



2024 CEFOR HULL FLEET AND CASUALTY TRENDS

Astrid Seltmann, Analyst/Actuary @ Cefor, The Nordic Association of Marine Insurers

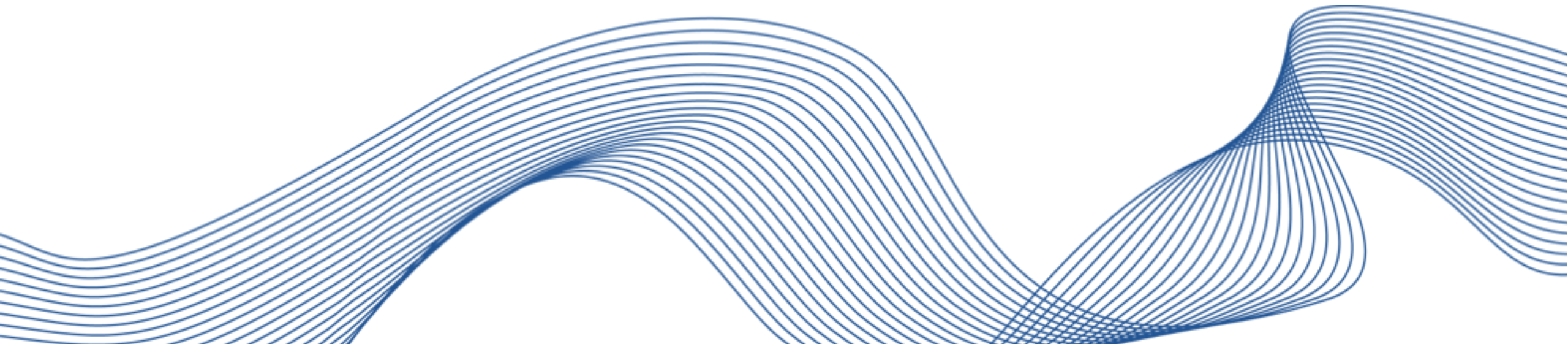
8 April 2025

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- The context: Global trade & Shipping / Industry issues
- Nordic Marine Insurance Statistics (NoMIS): Data & Team
- Fleet & Value trends
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 - Machinery claims
 - Weather & Rerouting
 - Is idleness the root of all evil? (Lay-up)
- The 2025 Oracle / Outlook



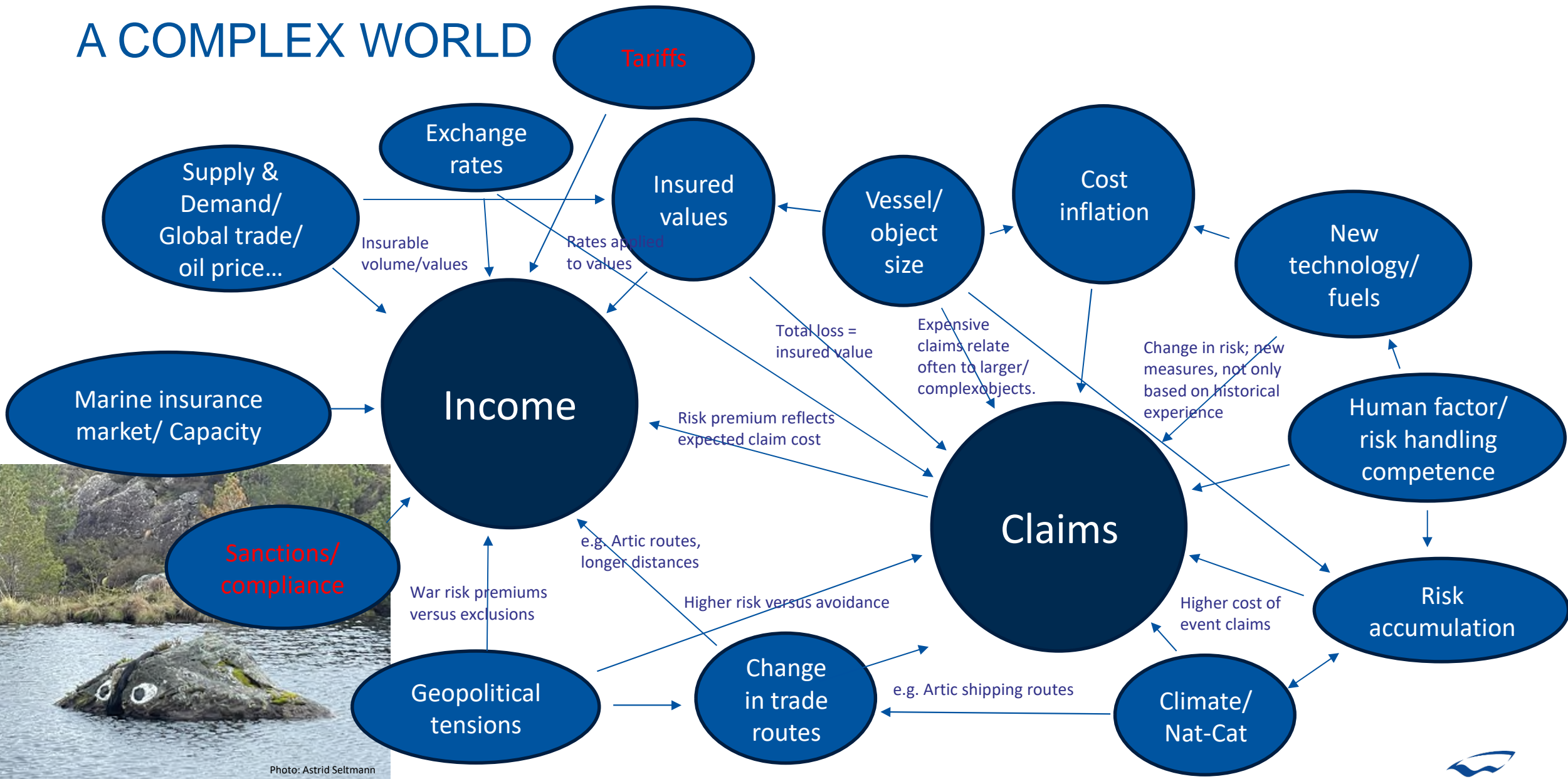
THE CONTEXT:
GLOBAL TRADE & SHIPPING / INDUSTRY ISSUES



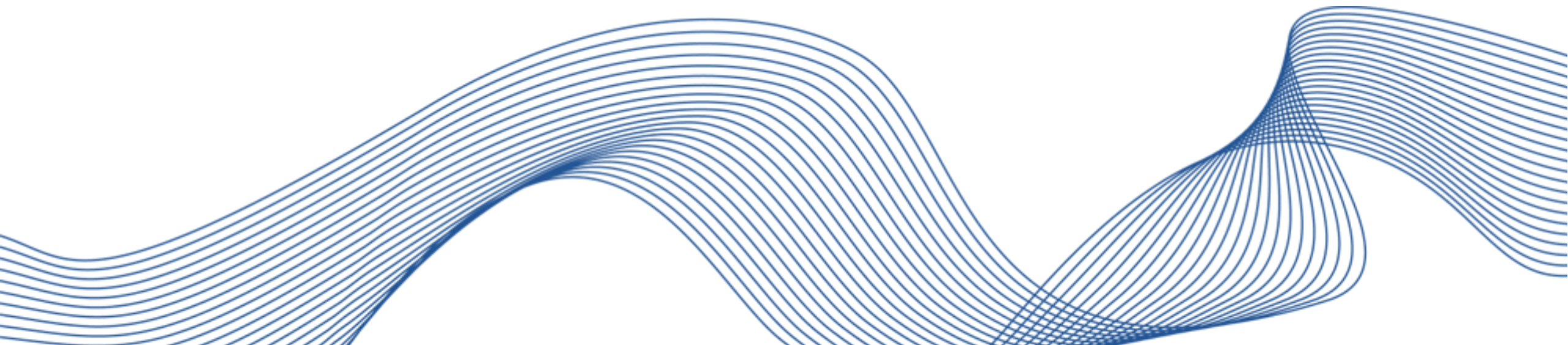
THE GLOBAL CONTEXT

	Characteristics	Relevance for Marine Insurance
Global Trade	Global economy, trade flows, commodity prices, freight rates, oil price, Tariffs .	Cargo volume/values create shipping demand. Tariffs may change trade flows & shipping routes.
World Fleet	Shipbuilding, scrapping, vessel routing react to global economy.	Vessel size, value, fleet composition, vessel activity.
Crew	International crew, often long onboard.	Qualification & wellbeing crucial for loss prevention.
Weather/ Climate	Frequency & intensity of storms, ice, wave heights, wind speed, Arctic areas, challenging shipping lanes,...	Value accumulation (ports, large vessels), Nat/Cat frequency/intensity, Traffic in challenging areas (Arctic). Vessel rerouting (longer & more weather-exposed).
Legislation	International and national legislation	Can be complicated across countries & influence costs.
Geopolitical risks	Piracy. Sanctions. War.	Risk to vessels and crew. Difficult legal issues. Supply chain disruptions. Crew issues. Inflation. Shipping lanes / rerouting of vessels.
ESG	Emissions, crew health, ocean health,...	Support clients in achieving ESG goals. Alternative fuels & propulsion types mean risk changes.
Technical	New technology = change in risk	Adjust risk assessment/loss prevention measures.

A COMPLEX WORLD



NORDIC MARINE INSURANCE STATISTICS (NOMIS)
DATA & TEAM



NORDIC MARINE INSURANCE STATISTICS – THE DATA



Data reported into the NoMIS database:

Vessels covered under **Hull & Machinery (H&M)** insurance

- Lead and follower business
- Underwriting years from 1995
- Portfolio and claims data:
Vessel values, deductibles, claims numbers & cost (paid+outstanding, development over time)
- For comparability, hull-related insurance types other than H&M are excluded, such as Loss of Hire, builder's risk, freight interest, fishing (catch&gear), war.



Additional data:

World fleet details (subscription data), linked to insurance data via IMO number.

Vessel activity data (distance sailed, average speed)

Exchange rates, oil price, ship operating costs, steel price etc.



Data in this presentation represents:

100% of each vessel (values, claims).

Claims trends by **accident year**
(= calendar year in which claim occurred)

46% of world fleet > 10,000 gross tons
(27% of world fleet > 1,000 gross tons)

Trends as of 31 December 2024.

Most graphs include IBNR estimates (incurred but not reported) for the backlog in claims reporting (dotted lines), claims not yet reported by the end of the year, and future adjustments of outstanding claims reserves.

STATISTICAL RELEVANCE OF NOMIS DATA – SHARE OF WORLD FLEET * >1000 GT

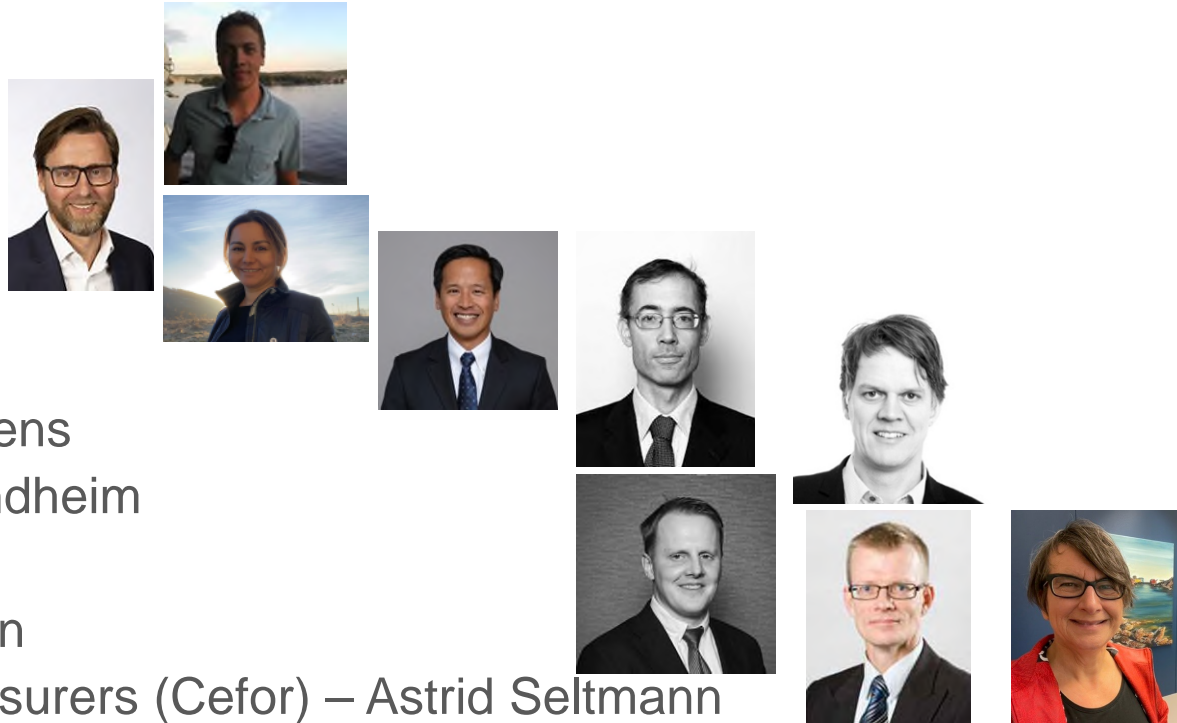
Year of build	Gross tonnage		Grand Total
	1000-20000	>20000	
Cefor share of world fleet			
2021-2024	22.0%	48.0%	37.1%
2017-2020	20.5%	55.7%	39.1%
2013-2016	22.3%	65.1%	44.6%
<2013 or (blank)	15.0%	54.7%	25.5%
World fleet count			
2021-2024	2,222	3,159	5,381
2017-2020	2,648	3,252	5,900
2013-2016	3,694	4,354	8,048
<2013 or (blank)	31,153	13,587	44,740
Total Cefor share of world fleet	16.3%	55.9%	29.8%
Total World fleet count	39,717	24,352	64,069

* Vessels with IMO number, insured underwriting years 2022-2024

NORDIC MARINE INSURANCE STATISTICS THINK TANK

The Cefor Statistics Forum dream team 2024:

- Alandia – Jonas Svartström
- Codan – Mikkel Gardner Andersen
- Gjensidige – Günes Pedersen
- HDI Specialty – Jordan Ko
- If – Anders Öhlund
- Norwegian Hull Club – Christian Irgens
- S Insurance – Christian Yavneh Blindheim
- Skuld – Otto Rendedal
- The Swedish Club – Anders Hultman
- The Nordic Association of Marine Insurers (Cefor) – Astrid Seltmann



Business intelligence by combining the intellectual power of marine insurance analysts & actuaries.



