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## THE SOCIO-ECONOMIC RELEVANCE OF INTERNATIONAL ALPINE TRAFFIC

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# Agenda

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1. The long term trends: the volumes
2. The long term trends: the values
3. The importance of a transport system for import and export balanced between modes
4. Alpine tunnels in order of opening and the axis with current traffic limitations
5. Resilience first ...and then rapid modernisation of TEN-T axes



Transalpine tunnels are like rescue donuts for European economy



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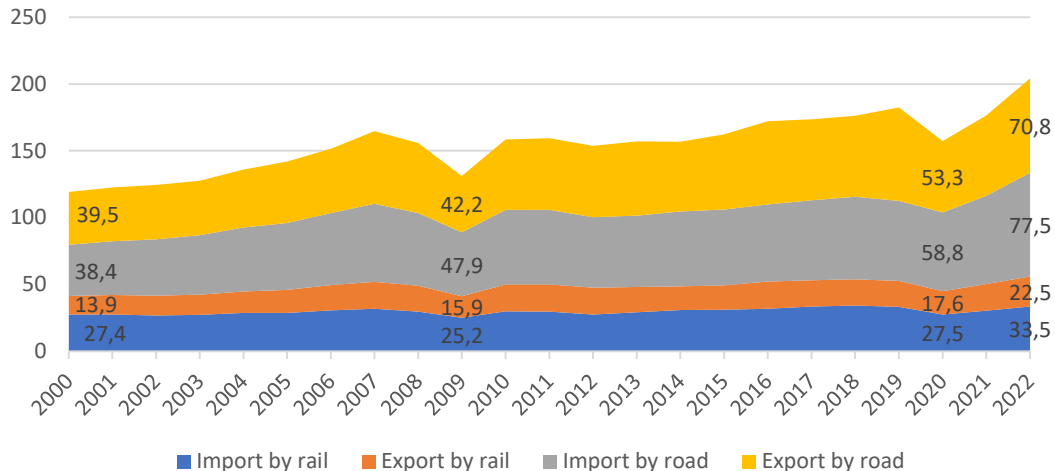
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## Italian import and export by rail and road (2000-2022 in mln of tonn)

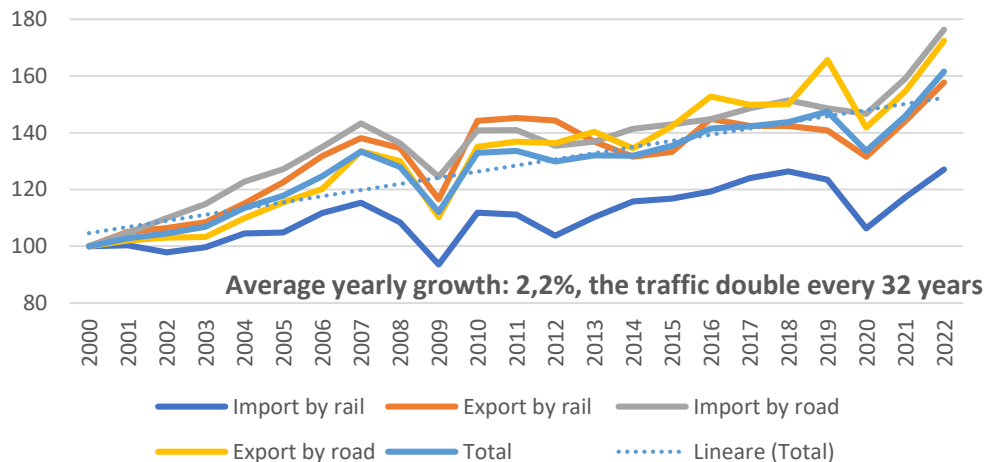
The road market share increased: 65,4% in 2000 and 72,6% in 2022

The average yearly growth is 2,2% (higher compared to the 1,4% at EU level from 1995 to 2021)



## Italian import and export by rail and road (2000-2022 in mln of tonn, 2000=100)

The total international traffic almost doubled from 2000 to 2022: 119,2 mln of tonnes in 2000 and 204,3 mln of tonnes in 2022 (+71,5%)

