TOGETHER FOR HUNGARIAN RAILWAYS

TOGETHER FOR EASTBOUND RAIL FREIGHT POTENTIAL THROUGH HUNGARY - ZÁHONY

Vienna, 19 April 2013

dr. László Mosóczi, chairman
Approach of the study

- Past and current situation of rail freight transportation
- Advocacy
- Current traffic from Europe to Asia, with a special focus on China and Kazakhstan, and the transit countries (Russia, Ukraine)
- Current eastbound rail traffic through Hungary (Záhony)
- Infrastructure and capacity
- Rail freight potential to China and Kazakhstan (and the involved transit countries)
- Areas and product groups where rail has competitive advantage vs. other modes of transport
- Creation of a competitive rail freight line between China/Kazakhstan and Europe
PAST AND CURRENT SITUATION OF RAIL FREIGHT TRANSPORTATION
Past and current situation of rail freight transportation

- EU White Paper 2001 discusses revitalisation after several years of decline in market share.

- 2013: However its condition has improved, rail freight transportation still faces serious problems.

- EU members show stagnation, the level of market share is still below target figures with a 10-year delay.

- Different degree of development in East-West comparison.
Comparing different modes of transportation

There is still a growth potential in international comparison

Source: Eurostat 2011
B ADVOCACY
Advocacy - HUNGRAIL

19 member companies

International railway organizations

State organizations

MINISTRIES

NATIONAL TRANSPORT AUTHORITY
Activities

1. Active advocacy. Ongoing dialogue with the political and economic actors.
2. Providing platform for exchange of expertise and knowledge.
3. Strong organization with broad professional knowledge.
4. Facilitating political decisions. Subsequent monitoring.
5. We are an active and committed partner in Hungarian and EU transport policy.
6. Services for member companies.
7. Proactive communication.
8. Social responsibility.
Strengthening our international presence

**STRENGTHENING REGIONAL PRESENCE**
Target markets: partner organizations of Ukraine, Romania, Austria etc., facilitating information exchange and advocacy.

**STRENGTHENING EU RELATIONS**
In agreed topics coordinated by the Ministry of National Development, involving Ministry of Foreign Affairs and National Transport Authority. Focus on priority issues through our international memberships (CER, UIC)

**INTERNATIONAL REPRESENTATION (WHEN AUTHORIZED)**
If burdened companies and organizations are unable to effectively perform their international representation HUNGRAIL could be able to provide it through delegations (eg. in ERA)
CURRENT TRADE FLOW FROM EUROPE TO ASIA
Over 50 million tons of trade flow between Europe and Asia in containers (more than 6 million TEU) in 2010, that represents about half of their total trade flow.

Share of rail to Asia is still extremely low: 1.4% (share of rail to Russia: 39%, share of rail to Ukraine: 63%) - even air cargo is higher with a 2% share.

Trade with China is growing rapidly.

Trade flow with Kazakhstan is under 1% but has a growing potential.

Imbalance in trade flow: 55% westbound, 45% eastbound - economic interests in strengthening exports.

*Countries involved in the analysis: the countries of Asia, Russia and Ukraine.
Eastbound rail freight from Europe

Exported products with significant volumes

- Increasing trends for both groups, but Asia has only remained a potential so far.
- Rail freight volume to Asia was only one fifth of the rail freight to Russia and Ukraine in 2010.
- Similar product groups go by rail to Russia (and Ukraine) and China.

Source: Eurostat, GKI
Eastbound rail freight through Hungary (Záhony)

- Huge drop in trade flow after the collapse of Comecon (KGST)
- 90% of the eastbound freight through Záhony is of Hungarian origin, of which three quarters go to Russia or Ukraine
- Share of exports to Ukraine grew, that of Russia decreased
- Hungary mainly exports Cans and Machinery and equipment through Záhony
- Generally, eastbound transit via Záhony comes from South Germany, Austria and Slovenia
Relatively fast and reliable infrastructures

- TSR in Russia is double track and electrified
- New developments in Kazakhstan
- No crucial lack of infrastructure or capacity now or in the near future

However, some further improvement (double track, electrification, speed) in Kazakhstan may contribute to long-term future growth in rail freight between Asia and Europe!
Further developments planned in Russia, Kazakhstan and Western China

- **Russia (RZD)** plans to have TEU 1 million of containers as transit and upgrade its rolling stock to almost 1 million cargo wagons until 2030.