TYPICAL STATISTICS FORUM MEETING



by Astrid Seltmann

Bergen

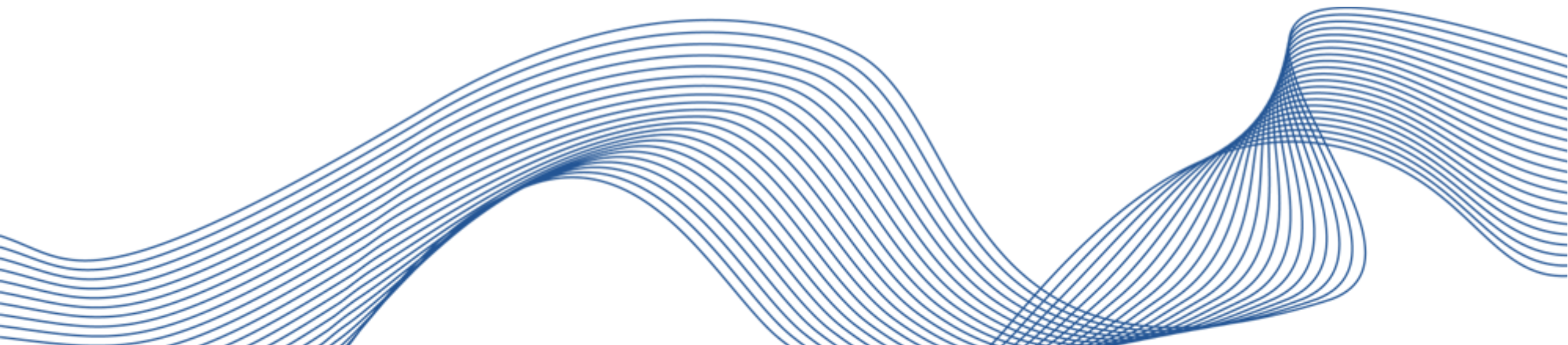
Copenhagen

Gothenborg

Oslo

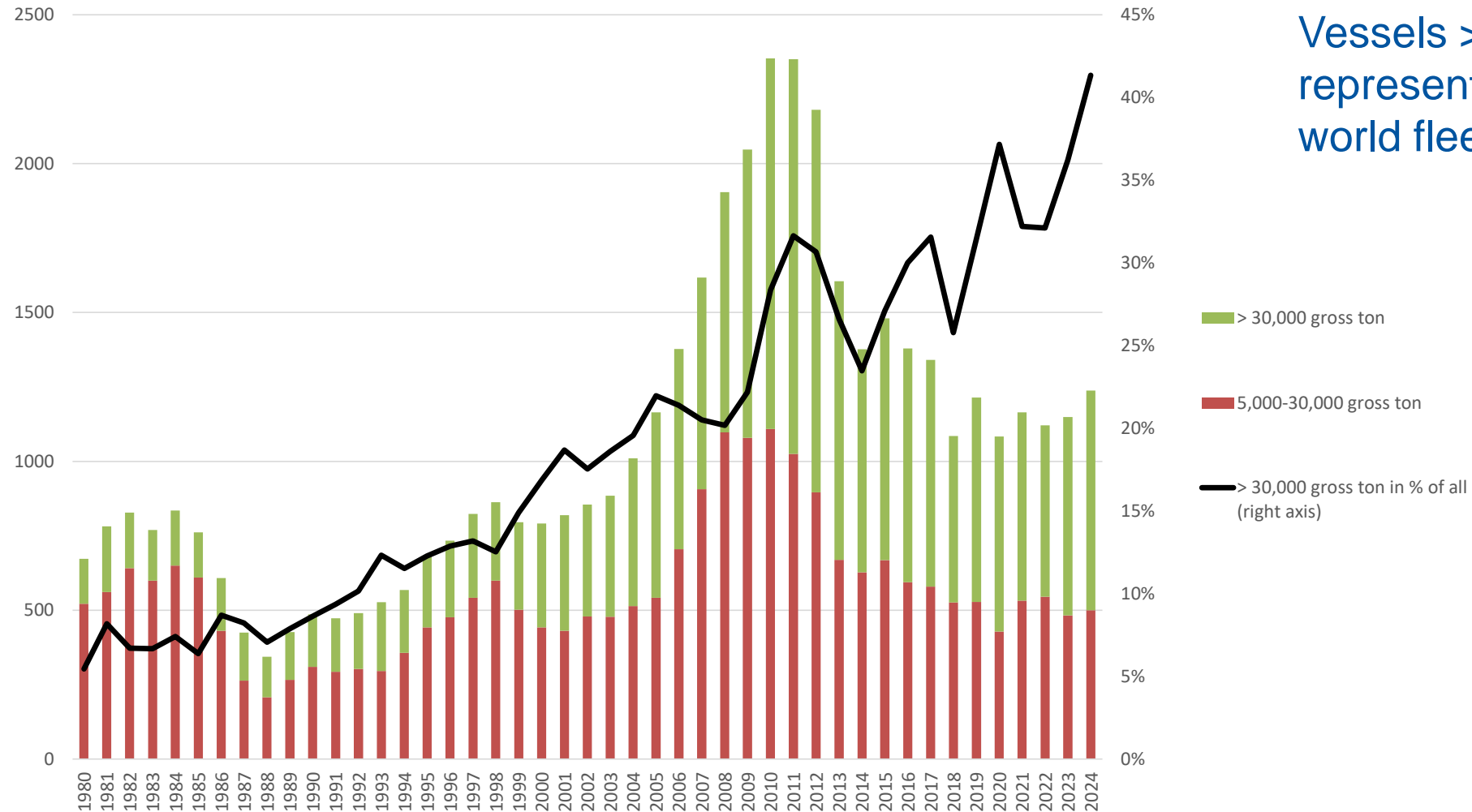
Stockholm

FLEET & VALUE TRENDS



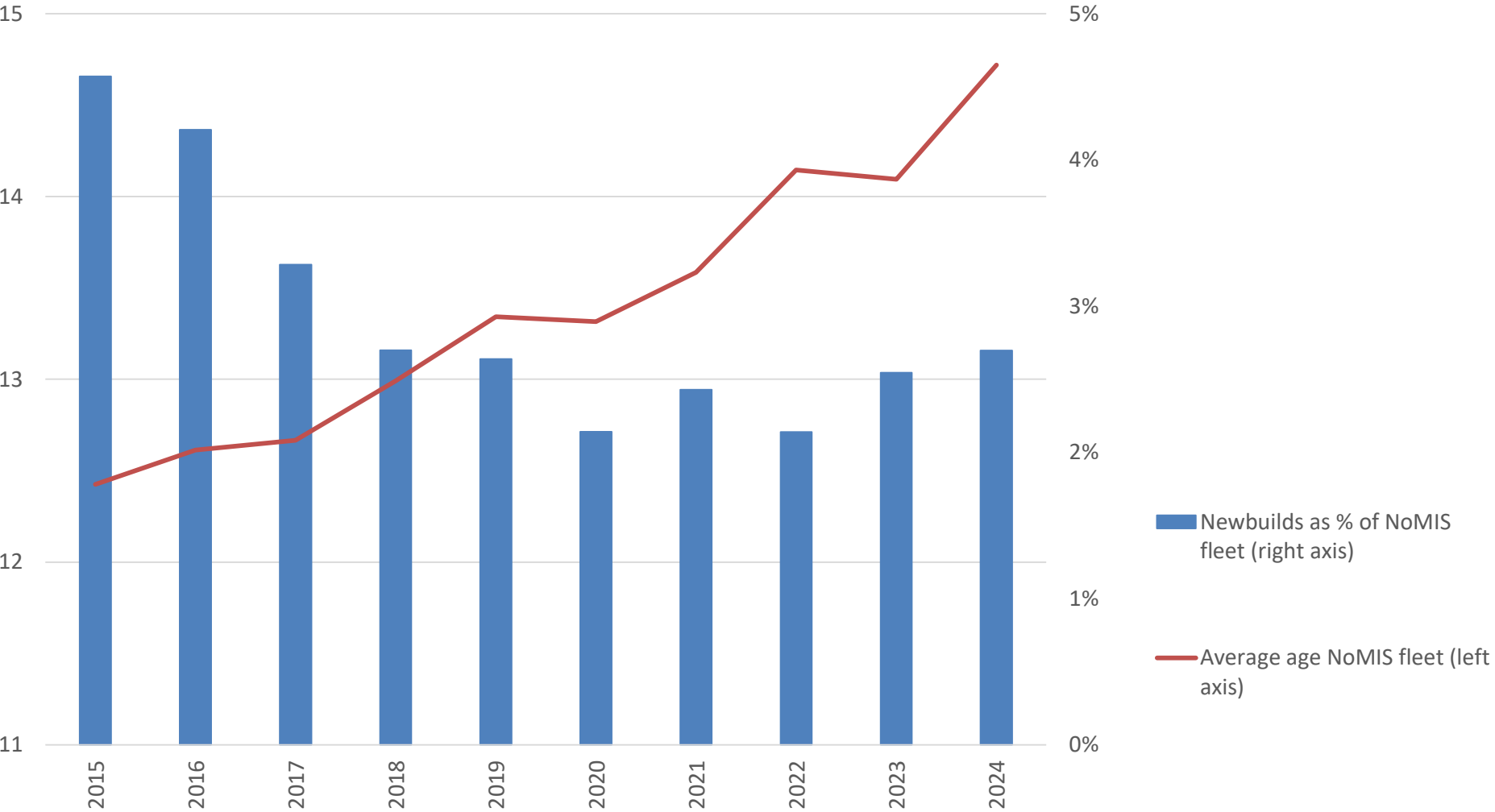
WORLD FLEET: LESS BUT LARGER NEWBUILDS

NUMBER OF NEWBUILDS PER YEAR > 5,000 GT, BY INTERVALS OF GROSS TON



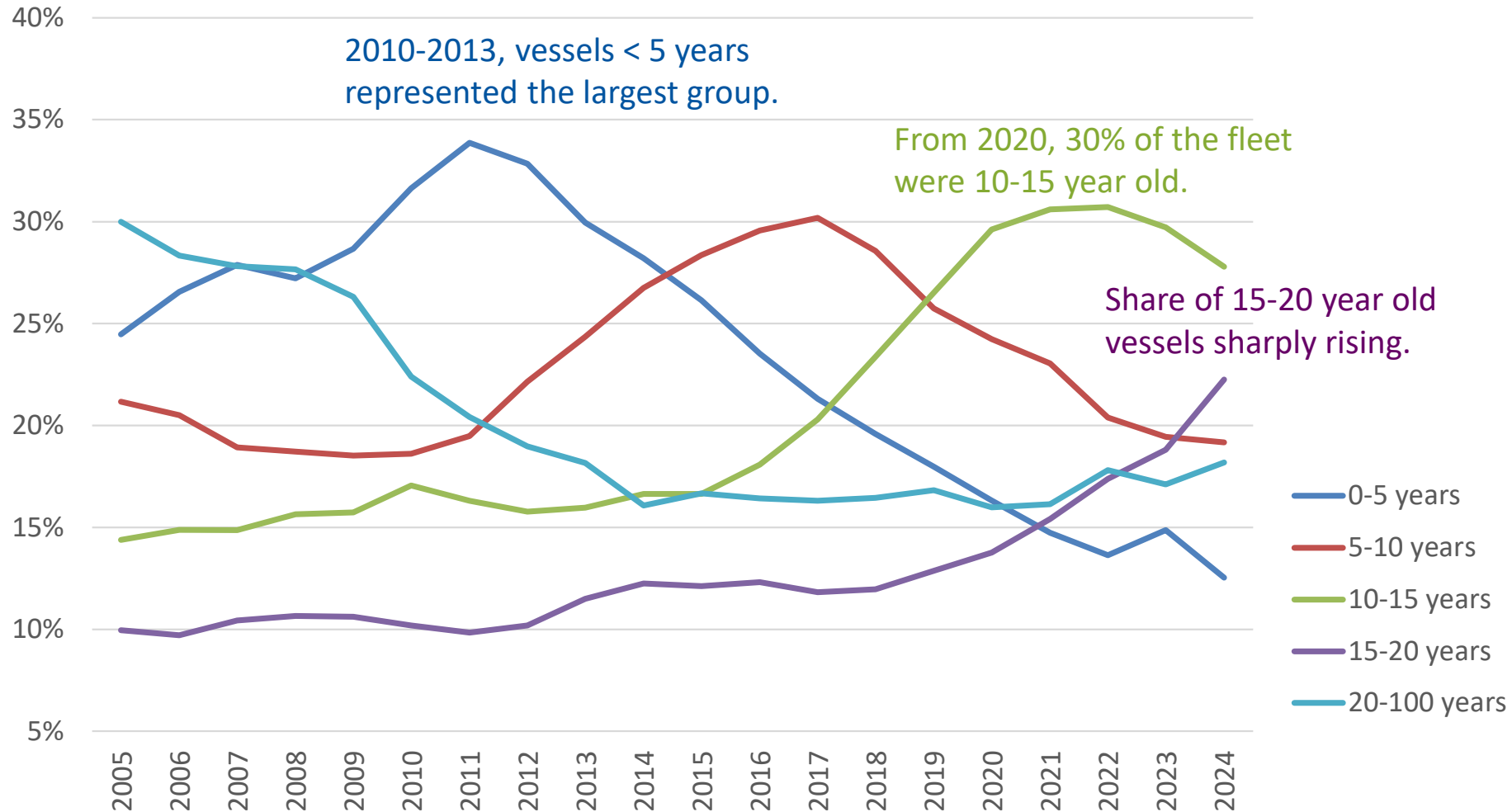
Vessels > 30,000 gross tons represent increasing share of world fleet

NOMIS FLEET: FOLLOWS WORLD FLEET TRENDS: LESS NEWBUILDS & INCREASING AGE



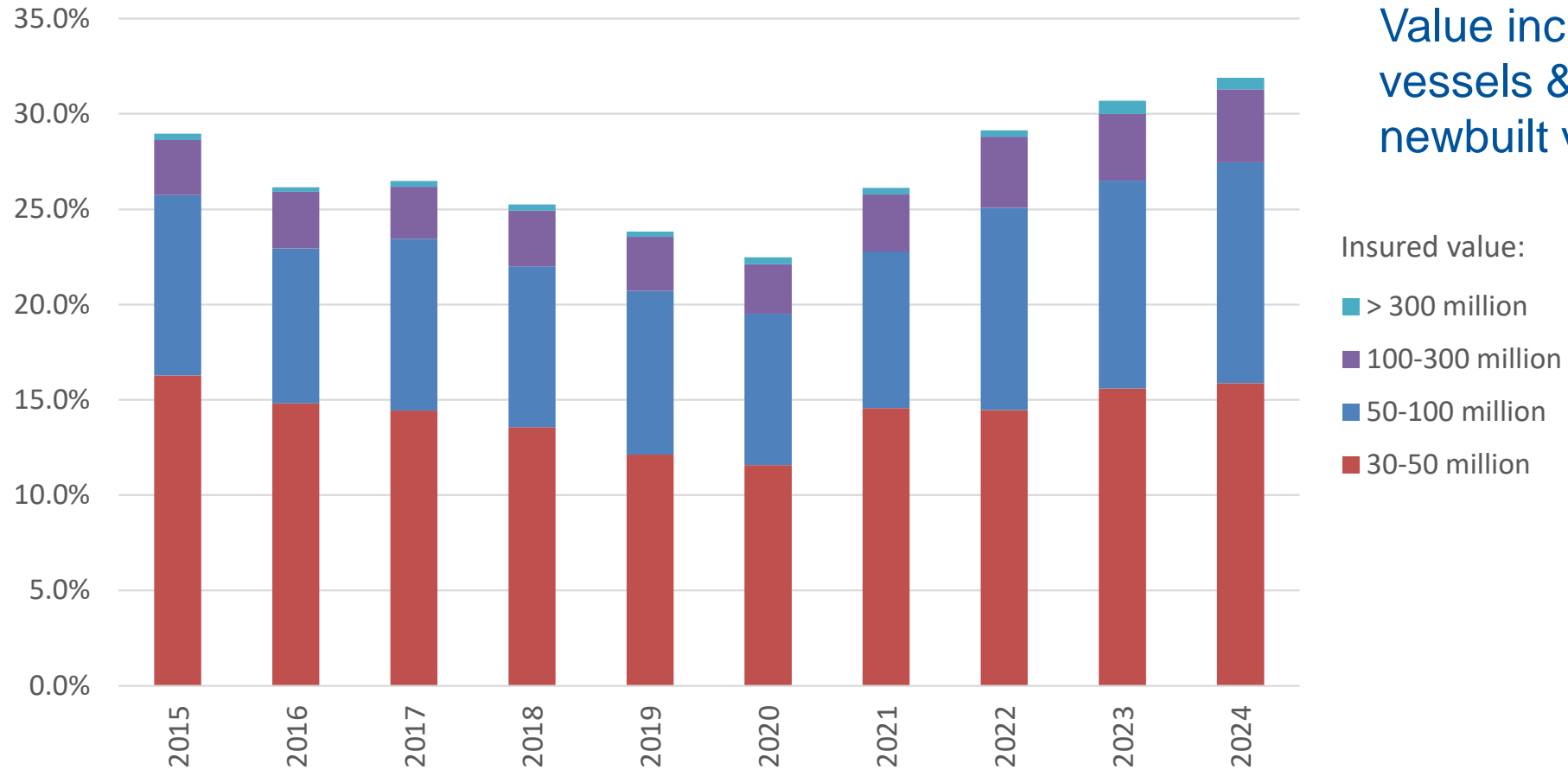
THE SILVER TSUNAMI – OLDER VESSELS MORE PRONE TO CERTAIN TYPES OF FAILURES (MACHINERY)

NUMBER OF VESSELS BY AGE GROUP AS % OF TOTAL FLEET



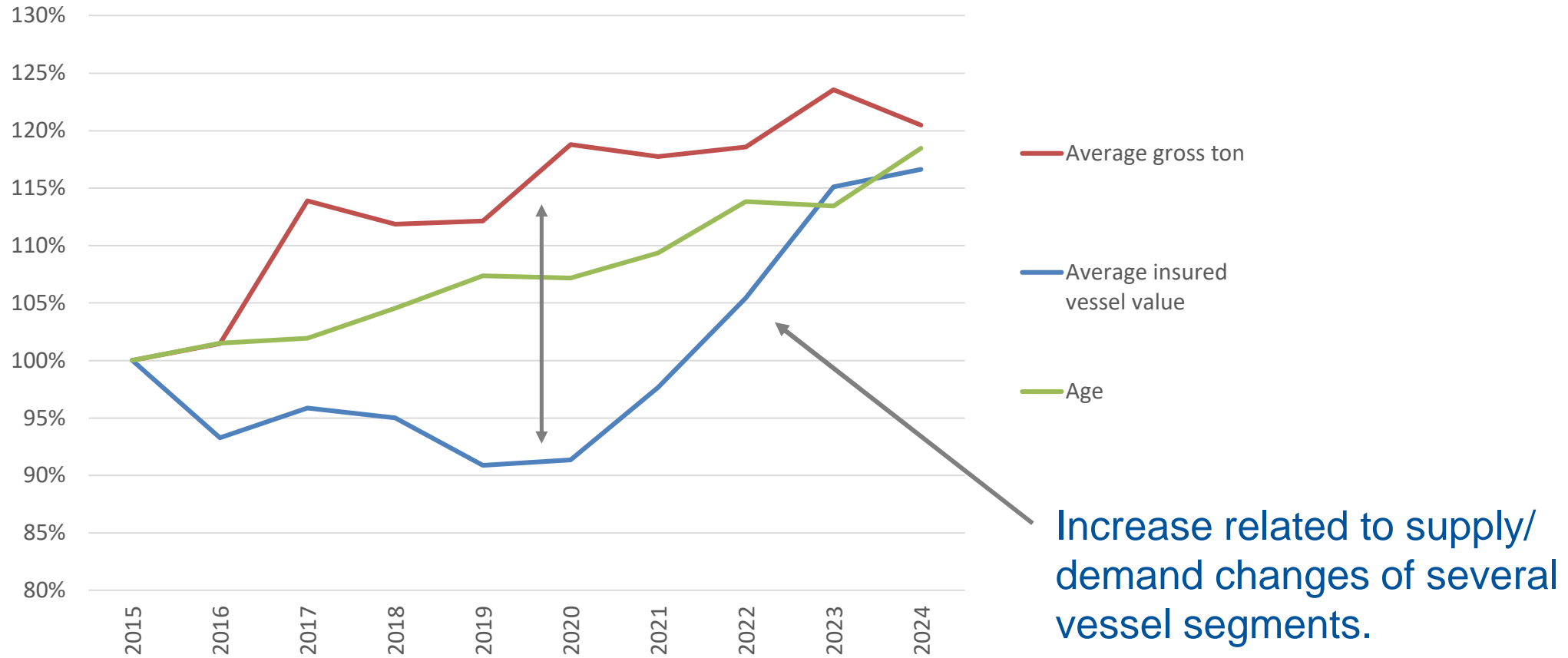
SHARE OF HIGH-VALUE VESSELS IN NOMIS FLEET INCREASING

BY UNDERWRITING YEAR



UNTIL 2019 WIDENING GAP BETWEEN VESSEL SIZE & VALUES, REDUCING AFTER 2020

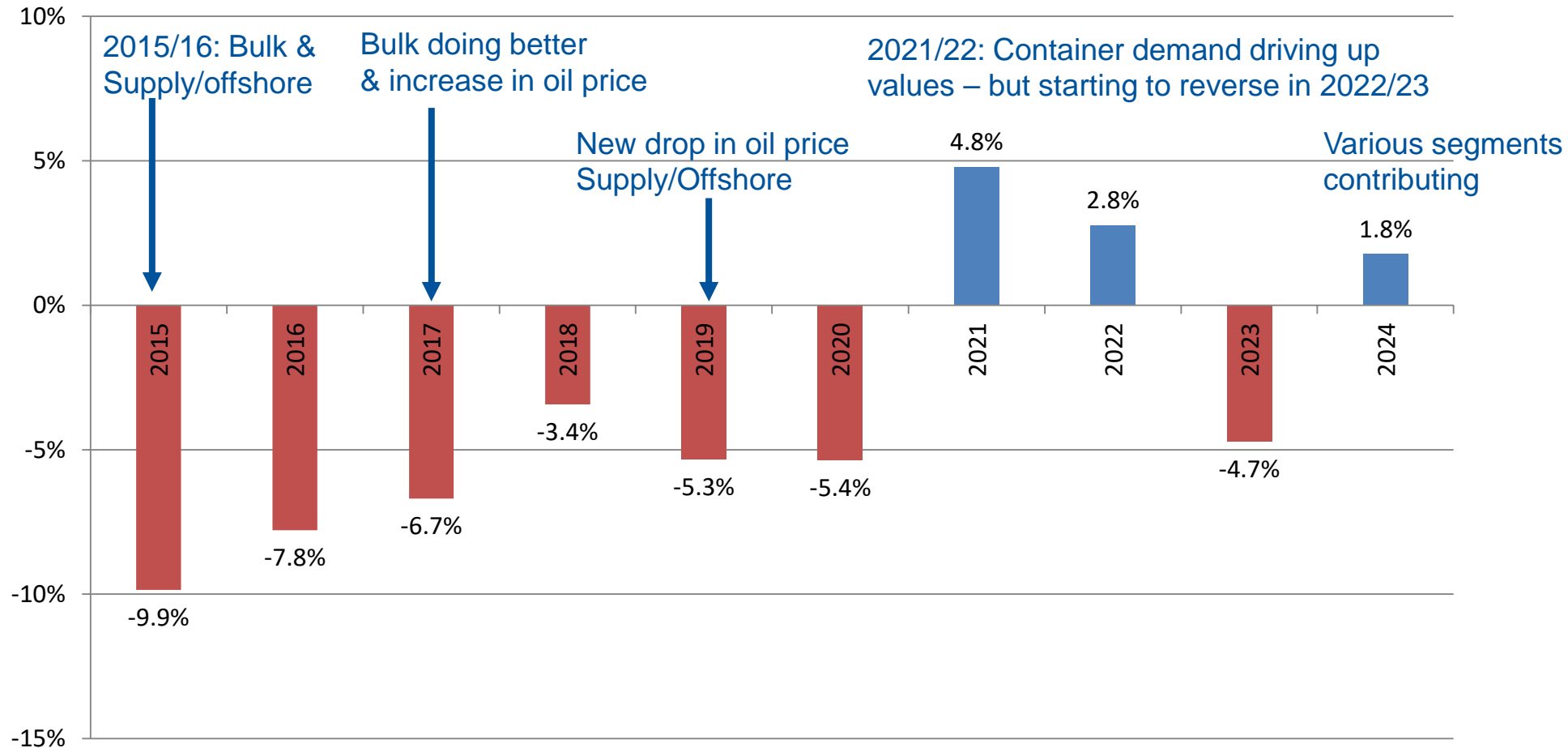
INDEX 2015 = 100%, AVERAGE VESSEL VALUES, GROSS TONS & AGE, ALL SHIPS (RENEWED AND NEW VESSELS)



Increase related to supply/
demand changes of several
vessel segments.

VESSEL VALUES UP 1.8% ON 2024 RENEWALS.

