Is a shift from road to rail possible in Poland by 2030?

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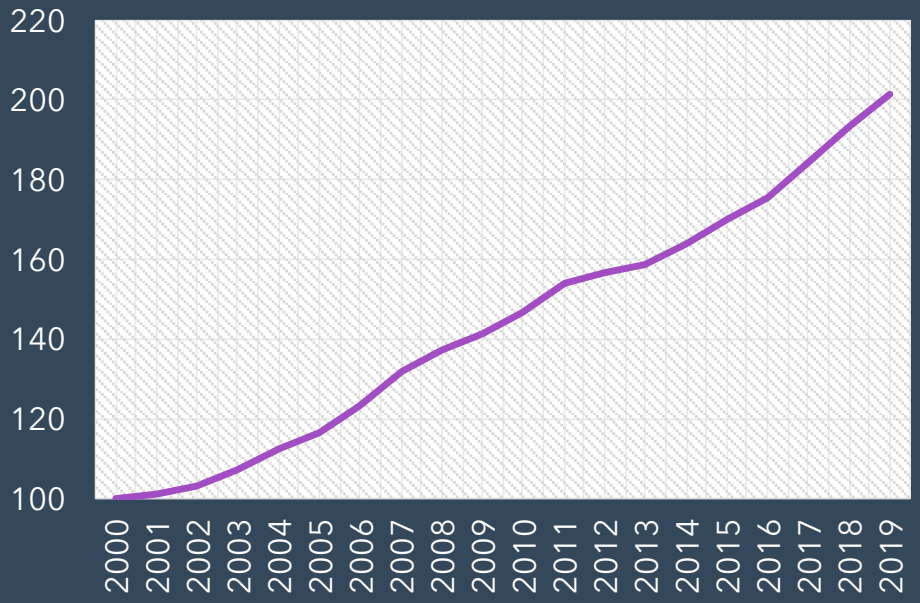
Factors of modal split development

- Location
- GDP
- Foreign trade
- Global value chain
- Infrastructure
- Regulations

The location of Poland: advantages and disadvantages

Economic growth: macrotrends

Poland's real GDP (current price, 2000=100)



GDP PPP per capita

PPP – purchasing power parity

Source of data: IMF.

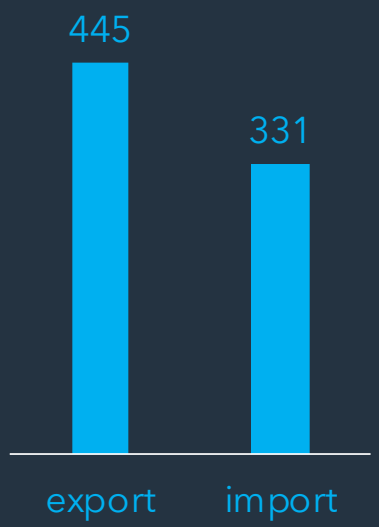
GDP nominal (2019):
566 billion USD

GDP PPP (2019):
1,292 billion USD

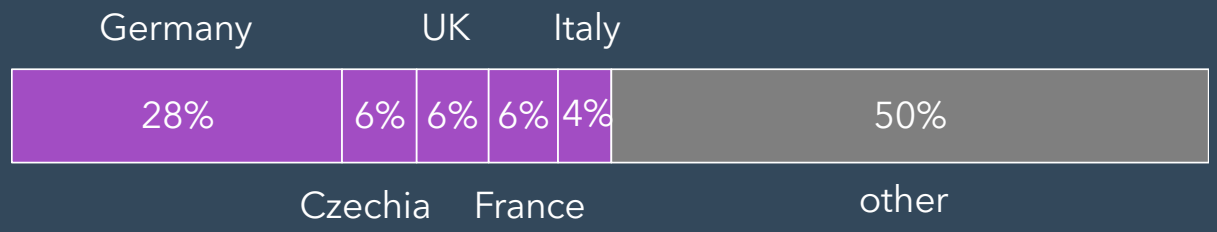
GDP per capita (2019):
14,900 USD

Foreign trade: dynamics and structure by major partners

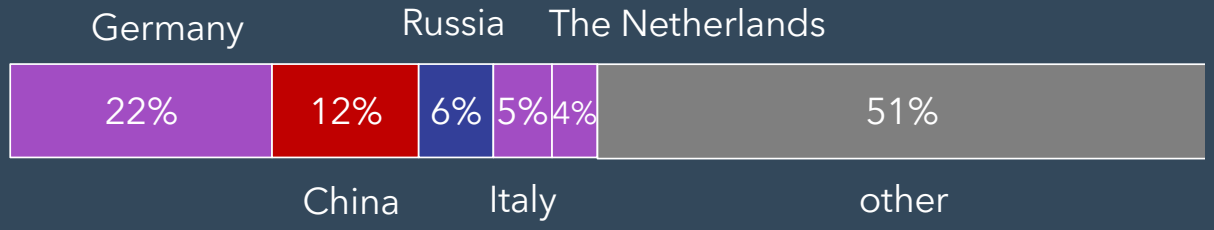
Dynamics of foreign trade turnover 2000-2018 (current price, 2000=100)



