

# Incorporating Black Swan events in Supply Chain Market Forecasts



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- National and Regional Agencies
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- Port Terminal Operators
- Commodity Traders
- Investors
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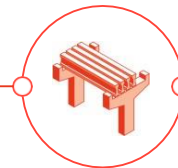


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By combining advisory, technical, and environmental expertise we assist clients with the commercial decision-making process while minimizing investment risk.



Advise



Design



Deliver

# Incorporating Black Swan events in Supply Chain Market Forecasts

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- Introduction to Black Swan events and their impact on supply chains
  - Why are they relevant to Market Forecasts
  - Where Market Forecasts can help manage these events for the future
  - How we incorporate these events in a Market Forecast
  - Opportunities seen in Baltic & Black Sea regions
- 



# Introduction to Black Swan Events

## Black Swan Events

Black swan events are rare and unpredictable occurrences that have a significant impact on the economy and society. These events are characterized by their extreme rarity, high impact, and retrospective predictability.

In the context of maritime market forecasting, black swan events can disrupt industry trends, cause sudden shifts in demand and supply, and alter the competitive landscape. As such, understanding how to identify and respond to black swan events is critical for businesses operating in the maritime sector.

## Grey Rhino Events

Grey rhinos, on the other hand, are known risks with the potential to cause significant damage if not addressed. These may include issues such as aging infrastructure or equipment, cybersecurity threats, or failure to comply with regulatory requirements



# Potential Impact to Supply Chains

**Supply Chain  
Disruption**



**Protectionism**



**Congestion**



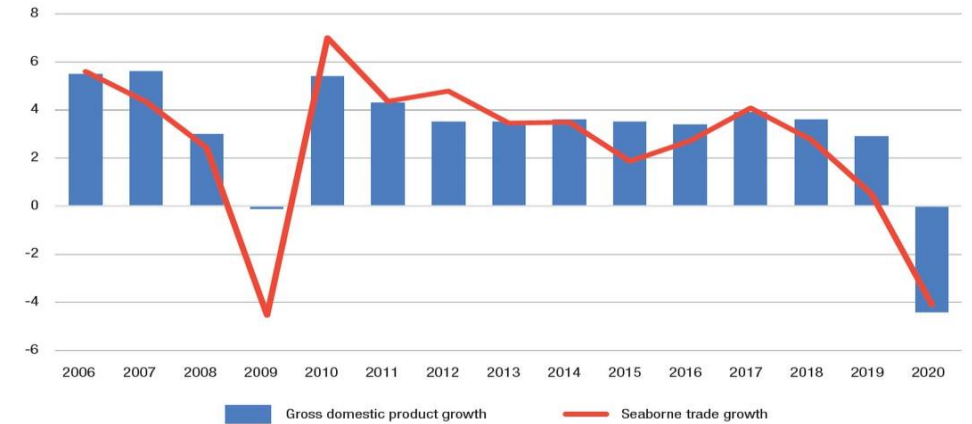
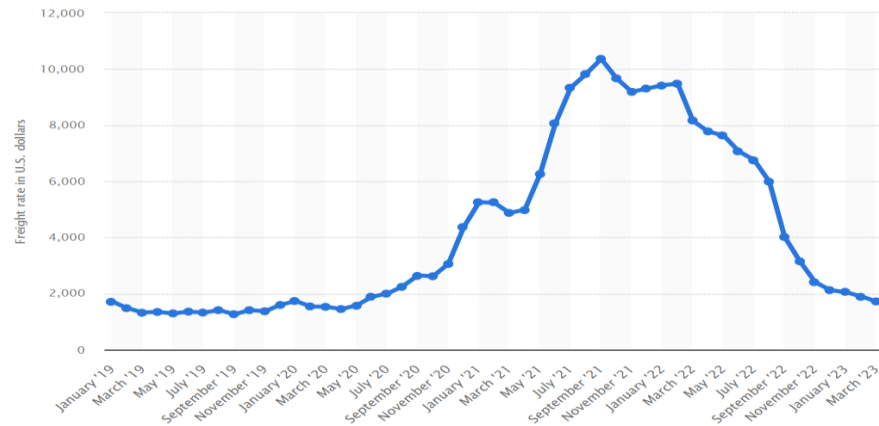
**Transport Costs**



# Why are they relevant to Market Forecasts

Maritime market forecasting is the process of predicting the future performance of the shipping industry. It is an important tool that enables stakeholders to make informed decisions on investments, strategies, and operational planning.

