



The International
Propeller CLUB
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Ship Operating Costs Current and future trends

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Why are we here today?

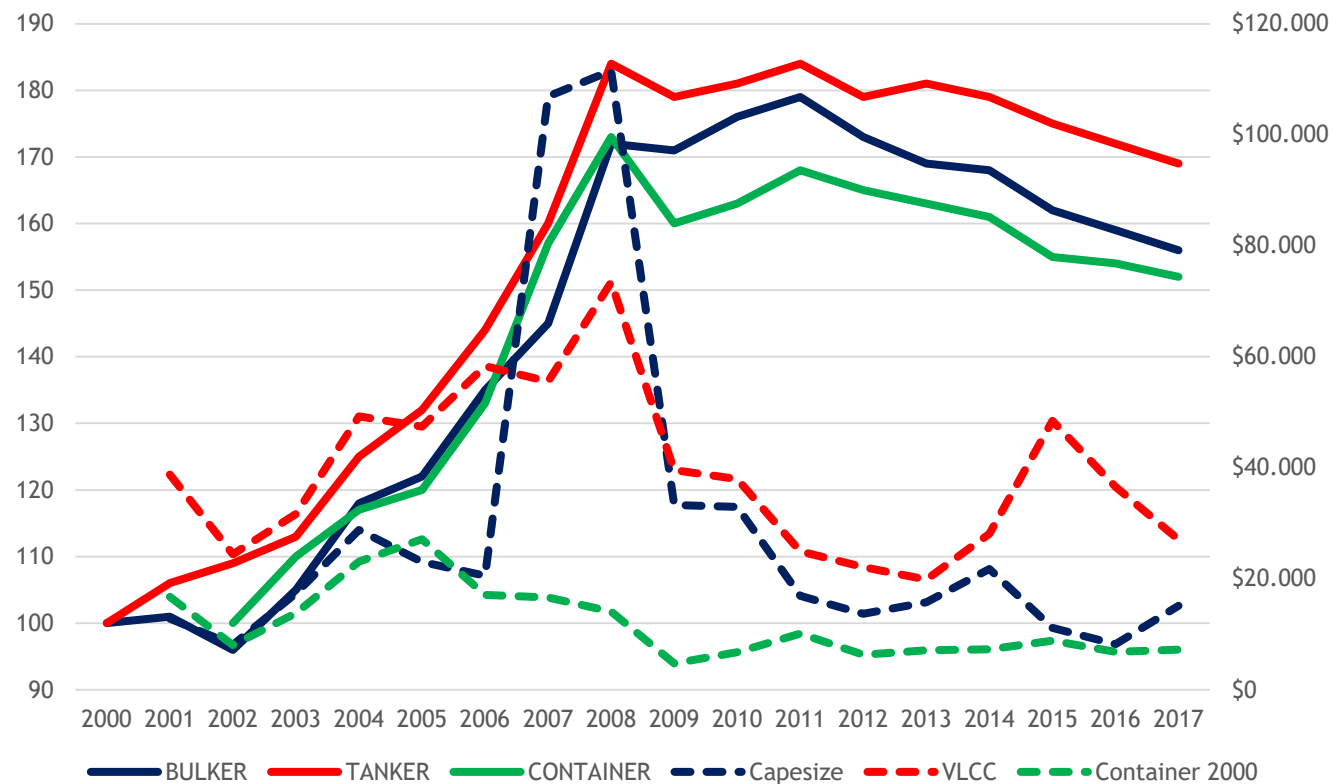
- ▶ Present the stats on key operating cost drivers
- ▶ Discuss key insights
- ▶ Project future trends and associated risks

Key operating stats

Dataset profile

- ▶ Over 3,800 vessels in OpCost 2018 database
- ▶ 26 vessel types including:
 - ▶ 4 bulker
 - ▶ 12 tanker
 - ▶ 4 container ship
- ▶ 12 cost categories including:
 - ▶ crew costs
 - ▶ stores
 - ▶ repairs & maintenance
 - ▶ insurance
 - ▶ dry-docking

Total Cost vs Earnings T/C (1 year)



