Schienen Control

Track access charges in Austria

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- Charging scheme in Austria
- Direct cost calculation
- Market segmentation and mark-ups
- Other charging components
- Conclusion & remarks

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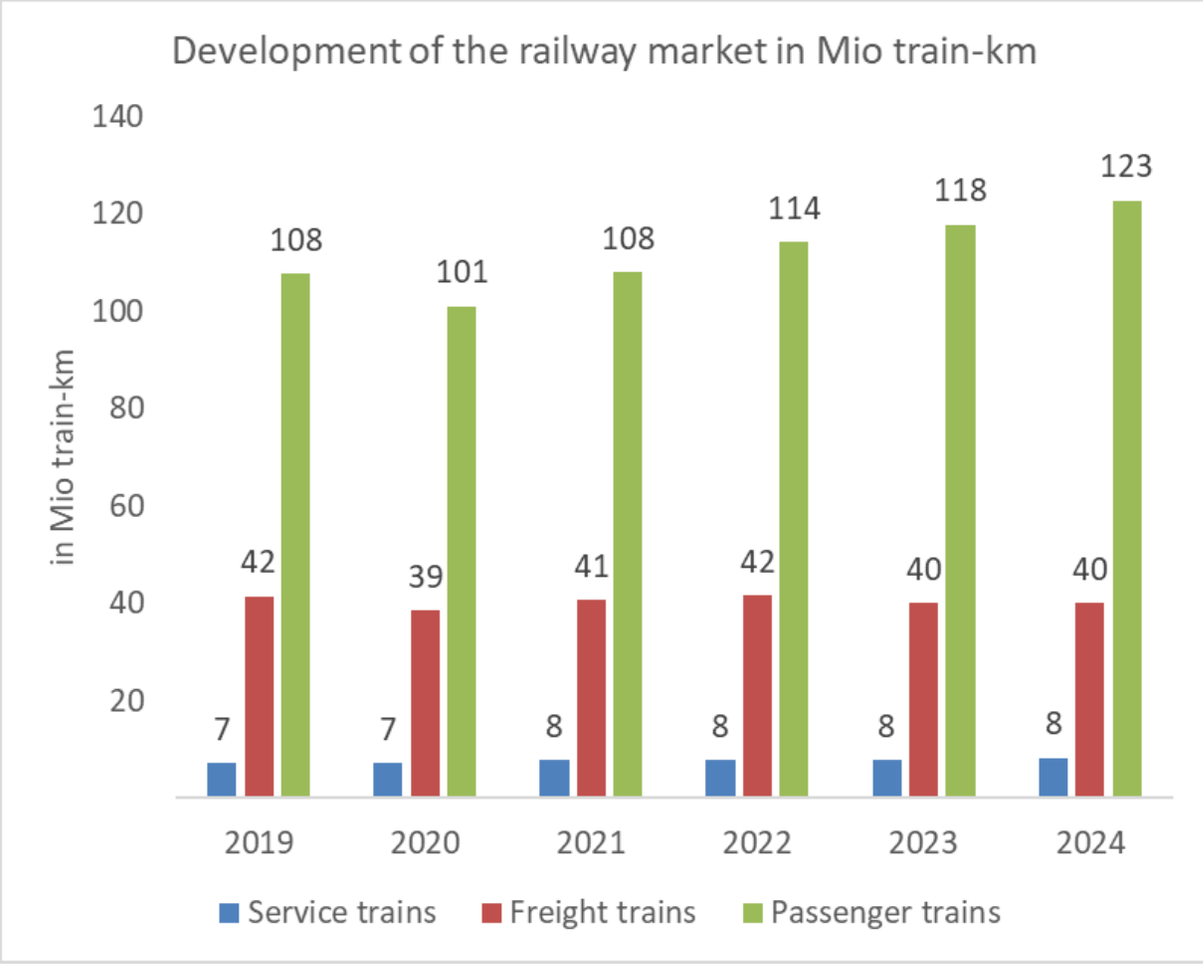
INTRODUCTION

Introduction

- New charges for the Minimum Access Package (MAP) scheme introduced 2018 (based on the Directive 2012/34/EU and Implementing Regulation 2015/909)
- Focus on the charges of the main IM (ÖBB-Infrastruktur AG)
- Exclusion under Article 2 of the Directive 2012/34/EU for smaller IMs
- The data presented are based on the network statement of the main IM and the RB's decision on charges for 2018/2019