- **Kazakhstan** plans to upgrade some of its railway lines and build new ones (Khorgos-Zhetygen) that can contribute to better trade flow.

- **China** focuses on railway and logistics modernization in its latest 5-year plan, especially in Western China, including electrification and double tracks on the corridor to Kazakhstan (with separation of passenger and freight traffic).

**Trans-Kazakh route**
- Shortest route between China and Europe
- Strategic position in accessing Western China
Infrastructure and capacity – some relevant terminals

- Záhony terminal (Hungary): it used to handle over 16 million tons of cargo in the ’80s and it still has the theoretic capacity but some developments may be necessary reach it again, whereas others (like the launch of an industrial center) could boost its potential.

- Khorgos terminal (Kazakhstan): a logistic complex and free trade zone under heavy development, that will include the industrial sector, and a transport and logistic center ‘dry port’.

- Urumqi terminal (China): well developed international logistic center.
Some international forwarding companies assessed

- lack of containers
- lack of rolling stock
- unreliable waiting times at borders
- too many changes of locomotives
- congestion problem on the Chinese – Kazakh border

whereas others didn’t have such problems...

International agreements needed to further enhance cooperation and priorities for smoother operation. Bilateral or multilateral trade agreements could give boost to infrastructural and administrative developments.
RELEVANT COUNTRIES AND PRODUCT GROUPS
Priority countries/regions for eastbound cargo through Hungary

- **Zone 1**: where comparative advantage of rail is highest for the route via Hungary
  
  - **Zone 2**: where comparative advantage of rail can still be convincing in some cases for the route via Hungary
  
  - Comparative advantage of rail over sea is generally higher when origin and/or destination country/region is rather far away from seaports
  
  - An alternative eastbound route goes through Slovakia (Dobra) and thus first priority origin countries/regions cannot be identified North to Hungary

**Map Details**

- **Zone 1**: Southern Germany, Austria, Hungary
- **Zone 2**: Switzerland, Northern Italy, Eastern France, Slovenia
For longer trips (to Asia) the more expensive rail transport (compared to sea) is preferred when faster delivery brings extra advantage.

For shorter trips (to Russia and Ukraine) heavy or oversized or bulk commodities are preferred since their road transport would be complicated, too expensive or impossible.

For higher eastbound rail freight volumes stakeholders should focus on these industries!
Potential growth of the relevant industries in the priority countries until 2025

- Production volumes of the most typical product groups concerning eastbound rail transport will double between 2010 and 2025.
- Highest volume potential can be identified in Southern Germany, Switzerland and Northern Italy.

Source: Eurostat, GKI model
Not only trade volume will increase but trends show higher future shares of the industries where rail transport is more competitive (like machinery and transport equipment) that will result in extra growth in rail transport volumes.

Average transportation distance will also increase due to dynamically increasing tradeflows with Asia - that will result in an even higher performance.
RAIL FREIGHT POTENTIAL IN TERMS OF REGIONS
Where to focus? – origin countries

- Eastbound exports through Záhony is the most natural route for Hungary and Austria but volumes are low – that shall only change radically if economic policy actions are carried out.

- South Germany has huge export volumes of automotives and road vehicles to China, and a small part of it is already transported via rail.

- Switzerland exported chemicals (mainly pharmaceutics), machinery and vehicles to China and Japan of over US$10 billion in 2010. These product groups are of high-value and transportation via train could be attractive for them instead of sea transport.

- Northern Italy has big sea ports but a slight shift from sea to rail is possible in terms of relevant – basically high-value – goods, and this can even represent big volumes for rail.

Source: Eurostat, GKI
Where to focus? – destination countries

GO WEST
Chinese 5-year plan focuses on developments in Western China to diminish differences compared to its Eastern regions. Key development areas are: transportation (especially rail developments), agriculture, energy, environment protection.

ECONOMIC UNION, CUSTOMS UNION
Further deepening of economic and/or customs cooperation is in the view that could enhance trade flow.

- In the short-term Ukraine and Russia have bigger potentials for rail freight, long-term expectations depend on economic policies (market focuses).

- In the mid-term or long-term (depending mainly on the conclusion of bilateral and multilateral agreements) Kazakhstan and Western China have very high potentials.
Specific economic policy aimed to enhance eastbound rail freight via Hungary (Záhony) can establish new trade flows by identifying and promoting (new) products for the different markets.