▶ Highly correlated

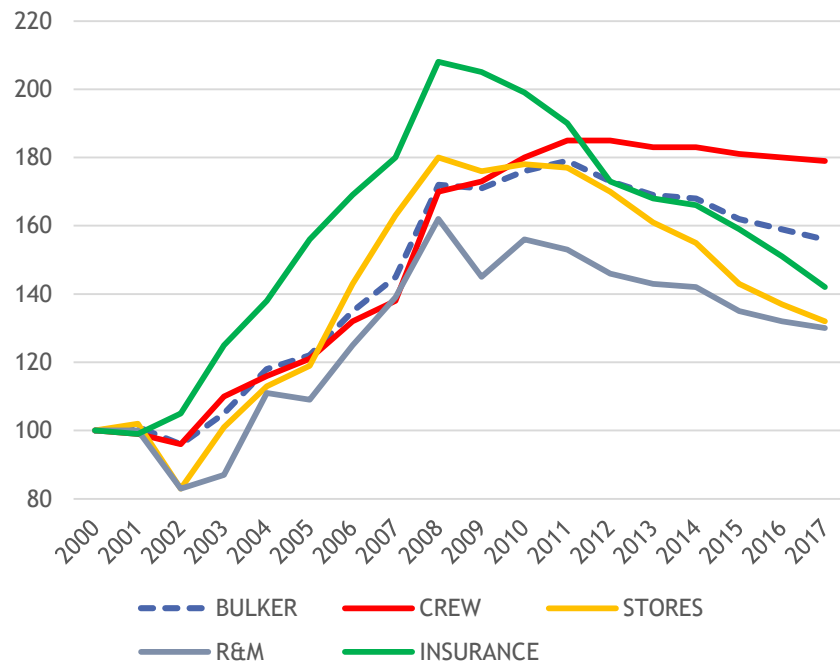
▶ Pick at 2008

▶ Moderate

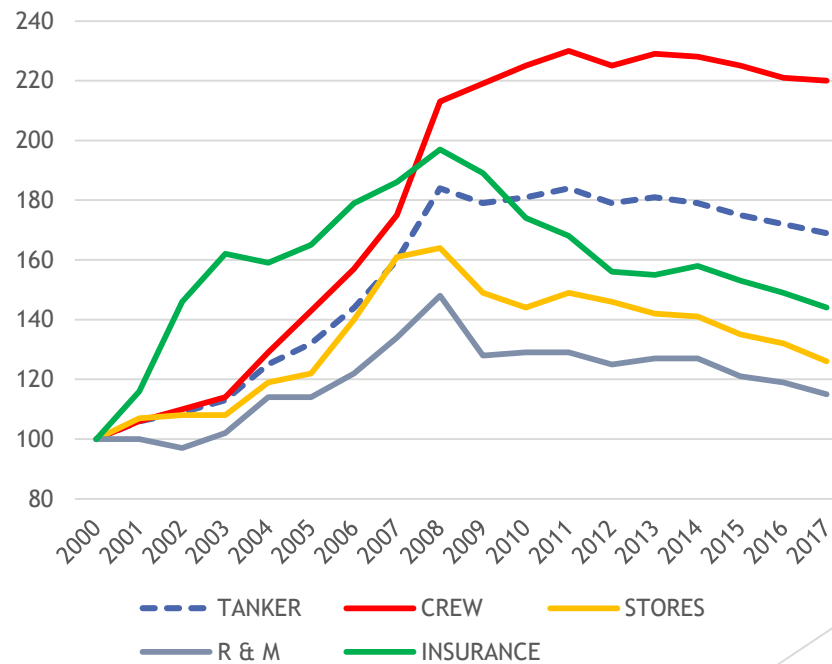
deflationary effects

Comparison of Cost Categories

