The infrastructure charging system at Latvian Railway (LDz)

Perspective of the infrastructure manager
Agenda

- Introduction to the Latvian Railway network
- Description of the infrastructure charging methodology at Latvian Railway
- Discussion and questions related to the Baltic context
Charge for the usage of the railway infrastructure

Railway infrastructure is divided in three categories:

1 and 2 category – strategic importance
3 category – regional importance

Total length of lines – 2 270 km
Double track sections – 303 km
Electrified lines – 257 km
Institutional structure of the railway sector

Governance
- Independent Regulator
- State Railway Administration
- State Technical Inspection

Operations
- LDz Operator (not separated) and Infrastructure Manager
- Other 3 passenger and 2 freight Operators
Railway regulatory institutions

Independent Regulator:
- sets the methodology for calculation of the charges
- approves tariffs for the utilities
- issues licenses to the passenger operators

State Railway Administration:
- allocates infrastructure capacity
- issues licenses to the freight operators

State Technical Inspection:
- issues the safety certificates
Conditions for the Infrastructure Manager

- Latvian railway is a joint-stock company
- All shares are owned by the State
- The government provides minimal financing from the State budget (mainly as a co-financing with EU funds)
- Transit flows from CIS to the Latvian ports
- Main source of LDz revenues – charge for the usage of the railway infrastructure
The charge system is based on four principles:

1. To satisfy the financial needs of the public railway infrastructure for 100%
2. To establish (gradually) the same conditions for competition in freight and passenger transport
3. To achieve the optimal conditions for intermodal competition, taking into account social costs, environmental issues, and the economic interests of the country
4. To achieve the maximal utilization of the public railway infrastructure capacity
The market of the rail transport (train-km in 2004)

<table>
<thead>
<tr>
<th>Freight operators (61%)</th>
<th>Passenger operators (39%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>92%</td>
<td>89%</td>
</tr>
</tbody>
</table>

**Freight operators**
- 92% for LDz
- 7% for Baltijas Ekspresis
- 1% for Baltijas tranzita serviss

**Passenger operators**
- 89% for LDz
- 2% for Passenger domestic trains
- 9% for International trains operator
General characteristic of the Latvian charging system

Different for operators:
- in freight traffic
- in passenger traffic

Different for 3 line categories

The main indicator – train-km
Charge for the usage of the railway infrastructure

For freight operators:

Charge for 1 train/km (in EUR)

<table>
<thead>
<tr>
<th></th>
<th>1 category</th>
<th>2 category</th>
<th>3 category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge</td>
<td>6.36</td>
<td>5.51</td>
<td>4.11</td>
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</tbody>
</table>
Charge for the usage of the railway infrastructure

For freight operators

Discounts available:

1. Discount for individual train category

2. Discount for freight forwarders depending on the train kilometers traveled by all freight forwarders during the year
Charge for the usage of the railway infrastructure

For passenger operators:
Charge for 1 train/km (in EUR)

<table>
<thead>
<tr>
<th></th>
<th>1 category</th>
<th>2 category</th>
<th>3 category</th>
</tr>
</thead>
<tbody>
<tr>
<td>electric trains</td>
<td>3,30</td>
<td>2,46</td>
<td>-</td>
</tr>
<tr>
<td>diesel trains</td>
<td>2,65</td>
<td>1,98</td>
<td>4,41</td>
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<tr>
<td>international trains</td>
<td>0,07</td>
<td>0,07</td>
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Principles of establishing the charge for the usage of the railway infrastructure

- Full cost recovery
- Stock Company LDz does not have State budget financing
Total costs of railway infrastructure

- $C_{tot} = C_{maint} + C_{invest} + T + M$

- $C_{tot}$ – total railway infrastructure cost
- $C_{maint}$ – the cost of railway infrastructure maintenance
- $C_{invest}$ – the amount of replacement investment
- $T$ – taxes payable by infrastructure manager
- $M$ – mark-ups
Charge for railway infrastructure usage

- **Charge** = \((\frac{C_{\text{cat}}}{T_{\text{km}}}) \times M_{\text{c}}\)

- **\(C_{\text{cat}}\)** – The total costs (during the year) which are necessary to ensure the opportunity to use the particular category of railway infrastructure by freight and passenger operators.

- **\(T_{\text{km}}\)** – The planned amount of train kilometers according to the requests of freight and passenger operators.

- **\(M_{\text{c}}\)** – The module of capacity demand correction which is established by infrastructure manager and which is used if there is too big or too small demand for infrastructure capacity.
Maintenance costs of railway infrastructure (C\text{maint})

- Railway track maintenance costs
- Train control equipment maintenance costs
- Train operation costs
- Infrastructure real estate maintenance costs
- Railway infrastructure management costs
- State Railway Administration costs
- State Technical Inspection costs
- Regulator costs
<table>
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<th></th>
<th>passenger</th>
<th>freight</th>
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</thead>
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<tr>
<td>track maintenance costs</td>
<td>train km</td>
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<td>train operation costs</td>
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<td></td>
<td>passenger or</td>
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<tr>
<td></td>
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<td>real estate maintenance</td>
<td>specific for</td>
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<tr>
<td>electric trains</td>
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<tr>
<td>others</td>
<td>train-km</td>
<td>0.26</td>
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<td>inv.</td>
<td>train-km</td>
<td>0.76</td>
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<tr>
<td>total price</td>
<td>train-km</td>
<td>3.30</td>
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</table>
Additional services of Infrastructure Manager

Supplementary Services
Technical maintenance of wagons in train
Processing of train documents
Shunting
Other

Other Services
Operations with cargo
Provision of electricity
Provision of fuel
Cleaning of the rolling stock
Other
Manager’s cash flow

State budget

Domestic passenger operator

Freight operators

Infrastructure manager (LDz)

32%

68%

[Legend: Maintenance, Investments]
Infrastructure charges: Summary

The distinctive characteristics:
- LDz does not use State budget financing
- Charge is based on full cost recovery

Advantages:
- Simple payment calculation
- Incentives for efficient use of the infrastructure

The other side of the coin:
- Large influence of traffic volume variation
- Relatively expensive for the operators
Discussion

- The objectives of the EU policy that are met:
  - Open access
  - Efficiency
  - Competition
  - The solution is market-based
  - Minimal burden on the State budget

- Should LDz charge less than the full cost?
  - What are the objective reasons for that?
  - What would the taxpayers say?
Discussion

- Importance of the context:
  - Baltic railways operate under remarkably different conditions than their western counterparts

- Shall we trust the market or the regulations?
  - The costs of complete implementation of the EU regulations are rather high
  - There is already a working geographic competition between different transport routes:
    - Would not this bring the desired results and “integrate” the European countries even better than the reforms proposed?
    - Example: Competition between the railways in the Baltic countries
Conclusions

- The railway in Latvia has developed in a specific historical and economic context, and there are reasonable grounds for the local railway system to be organized as it stands at the moment.
- With regard to the charging for the infrastructure, full cost recovery turned out to be a feasible option and was implemented in practice.
- Concerning the future and the European railway reforms, Latvian Railway confronts new challenges and is actively looking for taking the optimal actions.