Market development in train-km



Passenger transport

Record ridership growth, driven by new infrastructure and regional services

Freight transport

Stagnating volumes with extensive ad-hoc path use and persistent network quality issues

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CHARGING SCHEME

Overview Charging Scheme

Basic Charges

Charge per train-km + Charge per gross tonne-km + Mark-ups per Segment

Incentives, Performance Regime and other charges

Charge for congested infrastructure

Performance Regime

Traction unit factor

Noise bonus

Procedure for determining charges

1. Calculation of direct cost charges
2. Market segmentation
3. Elasticity per market segement (what the market can bear)
   a) Identify final customer elasticity
   b) Consider cost structure of RUs
4. Determination of the revenue target or revenue goal
5. Calculation of mark-ups using Ramsey-Boiteux modell

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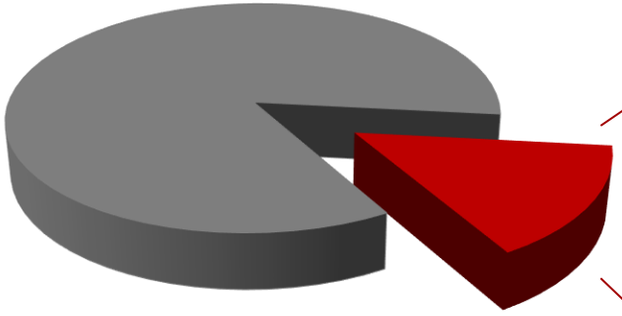
DIRECT COST CALCULATION

Calculation of direct costs charges

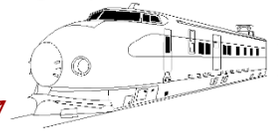
DVO
2015/909

Market Segments by ÖBB-Infra

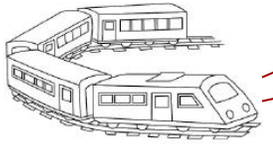
Charges per train-km and per gtkm



High Speed > 200 km/h

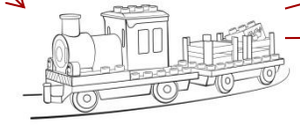


High Speed < 200 km/h



Regional Trains

Freight Trains



- Commercial passenger Services
- Long distance passenger PSO
- Local passenger PSO high volume
- Local passenger PSO low volume
- Freight Services without manipulation
- Freight Services with manipulation

(Relevant) Cost positions

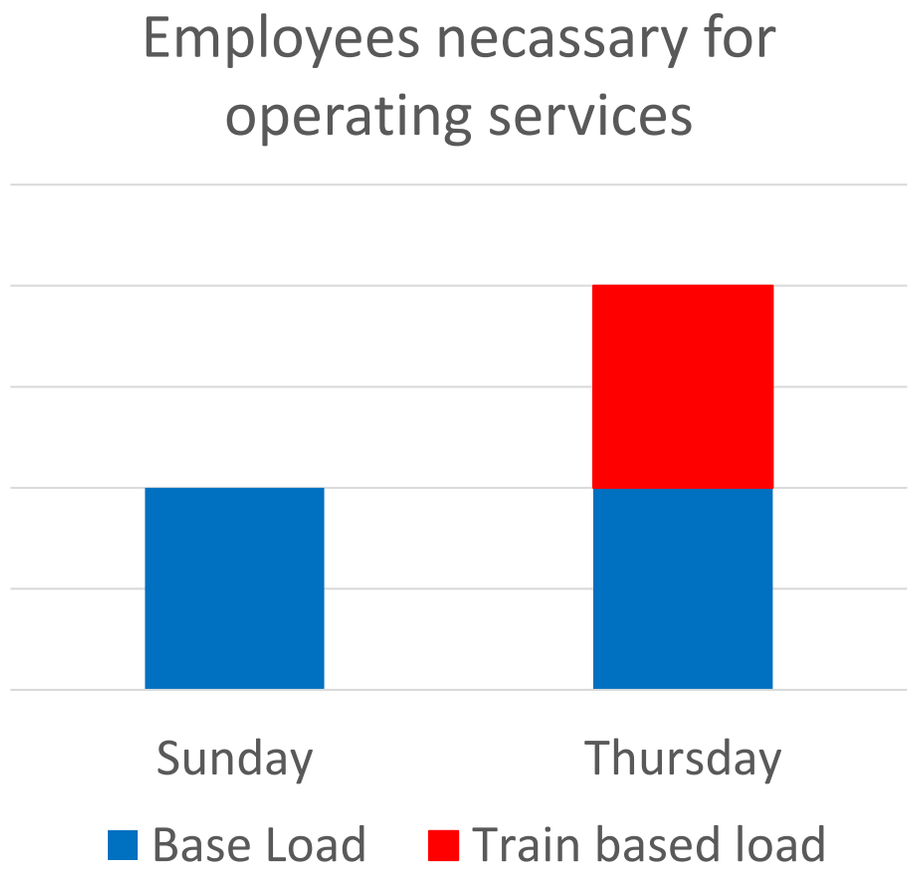
- Operating cost
- Maintenance cost
  - Unplanned maintenance
  - Planned maintenance
  - Inspection / Service
- Train path allocation
- Depreciation

