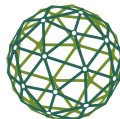


Using AIS data for insights to Black Sea shipping

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- 1 Why the Black Sea matters
- 2 How AIS data can shed light on it
- 3 Findings
- 4 Conclusion

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The trade importance of the Black Sea

- Ukraine is a top exporter of agricultural products like corn, wheat, and sunflower oil
- Russia primarily exports its wheat from its Black Sea ports, along with significant amounts of petroleum products
- Impacts on the ability to ship agricultural products could cause disruptions to global food markets
- Security issues getting oil tankers out could cause instability in global oil markets

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What is needed

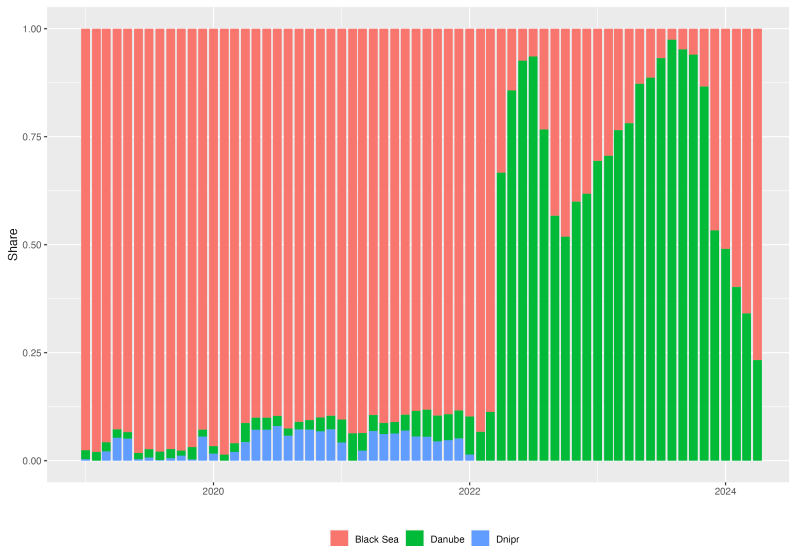
- Real-time data to analyze trade in a region with fast-developing dynamics
- High disaggregation to analyze individual ports or routes
- Information on states in a conflict situation, who may either not publish data, or publish more slowly

What AIS data provide

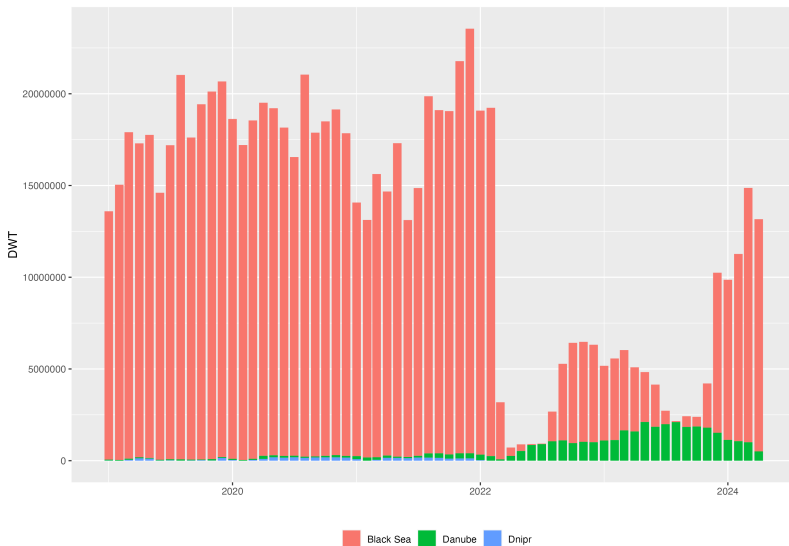
- Real-time data on ship movements
- Disaggregated data on a moment-to-moment ship level
- Data on ship movements in any nation's waters, as primary application is operational safety rather than data analysis
- Enables deeper analysis not only on quantity and destination of goods, but also on secondary elements like routes, loading times, etc.