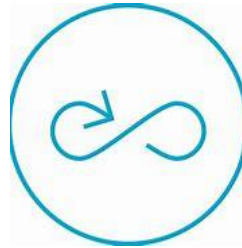
With the volatility of the market, predicting its performance can help stakeholders mitigate risks and seize opportunities. Forecasting can inform decision-making on investments in ports, vessels, and other infrastructure. It can also enable companies to proactively adjust their capacity, routes, supply chains and pricing strategies based on the projected market demand.



Black swan events are relevant to market forecasting because they are unpredictable and rare events that can have a significant impact on financial markets, economies, and industries. These events can cause unexpected market volatility, resulting in losses for investors and businesses. Therefore, it is important to consider the possibility of a black swan event when forecasting market trends and making investment decisions. By acknowledging the potential impact of black swan events, operators and investors can prepare for potential disruptions, adjust their risk management strategies, and protect their portfolios.

# Where Market Forecasting can help manage these events

**Business Continuity Planning**



**Technological Advancements**



**Stress Testing**



**Strategic Review**



# Recent effects on Baltic & Black Sea Regions

## Black Sea

### Container lines reroute Black Sea services as crisis worsens

<https://loydslist.maritimeintelligence.informa.com/LL1139982/...> ▼

Web Feb 25, 2022 · **Container** lines reroute **Black Sea** services as crisis worsens With full-scale war now raging, there is no movement of goods in or out of Ukraine 25 Feb 2022 News ...

### What is the Ukraine grain deal and what good has it ...

<https://www.bbc.com/news/world-61759692> ▼

Web Mar 16, 2023 · **Ukraine** is a major global exporter of sunflower, maize, **wheat** and barley. When Russia invaded in February 2022, its naval vessels blockaded **Ukraine's** ports, trapping some 20 million tonnes of...



**USNews** · 11d

### Exclusive-Romania's Grain Crop Rebound May Limit Ukraine's Room at Constanta Port

Even after a deal brokered by the United Nations and Turkey at the end of July gave Ukraine access to three of its Black Sea ...



## Baltic Sea Region

### Analysis – Russia's new port in Ust-Luga attracts new cargo at the ...

<https://www.portseurope.com/analysis-russias-new-port-in-ust-luga...> ▼

Web Jun 29, 2021 · Ust-Luga, Russia (**PortSEurope**) June 29, 2021 – Russia's currently under construction **Baltic Sea port** of Ust-Luga, which when completed will claim to be the largest in the world, is already taking over Russian and Belorussian export cargo previously transported via **ports** in Latvia, Lithuania, Estonia, Finland, Ukraine, Germany and the ...

### Russian fury as Poland renames Kaliningrad exclave - BBC News

<https://www.bbc.com/news/world-europe-65545636.amp> ▼

Web May 10, 2023 · Kaliningrad is strategically important to Moscow because it houses the **Russian Baltic Fleet** at the **port** of Baltiysk and is one of **Russia's** only ice-free European ...