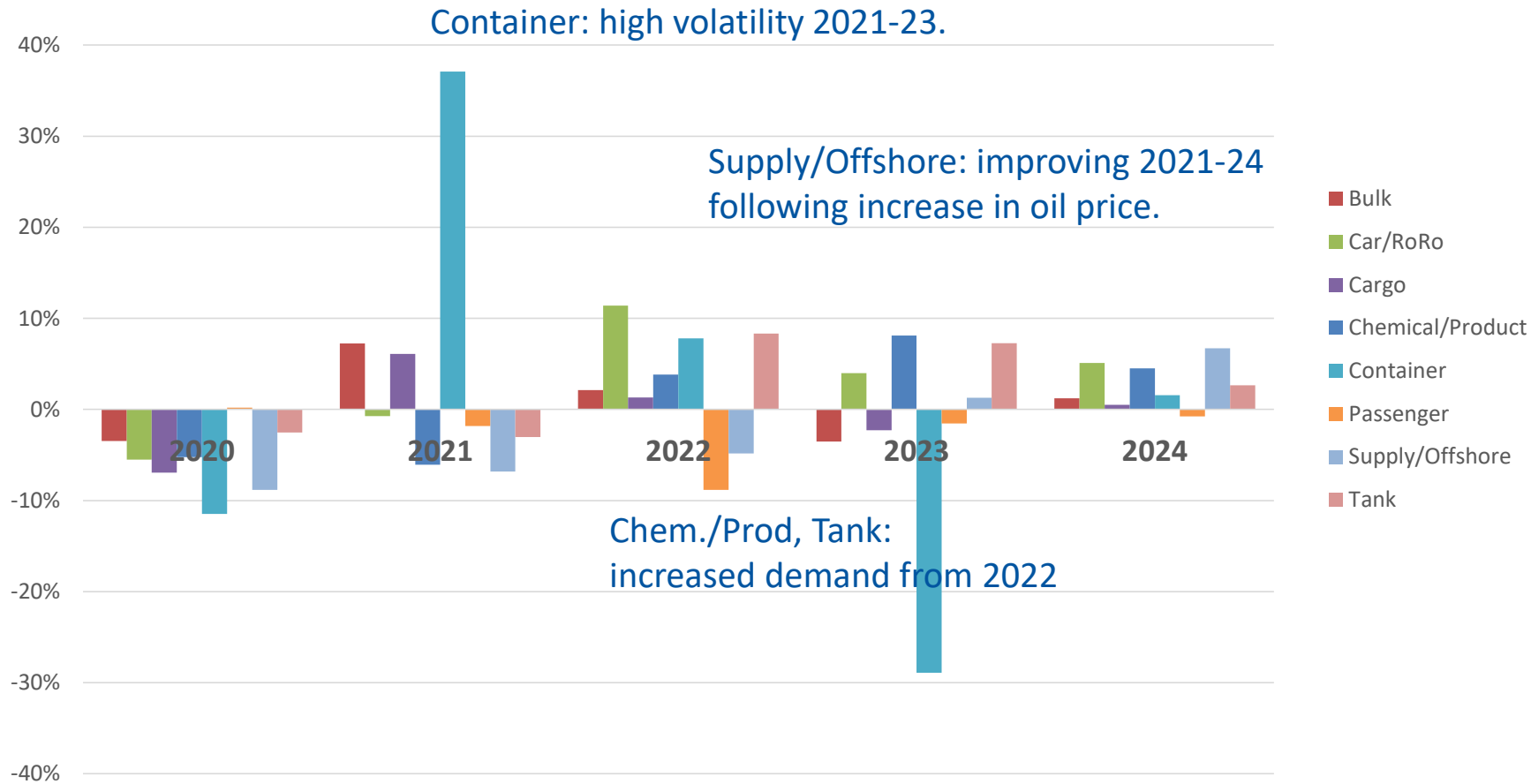
ANNUAL CHANGE IN VESSEL VALUES ON RENEWAL*



*comparing insured value of same vessels in two consecutive years

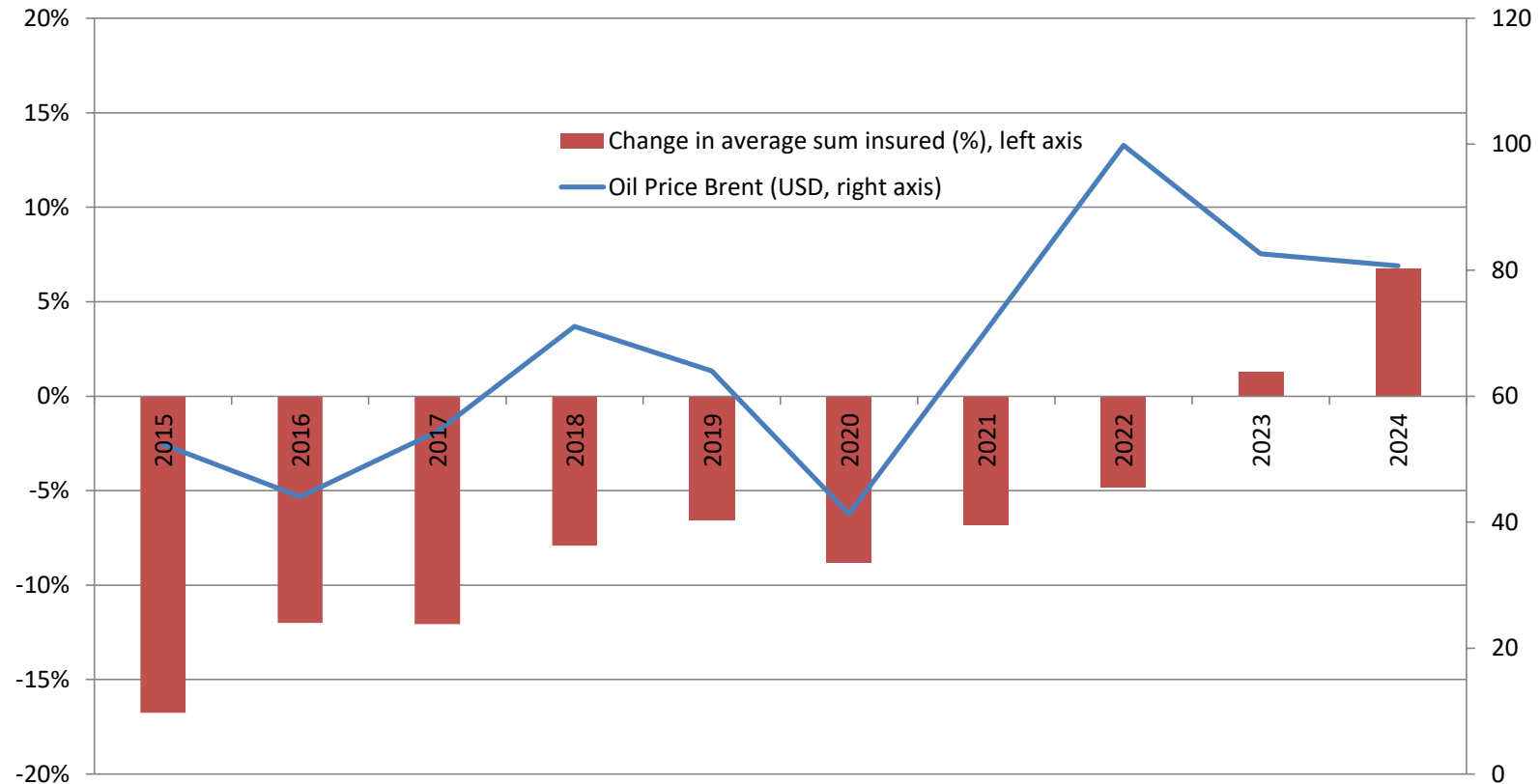
2024 MORE NORMAL AFTER VOLATILITY 2021-2023

ANNUAL CHANGE IN VESSEL VALUES ON RENEWAL, BY VESSEL TYPE



SUPPLY/OFFSHORE: RECOVERY AFTER OIL PRICE INCREASE

CHANGE IN VESSEL VALUES ON RENEWAL VERSUS OIL PRICE*



Offshore activity increased from 2022 after increase in oil price.

Supply/offshore vessel values show upward trend with time lag.

2025 OPEC+ opening for production increases.

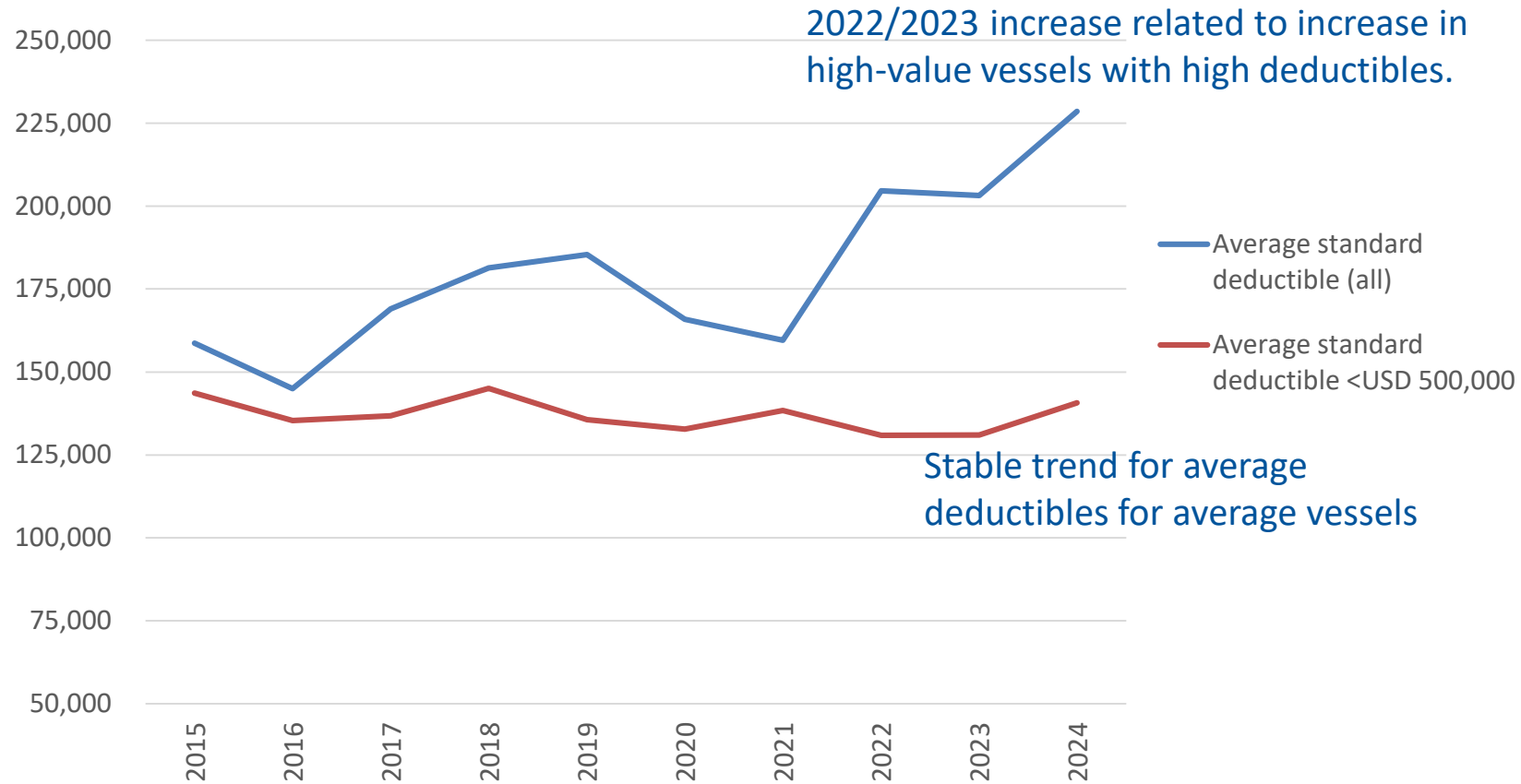
NoMIS
Nordic Marine
Insurance Statistics



*Oil price: World Bank - Commodity markets: <https://thedocs.worldbank.org/en/doc/5d903e848db1d1b83e0ec8f744e55570-0350012021/related/CMO-Historical-Data-Monthly.xlsx>

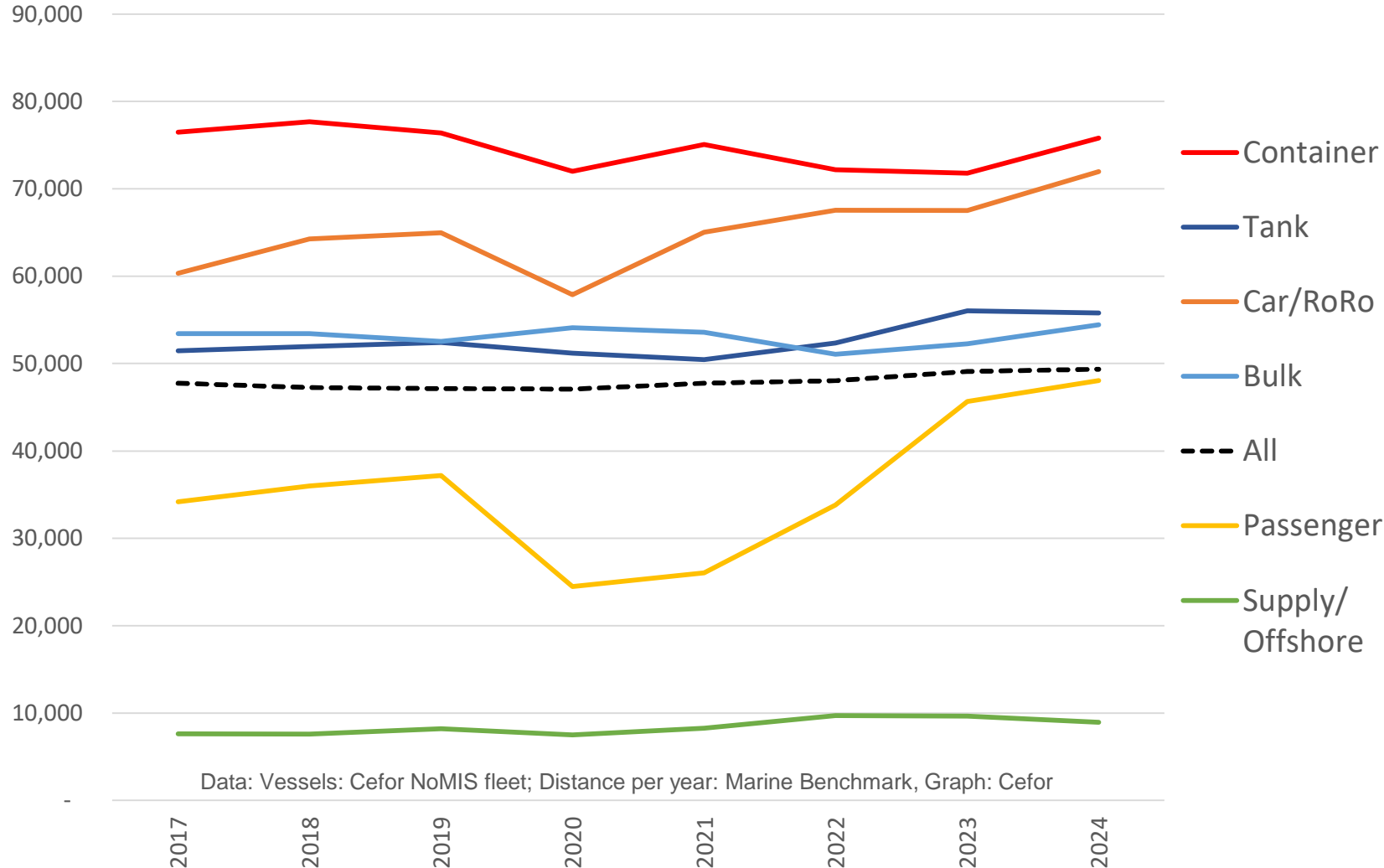
DEDUCTIBLE LEVEL INFLUENCES NUMBER & COST OF CLAIMS REPORTED TO INSURERS

AVERAGE BASIC DEDUCTIBLE (USD)



NOMIS FLEET: AVERAGE DISTANCE SAILED PER YEAR PER VESSEL SEGMENT

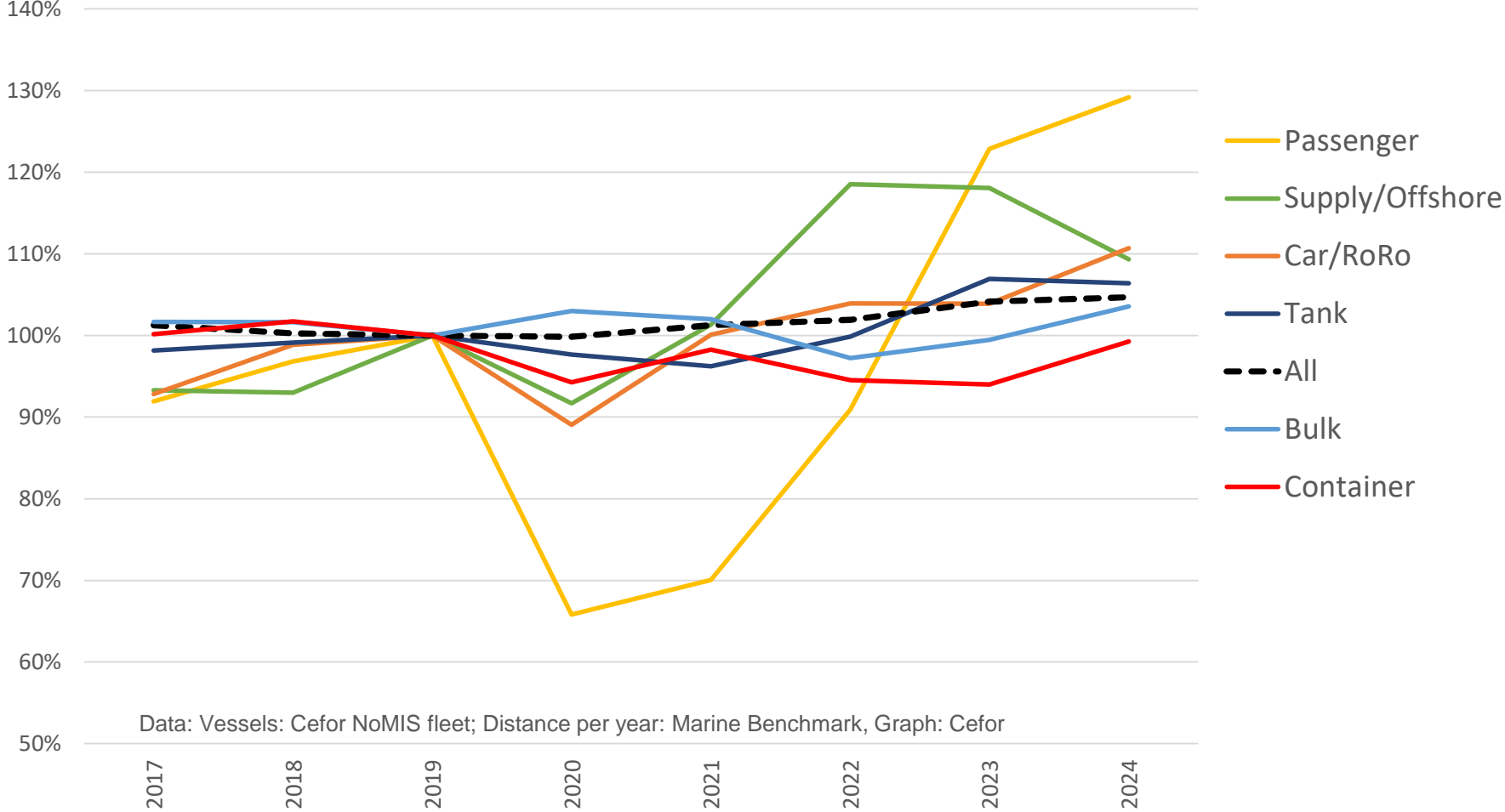
Nautical miles



Data: Vessels: Cefor NoMIS fleet; Distance per year: Marine Benchmark, Graph: Cefor

NOMIS FLEET: CHANGE IN VESSEL ACTIVITY BY SEGMENT (DISTANCE SAILED) PER YEAR) 2017-2024

INDEX 2019 = 100%



Data: Vessels: Cefor NoMIS fleet; Distance per year: Marine Benchmark, Graph: Cefor

FLEET & VESSEL TRENDS AS OF 2024

- Less newbuilds, little scrapping -> Fleet age increasing
- Newbuilds increase in size, share of high-value vessels increasing
- Values:
 - Container extremely volatile 2021-2023, moderate increase 2024.
 - Supply/Offshore recovering after oil price stabilised
 - Tank demand increased 2022-2023, more moderate 2024
- Vessel activity: Changes in shipping routes

How does that impact casualty trends?