Specific agreements can make rail transportation faster, more flexible and reliable that can turn into comparative advantage vs. sea transport in certain cases and result in extra demand.

Targeted economic policies and cooperation can generate new trade flow with a potential of having a significantly higher trade flow.

According to the level of economic commitment and cooperation:
- low level: 30% added growth
- medium level: 100% added growth
- high level: 500% or above added growth can be realized in 15 years, partly because of low base values.

Source: Eurostat, GKI model
SHIFT POTENTIALS IN TRANSPORT MODES
Shift potential from sea to rail

- Sea transports from Eastern Asia to Central (or Southern or Northern) Europe can be substituted with rail
- Sea transport is cheaper and slower than rail
- Low shift potential – but even a 1 per cent shift from sea transport could double the volume of rail transport to/from Asia!

Source: Eurostat, GKI model
Shift potential from sea to rail - competitiveness of rail

**Trends in prices**
- **short-term**: increasing prices for sea transport, closing the gap between sea and rail prices
- **mid-term**: huge vessel and port capacities will enter the market and will force down sea transport prices, rail will face new challenges in direct competition
- **long-term**: sea and rail transport prices will be closer again partly due to higher energy prices and additional costs

**Trends in transit times:**
- shortening transit times for rail due to infrastructure, technological developments and further enhanced cooperation

**Result:** relative competitiveness of rail will improve!
Shift potential from sea to rail – a financial reason

- Train has a shift potential only if at least the origin or the destination region is a somewhat further away from the sea port.
- For production sensitive goods shorter lead times can be very attractive.
- For high value product groups rail can be more attractive since an interest rate, working capital can be saved – for this a comprehensive price view is needed.

BUT reliability, predictability, frequency, flexibility, safety etc. are also important decision criteria!

Saved interests by choosing rail instead of sea transport

+ since rail transport takes less time an interest can be saved for not using the money (i.e. the value of the goods in the container) for more time.

+ for some product groups this saved interest is so high that it eliminates the price difference between rail and sea transport (indicated with a red line) and even offers a financial advantage.

+ for the product groups over the red line rail can be very attractive between Asia and Europe, whereas for those under the red line big volumes and shorter distances (like Ukraine and Russia) are more eligible.

For containers (1 TEU) with a product value over EUR200,000 rail is generally cheaper!

Source: Eurostat, GKI
Shift potential from road to rail

- Cargo is typically transported from Northern Italy and Slovenia to Ukraine and Russia on road.
- Product groups typical to rail will remain rail freight in spite of an overall aggressive road transport pricing.
- Current shift potential to rail is relatively low.
- Some shift could be achieved by Ro-La – this could be promoted by the signing of the intermodal bilateral agreement between Ukraine and Hungary.
- Sea cargo will increase in Koper and Trieste that could bring higher volumes for rail transport, too.
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PROMOTION OF THE EASTBOUND RAIL FREIGHT THROUGH HUNGARY (ZÁHONY)
New trade flow with the cumulated effect of specific economic policies and future shifts

- Trade flow via rail between the relevant European countries/regions and Asia can be two times higher in 2025 than today because of the expected growth of the industries that transport typically on rail.
- Specific policy and cooperation to boost trade flows can have a huge effect on potential rail transport and together with the macroeconomic trends they can even result in a four times higher volume.
- Shifts from other transport modes can also represent great volume as a 1 per cent shift from sea cargo can lead to – together with the above mentioned effects – a six times higher volume than today in 2025.
- These effects can even bring extra 3 million tons in eastbound volumes via Záhony by 2025.
- To have a sharp increase in eastbound (and westbound) rail freight transport via Hungary stakeholders need to focus on both specific cooperation/economic policies and shifts from other transport modes.

Source: Eurostat, GKI
Promotion of the eastbound rail freight through Hungary (Záhony)

- Convincing prospects from both a macroeconomic and a competitive point of view
- Stakeholders should focus on the most relevant regions and industries
- Future trade flows can be boosted with specific economic policy and enhanced cooperation

Test train operation (for 1 year at least) with optimized transit time, competitive pricing, high level of reliability and service quality to put theory into action

with a comprehensive cooperation!
THANK YOU FOR YOUR ATTENTION!