Railway Trends in Europe, Russia and China

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TRF Discussion

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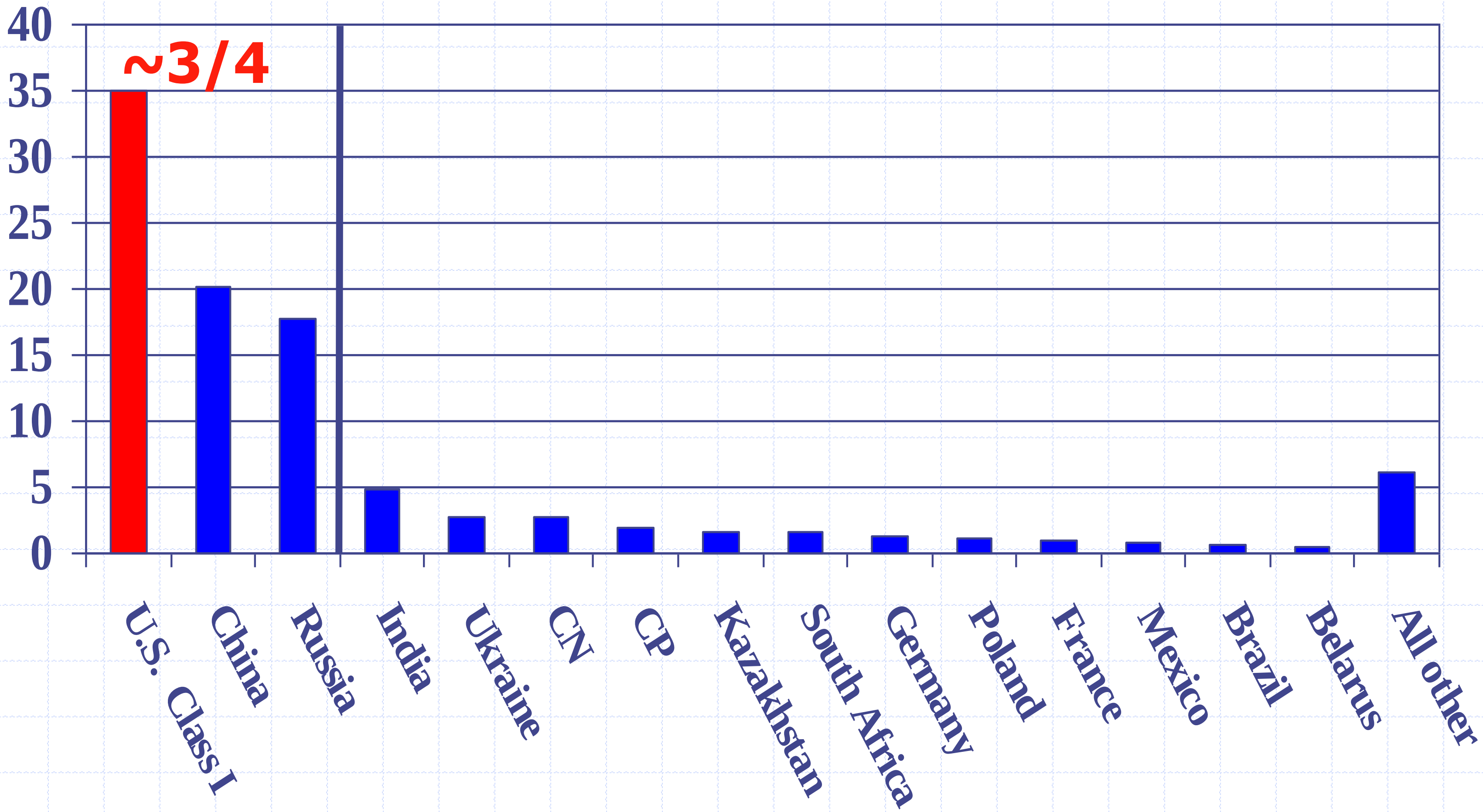
Railway Trends in Europe, Russia and China

- Some comparisons for perspective
- The general model (Structure/Ownership)
- The EU model
- The Russian approach so far
- The Chinese: still thinking

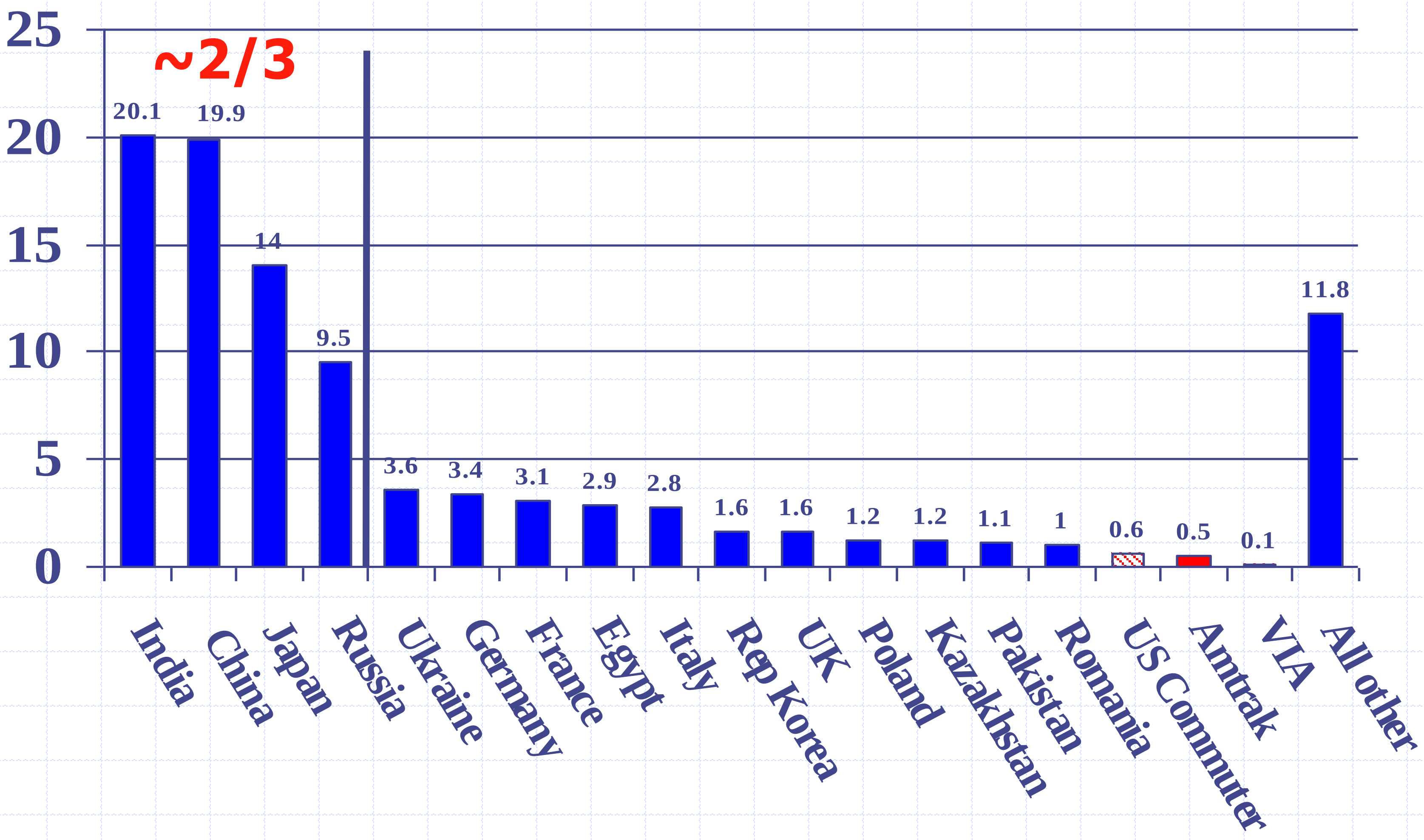
The World's Rail Freight Traffic

(Percent Ton-Km)



