

# Track Price Analysis in Transalpine Combined Transport

Executive Summary of the Study for



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## 1 Background and Objectives

Fundamental changes are in prospect for transalpine Combined Transport (CT) in the coming years. With the opening of the Gotthard Base Tunnel (GBT) according to the timetable change 2016/2017, there is an integrated double track flat train route between Germany and Italy for the first time. Thanks to the additional construction of the Brenner Base Tunnel (BBT), two flat railway routes will be available on the main axes for Alpine transit as of 2026. Furthermore, a full two-track expansion of the Lötschberg Base Tunnel is being considered.

The implementation of these flat routes means clear improvements in the efficiency of rail transport. The maximum weight that can be drawn by a locomotive will be increased from 800 gross tonnes at present to 1,650 gross tonnes in the future. Furthermore, the flat route enables the traction of trains up to 700 metres long, compared to the ones of about 550 metres long that can be operated at present. In addition, the opening of the Gotthard Base Tunnel shortens the transit through Switzerland by about 30 km and, much more importantly, by about one and a half hour.

With the planned opening of the Gotthard Base Tunnel, the Swiss government is in return planning the gradual withdrawal of the current subsidies for transalpine Combined Transport of ca. CHF 130 million by the end of 2023. At the same time, a fundamental change is planned for the track price system in Switzerland, with the introduction of a wear factor.

The Swiss Franc, which has soared since it was uncoupled from the Euro in January 2015, represents a further huge burden for the competitiveness of transalpine Combined Transport through Switzerland.

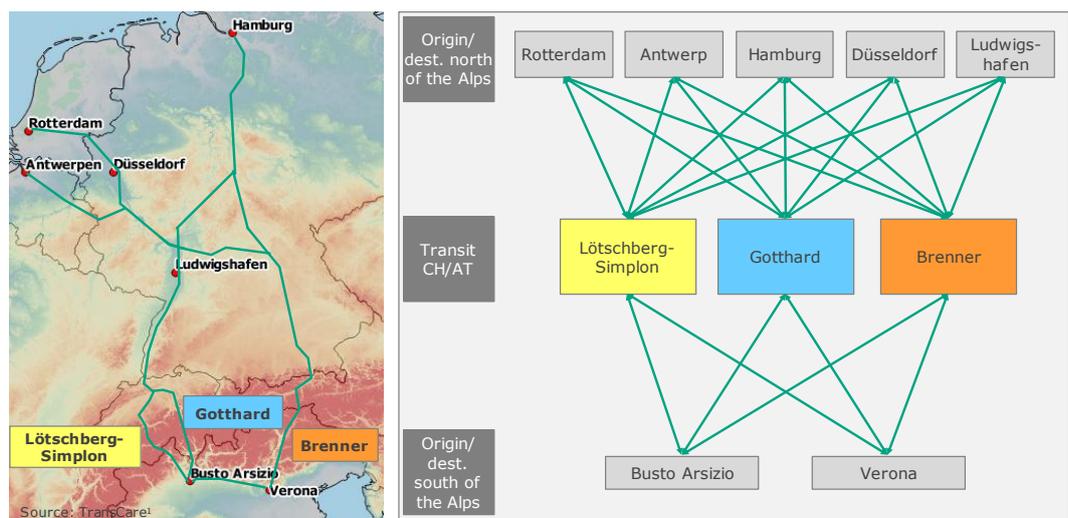
In this respect, the aim of this study is to identify the future competitiveness of the most important routes in transalpine Combined Transport and to compare it with a focus on the Gotthard and Brenner. To that end, in addition to a description of the status quo, the situation after the opening of the Gotthard Base Tunnel and the Brenner Base Tunnel has to be broached. The track prices, expansion plans and subsidy policy have to be considered in that connection.

The effects of the exchange rate on the pricing in transalpine Combined Transport will also be examined in view of recent developments. Finally, recommendations for potential action on the fixing of track prices or the subsidy policy will be formulated.

## 2 Competitive situation

The study examines the transalpine routes of Lötschberg-Simplon, Gotthard and Brenner (see Figure 1.). To that end, selected market-relevant relations between major terminals to the north of the Alps (Rotterdam, Antwerp, Hamburg, Düsseldorf and Ludwigshafen) and to the south of the Alps (Busto Arsizio and Verona) are considered.

**Figure 1 Object under study**



Source: TransCare.

In 2013, ca. 1.7 million consignments were transported by UIRR operators, of which just under a million in transalpine transport. The Gotthard route accounts for the largest volume, with 10.4 million net tonnes, ahead of the Brenner route (9.5 million) and Lötschberg-Simplon (7.8 million). As such, more than 80% of the total transalpine transit occurred via these three important routes.