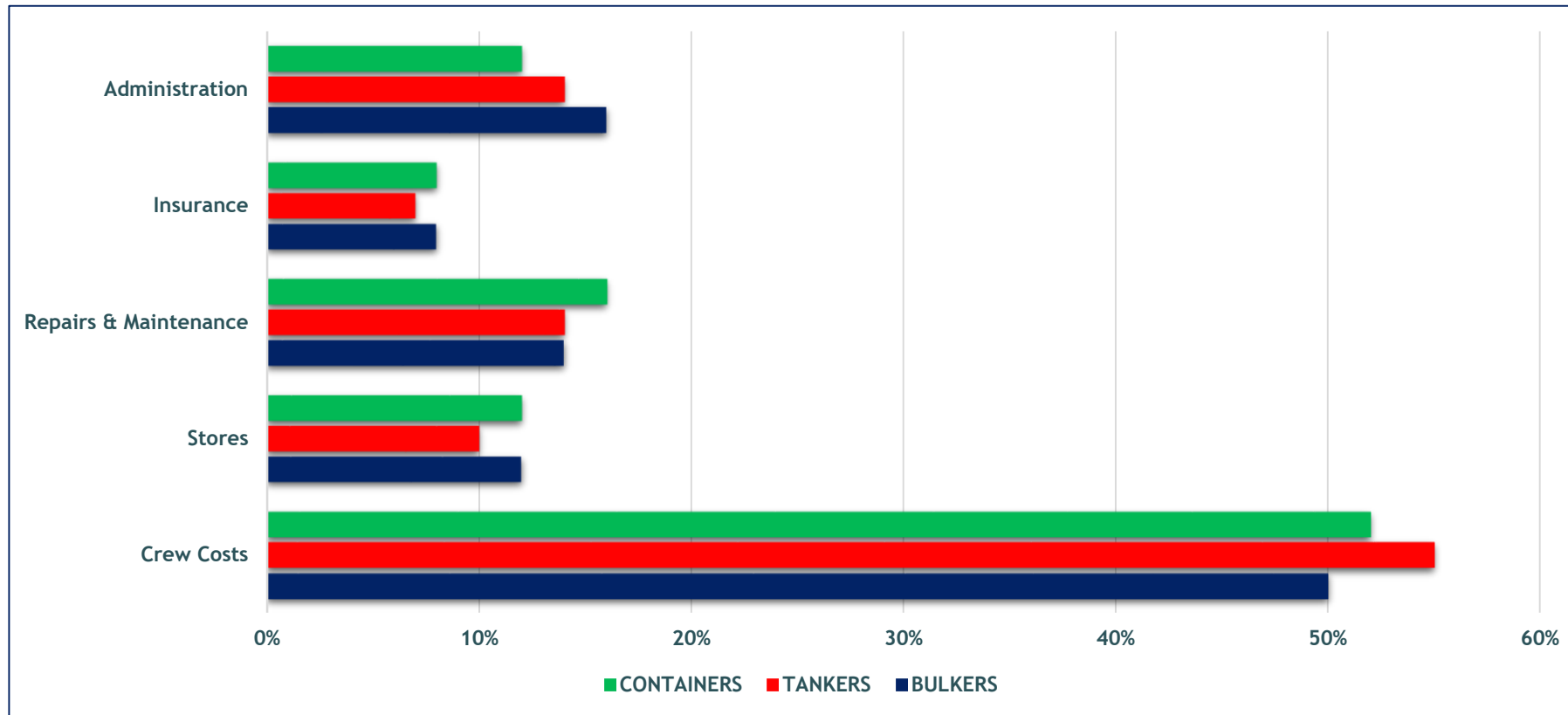
Bulker



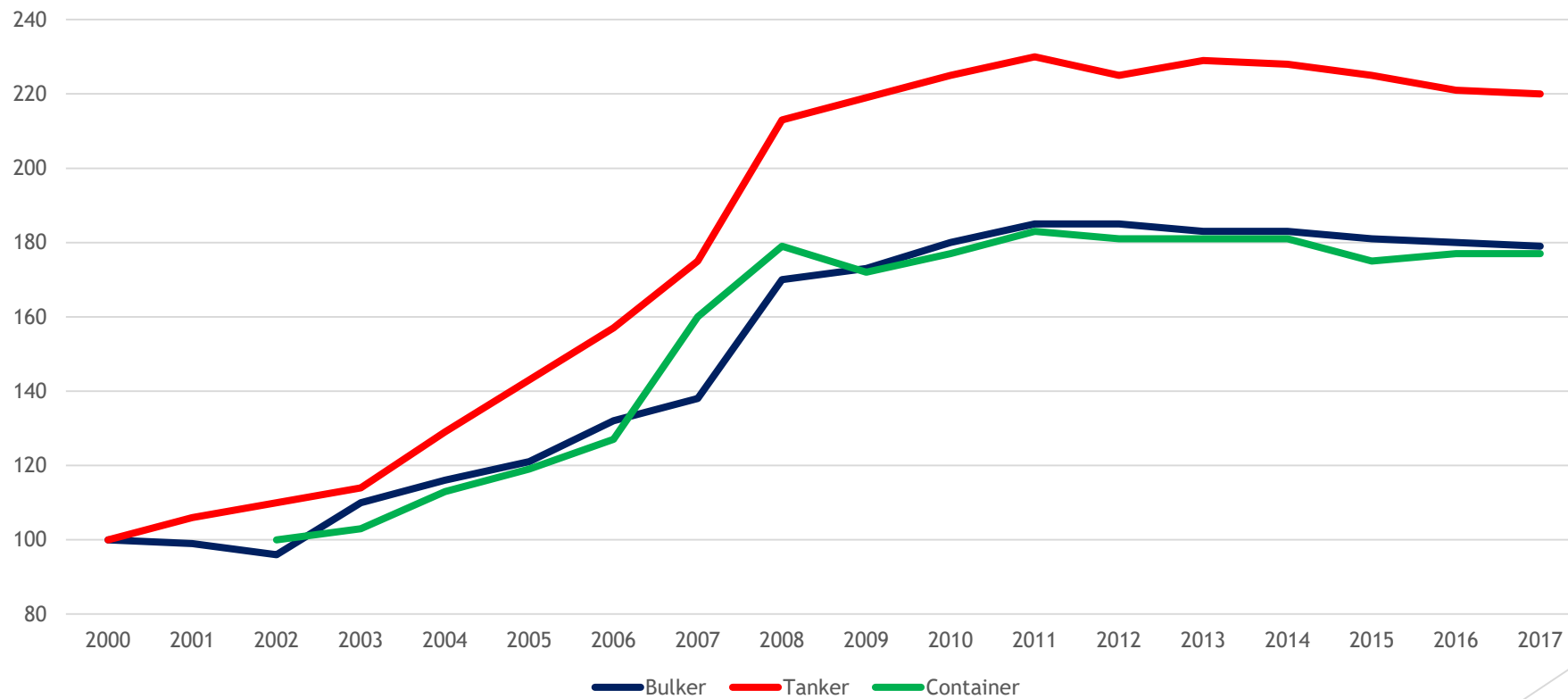
Tanker



Cost Structure 2017



Crew Cost

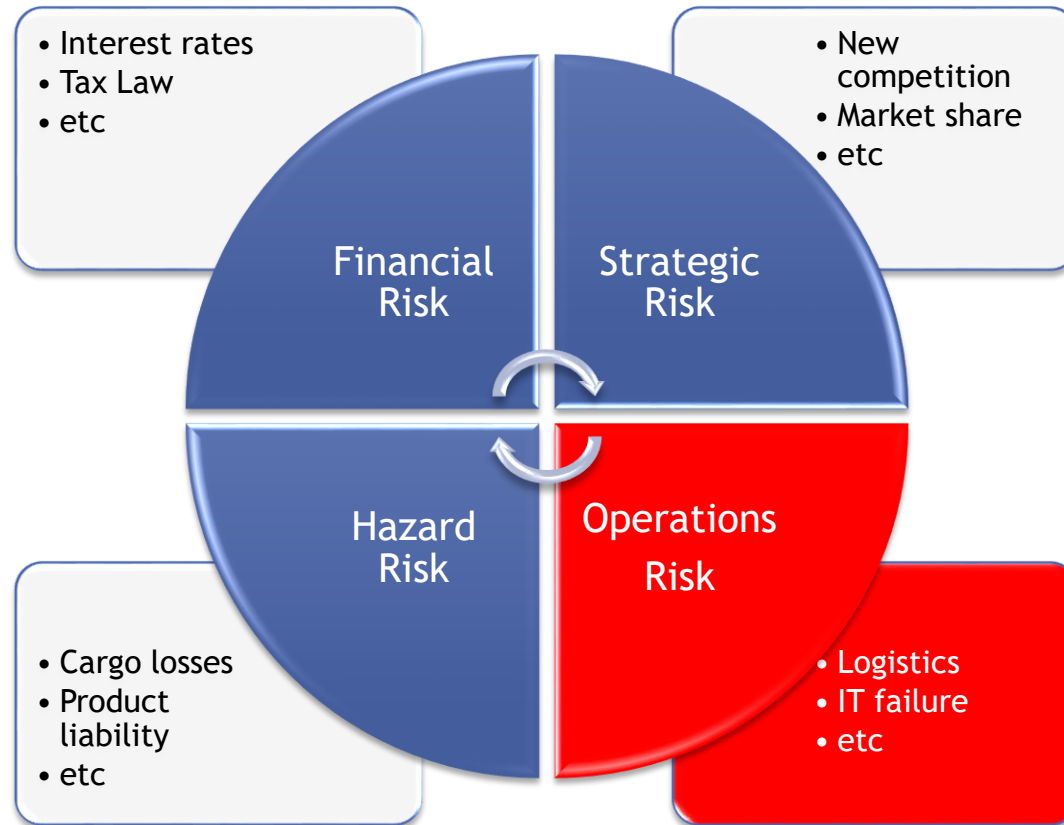


Insights