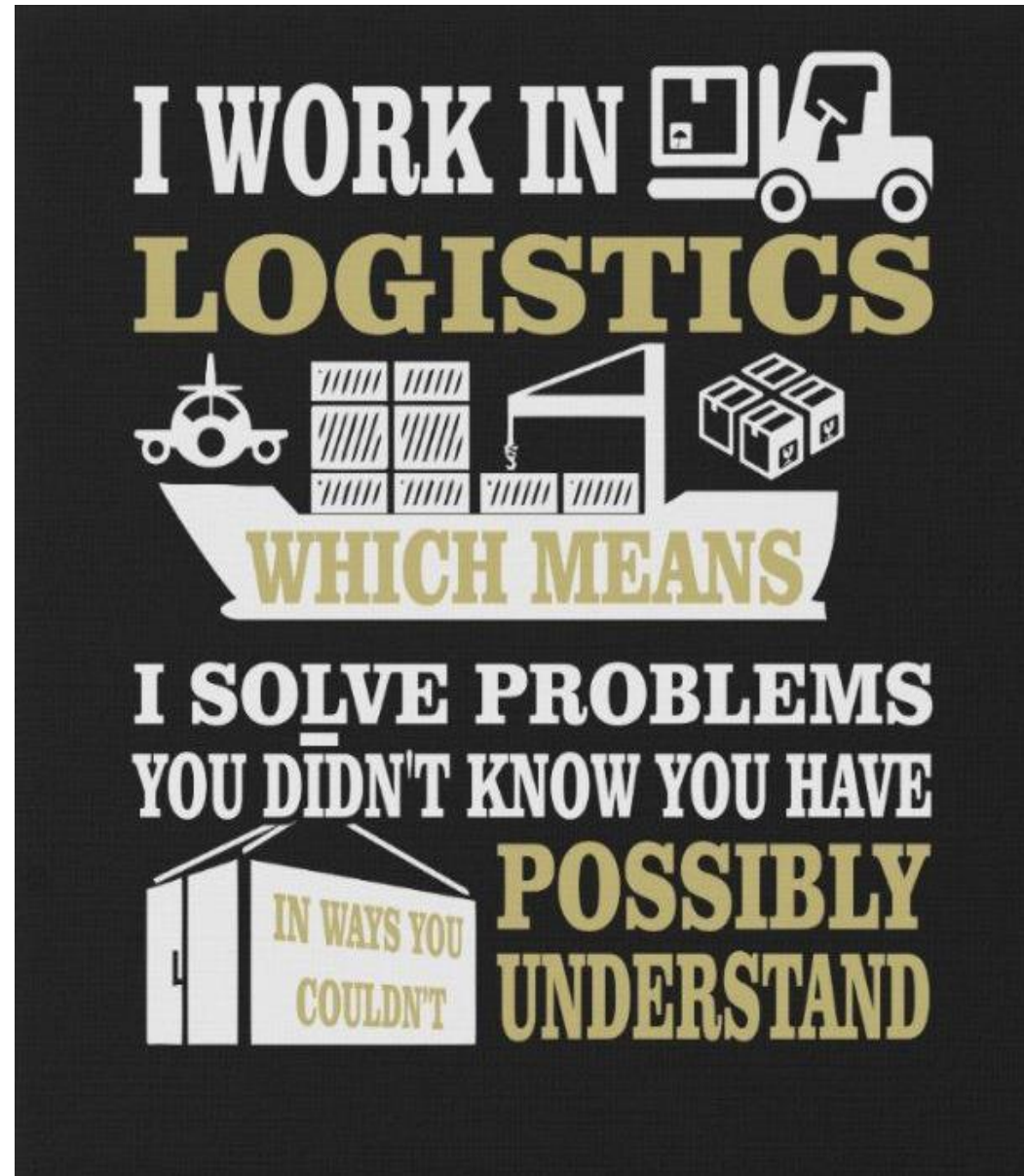
### Europe starts cleaning up its act to save the Baltic Sea

<https://www.euronews.com/green/2021/09/28/europe-starts-cleaning-up...> ▼

Web Sep 28, 2021 · One of the world's most polluted seas is in Europe. Decades of Chemical contamination, overfishing and climate change have undermined the health of the **Baltic** ...