Operational cost 1/2

- Operational cost for traffic management
- Do these costs vary with train services?
- How do IM calculates the share depending on train services?
- Do-So modell (Thursday – Sunday modell)
- Cost for overtime work

Operational cost 2/2

- Problem: Number of employees necessary, even if there is no traffic, is not known
- Do-So modell (Thursday – Sunday modell)
- Sunday is taken as Base Load (not depending on train services)
- Additional services needed are considered depending on train services
- Part of overtime cost also considered depending on train services



Maintenance cost

- Maintenance cost is divided into three categories:
  - Unplanned / ad hoc maintenance
  - Planned / preventive maintenance
  - Inspection / service

- Analysis of maintenance according to the different asset classes, like
  - Track, gravel, sleeper
  - Catenary
  - Railway crossings
  - Railway embankments, tunnels and bridges
  - Switches and signalling

Unplanned maintenance

- Unplanned maintenance when an asset cannot be used anymore
- Therefore, immediate maintenance is necessary
- Maintenance cost is analysed per type of maintenance and asset
- Type of maintenance is then analysed how much it depends on train runs
- Exclusion for acts of god/force majeure (floods or avalanches) and damages caused by RUs or third parties

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Planned maintenance

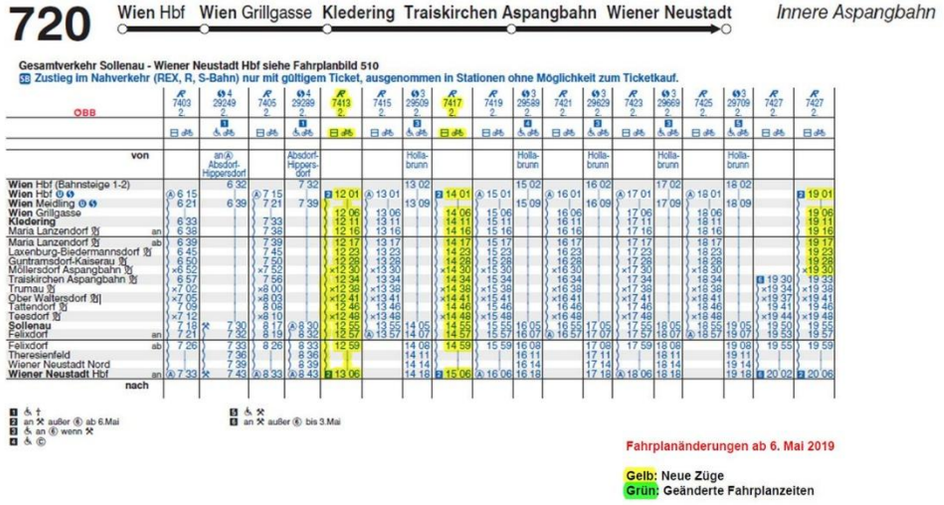
- Planned or preventive maintenance is planned ahead
- Maintenance cost is analysed per type of maintenance and asset
- Type of maintenance is then analysed how much it depends on train runs
- Example: Renewal of tracks, gravel and sleeper

Inspection and service

- Inspection depends on time and therefore not applicable as direct cost
- However, during inspection smaller maintenance and service tasks are done
- These tasks (partly) depend on the number of train runs (greasing railway points)
- For each task a threshold is calculated that allocates part of cost to direct cost

Train path allocation

- Train path allocation necessary for train runs
- The cost for train path allocation increases with the number of train services
- Therefore, part of cost does vary with the train runs
- Analysis of the different processes and allocating these thresholds to the cost



720 Wien Hbf – Wien Grillgasse – Kledering – Traiskirchen Aspangbahn – Wiener Neustadt *Innere Aspangbahn*

Gesamtverkehr Sollenau - Wiener Neustadt Hbf siehe Fahrplanbild 510

SB Zustieg im Nahverkehr (REX, R, S-Bahn) nur mit gültigem Ticket, ausgenommen in Stationen ohne Möglichkeit zum Ticketkauf.