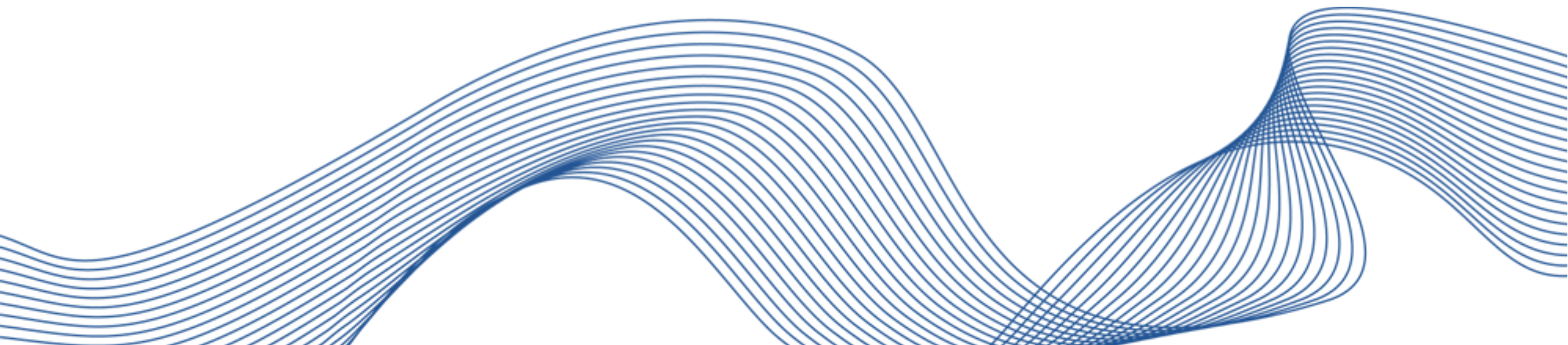
- Claims frequency & cost differ by static vessel features (age, type, size, machinery).
- Claims frequency differs by vessel behaviour (trade, distance, speed, geographic areas).
- Total loss cost relates to vessel values (higher value = higher possible maximum cost).
- Larger / more complex vessels can lead to new record claims (both total losses and repair cost)
- Higher probability of severe fires on larger container and car/RoRo vessels¹
- Higher probability of weather damage on longer / more exposed routes.

¹ Check previous Cefor analysis on fires: <https://cefor.no/statistics/analysis-with-special-focus/>

BREAKDOWN BY TYPE OF CASUALTY

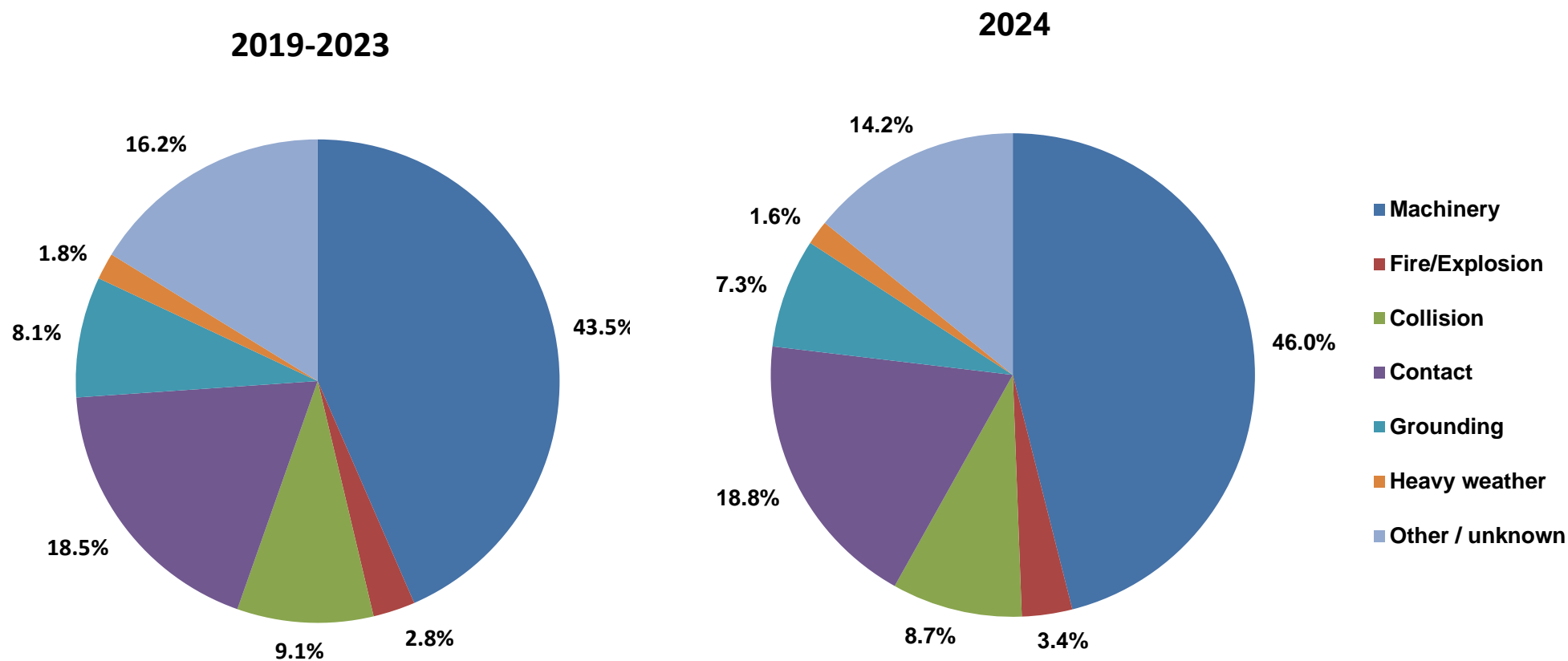


Photo: Astrid Seltmann



BREAKDOWN OF CLAIMS (NUMBERS) BY TYPE OF CASUALTY

AS REPORTED PER YEAR END 2024, NO IBNR ADDED



2019-2023: 15,679

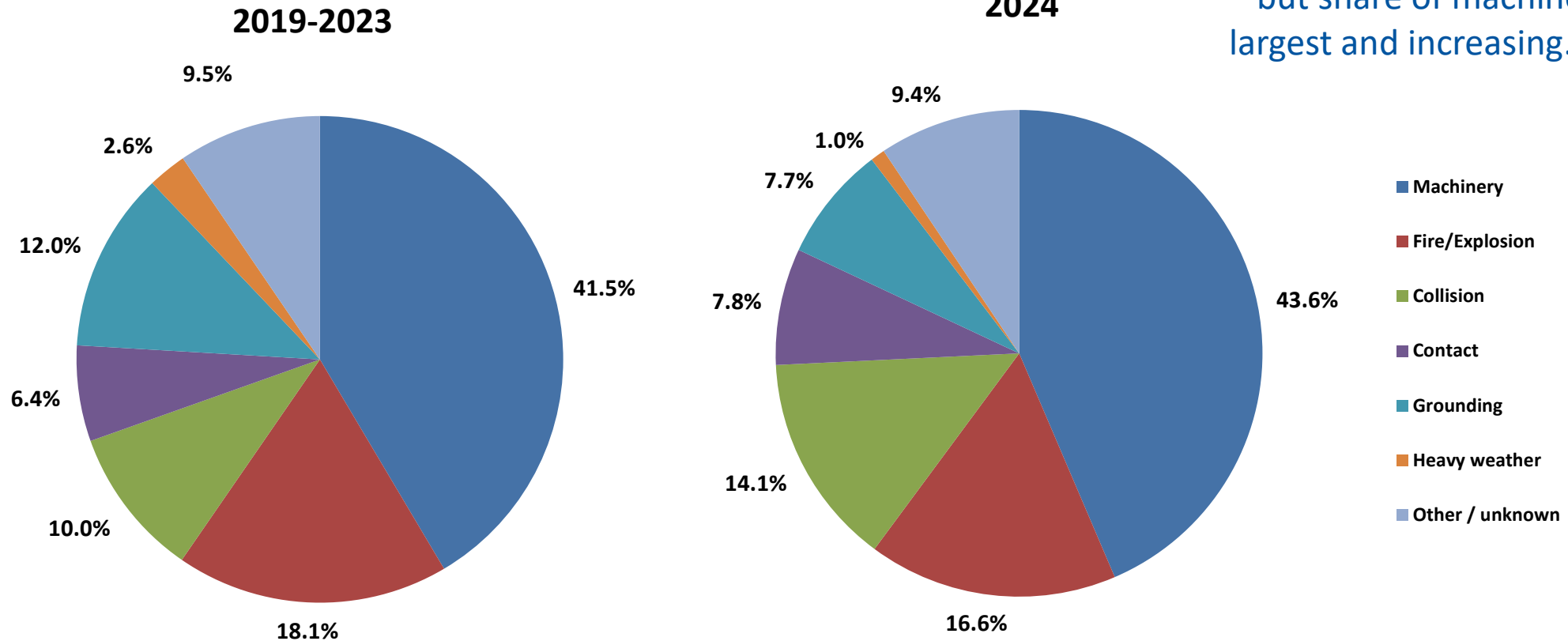
Total number of claims:

2024: 2,860

BREAKDOWN OF CLAIMS (COST) BY TYPE OF CASUALTY

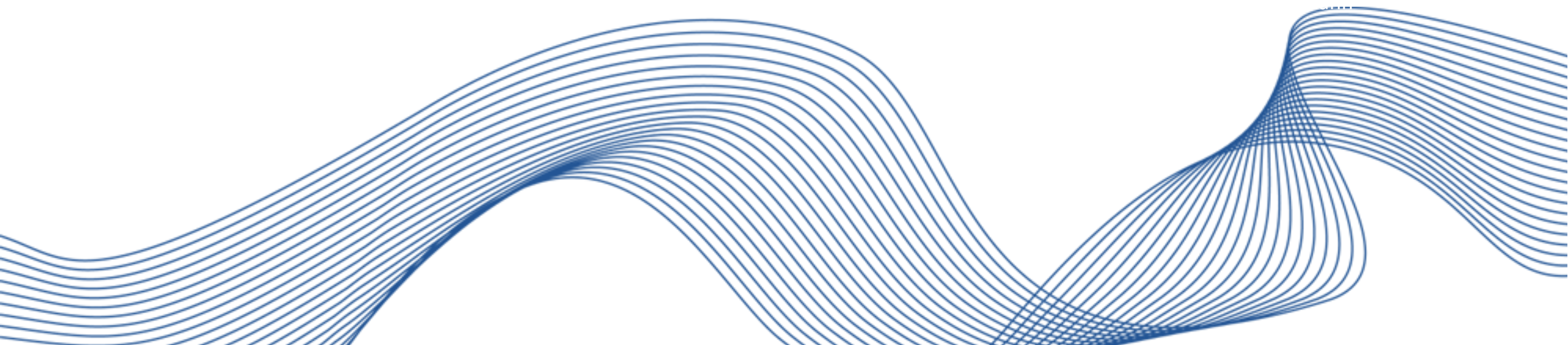
AS REPORTED PER YEAR END 2024, NO IBNR ADDED

Fires & collisions big impact on cost – but share of machinery damage largest and increasing.



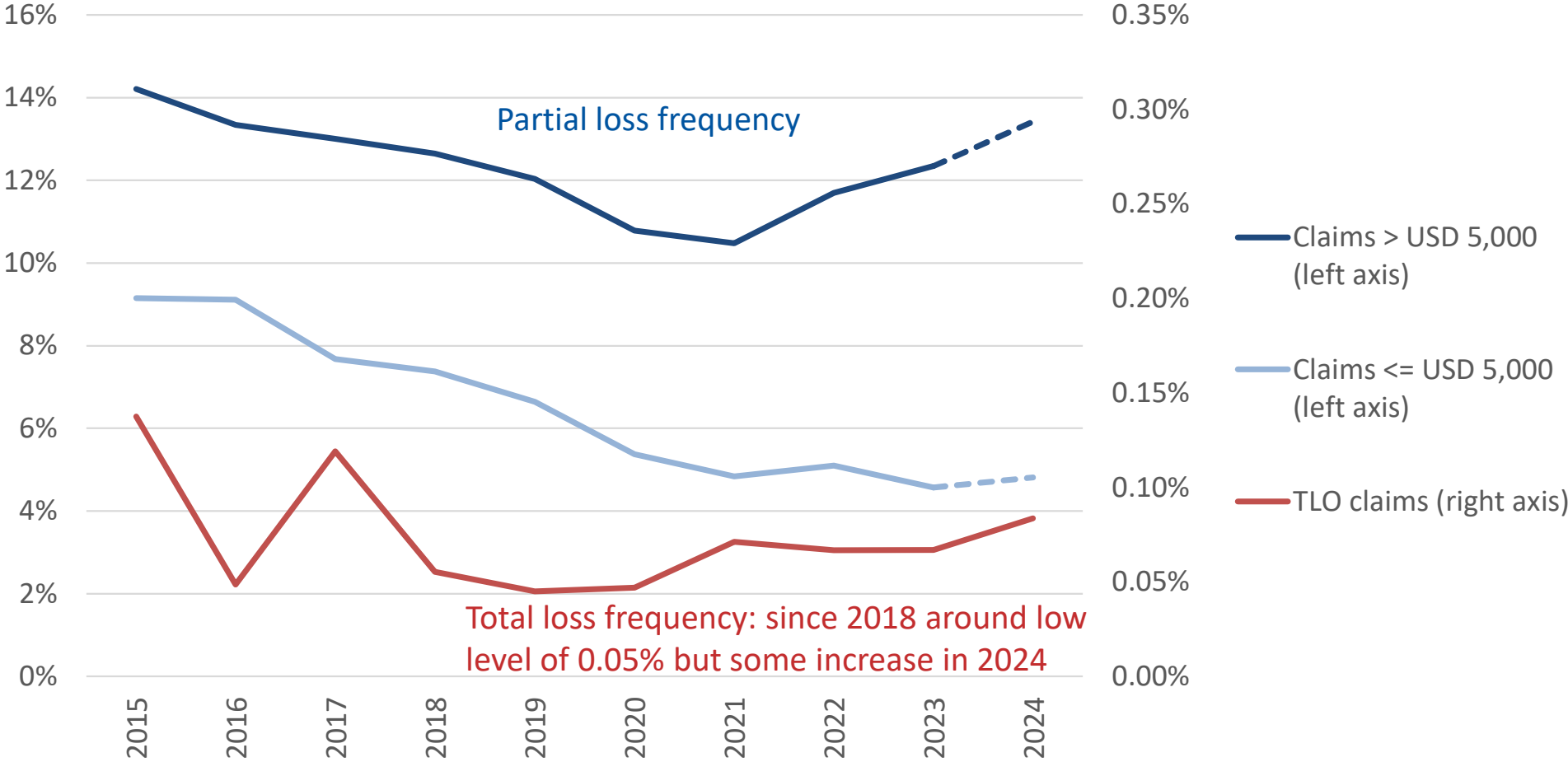
Total cost of claims in USD million:
2019-2023: 5,179.7 2024: 991.1

CLAIMS FREQUENCY



PARTIAL & TOTAL LOSS FREQUENCY INCREASING

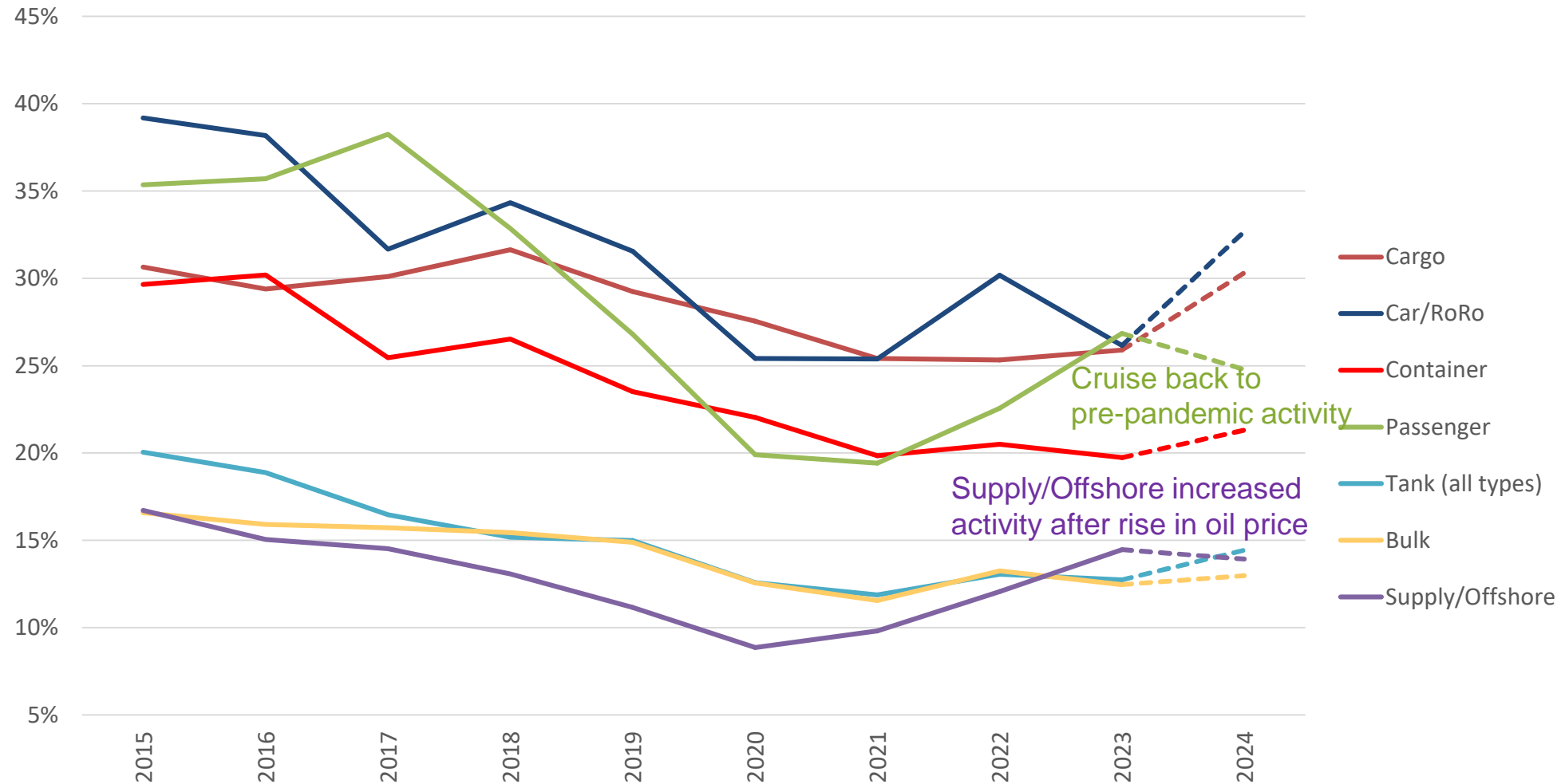
CLAIMS FREQUENCY = NO. CLAIMS DIVIDED BY NUMBER OF INSURED VESSELS
 INCL. IBNR ESTIMATE (FOR INCURRED BUT NOT YET REPORTED CLAIMS)



CLAIMS FREQUENCY VARIES BY SEGMENT/TRADE/ACTIVITY

HIGHEST: CARGO, CAR/RORO, PASSENGER

ALL CLAIMS, INCLUDING IBNR*

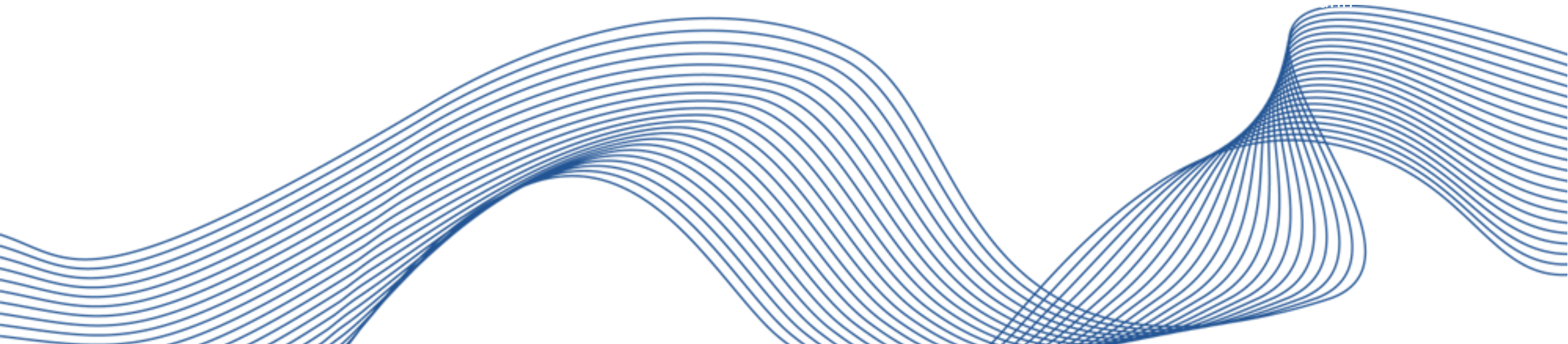


* IBNR = Incurred but not reported = reserve for claims adjustments and registration backlog