The three routes differ considerably in terms of performance. Whereas the Lötschberg-Simplon route southwards can already be used with a single track as a flat route, only the mountain lines can be used at this time northwards and on the Gotthard and Brenner sections. Today the transit distance (Germany-Italy)

through Switzerland or Austria is currently 224 km on the Lötschberg-Simplon route, 282 km via the Gotthard route and 107 km via the Brenner route. The opening of the GBT to these routes shortens the travelling time from the current 5.5 hours to only about 4 hours. The commissioning of the BBT will reduce the transit time on the Brenner route from 2.5 to 1.5 hours.

The opening of the new lines will entail synergy effects for production. The commissioning of the tunnel sections will reduce the transit costs by €58 and €32 per consignment on the Gotthard and Brenner route respectively. The subsidies for Alpine transit will consequently be gradually withdrawn in Switzerland by 2023. This corresponds to an average subsidy reduction of around €134 per consignment<sup>1</sup>. The savings effects on the flat route will be largely overcompensated as a result, and a negative total cost effect of €76 will ensue by comparison with the current situation. Assuming that the subsidy levels remain constant in Austria, a competitive disadvantage of up to €99 per consignment would ensue in Swiss transit (see Figure 2).

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<sup>1</sup> on a typical route, e.g. Ruhr area-Northern Italy

**Figure 2 Performance comparison of the corridors (Exchange rate: €1: CHF 1.03)**

	Gotthard <sup>2</sup>		Brenner	
	Mountain section	GBT (ab 2017)	Mountain section	BBT (ab 2026)
<b>Parameters</b>				
Transit distance	282 km	251 km	107 km	86 km
Transit time	5,5 h	4,0 h	2,5 h	1,5 h
Consignments per train	30	42	30	42
<b>Costs per consignment</b>				
Track costs <sup>3</sup>	37 EUR	33 EUR	15 EUR	13 EUR
Energy costs	22 EUR	14 EUR	8 EUR	5 EUR
Traction costs	Confid.	Confid.	Confid.	Confid.
<b>Cost savings vs subsidy policies</b>				
Cost savings per consignment incl. traction	58 EUR		23 EUR	
Subsidies lost (as of 2024)	-134 EUR		-	
Total cost effect per consignment	-76 EUR		23 EUR	
Competitive disadvantage CH	<b>-99 EUR</b>			

Source: TransCare.

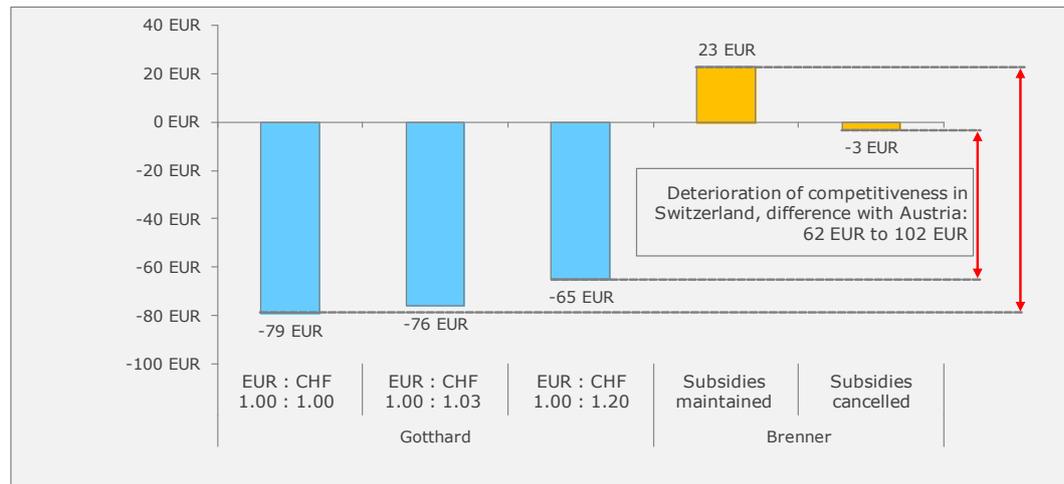
Assuming that the Euro continues to depreciate against the Swiss Franc in the future (to 1:1), the competitive disadvantage in Switzerland will rise even further to ca. €102 per consignment (see Figure 3).

<sup>2</sup> Via Luino line.