Export (2019): 1,024 billion PLN | 238 billion EUR

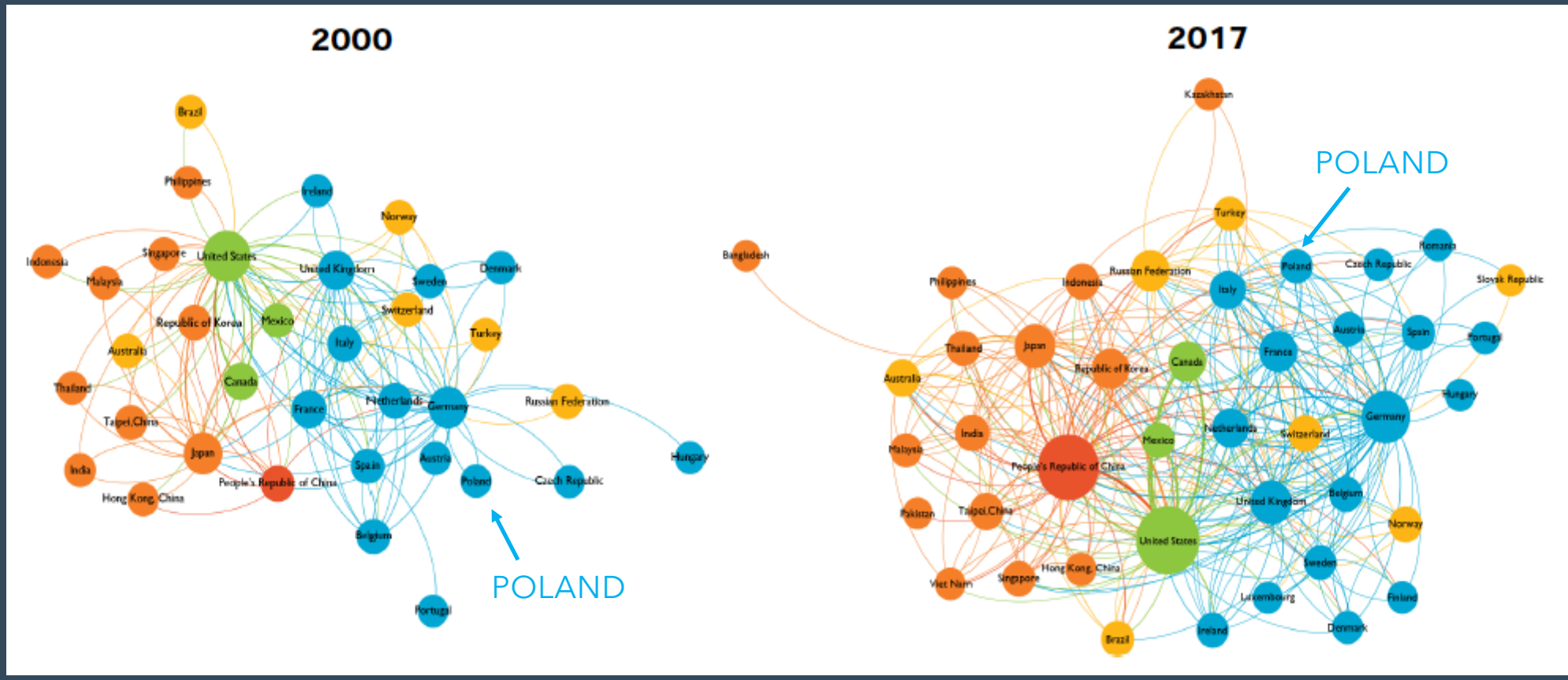


Import (2019): 1,018 billion PLN | 237 billion EUR



Source of data: Statistics Poland (GUS).

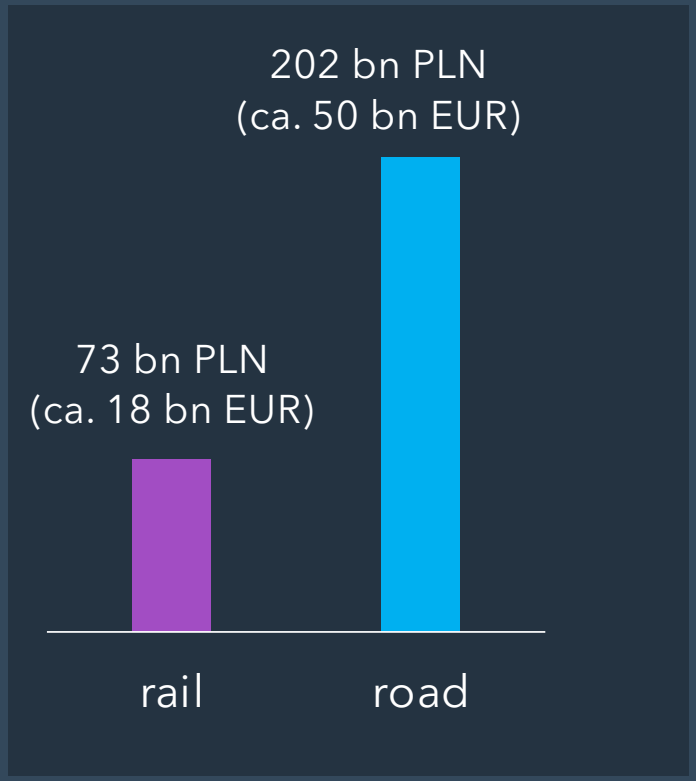
Poland in global value chain (GVC)