CLAIM COST & INFLATION



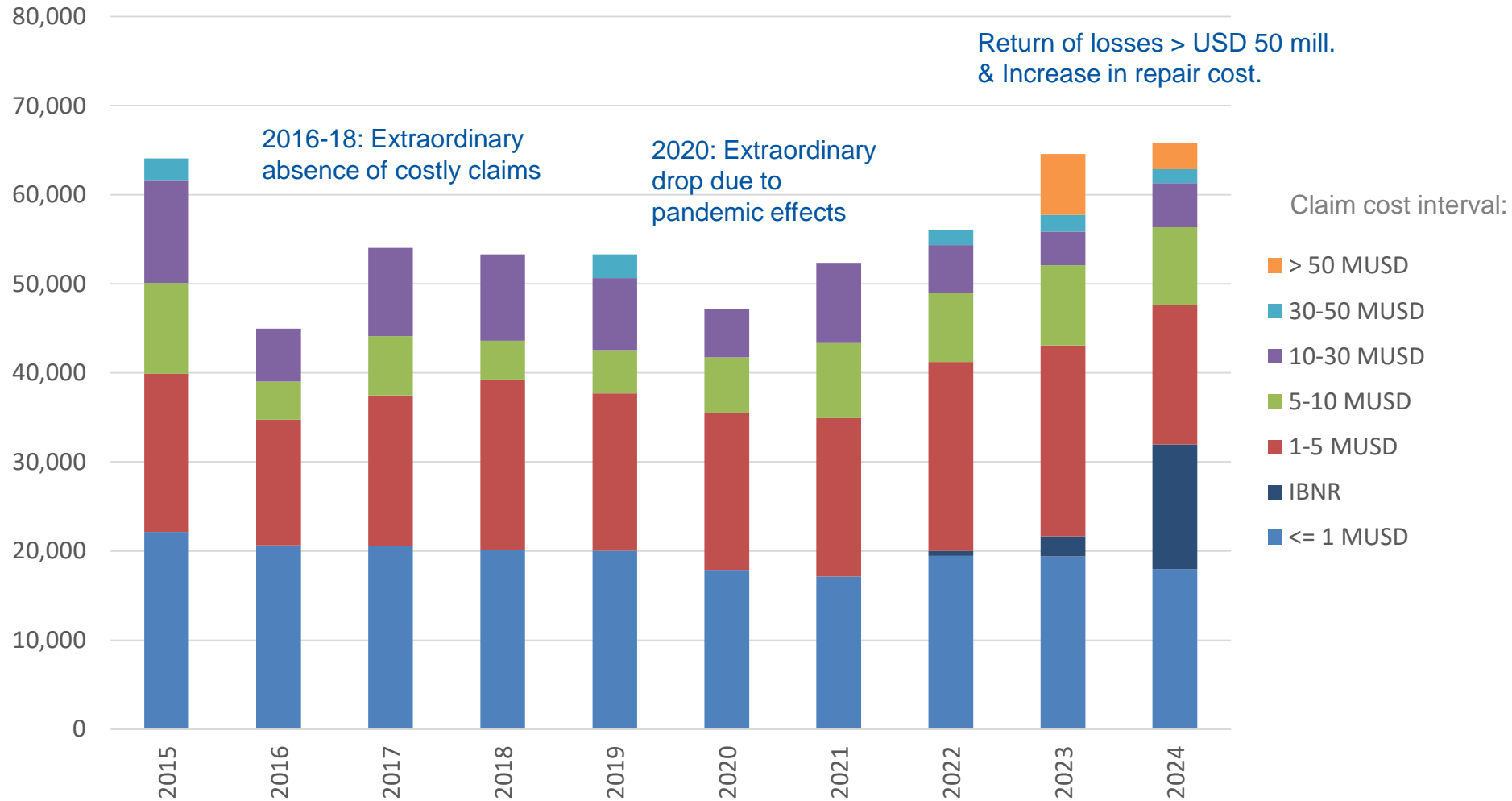
Photo: Astrid Seltmann



CLAIM COST PER VESSEL RECENT INCREASE

RETURN OF LOSSES > USD 50 MILLION

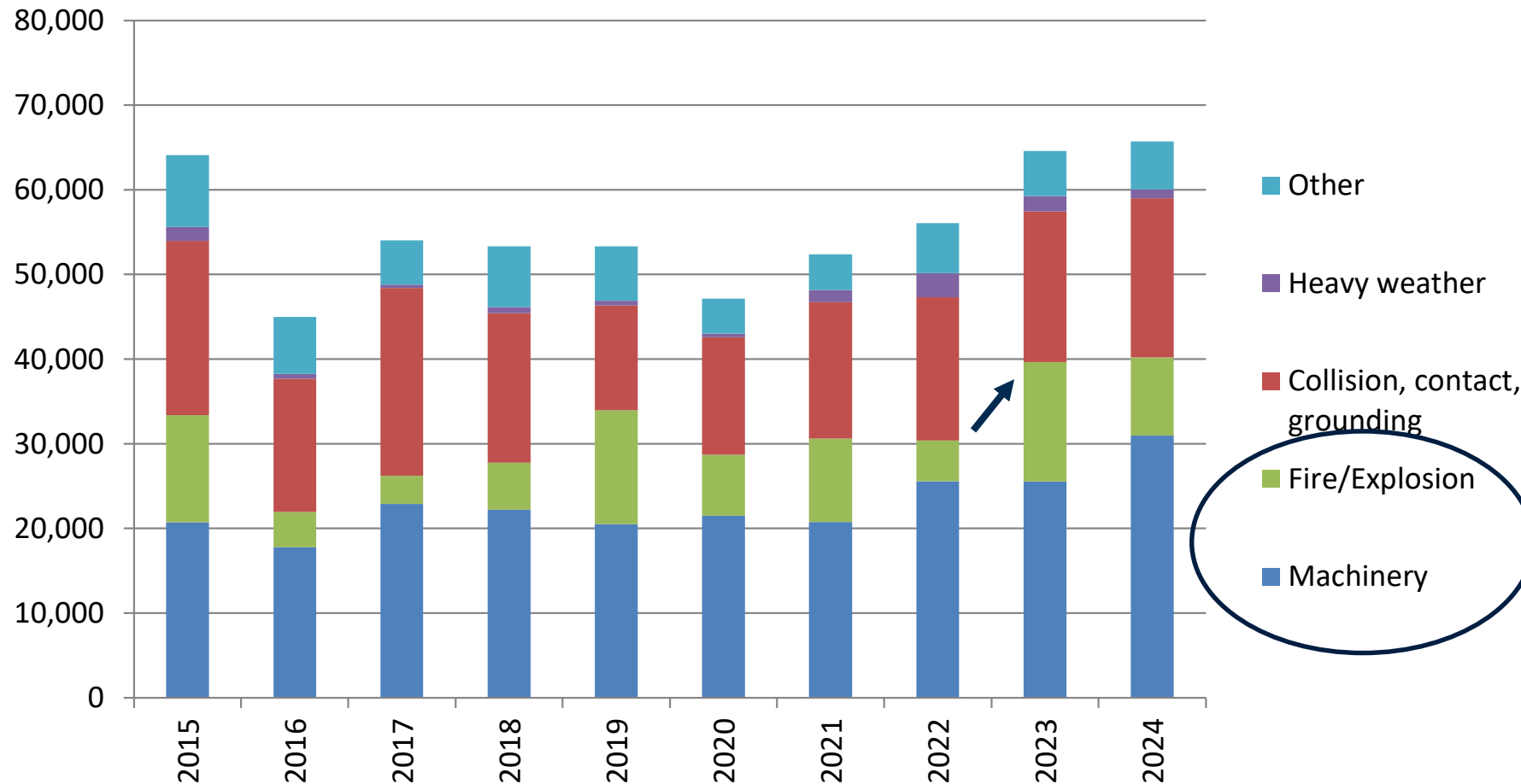
CLAIM COST PER VESSEL (USD) BY INTERVALS OF CLAIM COST



MACHINERY & FIRES CAUSE INCREASE 2022->2023/24

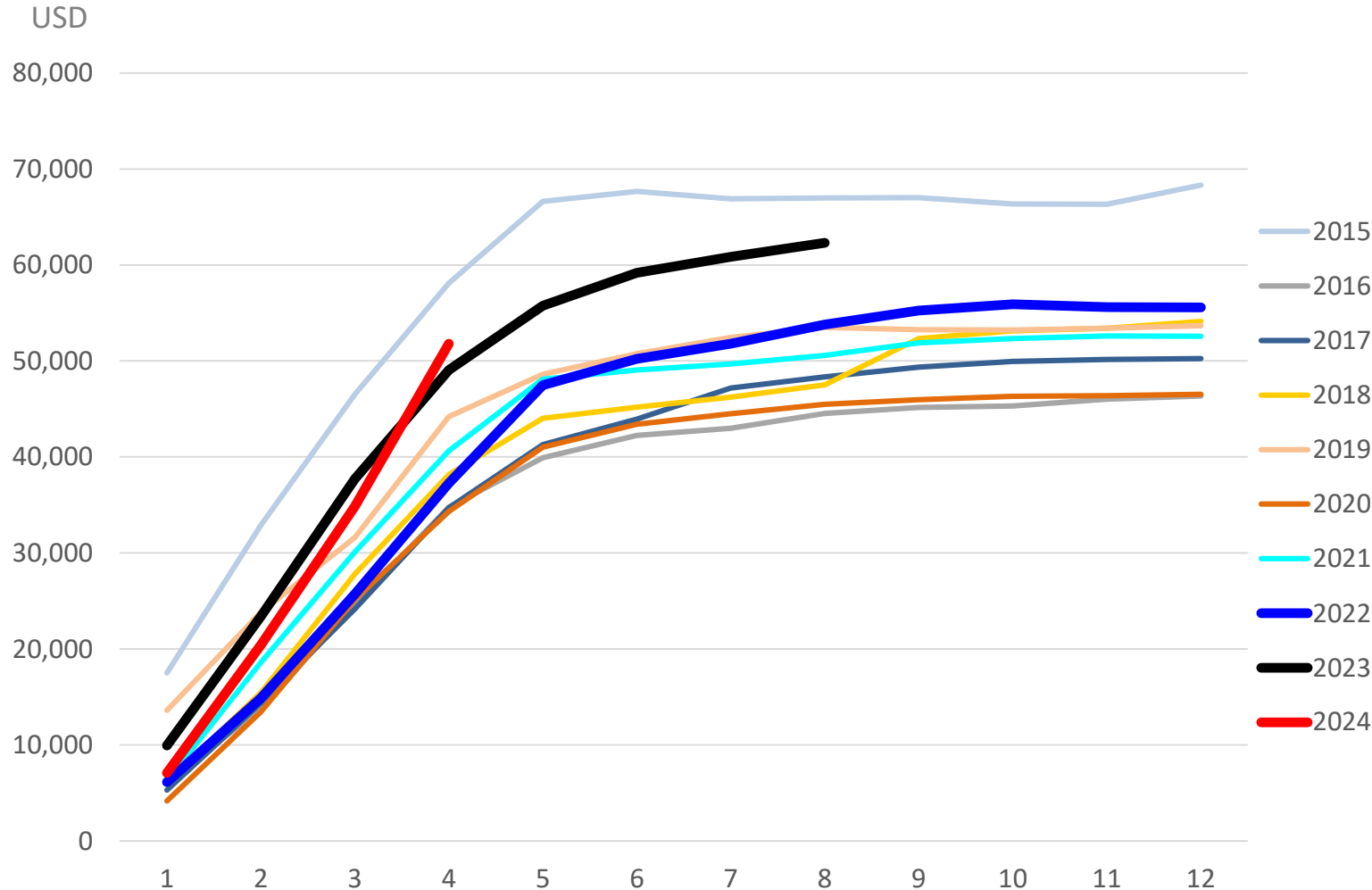
LARGEST SINGLE LOSSES: FIRES & COLLISIONS

CLAIM COST PER VESSEL (USD) BY TYPE OF CASUALTY



2024 STEEPER INCREASE IN CLAIM COST THAN PRIOR YEARS

CLAIM COST PER VESSEL, QUARTERLY ACCUMULATED DEVELOPMENT BY ACCIDENT YEAR

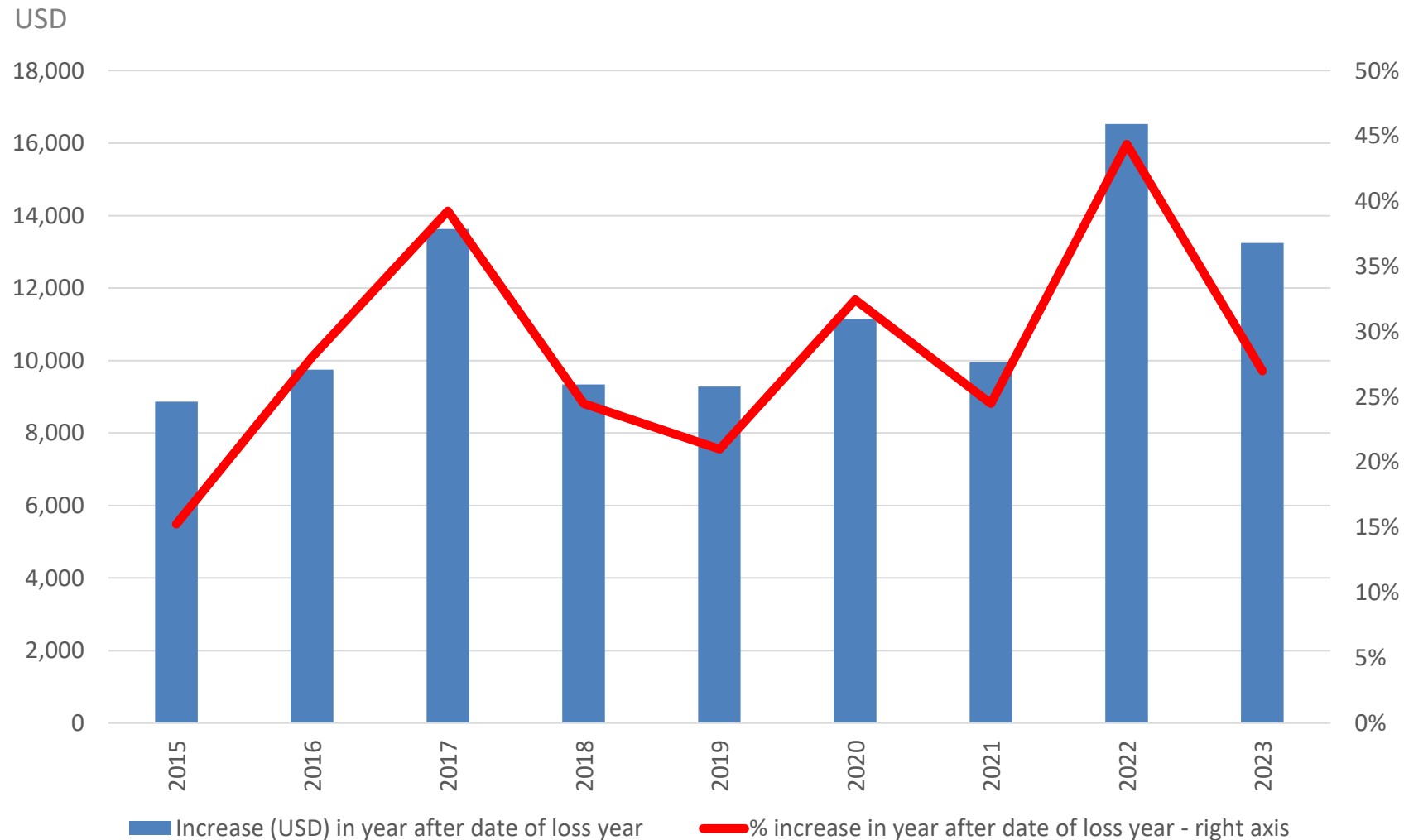


2022 above average upward cost adjustment, indicating extraordinary inflation impact (original claims estimates insufficient).

2023 started higher and showed steeper increase than most years.

INCREASE IN CLAIM COST PER VESSEL IN YEAR AFTER THE LOSS OCCURRED (= ADJUSTMENT OF CLAIMS RESERVES)

RELATIVE (%) AND ABSOLUTE (USD) INCREASE

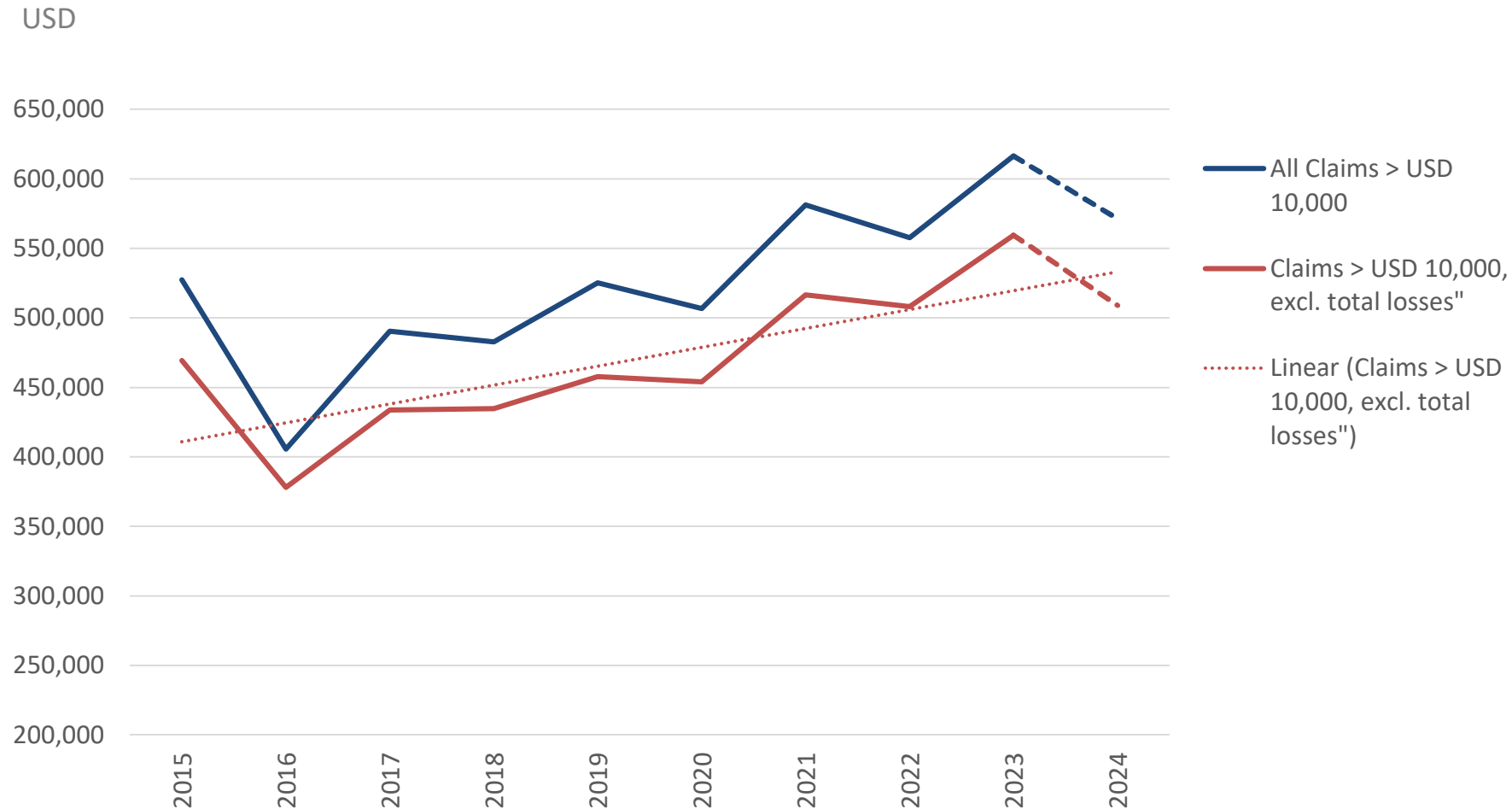


The cost of 2022 claims increased more in 2023 than the cost of claims of any previous year in the year after the loss occurred.

2023 claims upward adjustment not as high as for 2022 claims but among top three in a ten-year period.