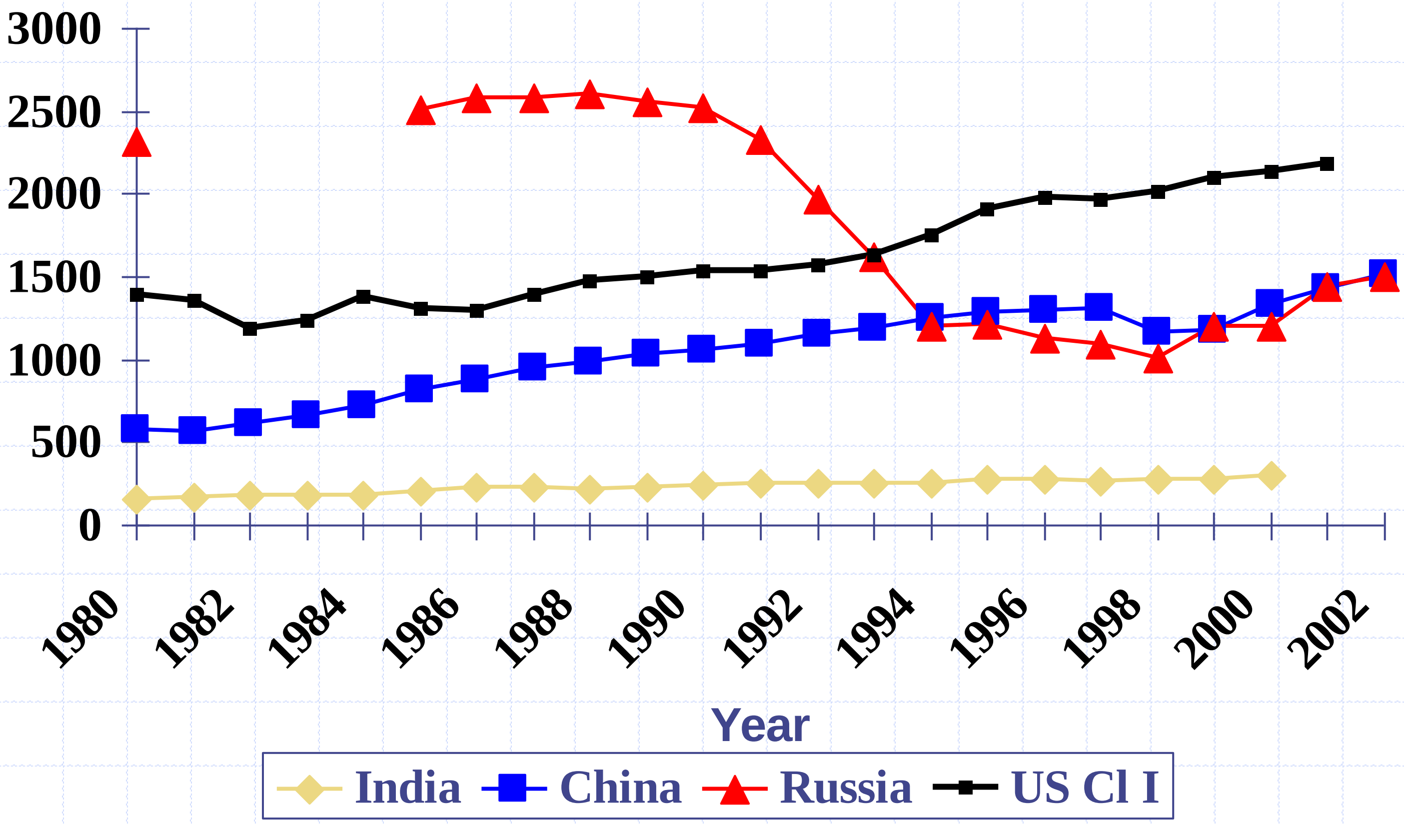
The World's Rail Passenger Traffic

(Percent Pass-Km)



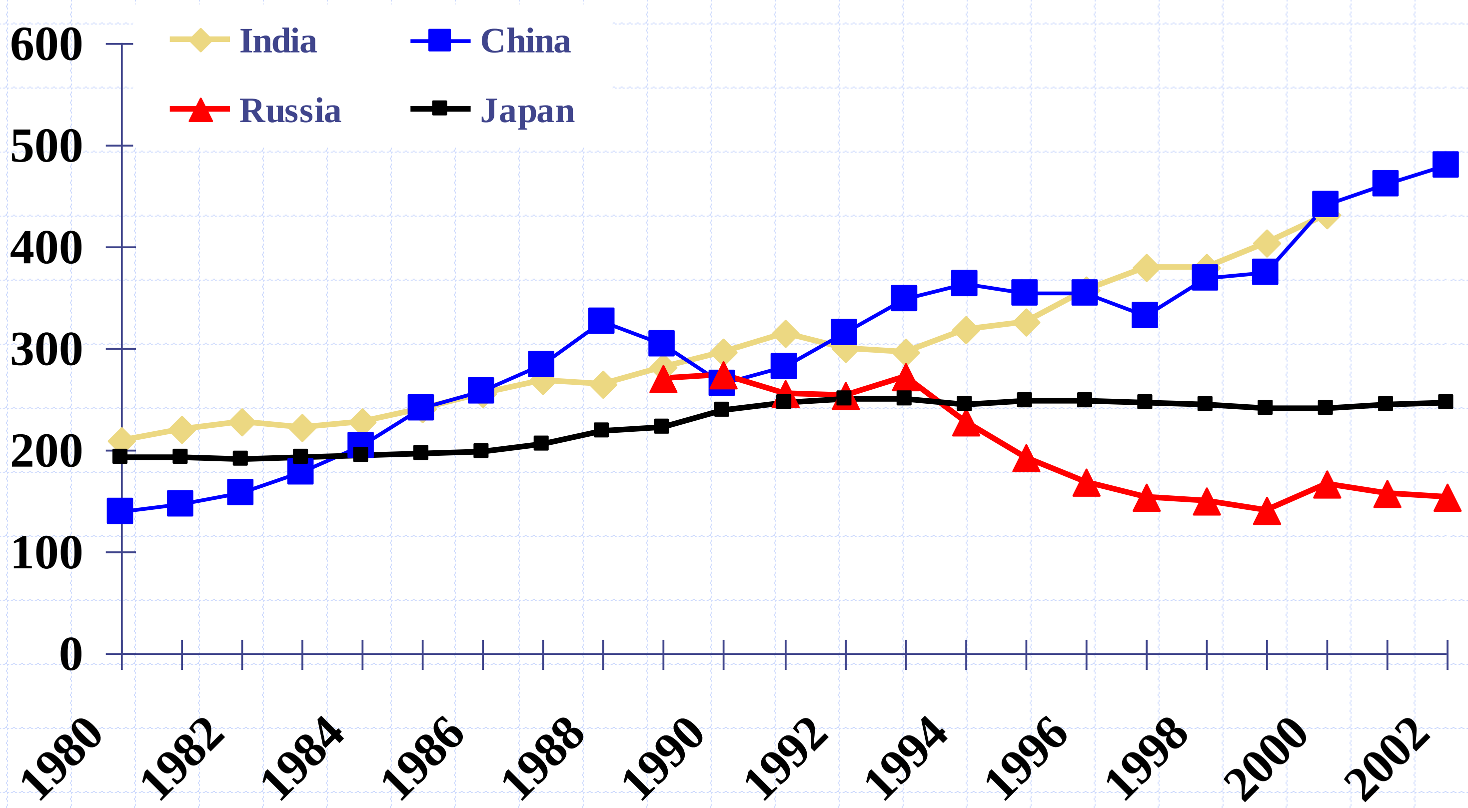
Freight Traffic

(billions of ton-km)