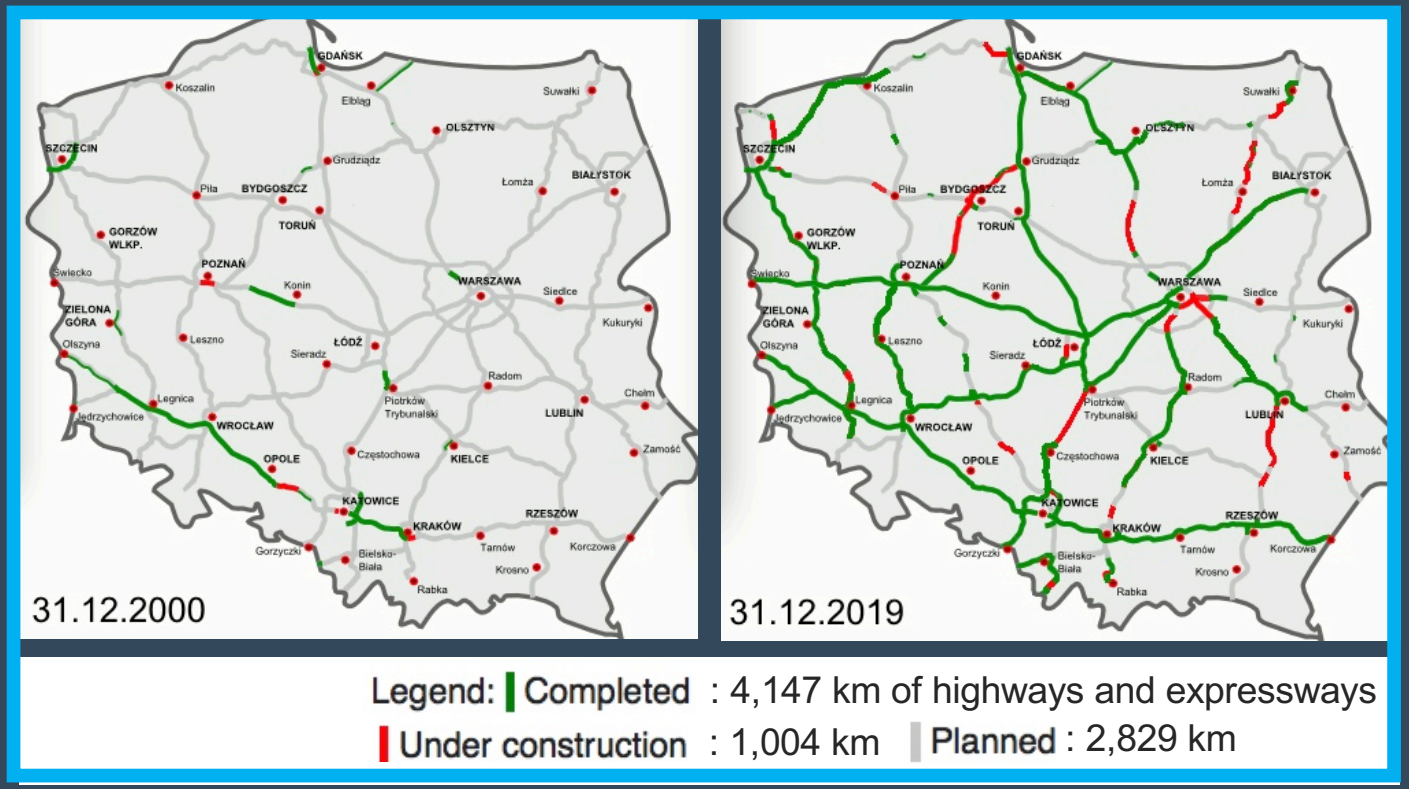
Source: The Asian Development Bank (ADB).

Investments in transport infrastructure

Total expenditure in 2000-2019



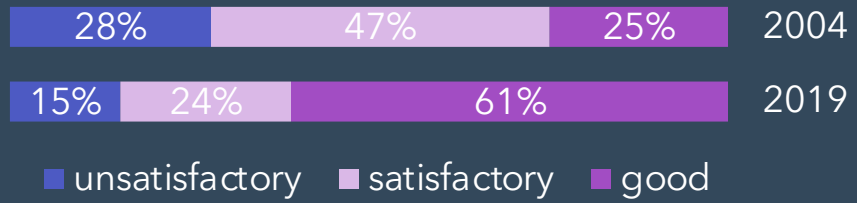
Development of National Road Network



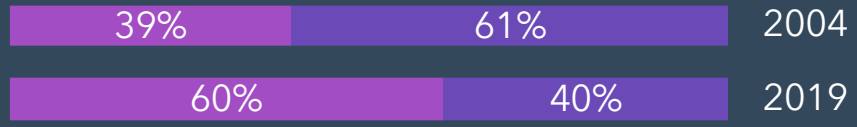
Source of data: GDDKiA, PKP PLK.