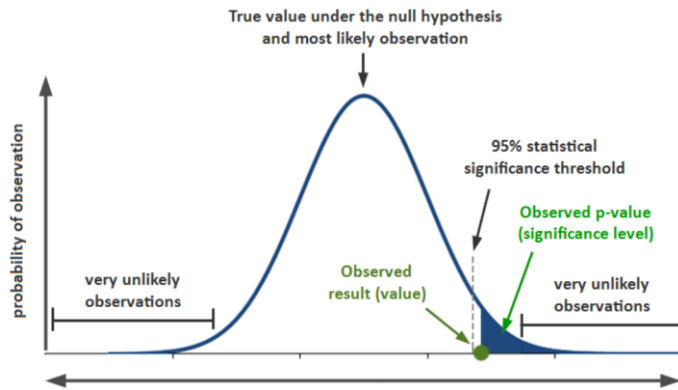
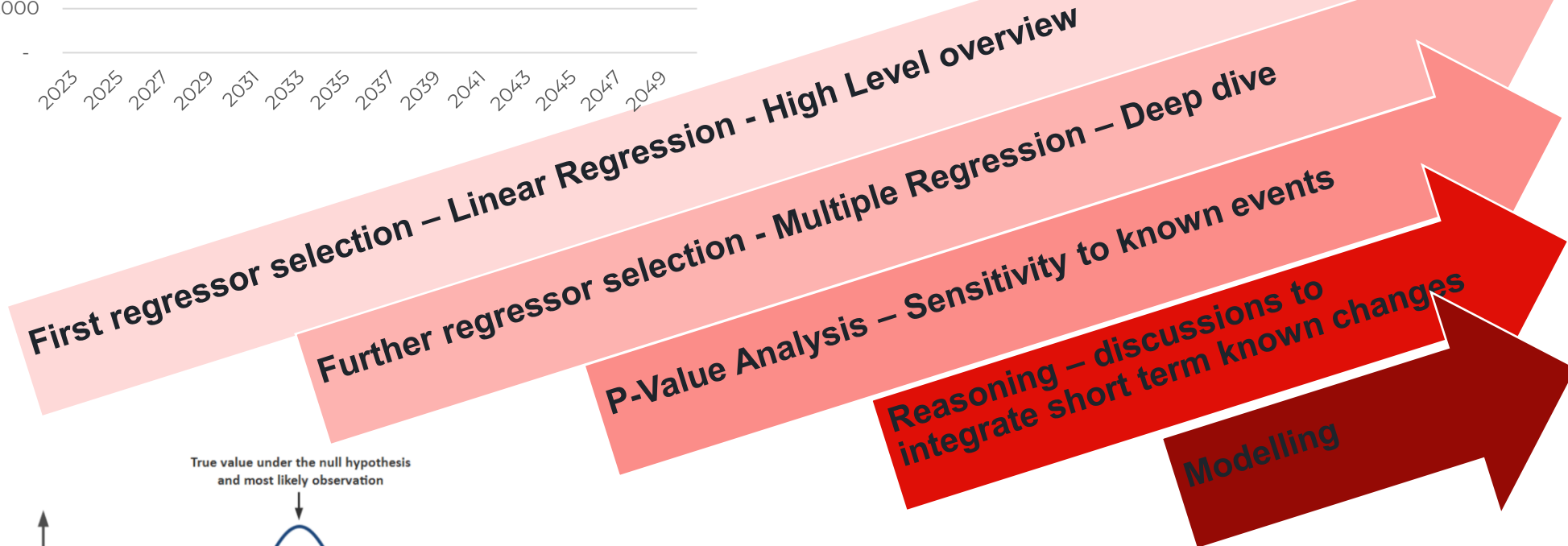
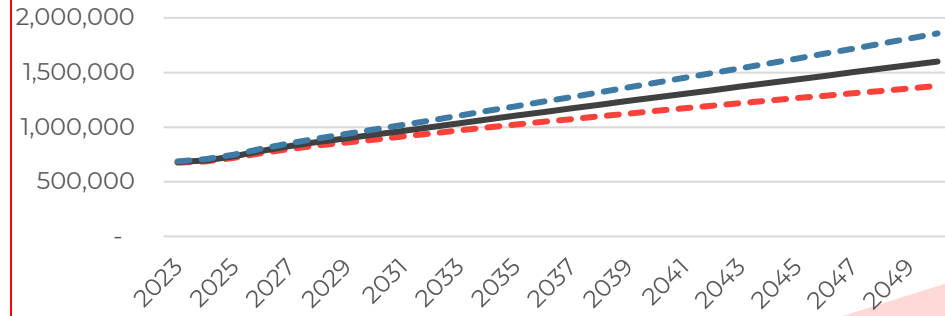