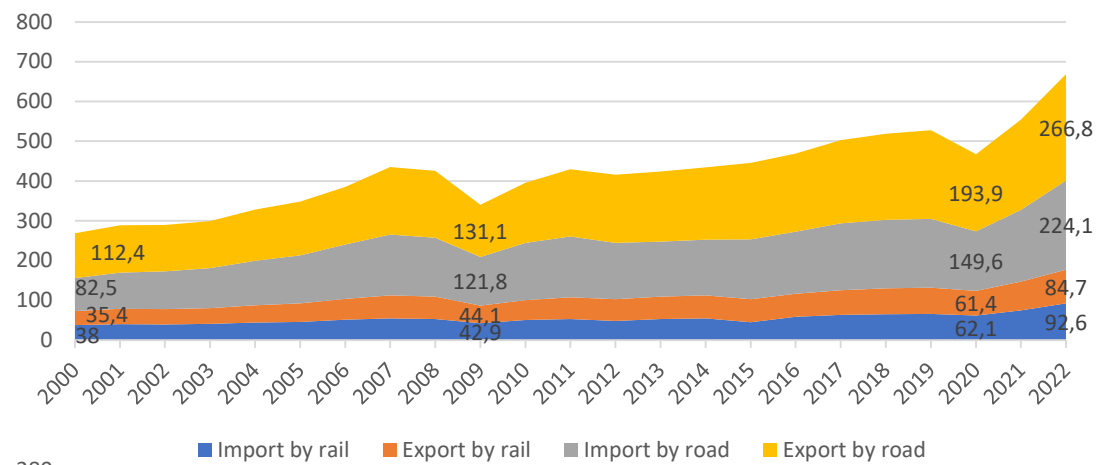


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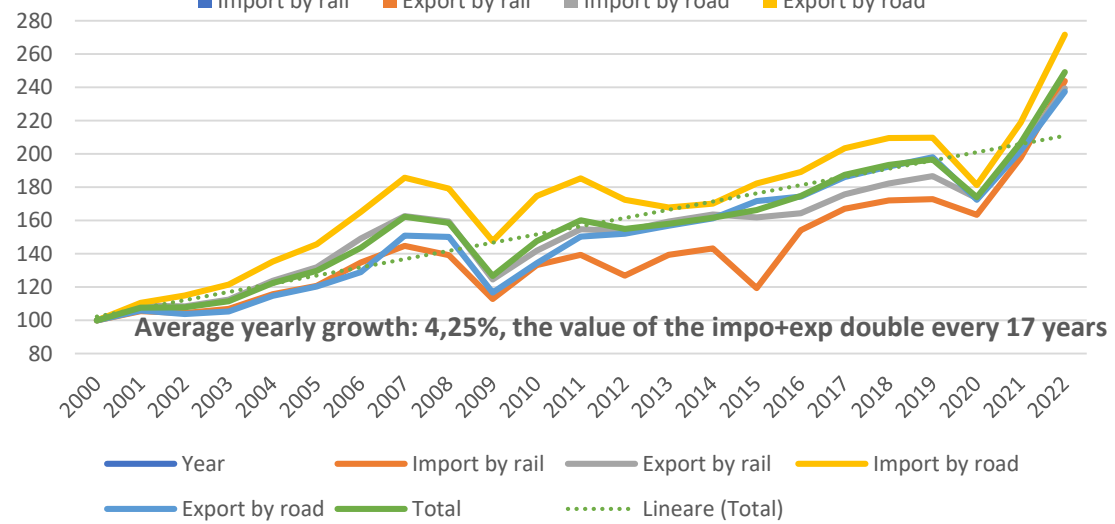
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Source: elaboration of Bank of Italy statistics

*The value of italian import and export by rail and road (2000-2022 in mld of euro)*



*The value of italian import and export by rail and road (2000-2022 in mld of Euro, 2000=100)*



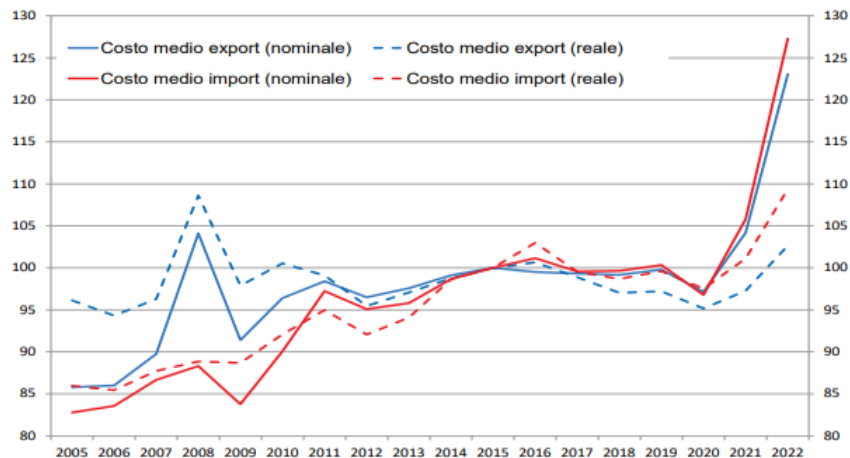
The value of the import+ export more than doubled from 2000 to 2022: 268 bln of Euro in 2000 and 668,2 bln of euro in 2022 (+149%)

Bank of Italy data highlight the trends in **costs** incurred in the import and export phases of **road transport are rapidly rising after 2020, while those of rail transport are slightly falling.**

Reducing the costs of trade across the Alps will strengthen the European manufacturing sector and offer **new opportunities for inclusion in global value chains**, thanks also to a better link with **Mediterranean ports.**

**Mitigating the risks of the road haulage sector** (shortage of drivers, increasing incidence of diesel costs and tolls, growing flow imbalances, difficulties in exploiting alternative fuels ...) **and the rigidities of rail transport** require a **balanced vision of transalpine policies.**