Effects of investments in upgrading railway infrastructure

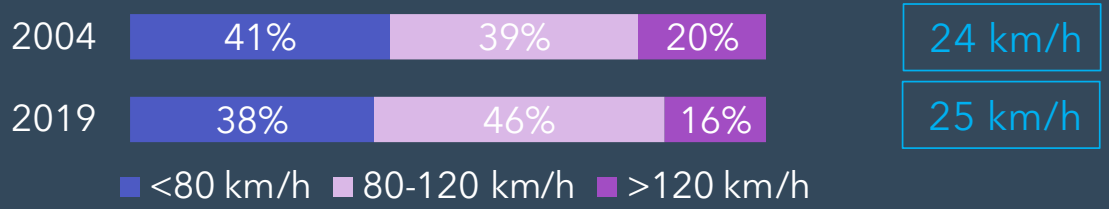
Technical condition of railway network



Axle load

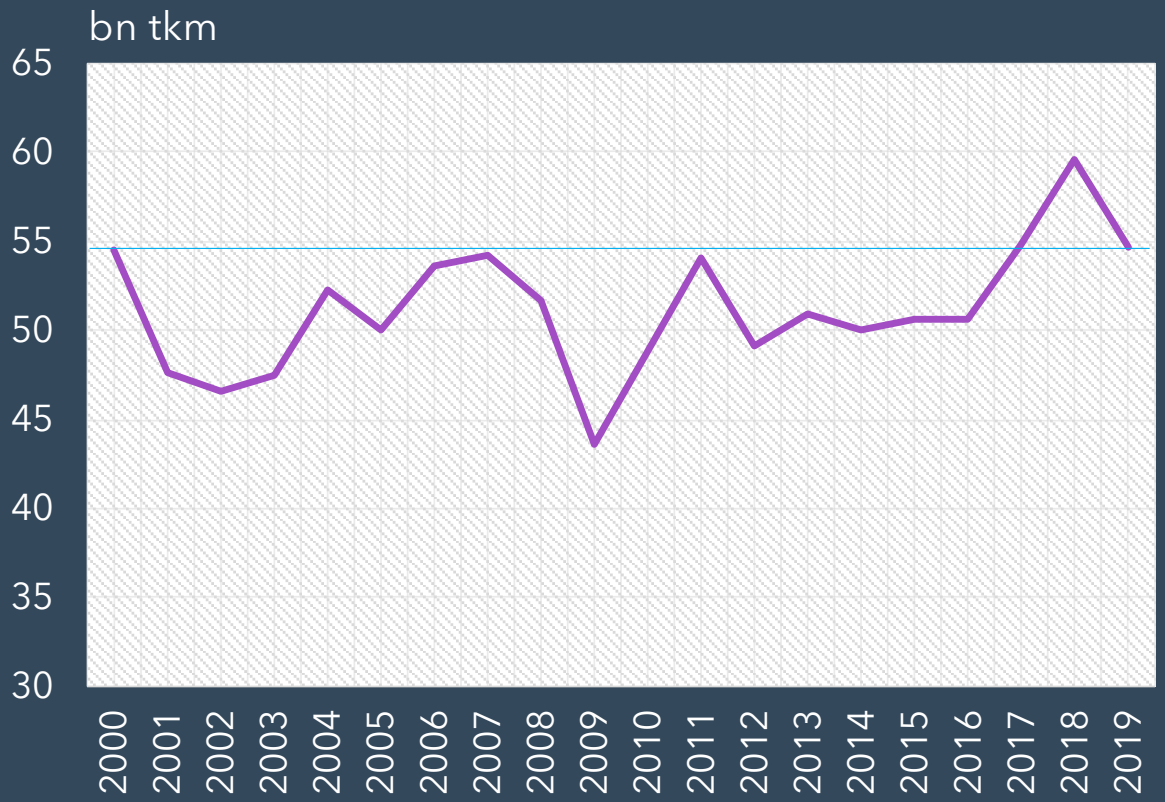


Maximum speed vs timetable speed of freight trains



Source: PKP PLK.