# How we incorporate these events in a Market Forecast

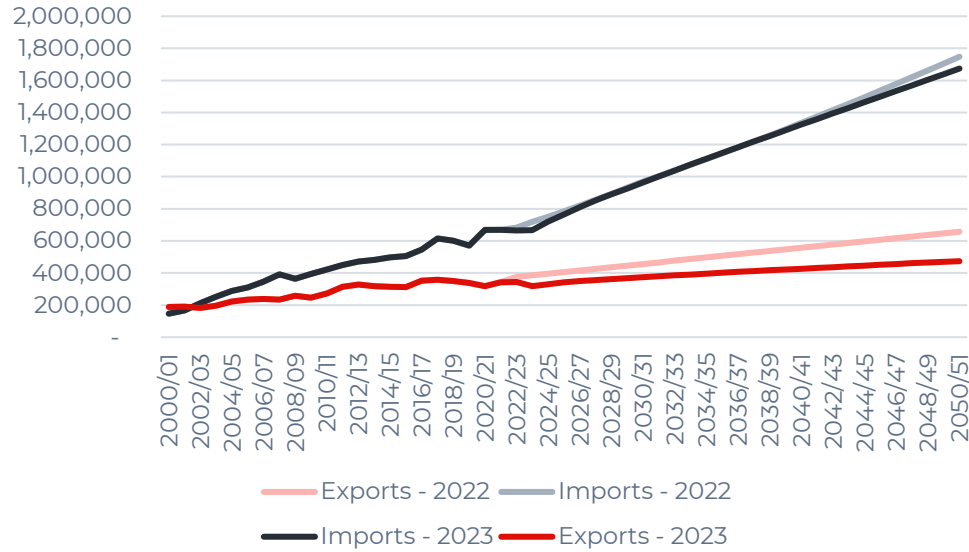


# How we incorporate these events in a Market Forecast

Sensitivity Analysis



# How we incorporate these events in a Market Forecast

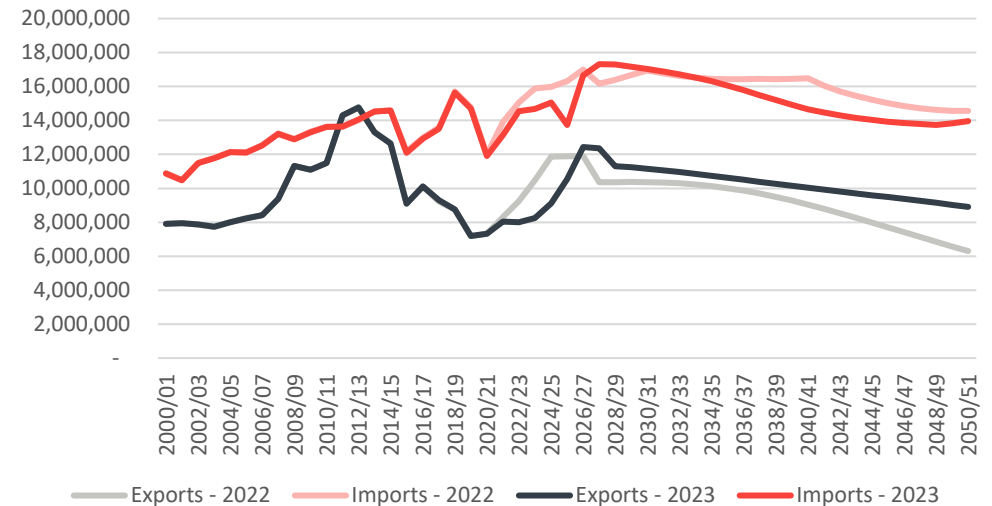


## Container traffic followed a clear growth pattern with bulk cargo more sensitive to variation

The events of COVID between 2019 and 2021 had more of an effect in this example in the bulk sector rather than the containerised traffic. However the forecasts show that the expectation is that this will be recovered quickly and will have the effect of slowing down expected reductions over the coming years.

## Example of recent port forecast model review

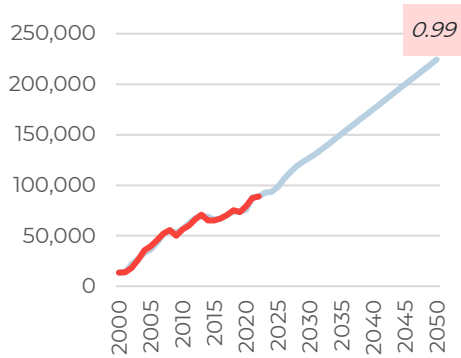
In this example WSP performed an updated model forecast for a port reviewing both their container and dry bulk traffic. The model showed the previous annual forecasts and how updated methodology and detailed review provided further insights to add strength to the analysis.