AVERAGE CLAIM COST UPWARD TREND (BUT LESS SO 2024)

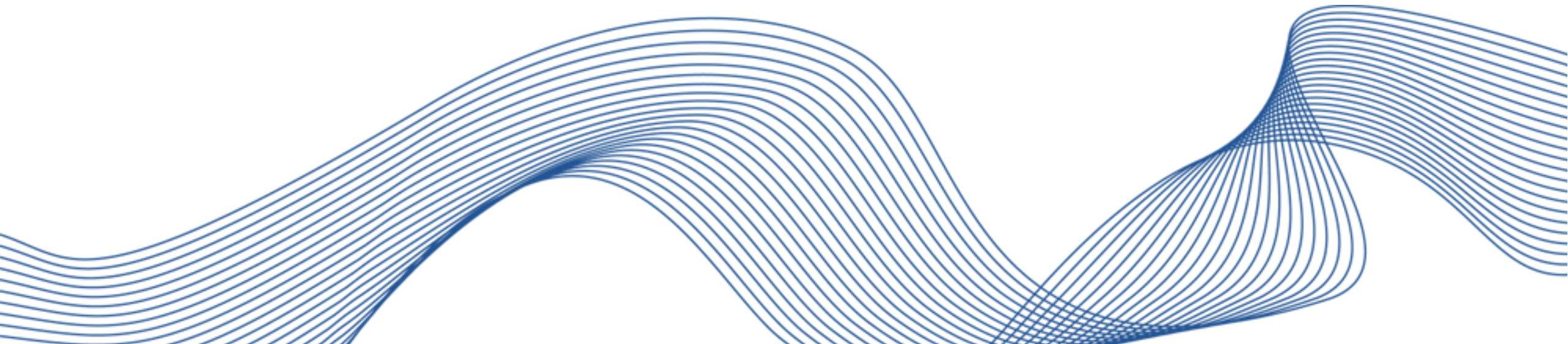
AVERAGE PARTIAL AND TOTAL CLAIM COST, INCLUDING IBNR



MACHINERY CLAIMS

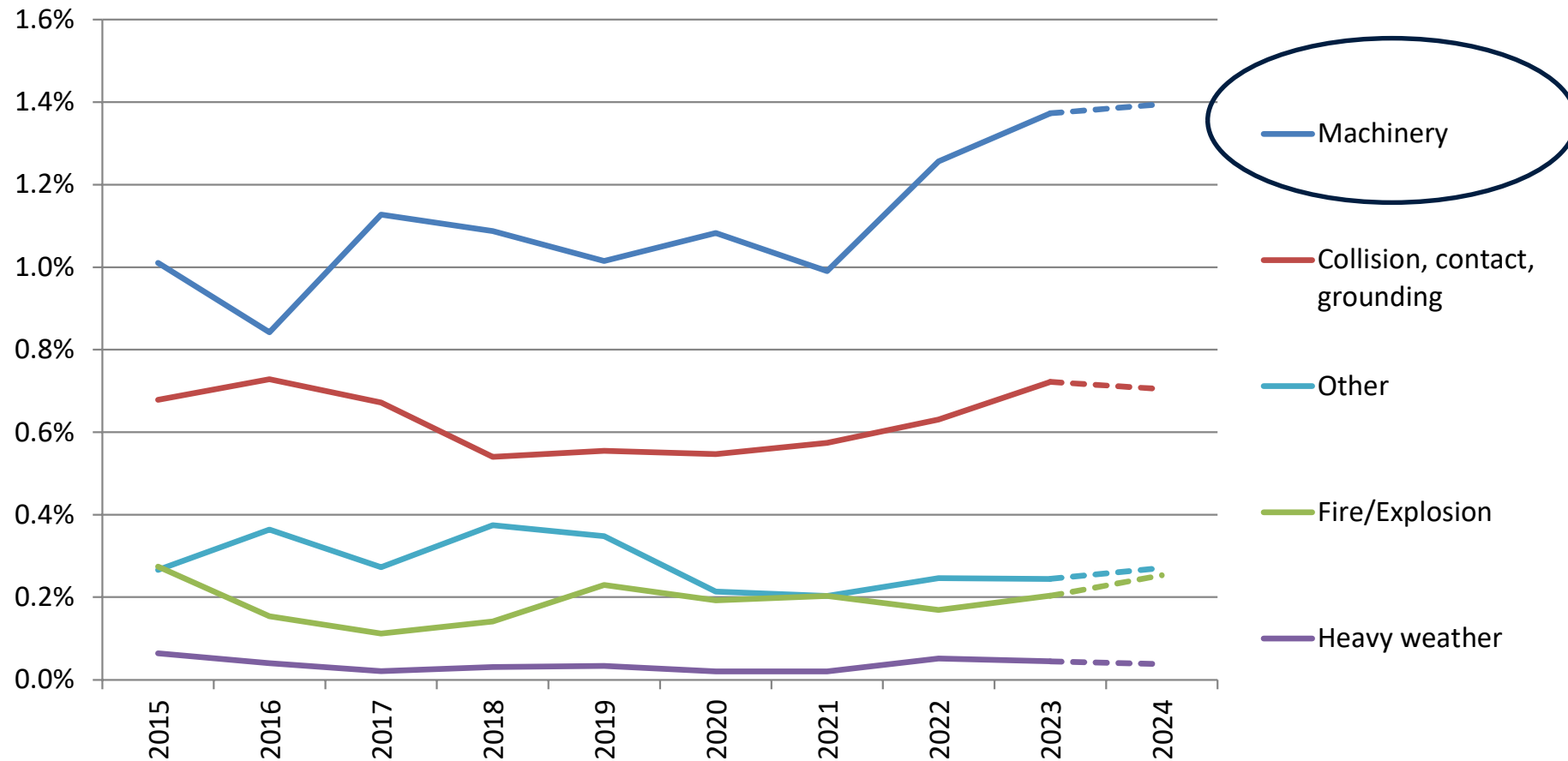


Photo: Astrid Seltmann



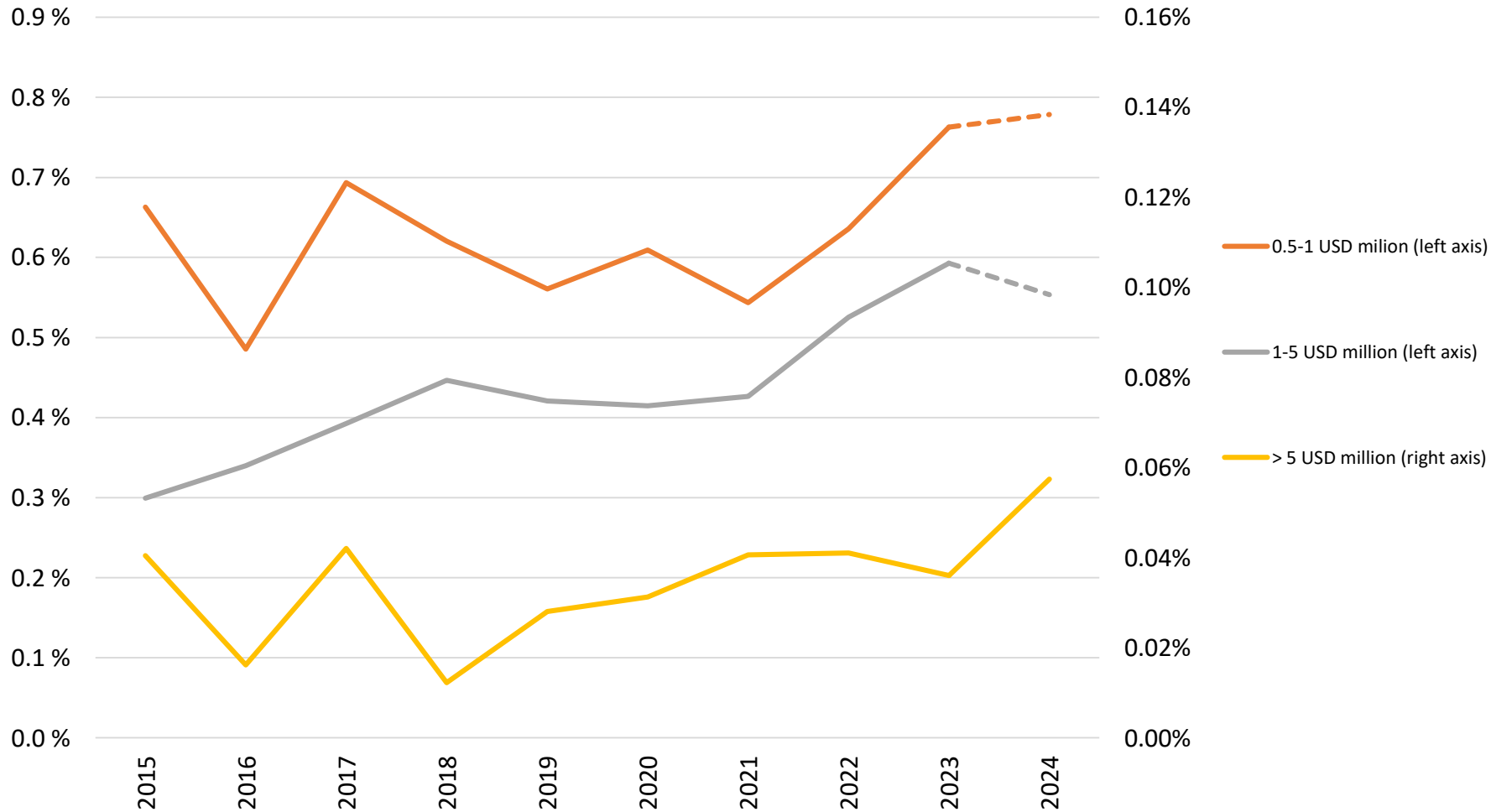
FREQUENCY OF CLAIMS > USD 500,000: SUBSTANTIAL INCREASE IN MACHINERY CLAIMS

BY TYPE OF CASUALTY, INCL. IBNR ESTIMATE



MACHINERY CLAIMS FREQUENCY UP IN ALL COST INTERVALS

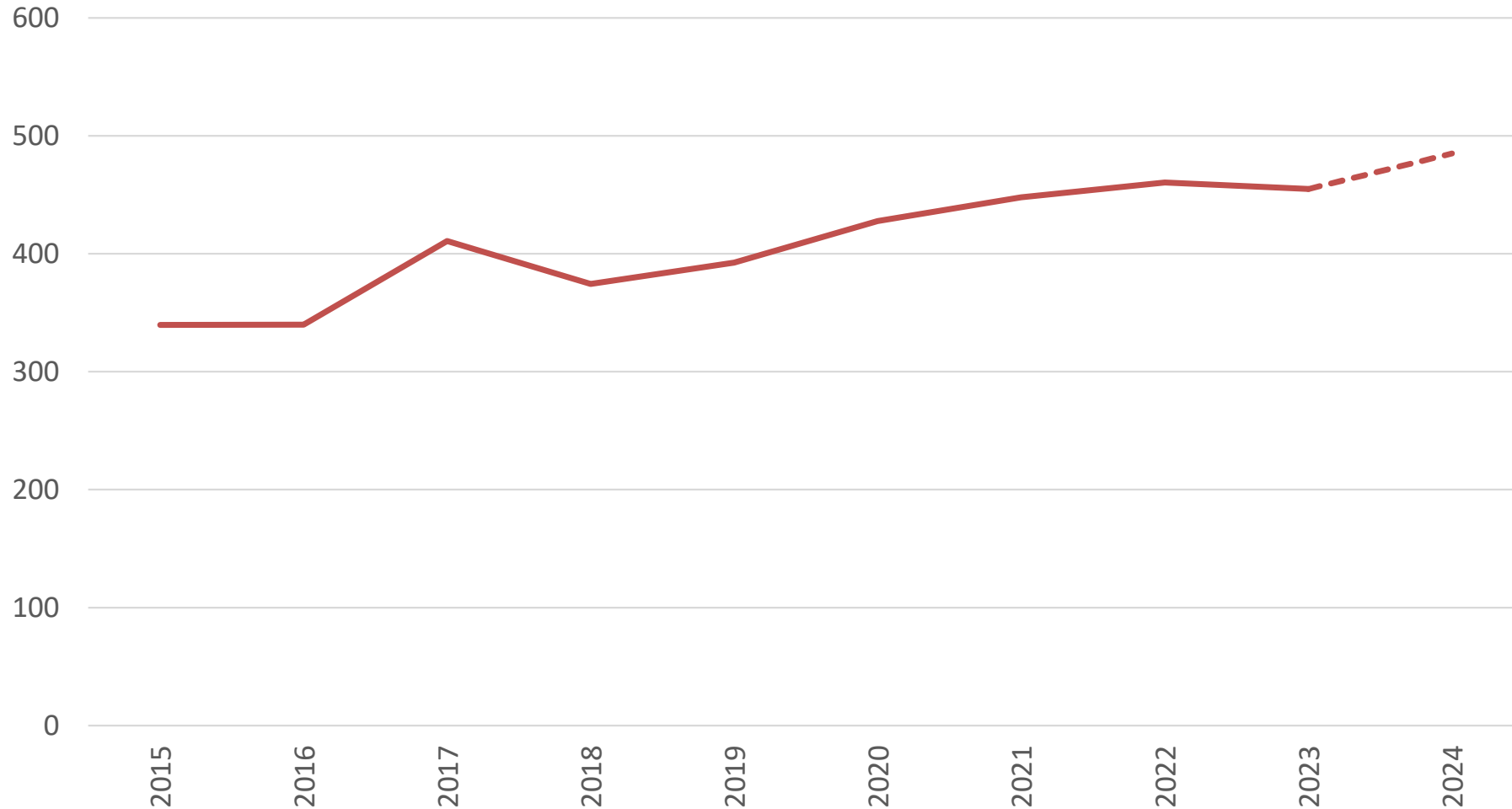
FREQUENCY OF MACHINERY CLAIMS BY COST INTERVALS INCL. IBNR ESTIMATE



AVERAGE COST OF MACHINERY CLAIMS INCREASING

CLAIMS > USD 10,000

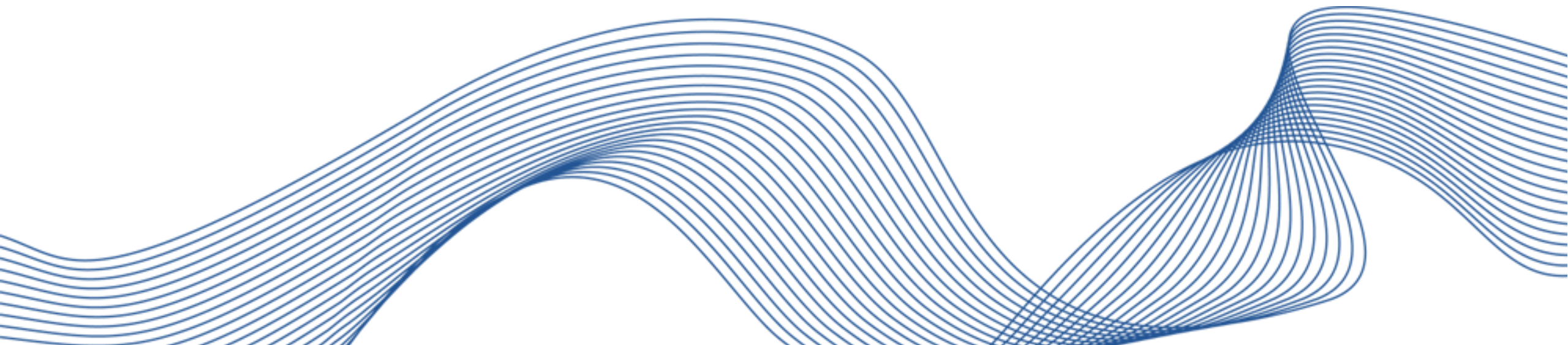
USD 1,000



IS IDLENESS THE ROOT OF ALL EVIL?



Photo: Astrid Seltmann



QUESTION: WHEN VESSELS ARE FORCED INTO LAY-UP (ECONOMY, PANDEMIC), WHICH ARE TAKEN OUT?

HYPOTHESIS: 'PROBLEM VESSELS' (WITH MORE CLAIMS) GO IDLE FIRST – AND PROBLEMS PREVAIL AFTER REACTIVATION.

A [previous Cefor analysis](#) focused on container vessels in lay-up in 2009 (financial crisis) confirmed this hypothesis.

New 2024 analysis focused on **bulk** and **container** vessels inactive in 2020, i.e. during the first year of the pandemic.

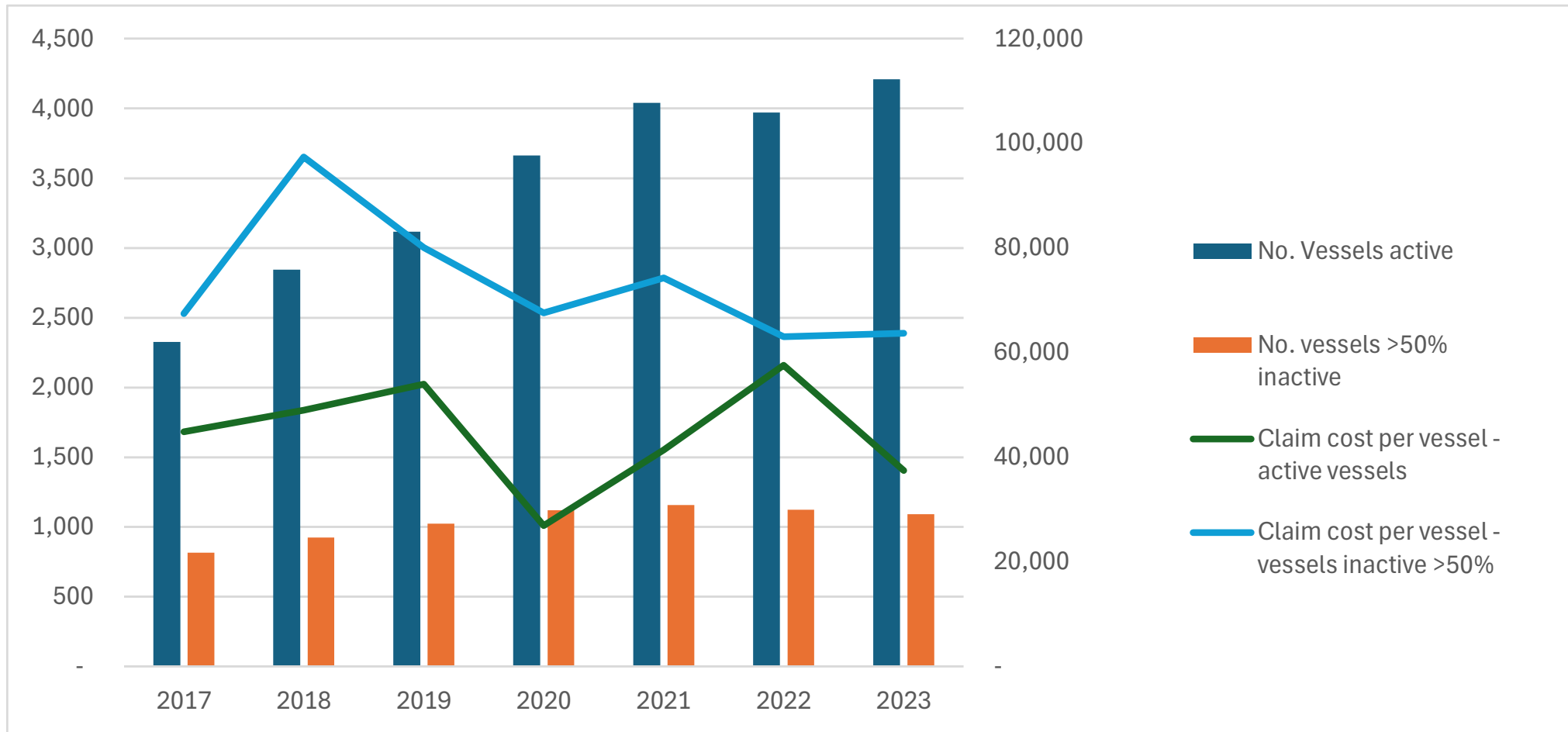
'Inactive' vessels were defined as not moving at all more than half of the year 2020. Portfolio split into 'inactive' and 'active' vessels based on [Marine Benchmark](#) vessel activity data. ('time steaming', 'time maneuvering', 'time still')

Claims frequency and cost were then compared for NoMIS vessels active / inactive in 2020.