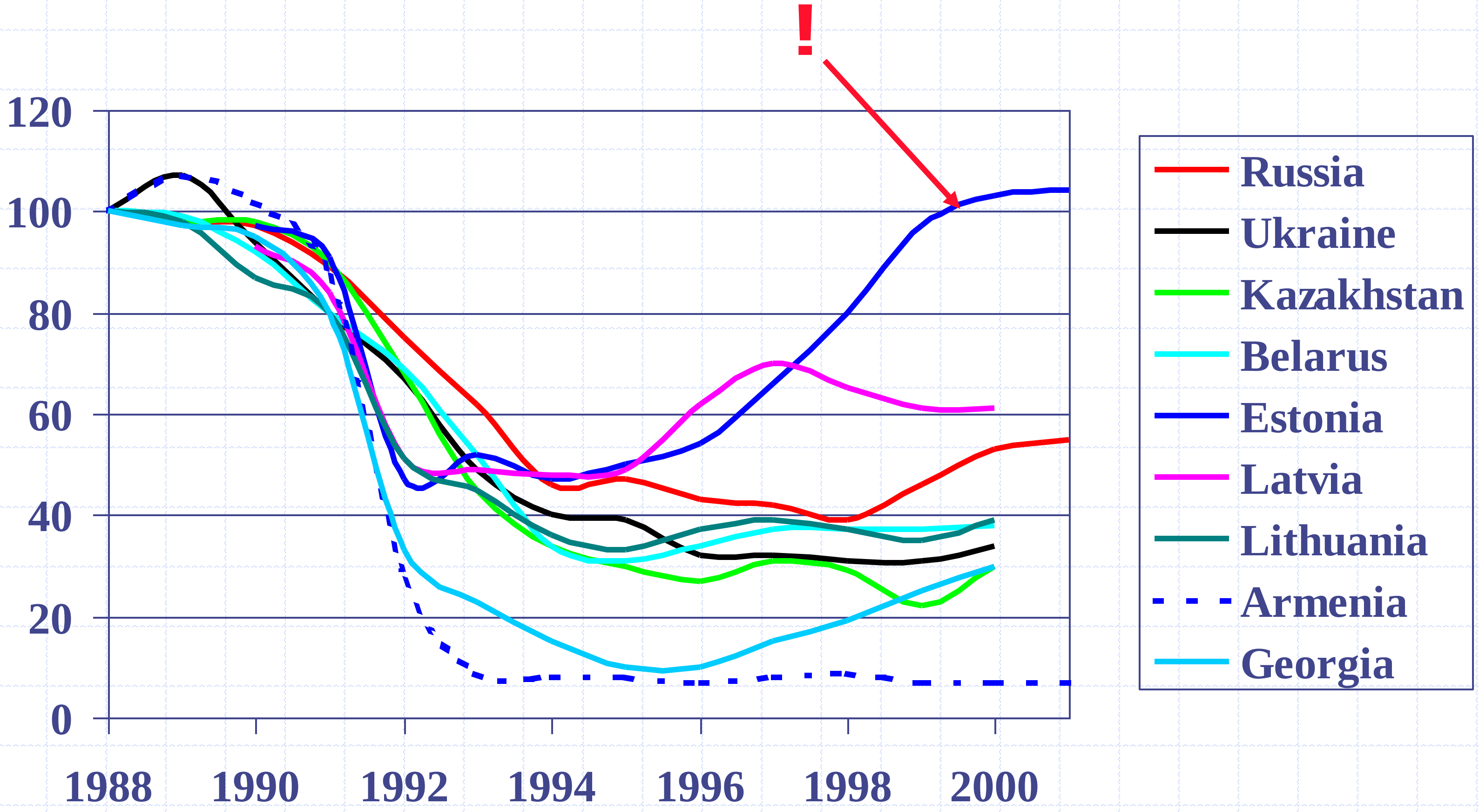


Passenger Traffic

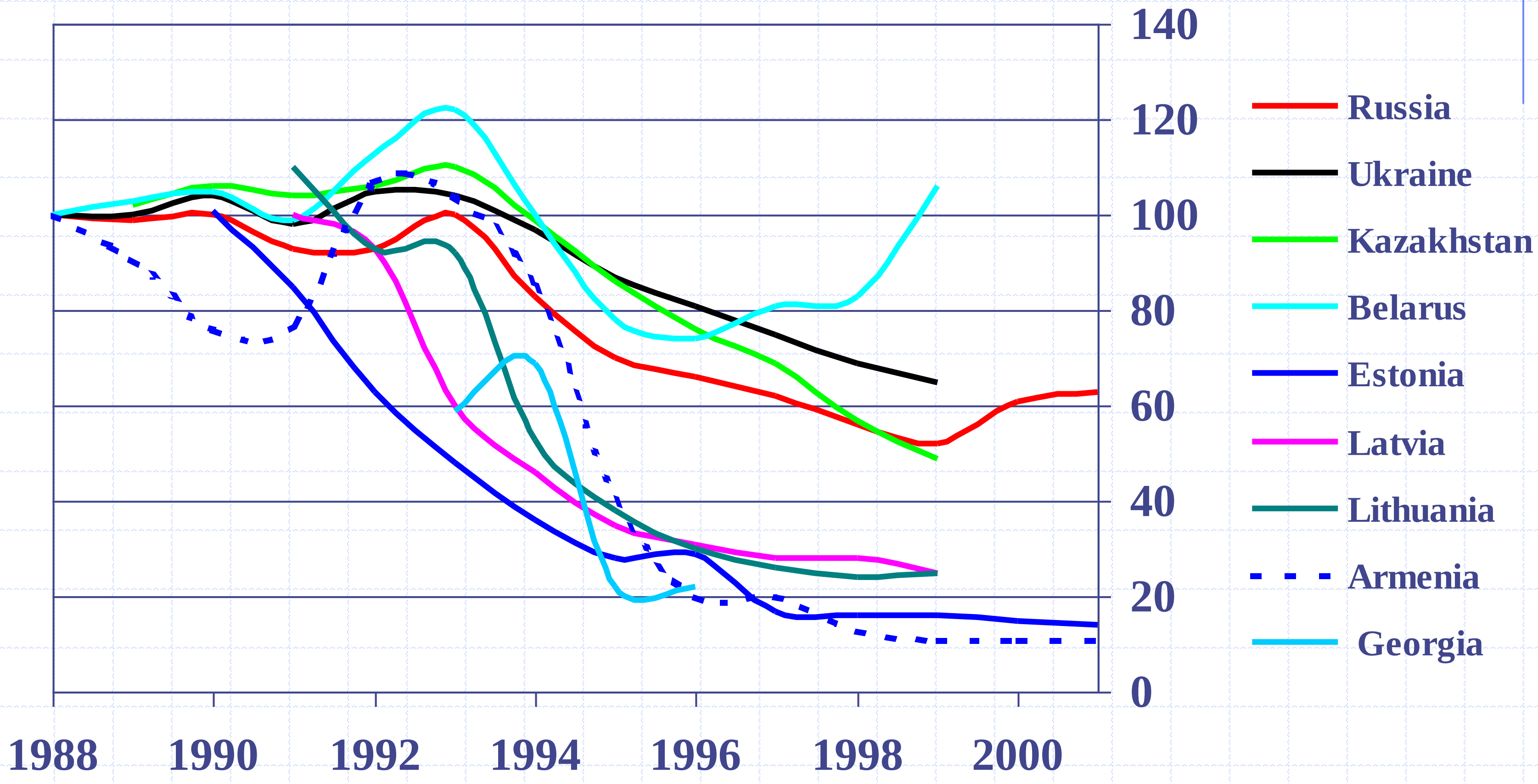
(billion p-km)