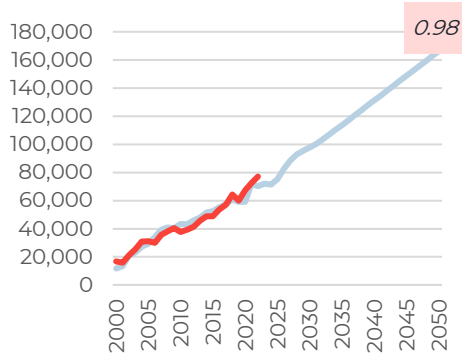
# How we incorporate these events in a Market Forecast

Variations between the 2022 and 2023 volumes where then reviewed in more detail per commodity.

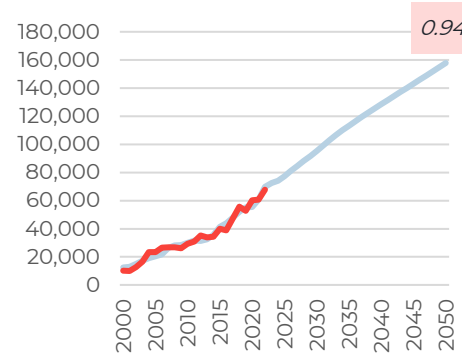
**Commodity 1**



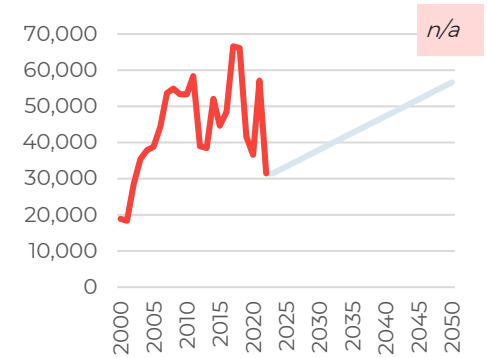
**Commodity 2**



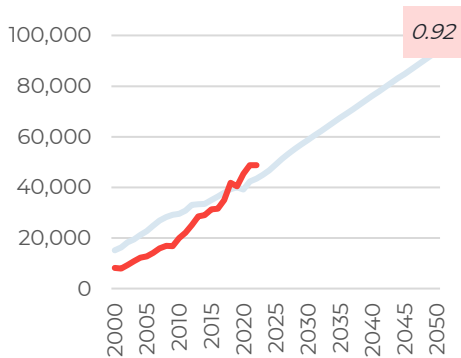
**Commodity 3**



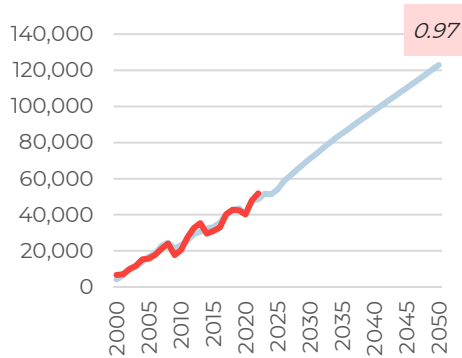
**Commodity 4**



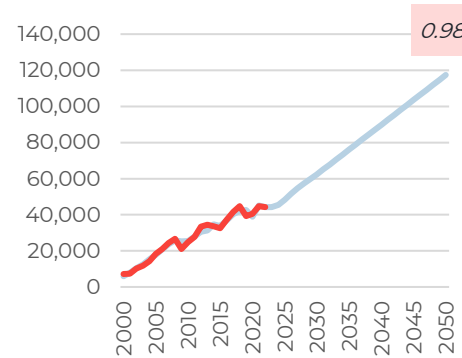
**Commodity 5**



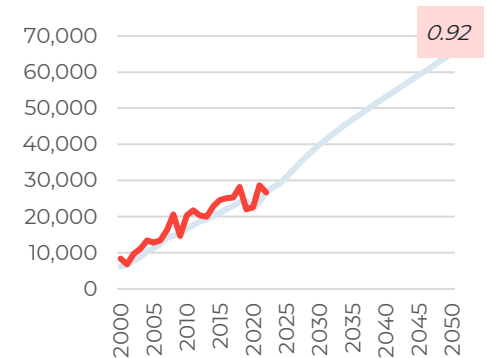
**Commodity 6**



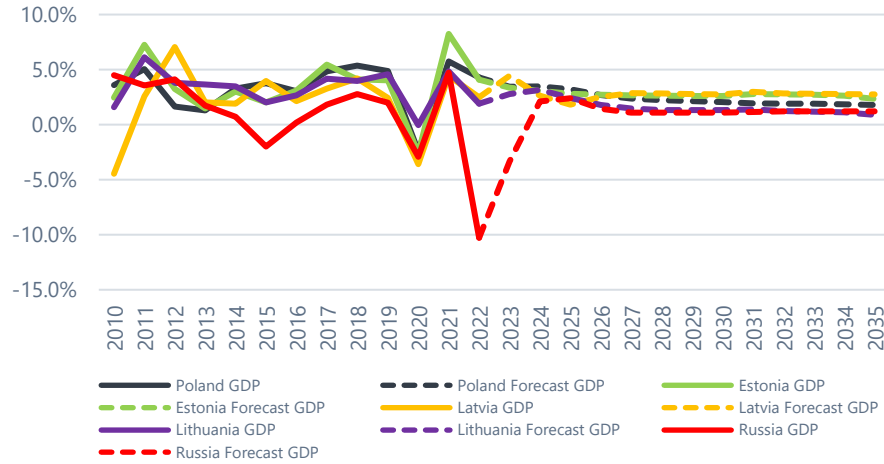