BULK: VESSELS IDLE IN 2020 HAD A HIGHER CLAIM COST PRIOR TO, DURING AND AFTER 2020

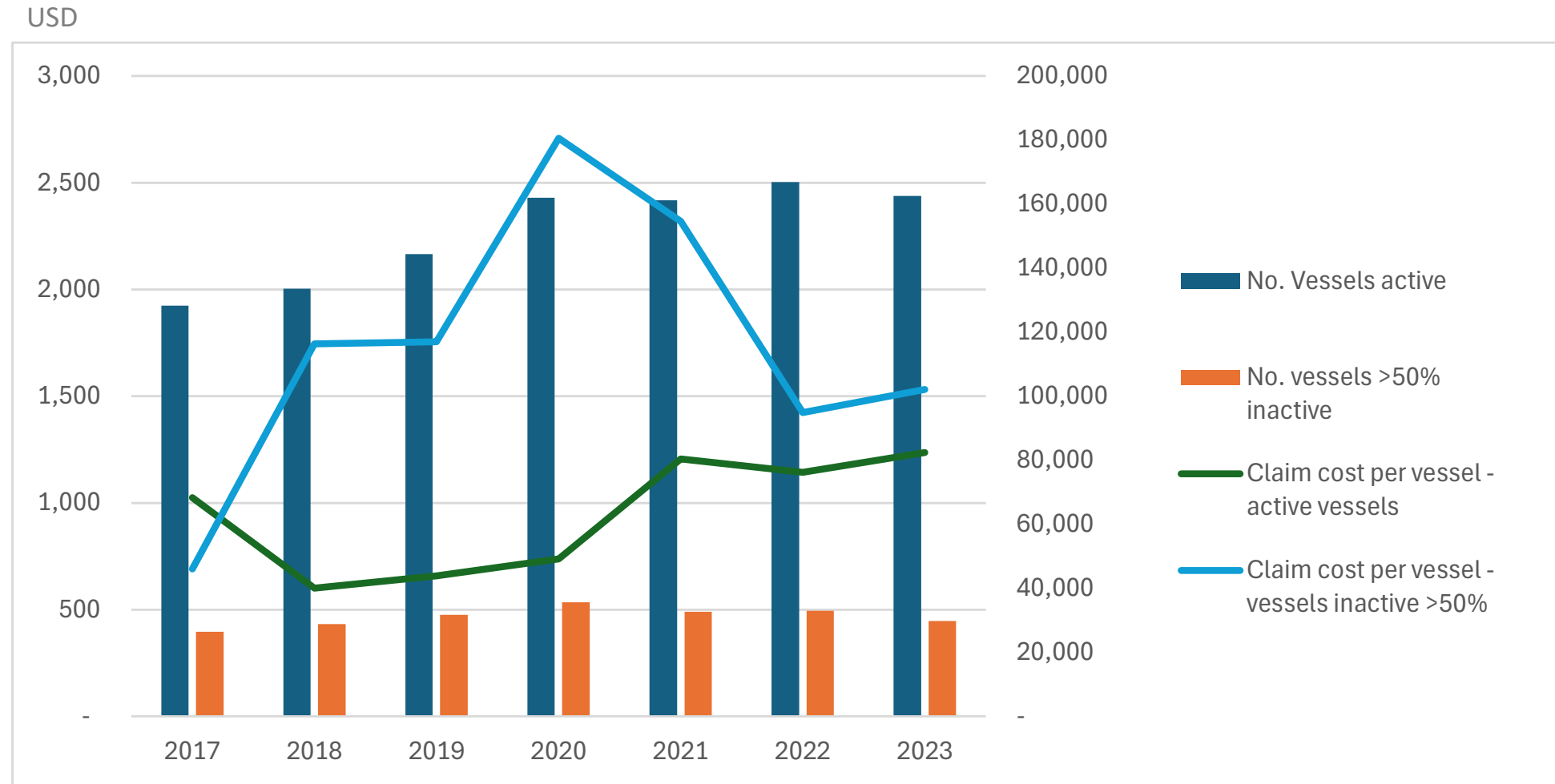
CLAIM COST PER VESSEL (USD)

USD

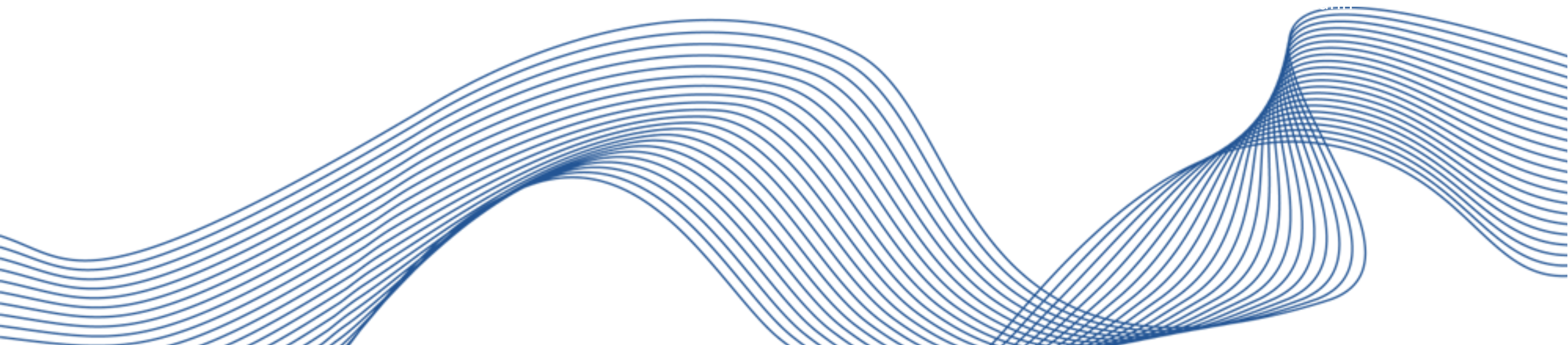


CONTAINER: IDLE VESSELS HAD A HIGHER CLAIM COST PRIOR TO, DURING AND AFTER 2020

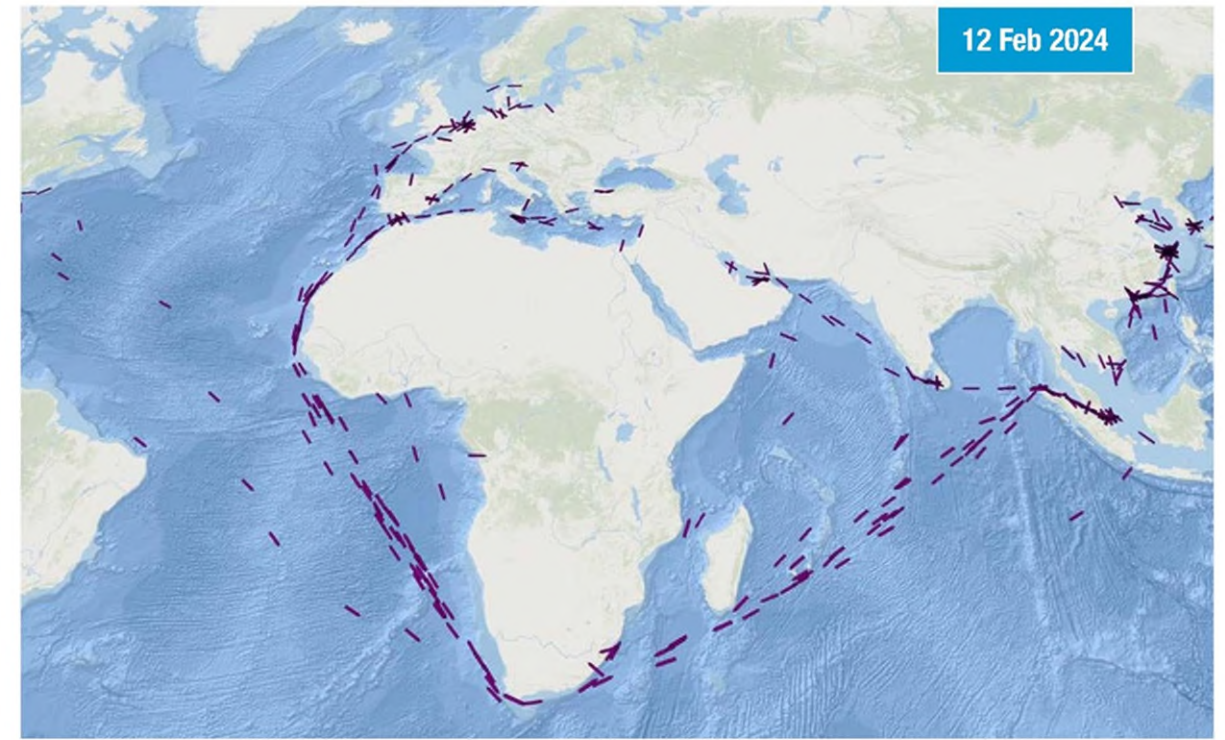
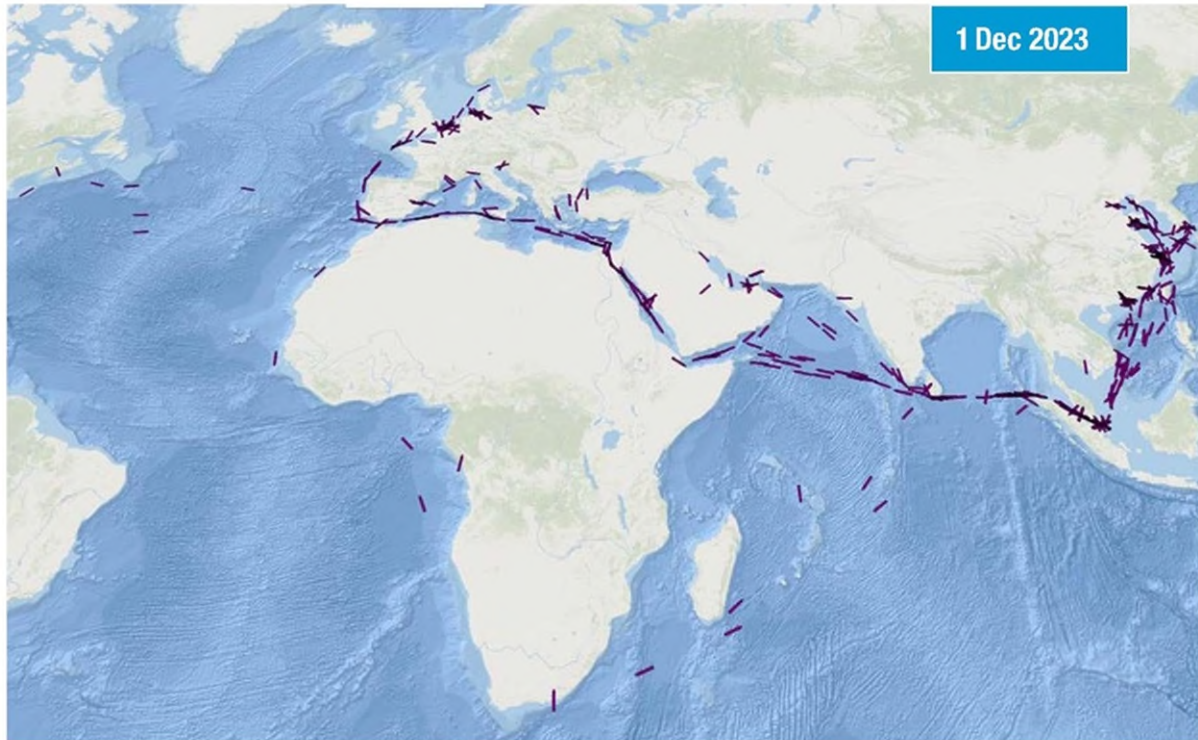
CLAIM COST PER VESSEL (USD)



WEATHER & REROUTING



SHIFT IN CONTAINER SHIP ROUTES SINCE DEC. 2023 FROM SUEZ CANAL TO CAPE OF GOOD HOPE

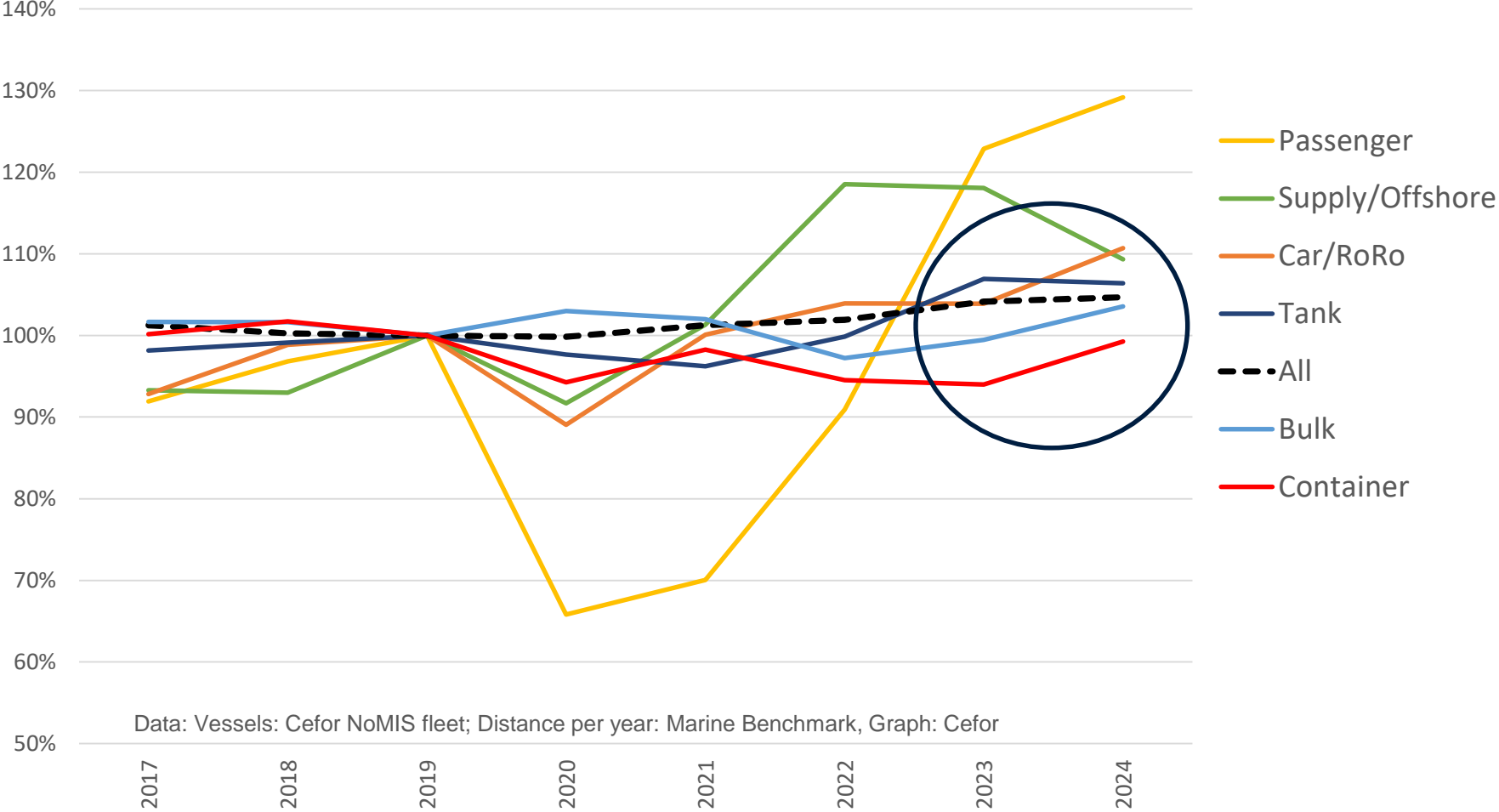


Source: UNCTAD February 2024 'Navigating troubled waters', Data analysis: Marine Benchmark

Implications on container supply, freight rates, CO2 emissions. What about claims?

NOMIS FLEET: CHANGE IN VESSEL ACTIVITY BY SEGMENT (DISTANCE SAILED) PER YEAR) 2017-2024

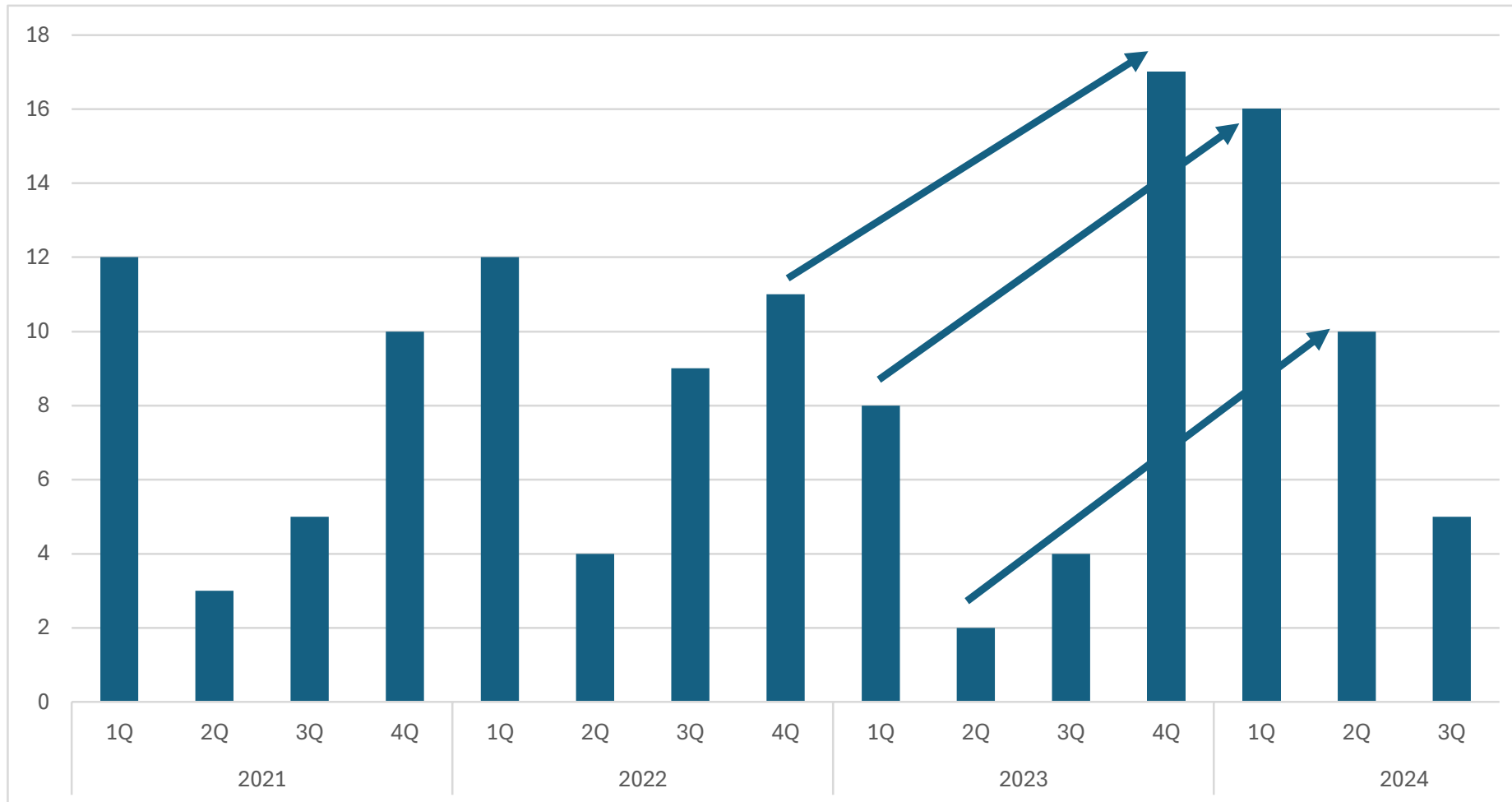
INDEX 2019 = 100%



Data: Vessels: Cefor NoMIS fleet; Distance per year: Marine Benchmark, Graph: Cefor

INCREASE IN HEAVY WEATHER CLAIMS FROM 4Q 2023 EXCEEDS SEASONAL VARIATION

NUMBER OF HEAVY WEATHER CLAIMS > USD 10,000 BY QUARTER
ALL VESSEL TYPES EXCEPT FISHING AND SUPPLY/OFFSHORE (CA. 17,000 VESSELS PER YEAR)



SUMMARY – CLAIMS FREQUENCY

- Upward trend since 2020
- Differs by vessel segment / trade / activity level
- Biggest increase in machinery claims.
- Number of heavy weather claims increased more than seasonal variation (rerouting effect?)
- Total loss frequency: Some increase in 2024 after low level around 0.05% since 2018.
- **Influencing factors**
 - Static vessel characteristics (vessel age, size, type)
 - Vessel activity (trade, maintenance, lay-ups, congestions, speed, distance sailed, geography)
 - Changes in underlying risk (new technologies, fuels, vessel design,...)
 - Insurer deductibles (higher deductibles = less claims reported to insurers)
 - Inflation (more claims may pass deductible level)

SUMMARY – CLAIMS COST

- 2023/2024: first claims over USD 50 million in over ten years
- Fires & collisions are the costliest claims.
- Claim cost per vessel increasing since 2020. Both attritional and major losses contribute (Increase in machinery & weather damage, fires, collisions).
- Inflation: 2022, 2023 upward claims adjustments exceed typical long-term pattern. Average claim cost shows an upward trend.
- **Cost drivers**
 - Steel/materials, labour costs, USD exchange rates (repairs often paid in other currencies than USD), maintenance routines, vessel usage, rerouting, ...
 - Larger / high-value vessels increase risk of costly total losses and more complex repairs.