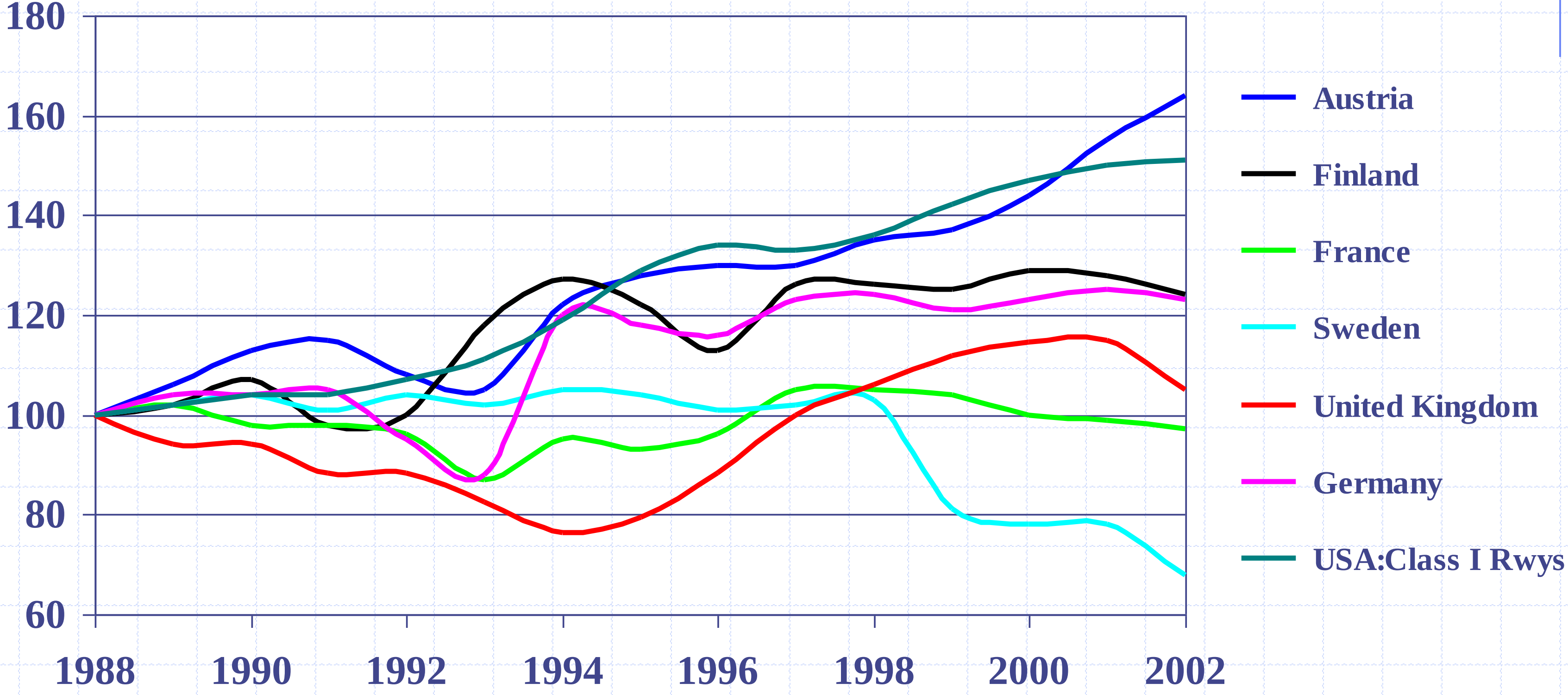
Freight ton-km Trends on CIS Railways



Passenger-Km trends on CIS railways

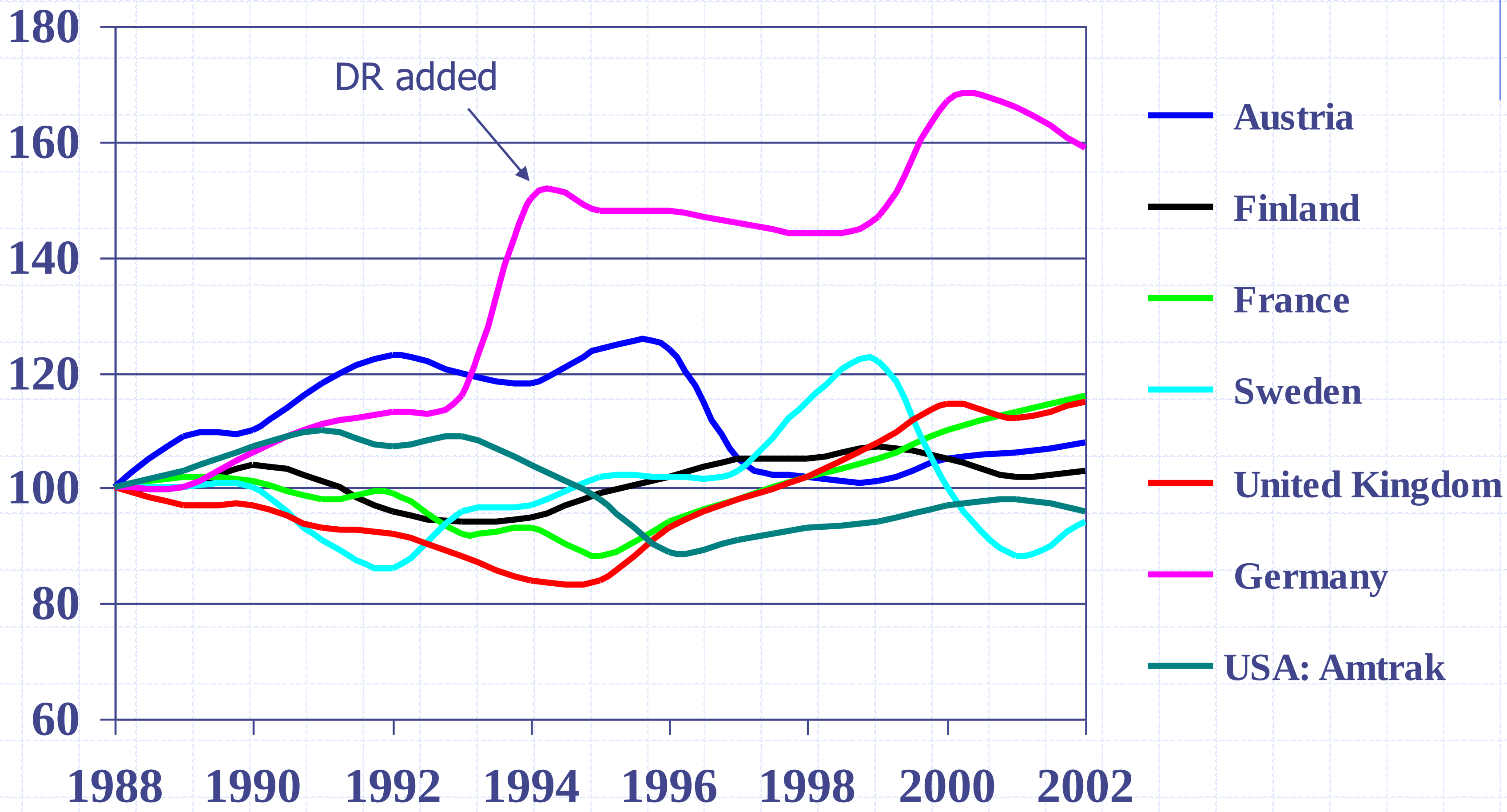


Ton-Km trends on Western railways



Note: Germany after 1993 includes DR traffic

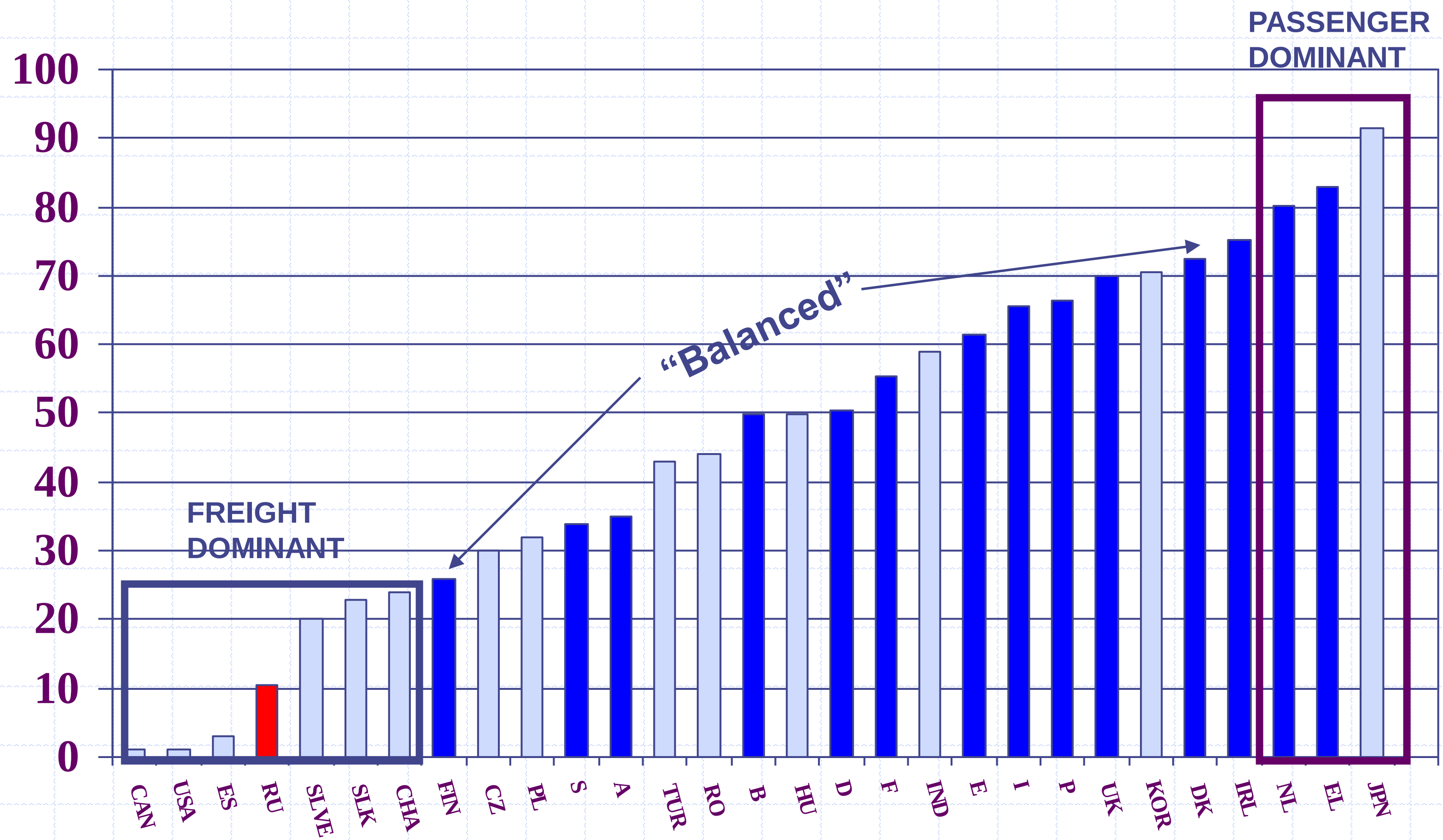
Passenger-Km trends on Western railways



Note: Germany after 1993 includes DR traffic

Percent of Rail Passenger Traffic to Total Rail Traffic

P-Km/(P-km+T-Km)%



The general model: Structure and Ownership

Private Involvement →

Structural Change ↓

	Public	Partnerships	Private
Integral	China, Russia and India (ministries), many others as SOEs, some U.S. urban systems	Argentina (13), Brazil (9), Mexico (5), Peru (3), Guatemala, Bolivia (2), Panama, Cote d'Ivoire/Burkina Faso, Cameroon, Congo (Brazzaville), Malawi, Madagascar, Jordan	New Zealand, Ferronor (Chile), CVRD (Brazil), A&B (Chile)
Dominant with minority tenant operators	Amtrak, VIA, Japan Freight, LIRR, MTA/CTA, MBTA	Mexico City suburban, CONCOR (India), New York & Atlantic	US Class I, CN and CP, East/West/Central Japan Railways
Separation	E.U. and Chile passenger	Swedish suburban, German regionals, FEPASA (Chile), LHS line (Poland)	U.K. franchises and EWS, Polish and Romanian freight

No single solution, mixtures possible, not static

The basic EU model

<table>
<tr><th></th><th>Freight</th><th>Intercity Passenger</th><th>Regional Passengers</th><th>Suburban Passengers</th></tr>
<tr><td>Infrastructure Ownership</td><td colspan="2" rowspan="5">Kept at national level,
may be privatized</td><td colspan="2" rowspan="5">Can be devolved</td></tr>
<tr><td>Infrastructure Improvement</td></tr>
<tr><td>Infrastructure maintenance</td></tr>
<tr><td>Control of Operations</td></tr>
<tr><td>(Dispatching and Scheduling)</td></tr>
<tr><td>Train Movement</td><td rowspan="4">Can be
Privatized</td><td rowspan="4">Can be
Privatized</td><td colspan="2" rowspan="3">Can be devolved</td></tr>
<tr><td>Equipment</td></tr>
<tr><td>Marketing</td></tr>
<tr><td>Financial Accountability</td><td colspan="2">PSO Support Permitted</td></tr>
</table>