**Commodity 7**



**Commodity 8**



# Opportunities seen in Baltic & Black Sea regions

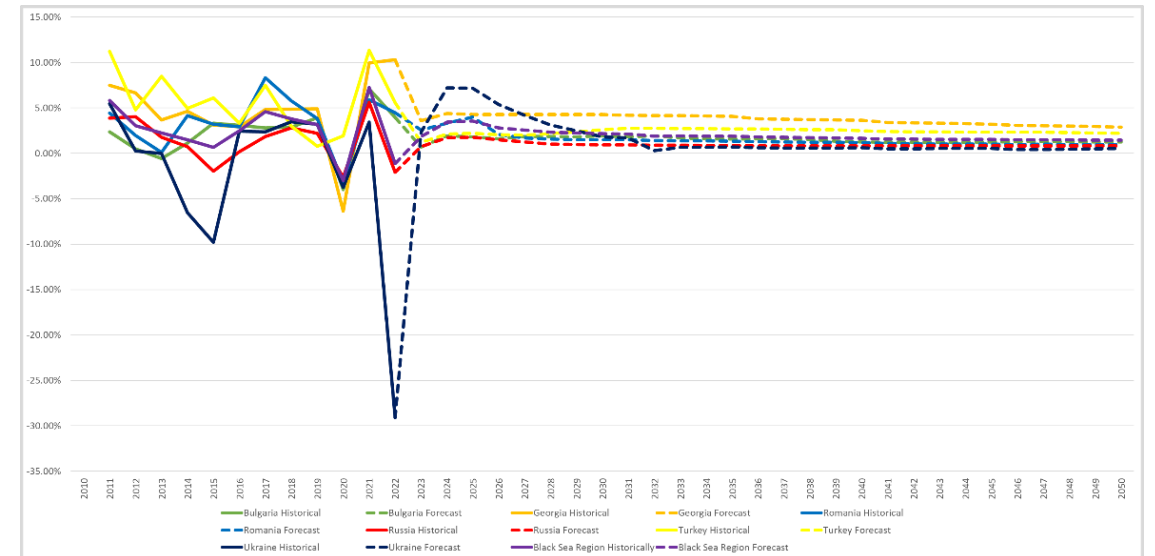


## Areas of opportunity – Baltic Sea Region

- Offshore energy / Alternative Fuels
- Container Alliance separation
- Deep Sea Port investment for larger vessels
- Deeper Hinterland development
- Environmental development

## Areas of opportunity – Black Sea

- BRI / Trans Caspian Trade Route.
- African Continent development
- Central Asia countries growth
- Bulgaria, Romania, Georgia port developments





# THANK YOU

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