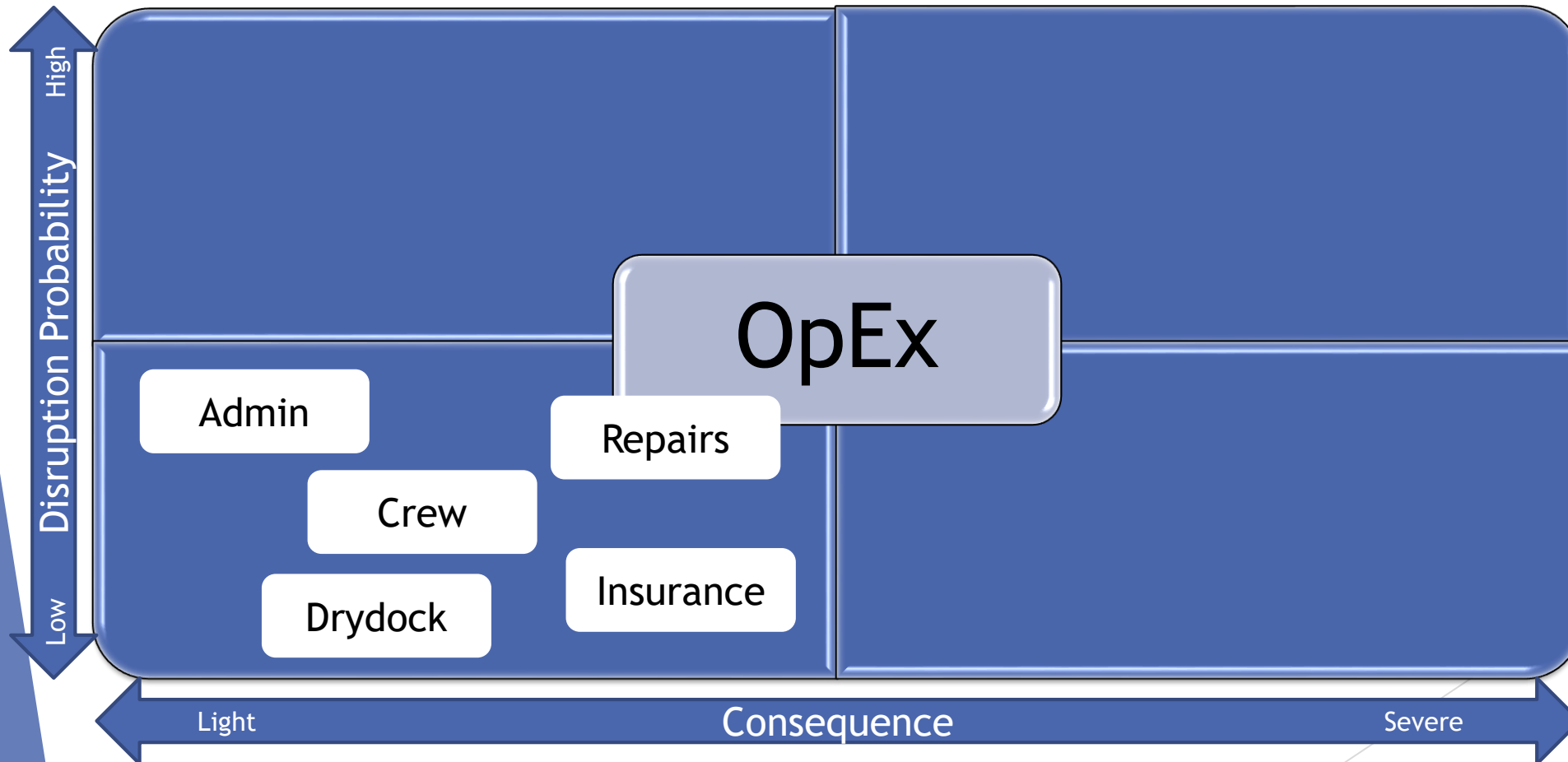
Key observations

- ▶ All three sectors follow a similar pattern
 - ▶ Bulker 2.8% (17 years average)
 - ▶ Tanker 3.3% (17 years average)
 - ▶ Container 3.0% (15 years average)
- ▶ Crew cost remains at high levels
- ▶ Crew cost has the highest share (50%)
- ▶ **Manageable variability – Measurable risk**

What about risk?