British Rail privatization – at the beginning

Freight | Intercity Passenger | Regional Passengers | Suburban Passengers

Infrastructure Ownership

Infrastructure Improvement

Infrastructure maintenance

Control of Operations

(Dispatching and Scheduling)

Train Movement

Equipment

Marketing

Financial Accountability

All Owned and Operated by RAIL TRACK

EW&S Rail

Private

25 Franchises

3 Rolling Stock Leasing Companies ("ROSCOS" : Private)

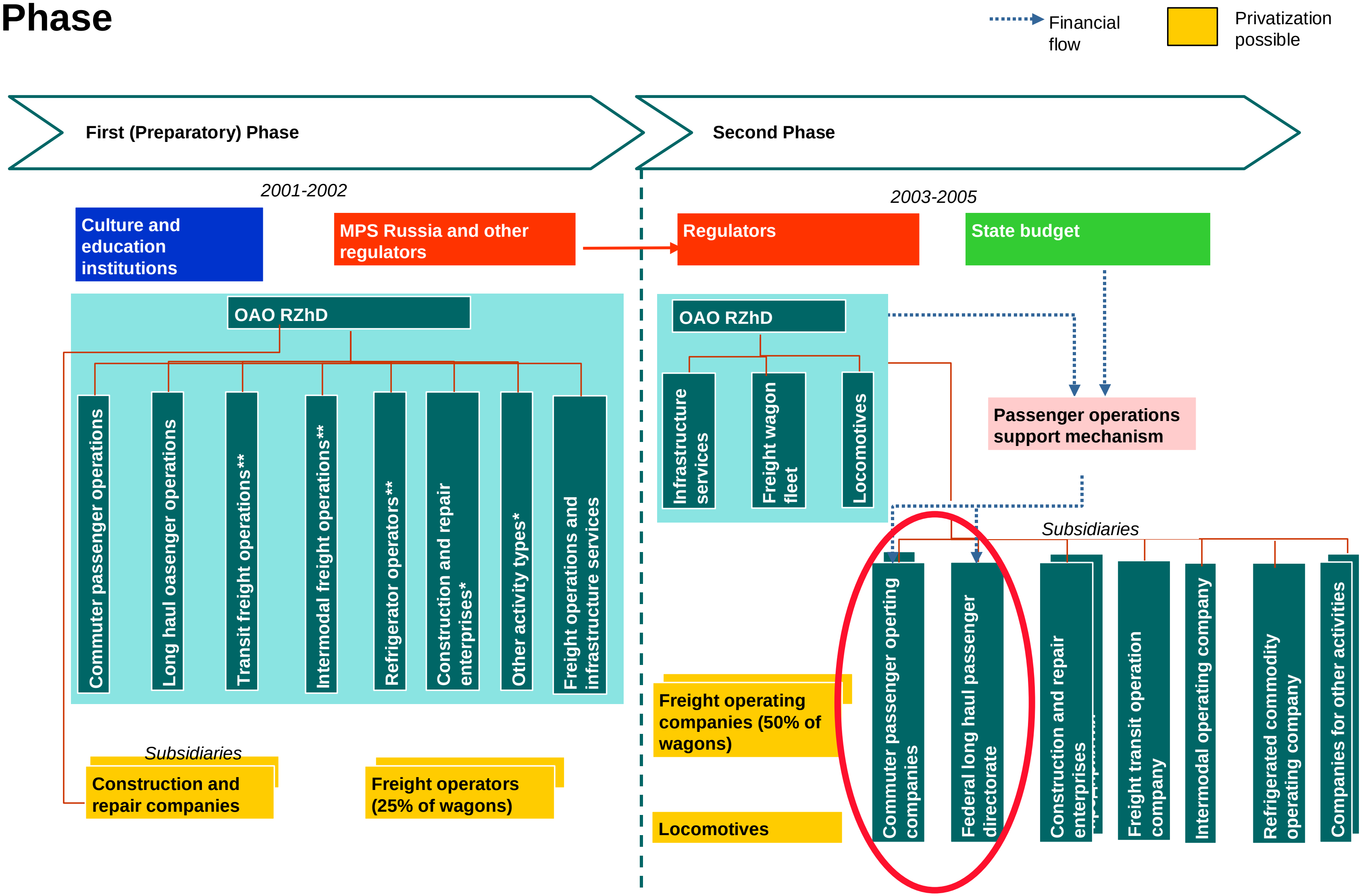
25 Franchises (Private)

Subsidies by local/national governments

Why?

- Pros:
  - Economics of density (trackage rights/Joint terminals in US)
  - To create competition ON the rails
  - To clarify business focus (multipurpose)
  - To target state support to social and infrastructure
  - Enhanced opportunity for private roles: creates manageable pieces and separates government
- Cons
  - Complexity (transaction costs), esp. access pricing
  - Coordination of schedules, maintenance, eqpt/rail
- Does it work: compared to what?

