

ANALYSIS OF RAIL PASSENGER VOLUME IN EUROPE BETWEEN 2012-2021



This a brief overview of rail passenger activity across europe between year 2012 and 2021, the data had been sourced from Eurostat, and a metric of choice is "Millions of passenger-kilometers" as it gives a better overview than number of passengers alone and accounts for distance travelled. Based on these focus areas few insights can be identified.

Overall Passenger Volume

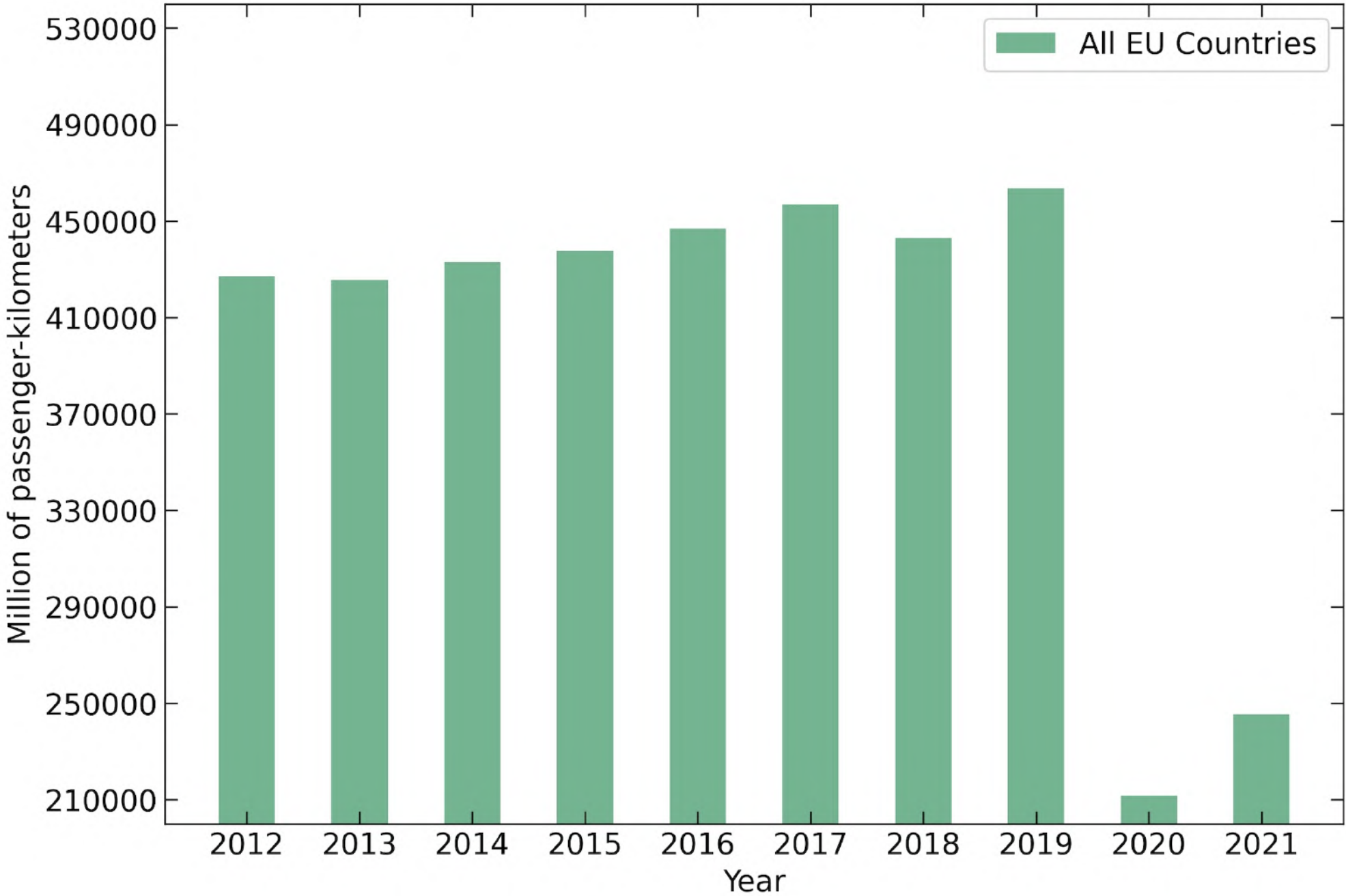
Volume across different countries

Overall trends

TOTAL VOLUME

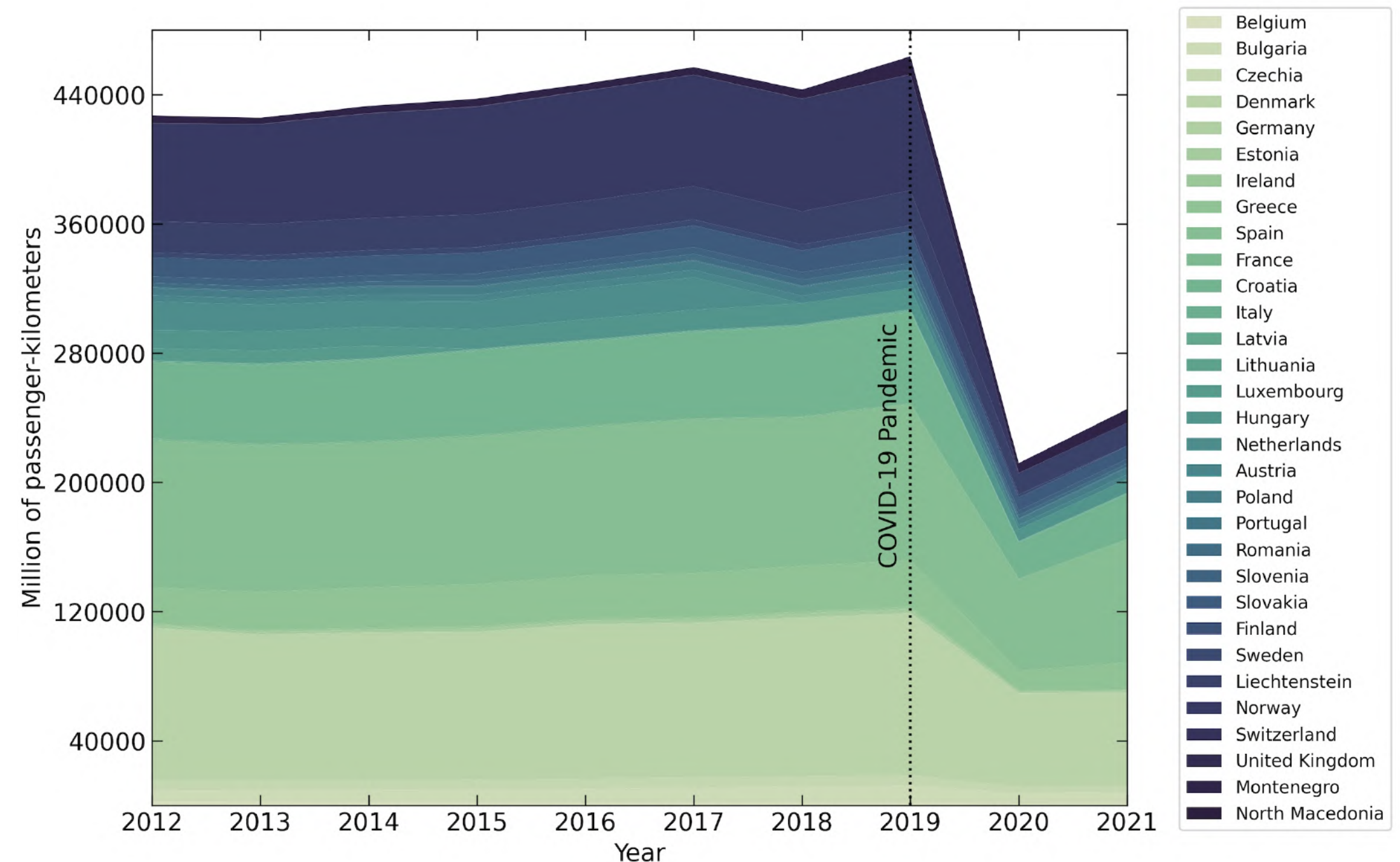
First let's take a look a total volume from all countries combined:

- Overall we see a trend of growth across whole europe
- There was a sharp drop in 2020 due to COVID-19 pandemic
- In 2021 recovery has started although very slowly



Using a stack plot we can identify difference in volume between various countries

- Largest part of the per country of the whole passenger volume is attributed to France alone
- While some countries recovered quickly such as France, numbers in Germany stayed low even in 2021





Some countries are clearly more reliant on rail transportation which facilitated quick recovery in this sector as travelling by train is a necessity, in other cases amount and distance people travelled went down and stayed low even after the restrictions got looser, signifying that people might have switched to commuting by cars or via other methods.

While all of Europe shows positive attitude towards rail transport, not every country has infrastructure nor funding on the level of Western Europe, thus making state-owned rail companies less attractive to commuters which combined with mass transport restrictions makes certain places more car-centric.

Sources

- <https://www.youtube.com/@TaylorSparks> - Python to make nice figures
- <https://stackoverflow.com/> - exact sources in comments inside .py file
- Pandas documentation
- Matplotlib documentation