ÖBB																		
	R 7403	S 29249	R 7405	S 29289	R 7413	R 7415	S 29509	R 7417	R 7419	S 29589	R 7421	S 29629	R 7423	S 29669	R 7425	S 29709	R 7427	R 7427
von		an Absdorf-Hippersdorf		Absdorf-Hippersdorf			Hollabrunn			Hollabrunn		Hollabrunn		Hollabrunn		Hollabrunn		
Wien Hbf (Bahnsteige 1-2)		6 32		7 32			13 02			15 02		16 02		17 02		18 02		
Wien Hbf	6 15		7 15		12 01	13 01		14 01	15 01		16 01		17 01		18 01		19 01	
Wien Meidling	6 21	6 39	7 21	7 39			13 09			15 09		16 09		17 09		18 09		
Wien Grillgasse					12 06	13 06		14 06	15 06		16 06		17 06		18 06		19 06	
Kledering	6 33		7 33		12 11	13 11		14 11	15 11		16 11		17 11		18 11		19 11	
Maria Lanzendorf an	6 38		7 38		12 16	13 16		14 16	15 16		16 16		17 16		18 16		19 16	
Maria Lanzendorf ab	6 39		7 39		12 17	13 17		14 17	15 17		16 17		17 17		18 17		19 17	
Laxenburg-Biedermannsdorf	6 45		7 45		12 23	13 23		14 23	15 23		16 23		17 23		18 23		19 23	
Guntramsdorf-Kaisarau	6 50		7 50		12 28	13 28		14 28	15 28		16 28		17 28		18 28		19 28	
Möllersdorf Aspangbahn	×6 52		×7 52		×12 30	×13 30		×14 30	×15 30		×16 30		×17 30		×18 30		×19 30	
Traiskirchen Aspangbahn	6 57		7 56		12 34	13 34		14 34	15 34		16 34		17 34		18 34	19 30	19 33	
Trumau	×7 02		×8 00		×12 36	×13 36		×14 36	×15 36		×16 36		×17 36		×18 36	×19 34	×19 38	
Ober Waltersdorf	×7 05		×8 03		×12 41	×13 41		×14 41	×15 41		×16 41		×17 41		×18 41	×19 37	×19 41	
Tattendorf	7 09		8 06		12 46	13 46		14 46	15 46		16 46		17 46		18 46	19 41	19 46	
Teesdorf	×7 12		×8 10		×12 48	×13 48		×14 48	×15 48		×16 48		×17 48		×18 48	×19 44	×19 48	
Sollenau	7 18	7 30	8 17	8 30	12 55	13 55	14 05	14 55	15 55	16 05	16 55	17 05	17 55	18 05	18 55	19 50	19 55	
Felixdorf an	7 21	7 32	8 19	8 32	12 57	13 57	14 07	14 57	15 57	16 07	16 57	17 07	17 57	18 07	18 57	19 07	19 53	19 57
Felixdorf ab	7 26	7 33	8 26	8 33	12 59		14 08	14 59	15 59	16 08		17 08	17 59	18 08		19 08	19 55	19 59
Theresienfeld		7 36		8 36			14 11			16 11		17 11		18 11		19 11		
Wiener Neustadt Nord		7 39		8 39			14 14			16 14		17 14		18 14		19 14		
Wiener Neustadt Hbf an	7 33	7 43	8 33	8 43	13 06		14 18	15 06	16 06	16 18		17 18	18 06	18 18		19 18	20 02	20 06
nach																		