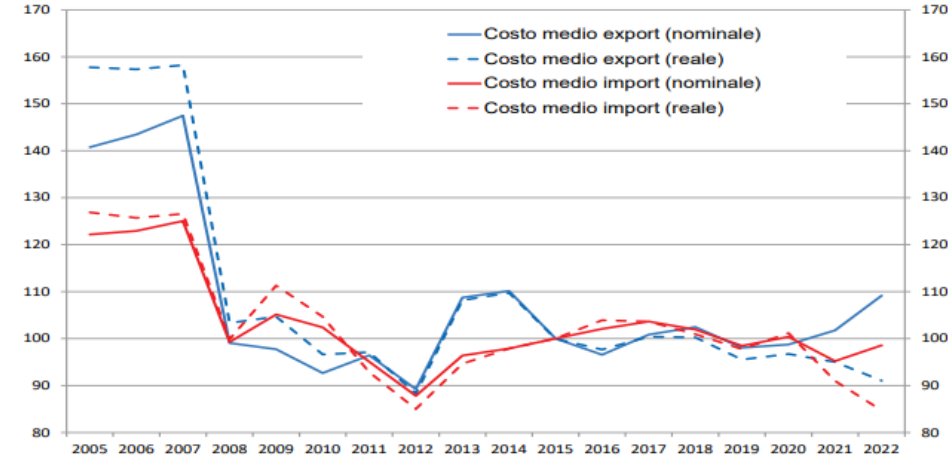
**Costi medi del trasporto stradale (1)**  
(indici dei costi misurati in euro/ton, 2015=100)



(1) I costi reali sono ottenuti dividendo i costi nominali per l'indice dei prezzi alla produzione dei manufatti, rispettivamente venduti sui mercati esteri e importati (fonte Istat).

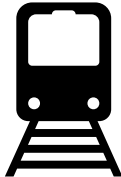

**Costi medi del trasporto ferroviario (1)**

(medie ponderate per flusso dei trasporti container e bulk, indici dei costi misurati in euro/ton, 2015=100)



(1) I costi reali sono ottenuti dividendo i costi nominali per l'indice dei prezzi alla produzione dei manufatti, rispettivamente venduti sui mercati esteri e importati (fonte Istat).

The fragility with regard to **accidents**, the **age** and **heterogeneity** of the current transport infrastructure network entails social and economic costs for the whole of Europe. The importance and urgency of **modern infrastructure** for crossing the Alps is clear: in most case the **new infrastructure will substitute XIX century ones**

Highways	Year	Railways	Lenght	Maximum gradient (in %)	Height above sea level
	2032	Lyon Turin base tunnel (IT-FR)	57,5	1,25	745
	2032	Brenner base tunnel (IT-A)	55	1,2	795
2nd Gotthard tunnel (CH)	2030	Semmering base tunnel (A)	27,3	0,85	
	2025	Koralm base tunnel (A)	32,9	0,85	
2nd Frejus tunnel (IT-FR)	2024				
	2020	Alptransit Ceneri (CH)	15,4	1,25	
	2016	Alptransit - Gotthard (CH)	57	1,25	550
	2017	Alptransit - Loetschberg (CH)	34,6	1,3	776
Gotthard (CH)	1980	← 1980-2017			
Frejus (IT-FR)	1980				
Brenner (IT-A)	1980				
San Bernardino (CH)	1967				
Mont Blanc (IT-FR)	1965				
Gran San Bernardo (CH)	1964	← 1913-1964			
	1913	Loetschberg (CH)	14,6	2,7	1242
	1906	Simplon (IT-CH)	19,8	2,5	705
	1882	Gotthard (CH)	15	2,6	1151
	1871	Frejus (IT-FR)	13,6	31	1225
	1867	Brenner axis (IT-A)	8,2	2,6	1371
	1854	Semmering (A)	1,5	2,8	896



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The efficiency of the transport and logistics sector is a necessary condition for the equilibrium of advanced economic systems: **transport policy is an industrial policy.**

The **degree of openness of the markets** (Total exports + imports of intermediate goods of the manufacturing sector as a percentage of regional GDP), rose from 36,1% in 2010 to 42,2% in 2019 in Northern Italy (6 points of GDP in 10 years for the most affected area by transalpine crossing inefficiencies).

In the course of just a few weeks in 2023, the **extreme vulnerability of the Alpine transport systems** has become abundantly clear, with the penalizing from economic and environmental point of views events along the Frejus and Gotthard routes, the need for maintenance in the Mont Blanc road tunnel and the uncertain regulatory framework for the Brenner crossings.

Transalpine transport policy must have a systemic vision and also be based on clear strategies of **organisational and technological innovation** (e.g. road haulage tariffs, trains to European standards, automation of rail shunting, train preparation and testing).

**Successful cases** (e.g. Swiss policies, intermodal rail revitalisation from the port of Trieste, investment in new terminals in the Milan area), **constitute benchmarks that can potentially be replicated on the main TEN-T axes crossing the Alps.**



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