Rail freight transport performance

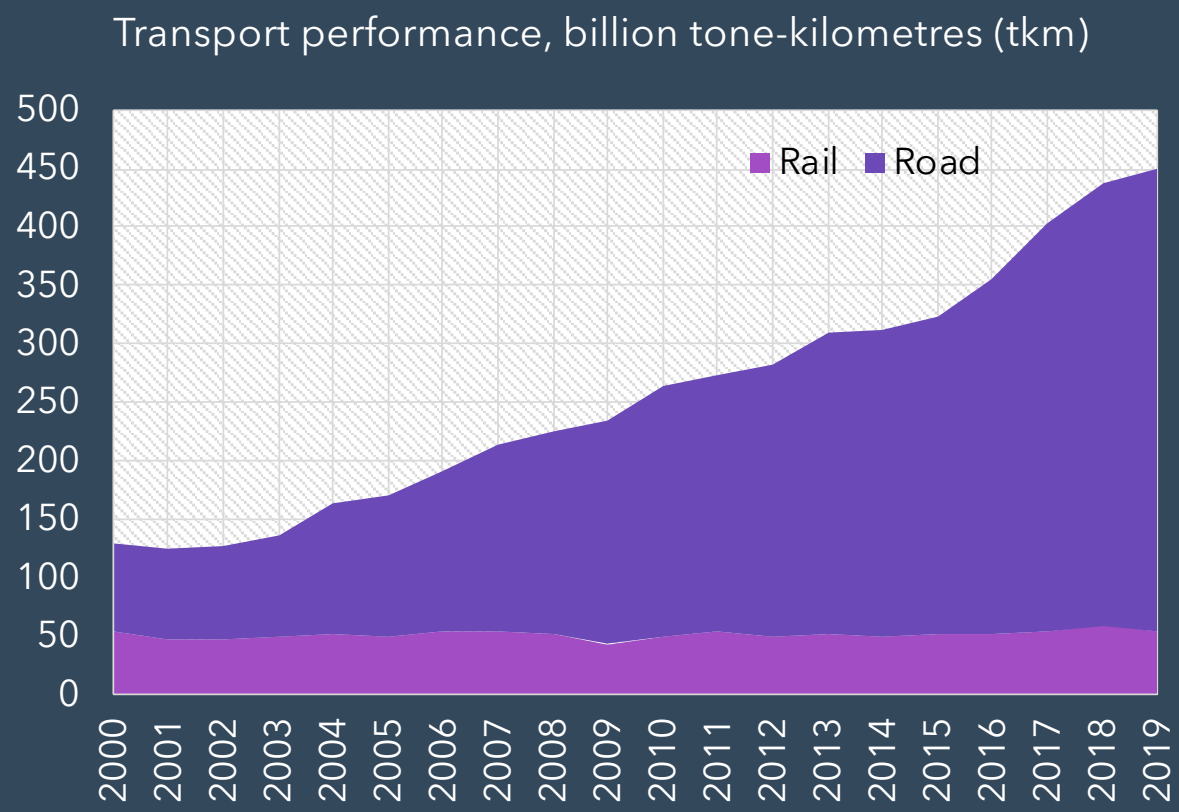


Source of data: Statistics Poland (GUS).

2000:	54.5	
2009 (min):	43.5	billion tkm
2018 (max):	59.6	
2019:	54.6	

2019/2018:	-8.4%
2019/2010:	+11.9%
2019/2000:	+0.1%

Rail vs road transport trend



Source of data: Statistics Poland (GUS).

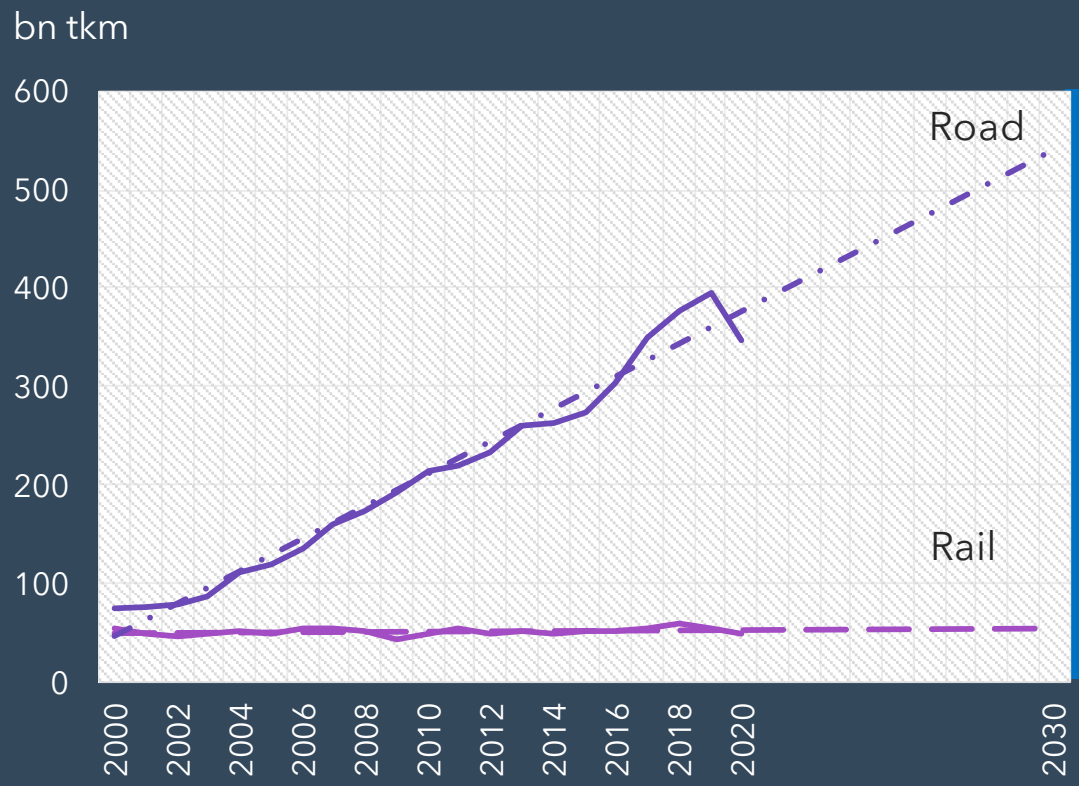
Rail share in freight market

2000:	42.1%
2010:	18.5%
2019:	12.1%

Looking at the next 10 years

- The economic downturn
- Reconfiguration and diversification of supply chains and change of national added value in GVC
- Infrastructure development programmes and new investment projects (CPK)
- EU Mobility Package and increase of labour costs in international road transport

Scenario 1: current trend continuation



Transport performance 2030:

Road: 550 billion tkm

Rail: 55 billion tkm

Rail share in freight transport 2030: **9.0%**

Scenario 2: Keeping the current 12% share of rail

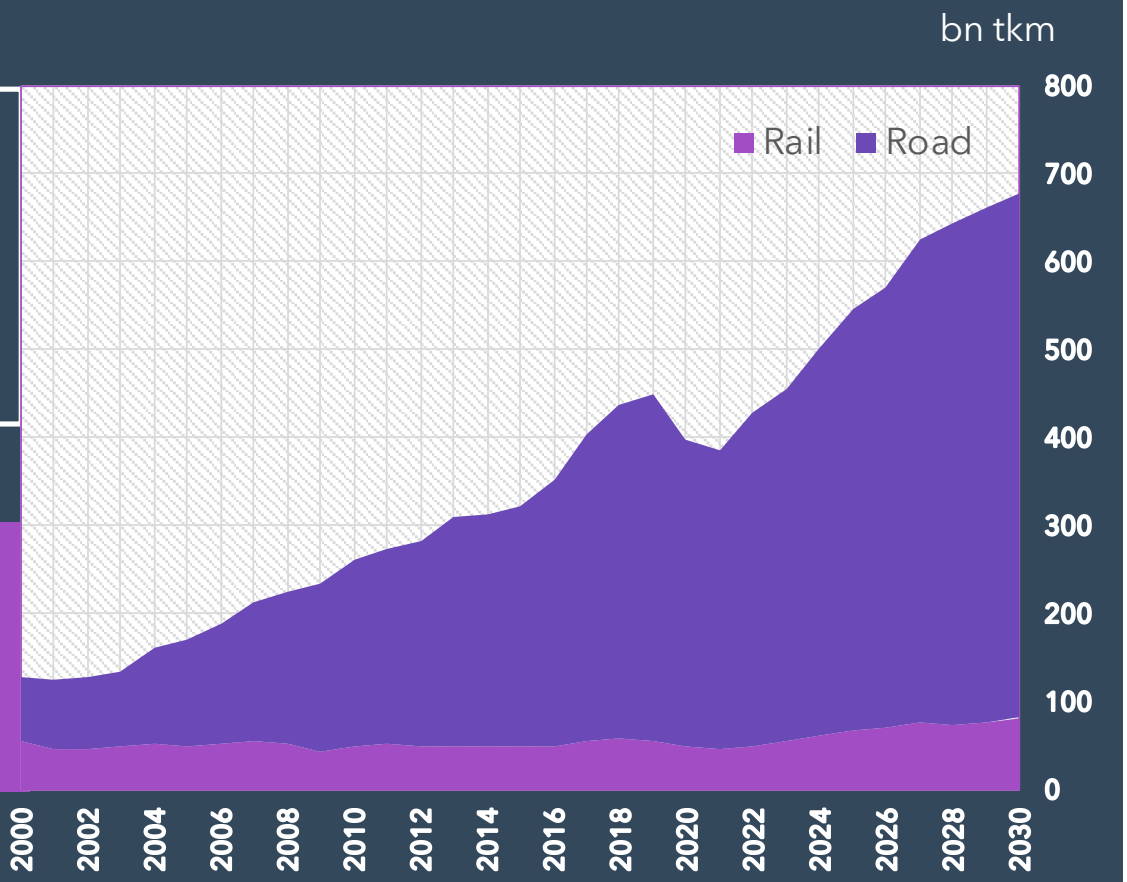
Assumptions for calculation:

GDP growth rate: 2.0% annually

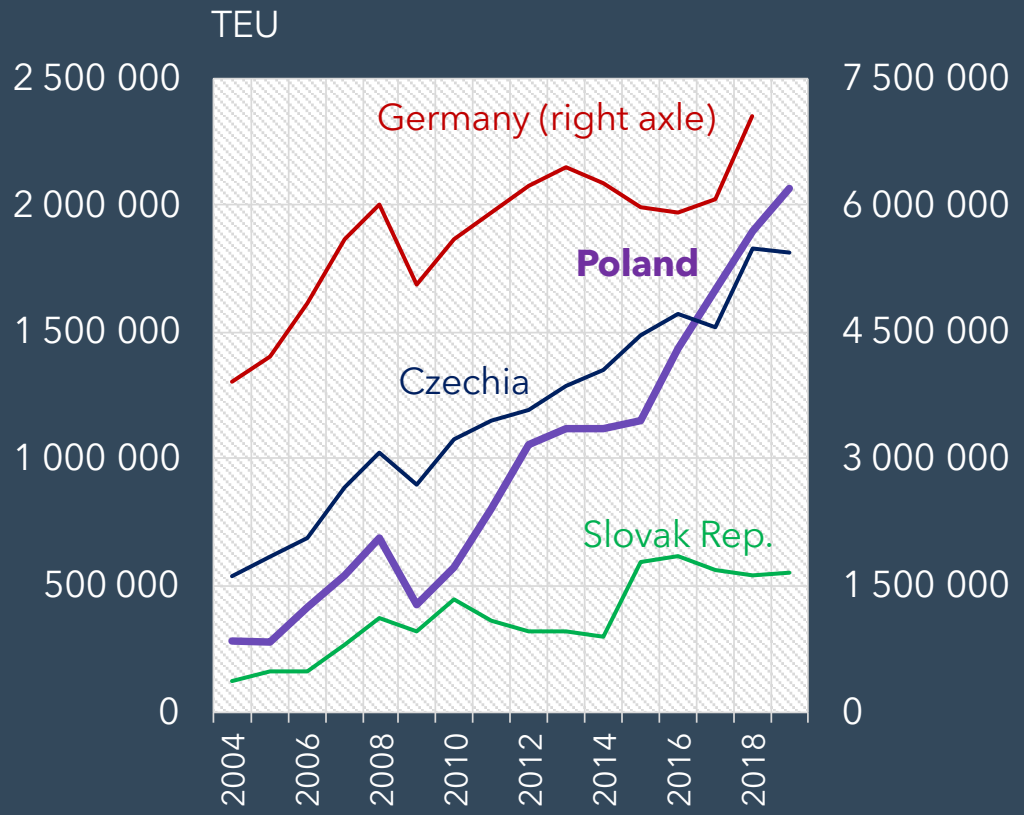
Freight transport performance: 3.8% annually