Development Of Rail Transport Organization By The End Of The Second Phase

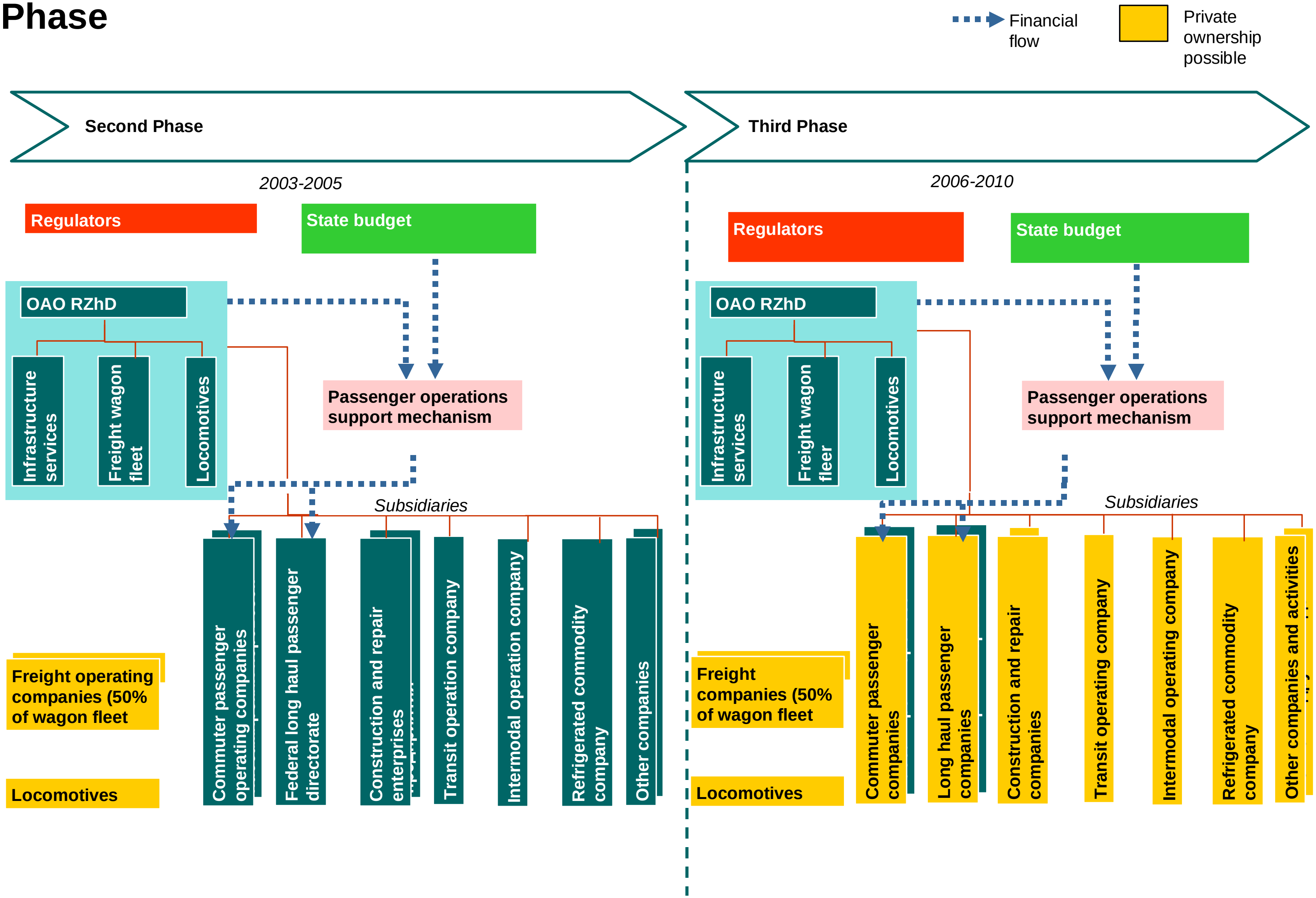


* except those to be divested immediately

** can be divested as subsidiaries in the first reform phase

MPS goes to MOT

Development of Rail Organization Structure By The End Of The Third Phase

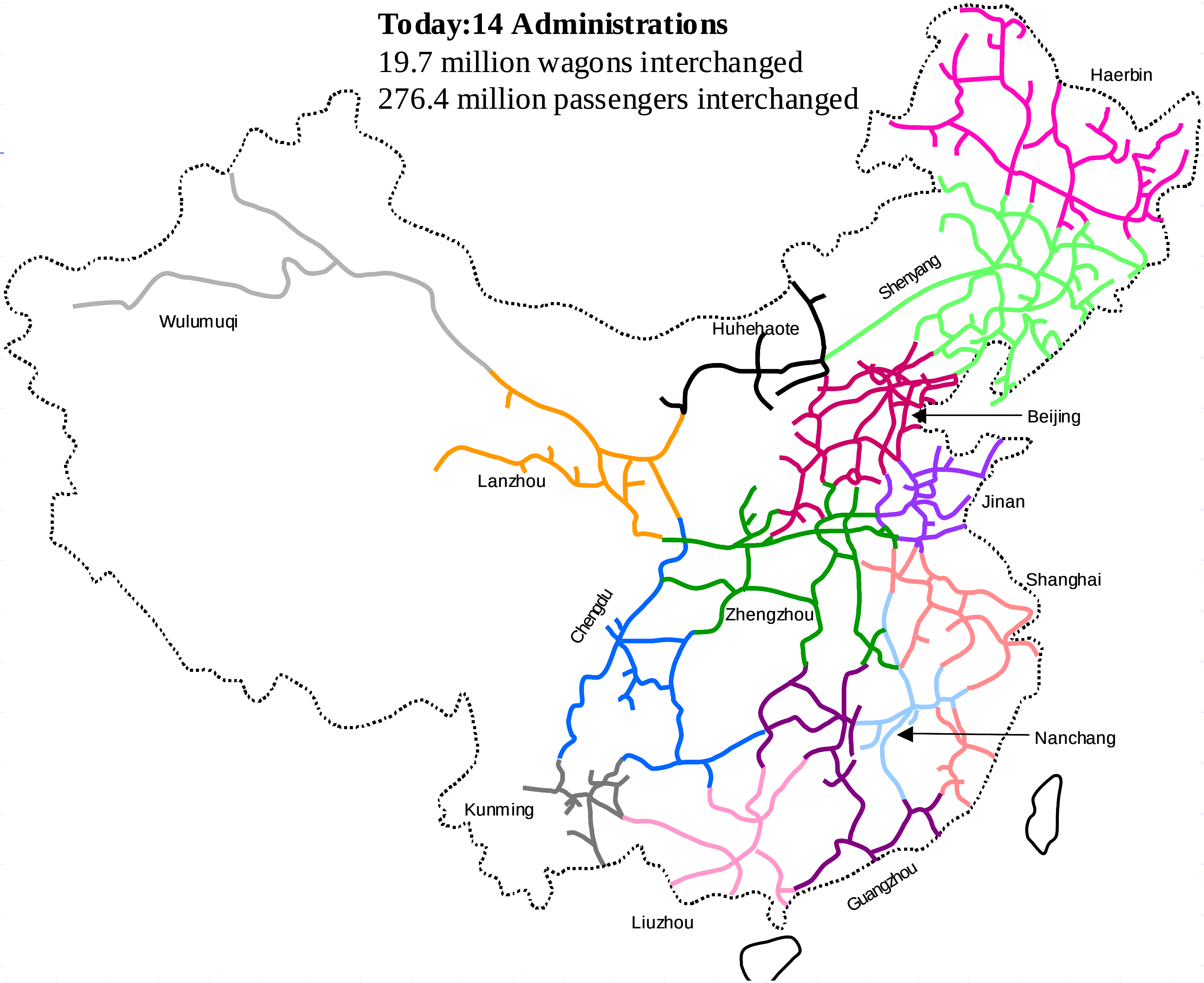


Russian regulation: a key issue

- Is open access credible if RZhD owns infrastructure and a freight company?
- Access charges based on commodity class: incentives and entry?
- Internal cross subsidies: the Federal Energy Commission as regulator?
- Federal/Local government interactions

