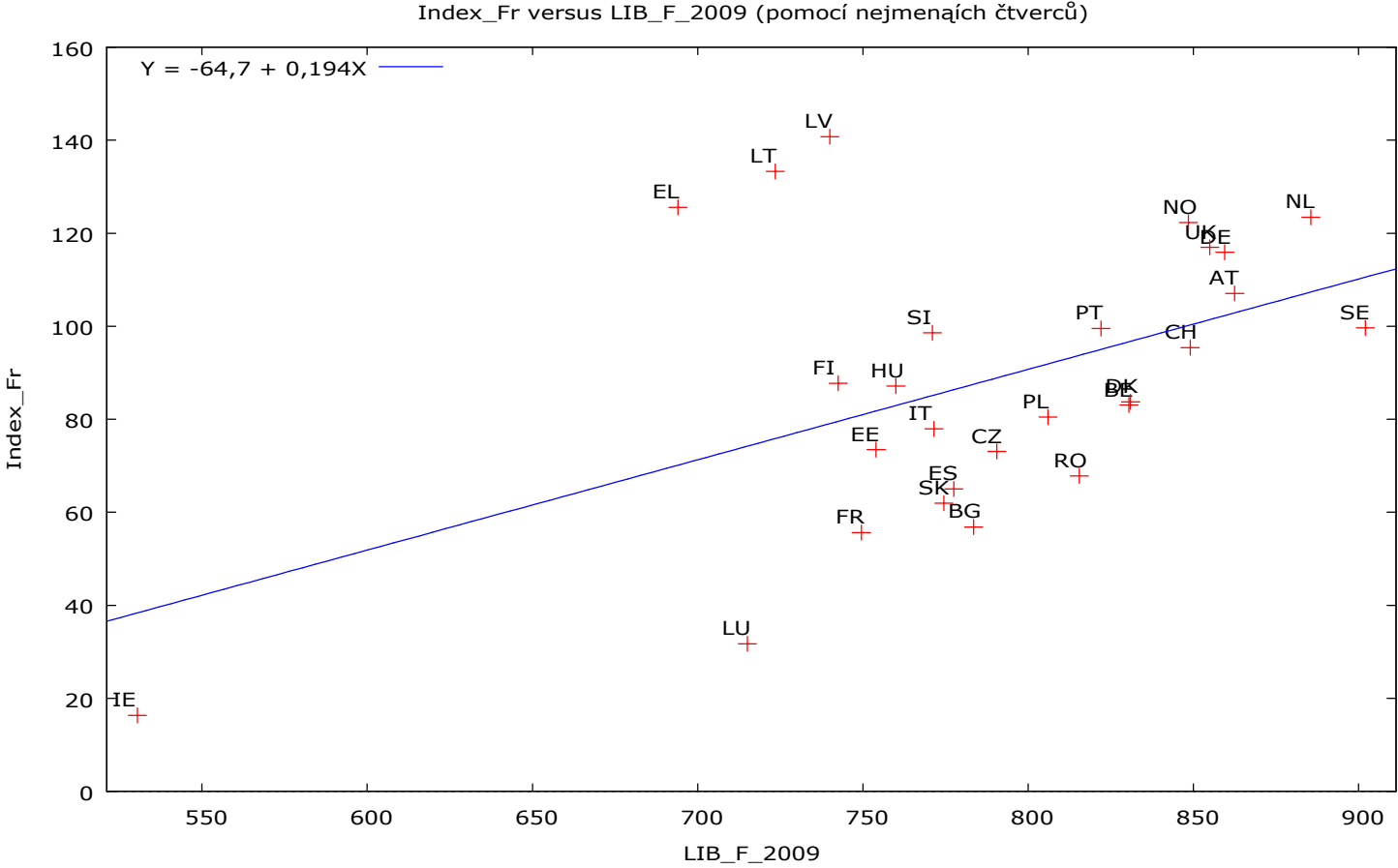
# Implications (2)

- Quick and dedicated liberalization/competition/privatization

## IV. Do reforms improve performance?

- Review of econometric studies.....
- But are they valid for CEE?

# More liberalization – more growth?



*Graph: Liberalization index for freight 2007 and index of rail freight between 2000 and 2009.*

V. What about passenger traffic?

# Subsidies



# VI. Country specifics

1. Baltic
2. Poland and Romania
3. Czech Republic
4. Balkan

## VII. Discussion

1. Vertical separation or integration?
2. One solution for all problems?
3. Why are CEE different?