1 ♿ †
2 an ⚒ außer Ⓑ ab 6.Mai
3 ♿ an Ⓑ wenn ⚒
4 ♿ Ⓒ

5 ♿ ⚒
6 an ⚒ außer Ⓑ bis 3.Mai

Fahrplanänderungen ab 6. Mai 2019

Gelb: Neue Züge
Grün: Geänderte Fahrplanzeiten

Depreciation

- Depreciation is usually time-based and therefore not part of direct cost
- However, use-based depreciation can be considered direct cost
- More intensive use of infrastructure can lead to shorter lifecycle
- Used-based depreciation for assets:
  - Tracks, gravel and sleepers
  - Catenary
  - Bridges

Modulation of direct costs

- Different trains cause different costs
- Therefore, they should not bear the same direct costs
- Modulation to four different train classes (categories)
  - High speed > 200 km/h
  - High speed < 200 km/h
  - Local trains
  - Freight trains
- Direct costs are calculated by:
  - Train-km
  - Gross tonne-km (train-km x weight)

Direct costs per market segment

Market segments	Direct costs in € per train-km	Direct costs in € per gross tonne-km
Commercial passenger		
Long distance passenger PSO	0.649	0.002129
Local passenger PSO high volume		
Local passenger PSO low volume	0.747	0.003482
Freight without manipulation		
Freight with manipulation (both subsegments)	0.741	0.001926
Service trains	0.741	0.001926

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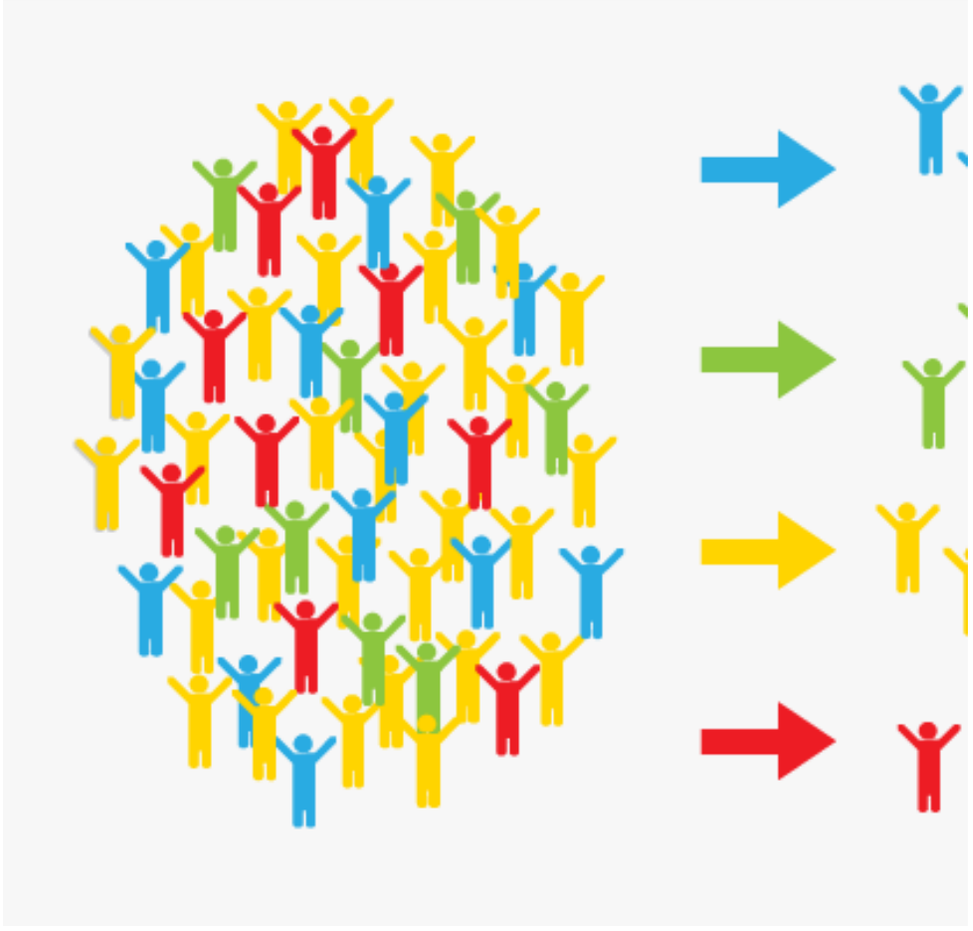
MARKET SEGMENTATION AND MARK-UPS