<sup>3</sup> Status quo: 1.200 t gross train weight (average from north-south and south-north run), 27 wagons, 30 consignments; GBT and BBT: 1.640 t gross train weight, 37 wagons, 42 consignments.

**Figure 3 Development of competitiveness**

Development of competitiveness of transalpine transit for Combined Transport: 1,650 gross tonnes/train through the base tunnel in 2026 compared with 1,200 gross tonnes / train on mountain section 2015 (change in cost per consignment for transit through Switzerland or Austria)



Source: TransCare.

This shows that an uncoordinated reduction of Combined Transport subsidies would endanger the competitiveness of the Swiss transalpine Rail Tunnels (known by the German acronym NEAT)!

According to the current plans of the Swiss government, the financial advantages in the CT transit through Switzerland would be clearly overcompensated in the event of complete cessation of subsidies. Therefore, competitive disadvantages are to be expected for the transalpine combined transport – including intramodal –through Switzerland, by comparison with alternative routes (Brenner) as well as intermodal transport by comparison with road transport. A stronger Swiss Franc can further weaken Combined Transport transit through Switzerland since the services are invoiced for the most part in Euros but costs are incurred in Francs. This makes the transalpine modal shift target more difficult to attain, on the one hand because of the aggravated acquisition of road transport for CT and on the other hand because of the impending shift of existing CT transports back to road transport.

In the light of the competition analysis, it is clear that the way to a self-supporting Alpine transit in CT, if at all possible, can only succeed with a sense of proportion in the track price and subsidy policy.

## 4 Recommendations for action

It is therefore recommended to examine measures that guarantee a competitive Swiss transit. Accordingly, a differentiated track price (e.g. according to weight) based on the pressure on the infrastructure makes sense. However, a track price that increases linearly with the train weight is counterproductive if incentives are to be used for growth on rail, since the construction of new train pairs requires cross-subsidisation in the launch phase from margins of train pairs with very good utilisation of capacity. In this respect, it would be in the interest of infrastructure operators to make optimal use of railway lines, so that trains with the best possible length and weight compensation are rewarded and not penalised. In addition, introducing a track price differentiation according to market segments (clear separation of infrastructure costs for passenger/freight transport) should be considered. The particular price sensitivity of Combined Transport because of stiff competition from road transport should be taken into consideration when introducing differentiated prices. The disadvantages of freight transport in mixed operation with passenger transport (quality impairment due to waiting times, etc.) are to be compensated through corresponding discounts. As a rule, time-of-use surcharges in freight transport do not make sense because passenger traffic will normally be preferred when there is higher demand, whereas only residual capacities are reserved for freight traffic.

As regards the subsidy policy, an economically feasible Alpine transit in Combined Transport should basically be maintained. The gradual reduction of subsidies must therefore be endorsed on principle. It should however be implemented in a flexible manner, depending on the actual progress on productivity in Combined Transport. The prime goal of the subsidy policy should be based on the following guiding principle: the most ecologically sensible transport route should also be the most economically advantageous, otherwise corrective measures will have to be taken. In the medium term, a better coordination of price systems and subsidies in Alpine transit is desirable. To ensure a sustainable competitive situation in trans-Alpine combined transport, we recommend that the following measures be specifically implemented in the short, medium and long term:

**In the short-term**, active support is needed from the UIRR for the reform of track price systems (a topical issue in Germany and Switzerland). Furthermore, the

creation of infrastructure cost transparency (separation of passenger/freight transport costs) should be addressed. That should serve as a basis for the development of a new track price system. The willingness to pay in competition can also be factored into this consideration. In the final analysis, detailed calculations of the consequences of these pricing methods for rail/CT operators are to be presented, so that necessary corrections can be made.

**In the medium-term**, subsidies should be reduced only gradually as of the commissioning of the Gotthard Base Tunnel, and in proportion to the productivity gains of the operators. Realistic possible productivity gains (reference values of key players, benchmarking) should be considered. Furthermore, the reduction should be adjusted only periodically and in consideration of the trend of volumes with simultaneous enhancement of the corridor management. Finally, a jointly coordinated Combined Transport strategy is to be developed by Alpine transit countries that takes into account shift objectives, track prices, and the reduction of subsidies.

**In the long-term**, the introduction of a coordination of track prices and the subsidy policy in Combined Transport at the EU-Switzerland level is to be recommended. Light weight construction technologies in rail freight transport should be given particular support to enhance the track capacity. Furthermore, switching technology and craneability of heavy goods vehicles for long-haul road transport should be implemented as a mandatory admission requirement in the EU area and in Switzerland.