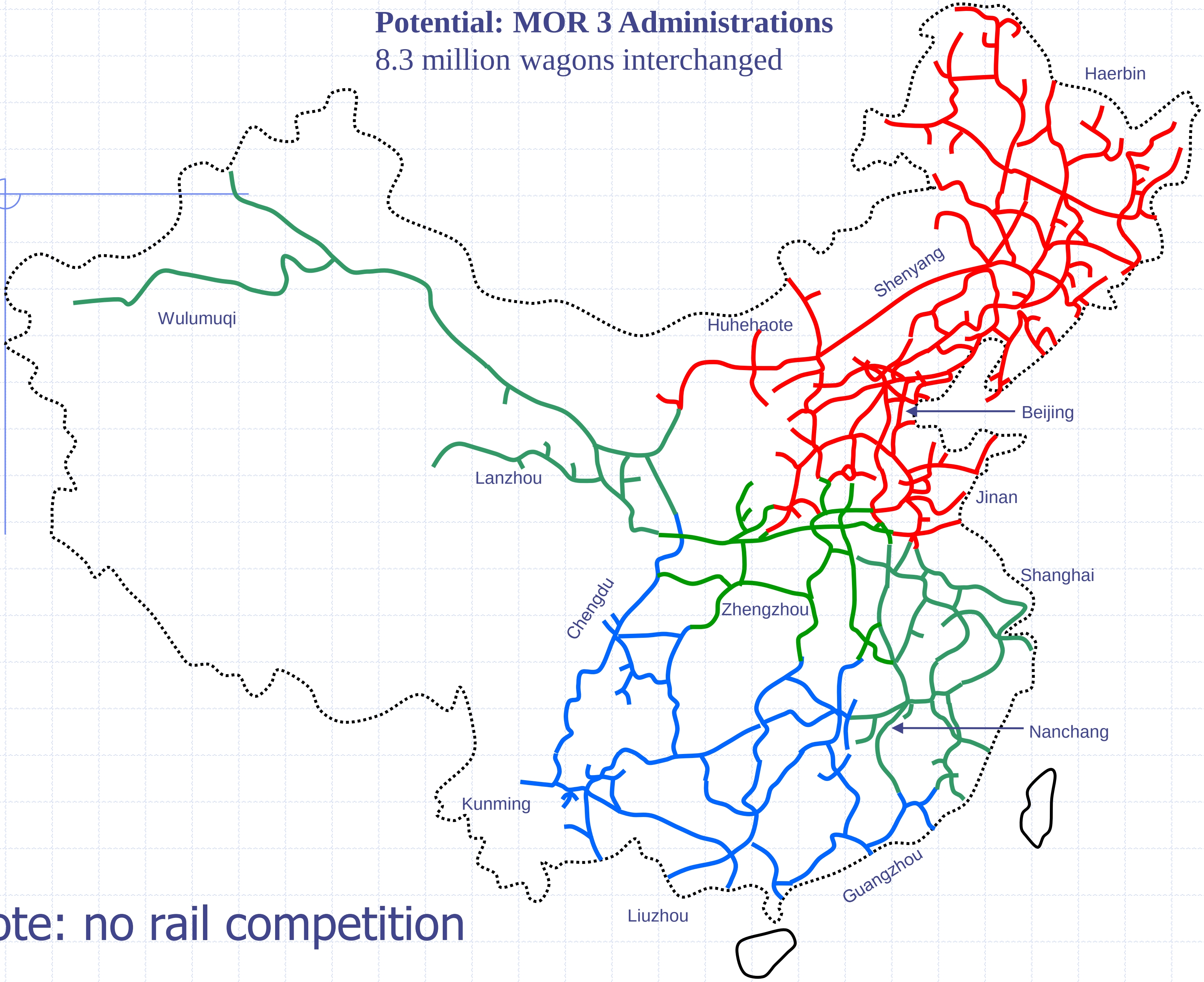
CHINA: A Regionally Organized Railway

Today:14 Administrations
19.7 million wagons interchanged
276.4 million passengers interchanged



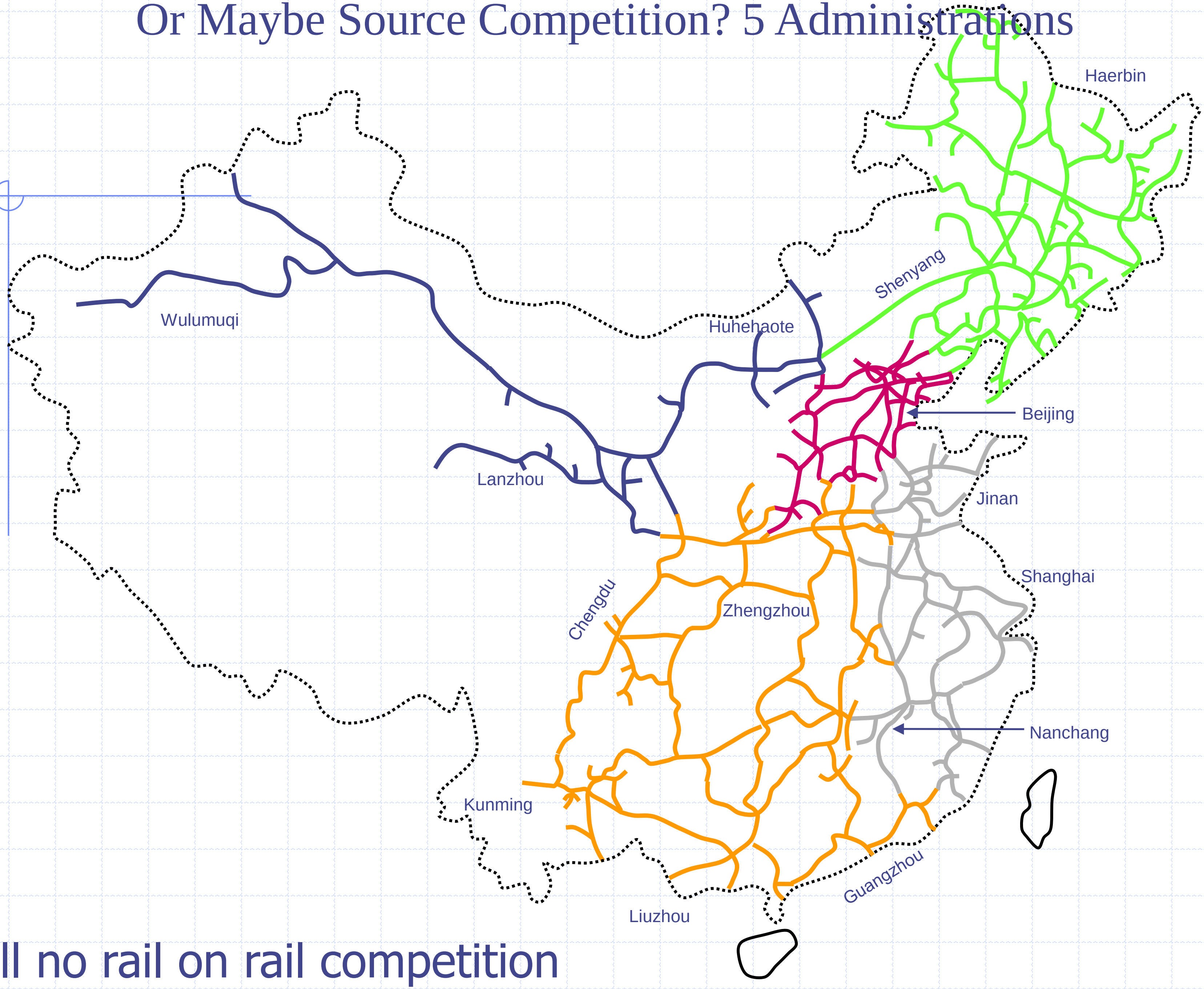
Potential: MOR 3 Administrations

8.3 million wagons interchanged



Note: no rail competition

Or Maybe Source Competition? 5 Administrations



Still no rail on rail competition

The real objective: build more

- Expand from 70,000 km to 100,000 km in 2020 (Russia 86,000; US Cl I 157,000; India 63,000)
- Double tracking and electrification:25% to 50% by 2020
- 12,000 km dedicated passenger network (200 km/hr exc. Beijing to Shanghai)
- High density freight corridors, new lines in Western China
- Specialized operating companies (containers)
- Traffic density: China 30.2; Russia 15.8; India 11.7, US Cl I 13.8, EU~4. China has a problem
- Total Cost: $225 Billion
- Reform program on hold; stay tuned. Major issues are separation of enterprise from Government and rail competition.