Operations Risk

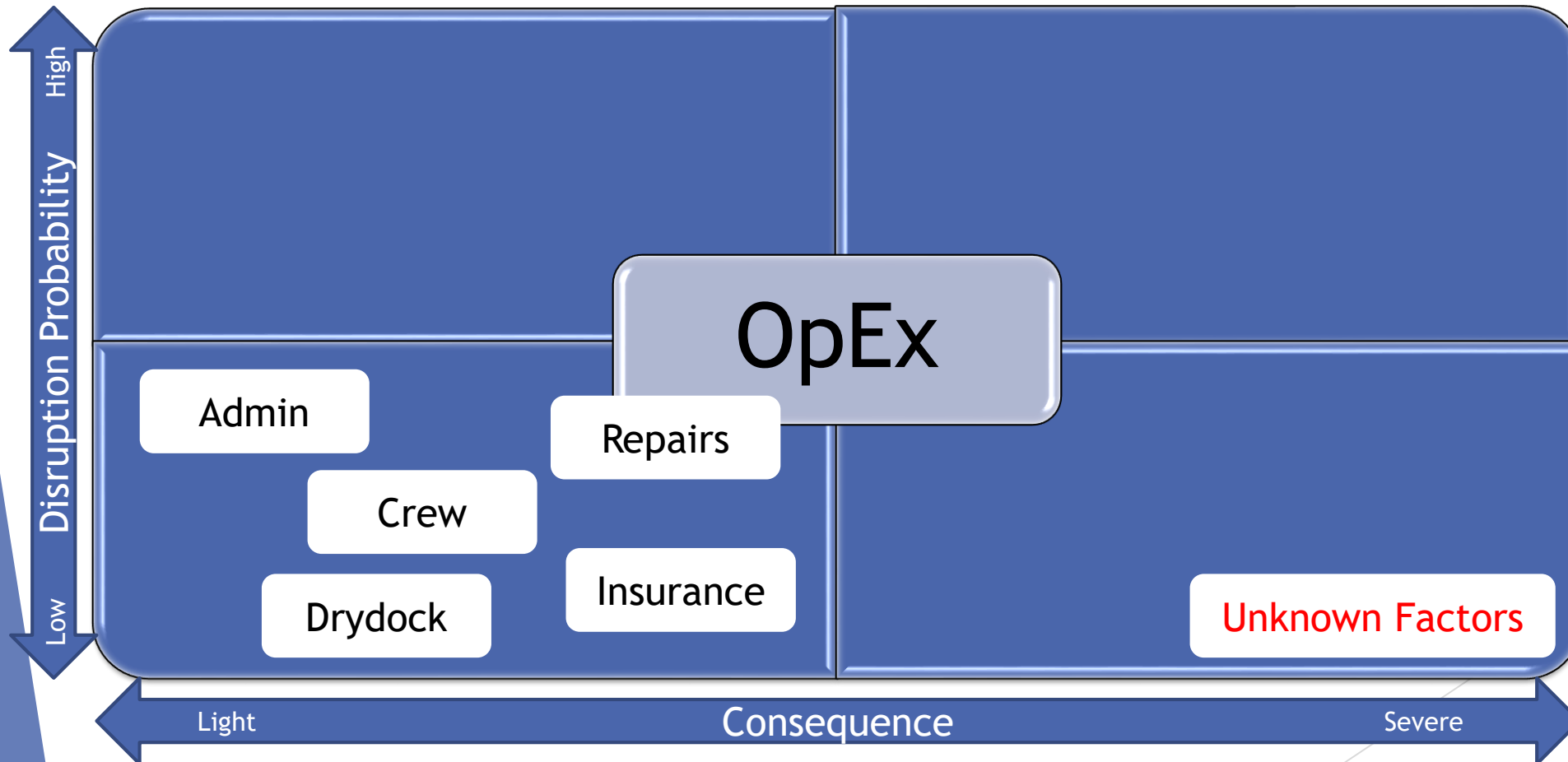


Future trends and risks

What is coming?

- ▶ Digitalization (i.e. AI)
- ▶ Regulations (i.e. SOx 0.5%)
- ▶ New technologies (i.e. 3D Printing)
- ▶ HR skills and capabilities (i.e. availability)
- ▶ Financial (i.e. interest rates)
- ▶ Economic (i.e. Trade wars)

Operations Risk



Digitalization

Technologies

Regulation

HR availability

Financial

Economic