Mark-ups

- Mark-ups for the timetable periods from 2018 until 2021
- No mark-ups from 2022 onwards (until 2028?)
- Planned reintroduction for mark-ups from 2029 onwards

Market segmentation and mark-ups

- Market segmentation is a precondition for mark-ups
- Article 32 (1) foresees a minimum of three segments:
  - PSO passenger services
  - Non-PSO passenger services
  - Freight
- Annex VI lists pairs of market segments to be considered



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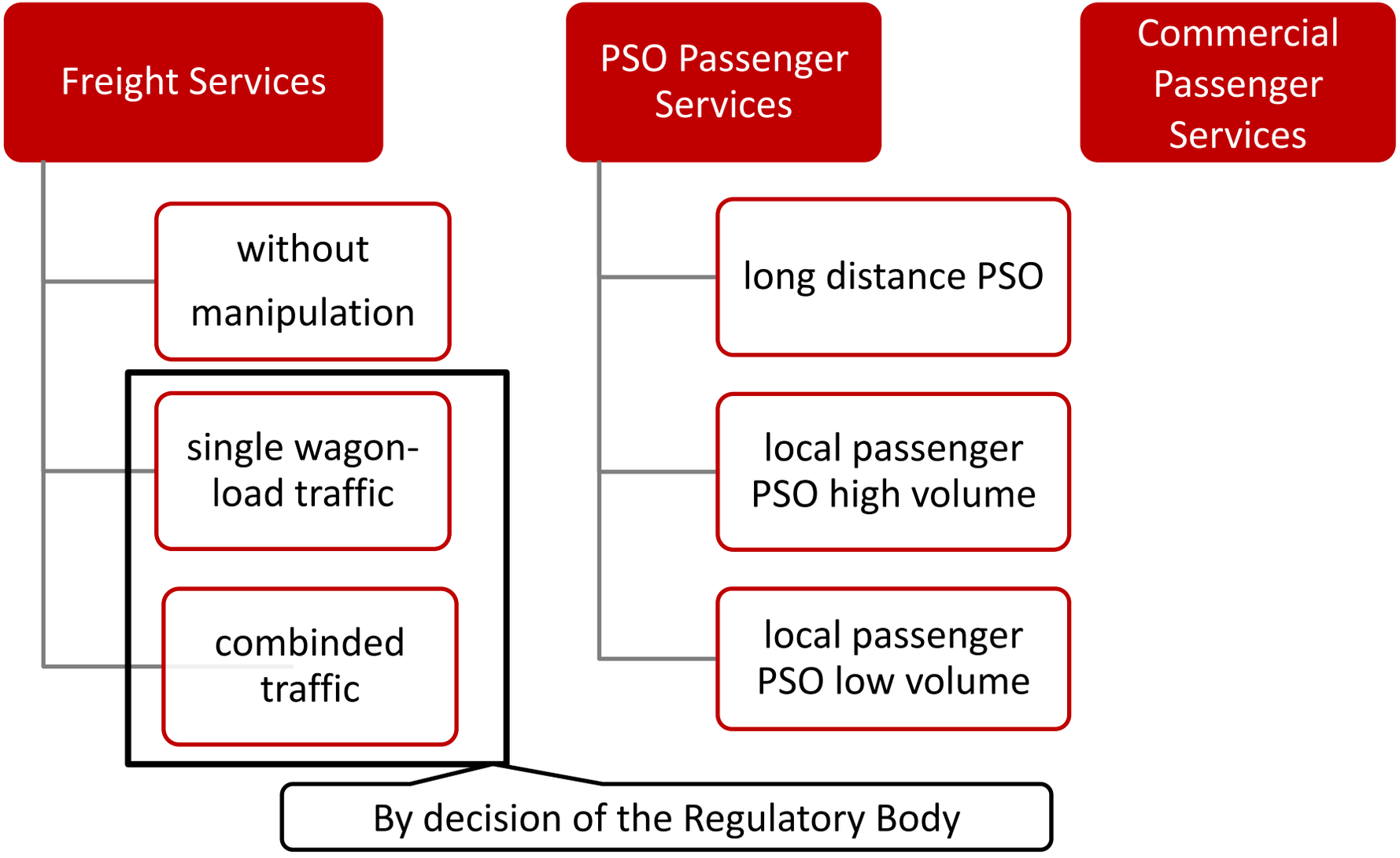
Market Segments (as proposed by the IM)