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Ukrainian port traffic composition



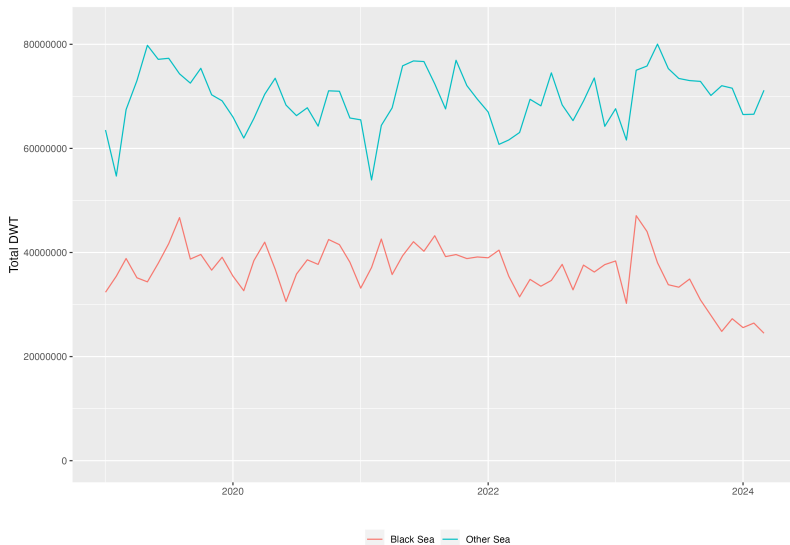
Ukrainian port traffic composition (cont.)



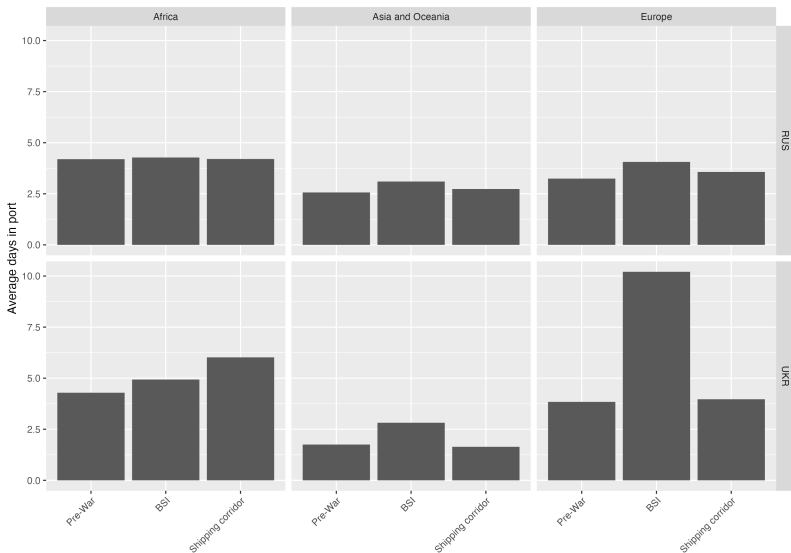
Developments in Russian and Ukrainian traffic



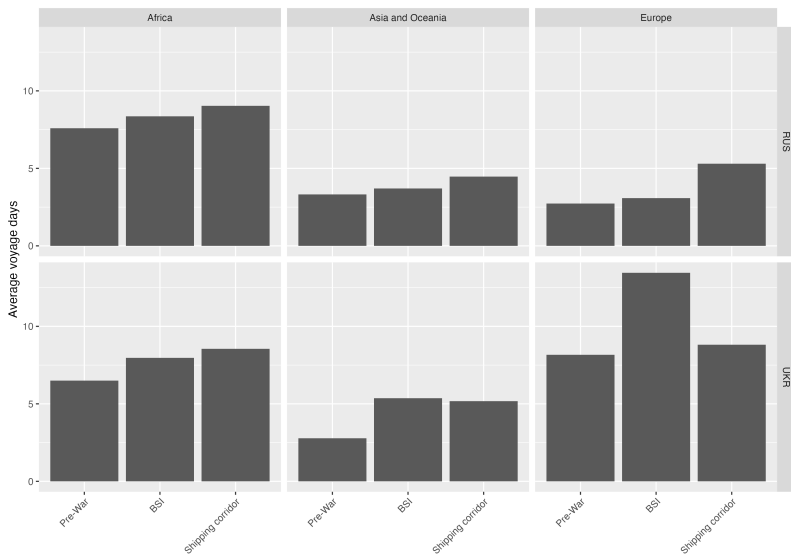
Russia: Black Sea vs other seas



Days in port



Voyage time



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Conclusion

- AIS provides real-time, unique, granular insights to maritime traffic
- Possible extensions include analyzing individual routes, e.g., ships hugging the coast of Türkiye or sailing around the Cape of Good Hope