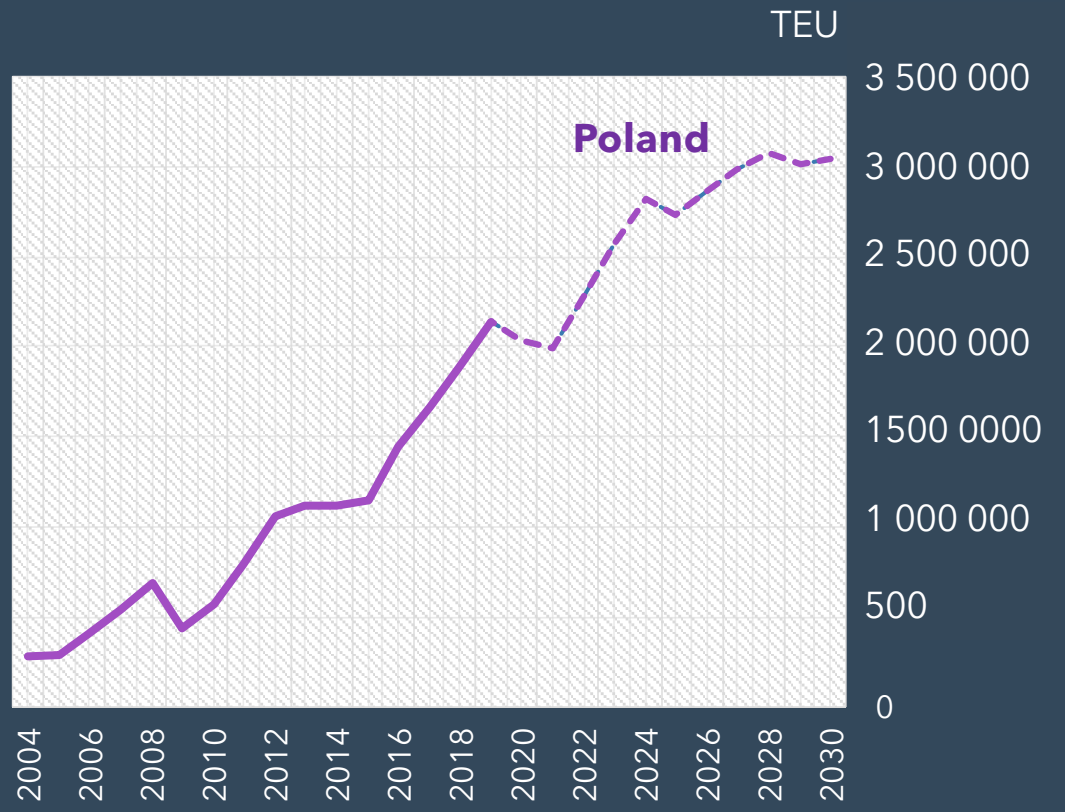
Rail freight transport performance in 2030:

81 bn tkm (volume comparable to 1990)



Rail container transport: trends and forecast





Source: Jana Pieriegud (2020).