Market segments, that cannot bear mark-ups

- Two freight market segments excluded from mark-ups
  - Combined trains (require terminals)
  - Single wagon-load trains (wagon exchange during run)

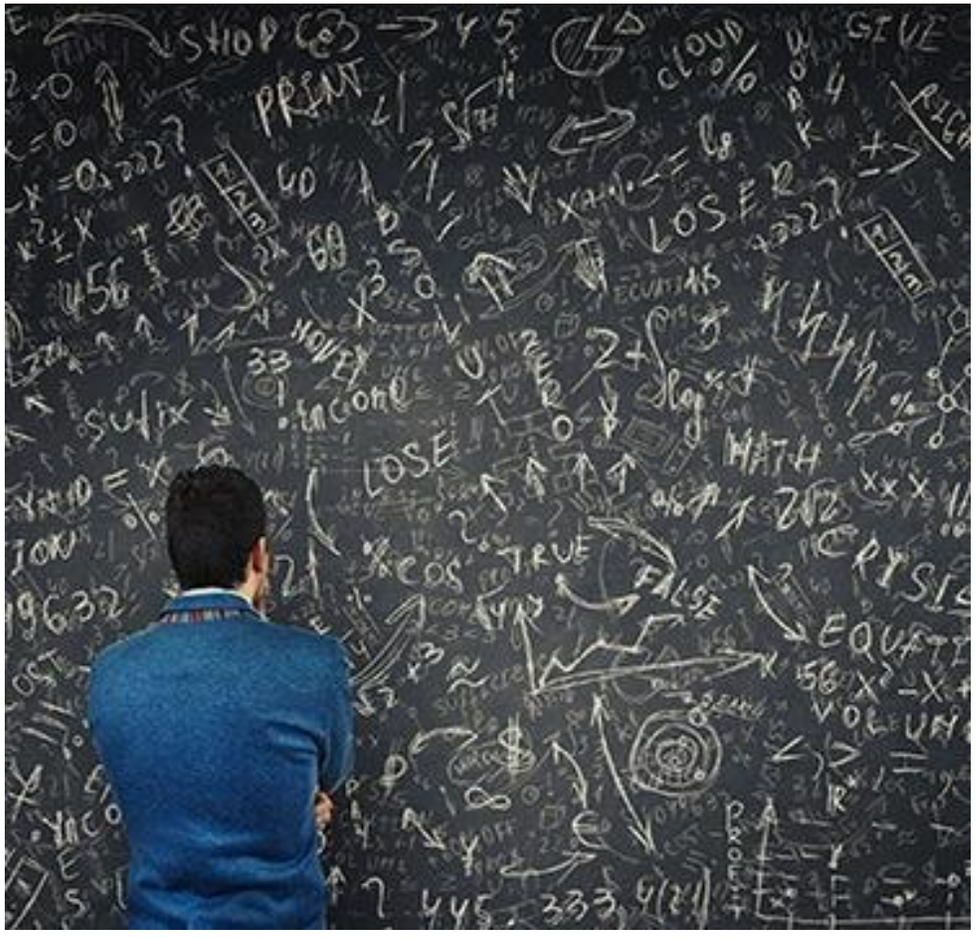
- Subsidies provided for combined and single wagon-load traffic
- Dependence on subsidies shows that these services cannot bear mark-ups
- Direct competition with road; declining share in train-km
- Therefore, excluded from mark-ups

Mark-up Calculation

- Parameters needed for mark-up calculation:
  - Elasticity per market segment
  - Ratio charges to full cost
  - Traffic volume per market segment
  - Revenue target

- The IM organised a study in 2018, which calculated elasticities for the different market segments for Austria by using interviews

- Besides elasticities, the ratio of charges to full cost was allocated by interviews



Decision C-538/23 (22nd of May 2025)

- Approval of mark-ups
- Publication
- Binding effect
- Revenue target and subsidies

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OTHER CHARGING COMPONENTS

Other charging components

- Active charging components:
  - Charge for congested infrastructure
  - Performance Regime
- Former charging components:
  - Noise bonus
  - Traction unit factor

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CONCLUSION & REMARKS

Conclusion and Remarks

- Charging scheme must be transparent and auditable
- Keep the charges system simple
- Incentives must have a real impact to influence behaviour

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THANK YOU FOR YOUR ATTENTION