Scenario 3: An increase of rail share to 20%

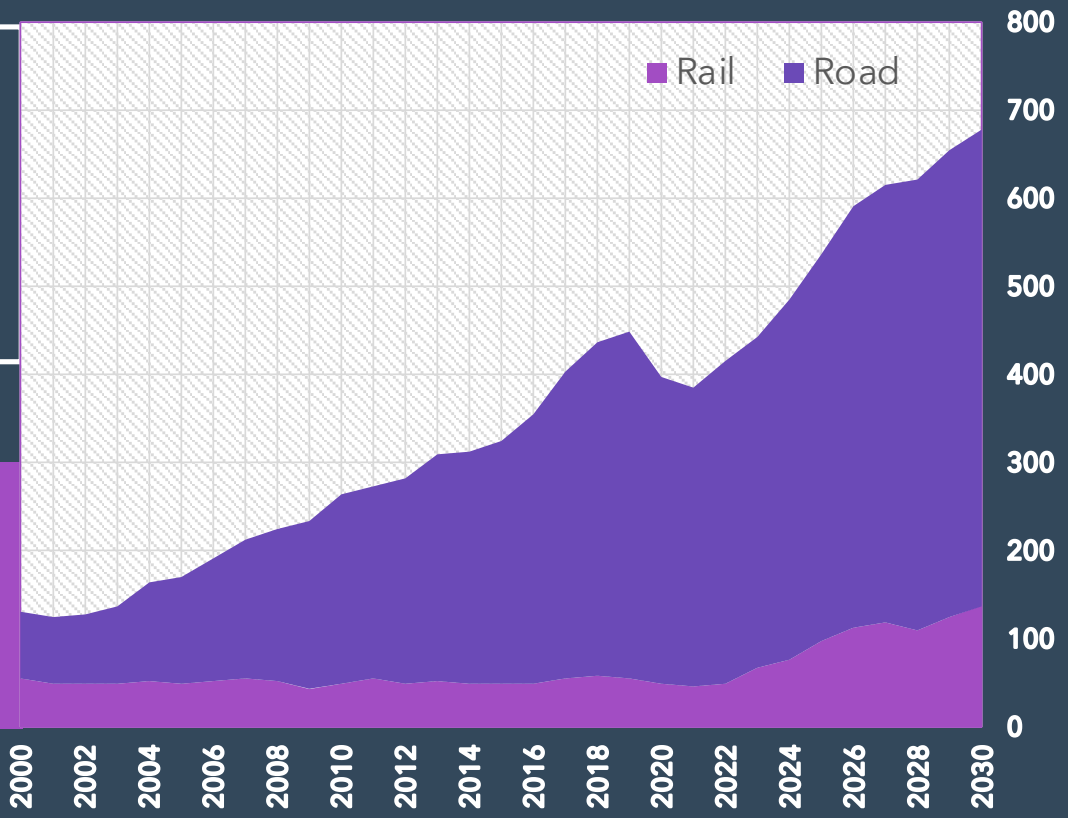
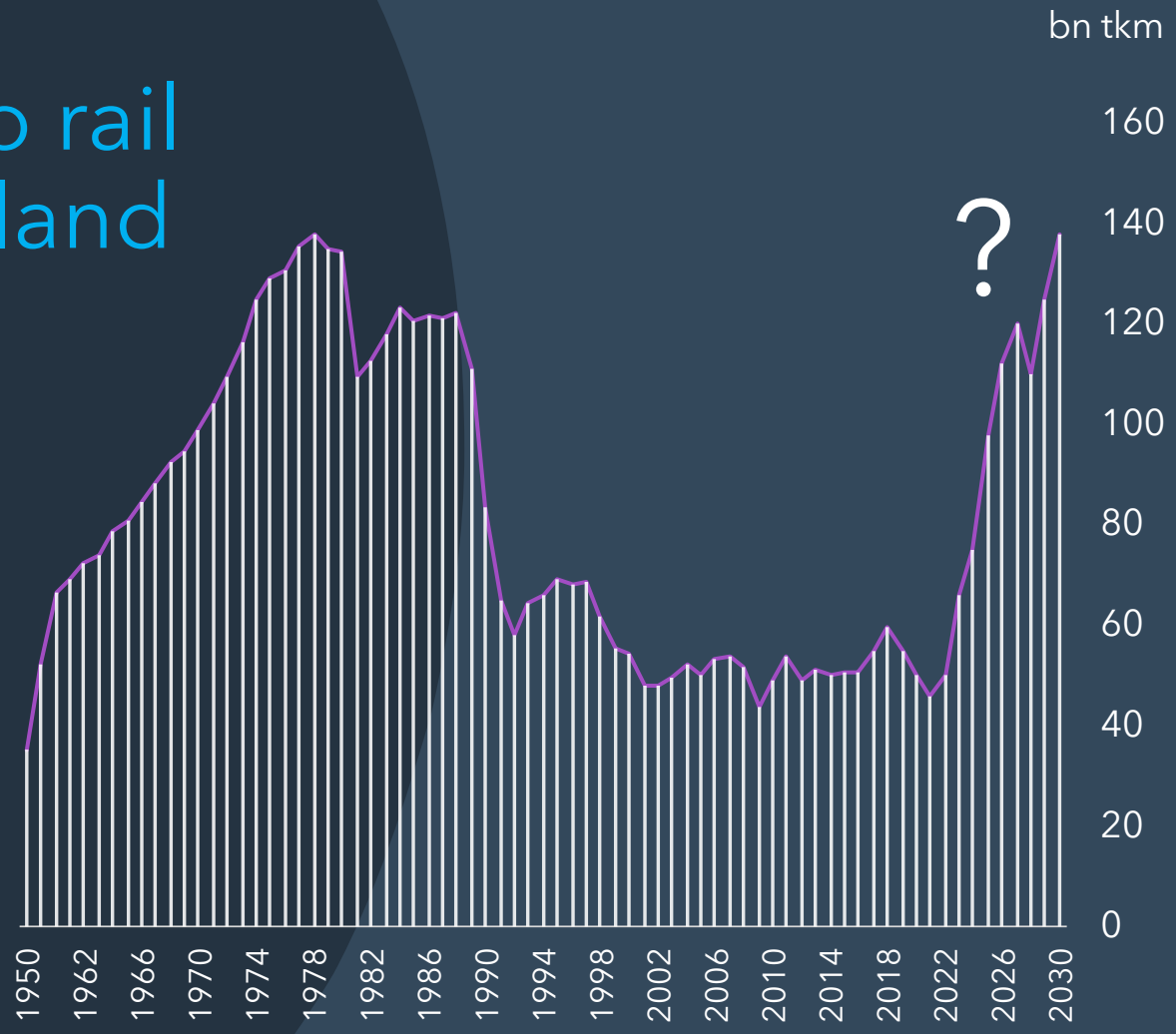
Assumptions for calculation:

GDP annual growth rate: 2%

Freight transport performance: 3.8% annually

Rail freight transport performance in 2030:

138 bn tkm (volume comparable to 1978)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