HIGHLIGHTS

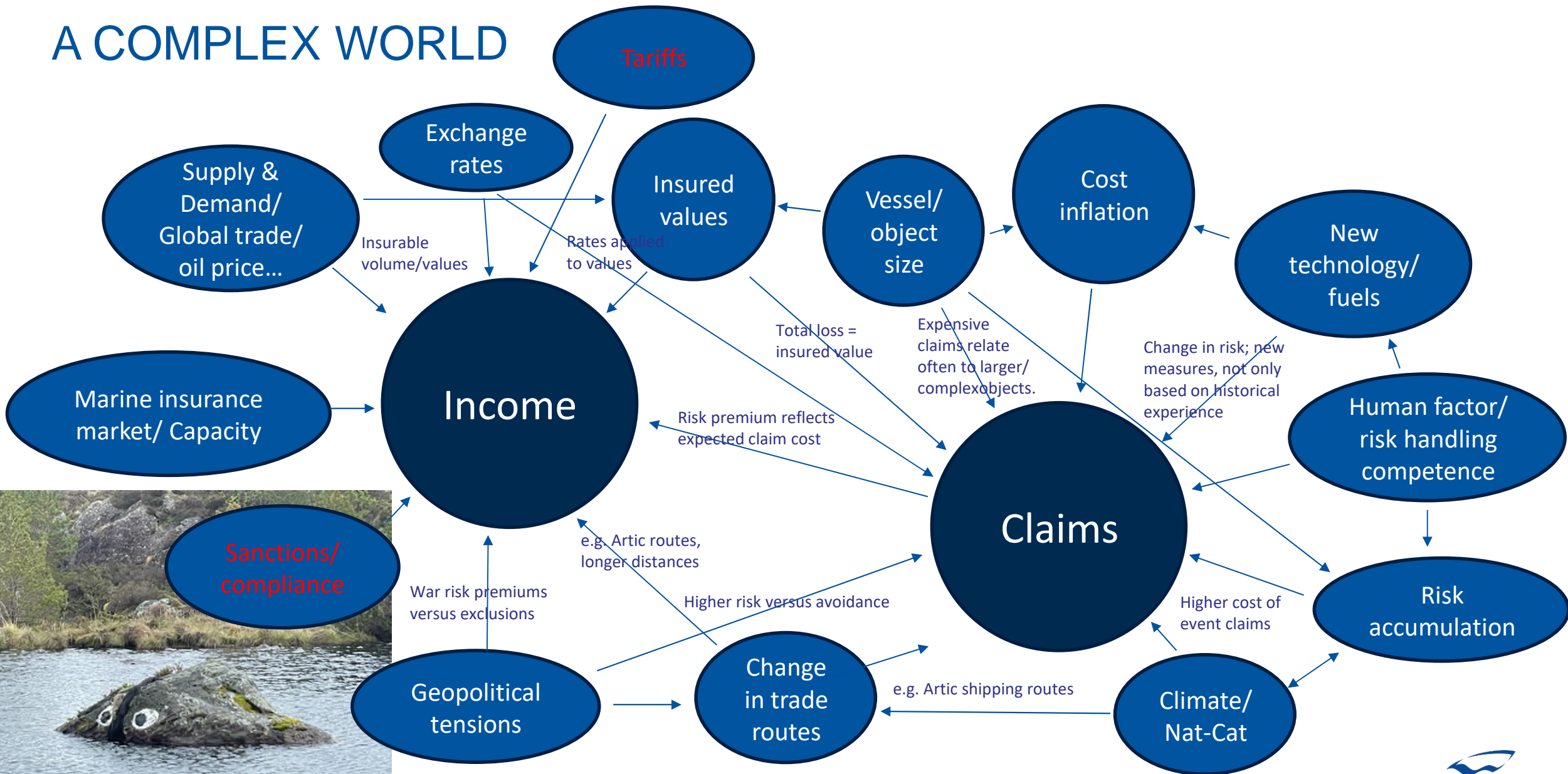
- Fires & Collisions prevail
- Machinery claim cost shows substantial increase (per vessel 50% higher in 2024 than in 2015-2021)
- A silver tsunami in the offing – Ageing world fleet more prone to fires, machinery claims and consequential damages
- Weather
 - Ocean Hull: Increase in number of heavy weather claims, likely linked to vessel rerouting.
 - Coastal Hull: Increase in number of heavy weather claims in Nordic fishing vessel fleet (coincide with extreme weather events in Norway in 2024, above average storm frequency).
- Repair cost Inflation – still high although easing slightly in 2024.
- Idle vessels: Vessels going into lay-up first are often the ‘worst’ claimswise.

THE 2025 ORACLE



Photo: Astrid Seltmann

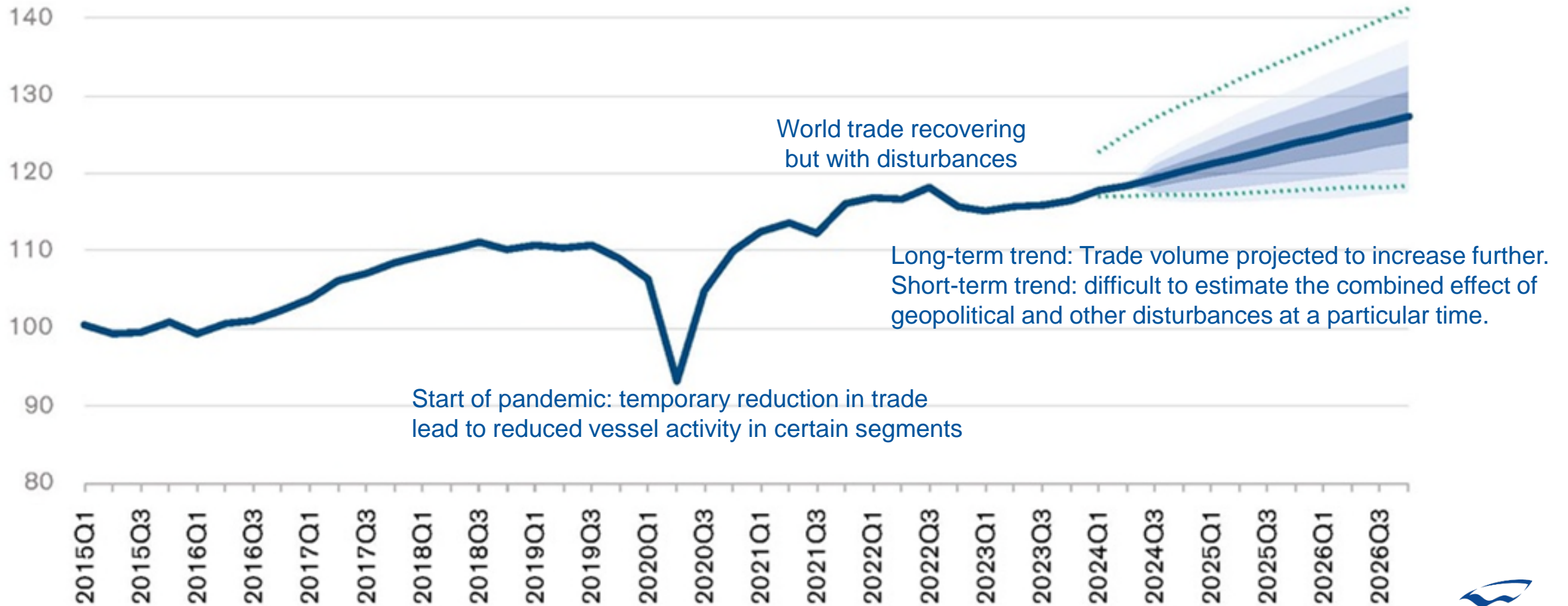
A COMPLEX WORLD



WORLD MERCHANDISE TRADE VOLUME 1Q 2015 – 4Q 2026

SEASONALLY-ADJUSTED VOLUME INDEX, 2015 = 100%

WTO GLOBAL TRADE OUTLOOK AND STATISTICS OCTOBER 2024 (BEFORE APRIL 2025 TARIFFS)



World trade recovering but with disturbances

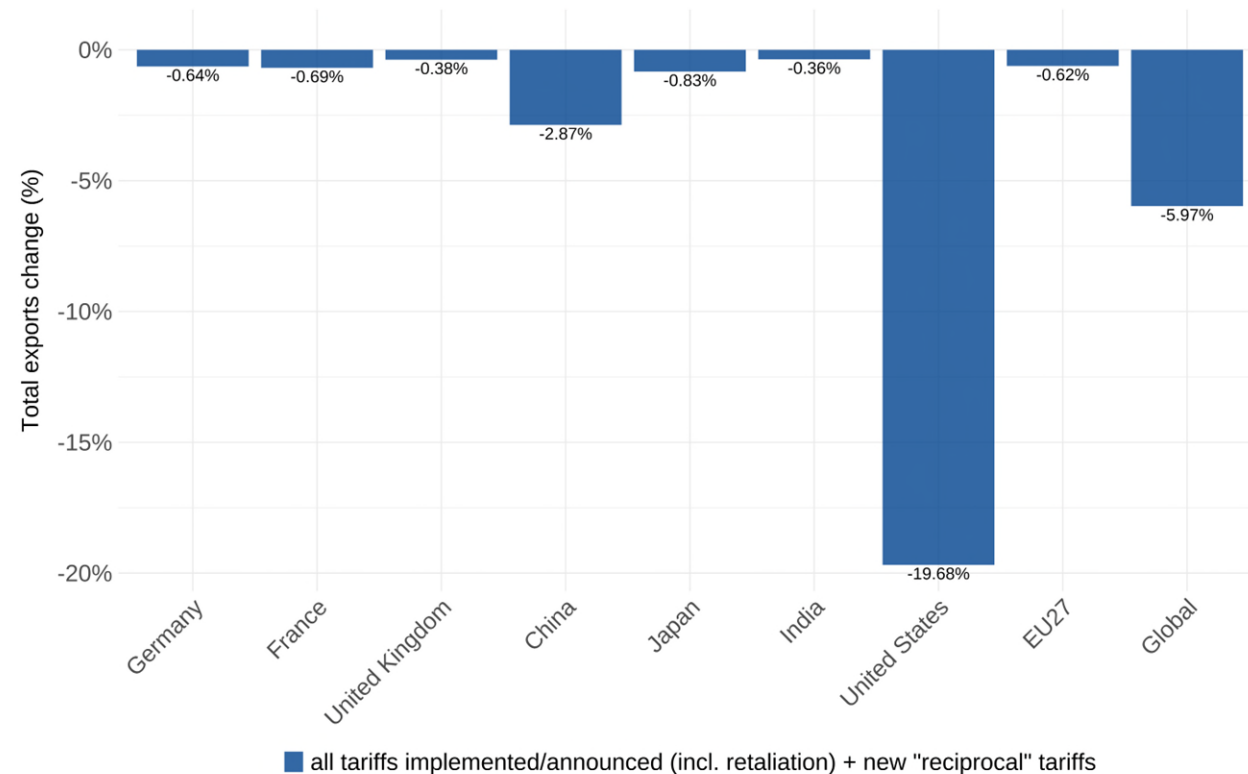
Long-term trend: Trade volume projected to increase further.
Short-term trend: difficult to estimate the combined effect of geopolitical and other disturbances at a particular time.

Start of pandemic: temporary reduction in trade lead to reduced vessel activity in certain segments

SCENARIO: ESTIMATED EFFECT OF TARIFFS ON EXPORTS

PUBLISHED 2 APRIL 2025, PRIOR TO ACTUAL TARIFF ANNOUNCEMENT

Short-run changes in total exports (in %)

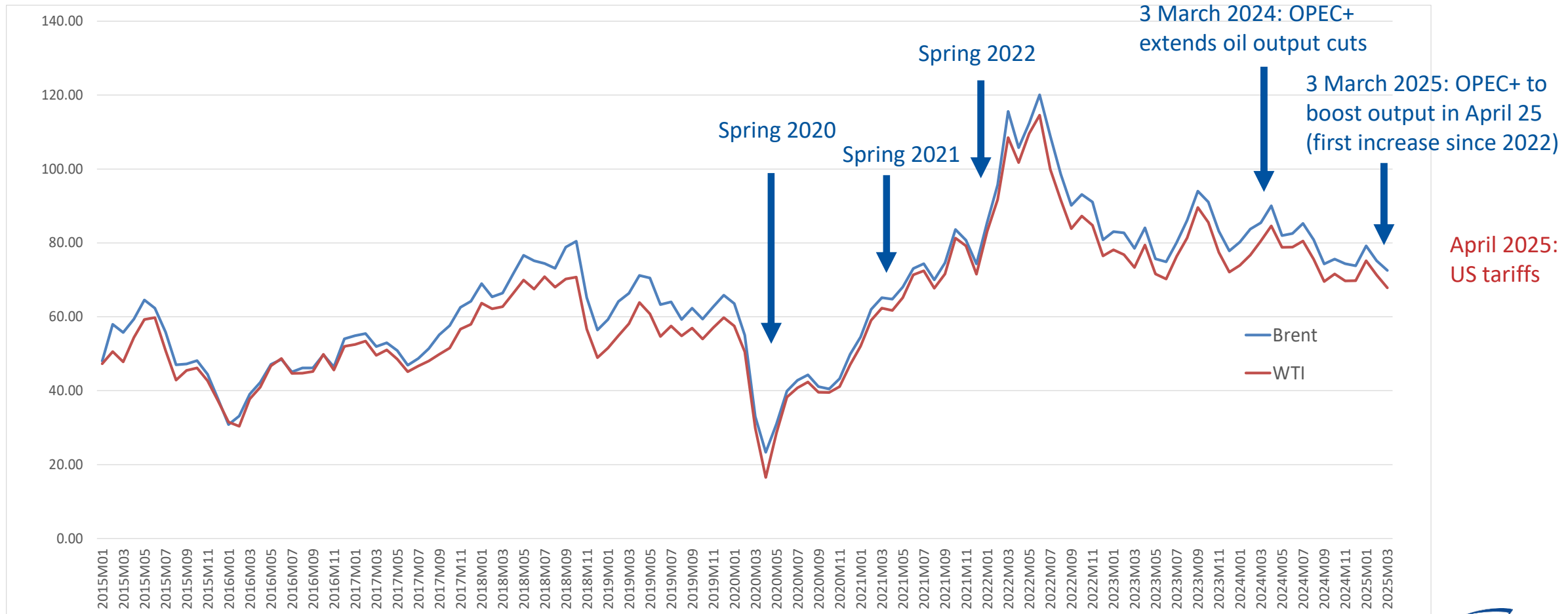


Source:

<https://www.ifw-kiel.de/topics/kiel-trade-and-tariffs-monitor/>

OIL PRICE* UP 2020-22, SUBSEQUENT DROP STOPPED BY OPEC 2025: OPEC+ AGREE TO BOOST OUTPUT

(BUT SUBJECT TO MONTHLY REVIEWS); OIL PRICE PER MONTH (\$/BBL), BRENT & WTI



*Oil price: World Bank - Commodity markets: <https://thedocs.worldbank.org/en/doc/5d903e848db1d1b83e0ec8f744e55570-0350012021/related/CMO-Historical-Data-Monthly.xlsx>

OIL PRICE 7 APRIL 2025: 63.700 \$/BBL (BRENT)

TRADING ECONOMICS [HTTPS://TRADINGECONOMICS.COM/COMMODITY/BRENT-CRUDE-OIL](https://tradingeconomics.com/commodity/brent-crude-oil)

Brent Crude Oil



source: tradingeconomics.com

FREIGHT RATES (BEFORE NEW TARIFFS)

UNCTAD & KIEL TRADE INDICATOR

Freight rate hike: Shipping prices resurge amid Suez and Panama Canal disruptions

Comprehensive Index of the Shanghai Containerized Freight Index, October 2009–October 2024



Source: UN Trade and Development (UNCTAD), based on data provided by Clarksons Shipping Intelligence Network, 20 October 2024

Average freight rates from China to N. Europe and Global

Last update: 29/01/2025



Quelle: Freightos, own calculations.

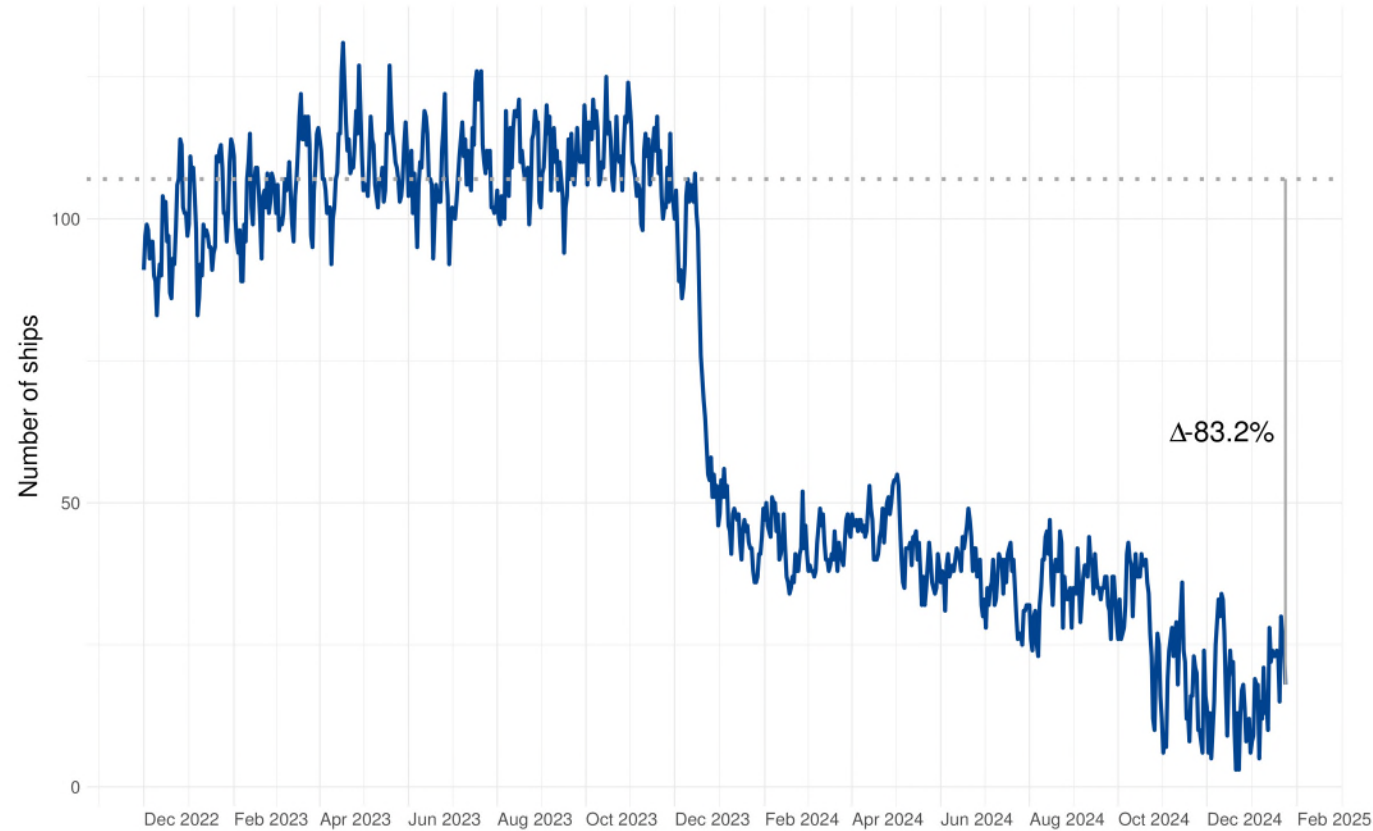
Kiel Trade Indicator

REROUTING CONTINUES INTO 2025

KIEL TRADE INDICATOR, UNTIL FEBRUARY 2025

Daily number of container ships in the Red Sea

Last update: 29/01/2025



Source: Fleetmon.com, own calculations.

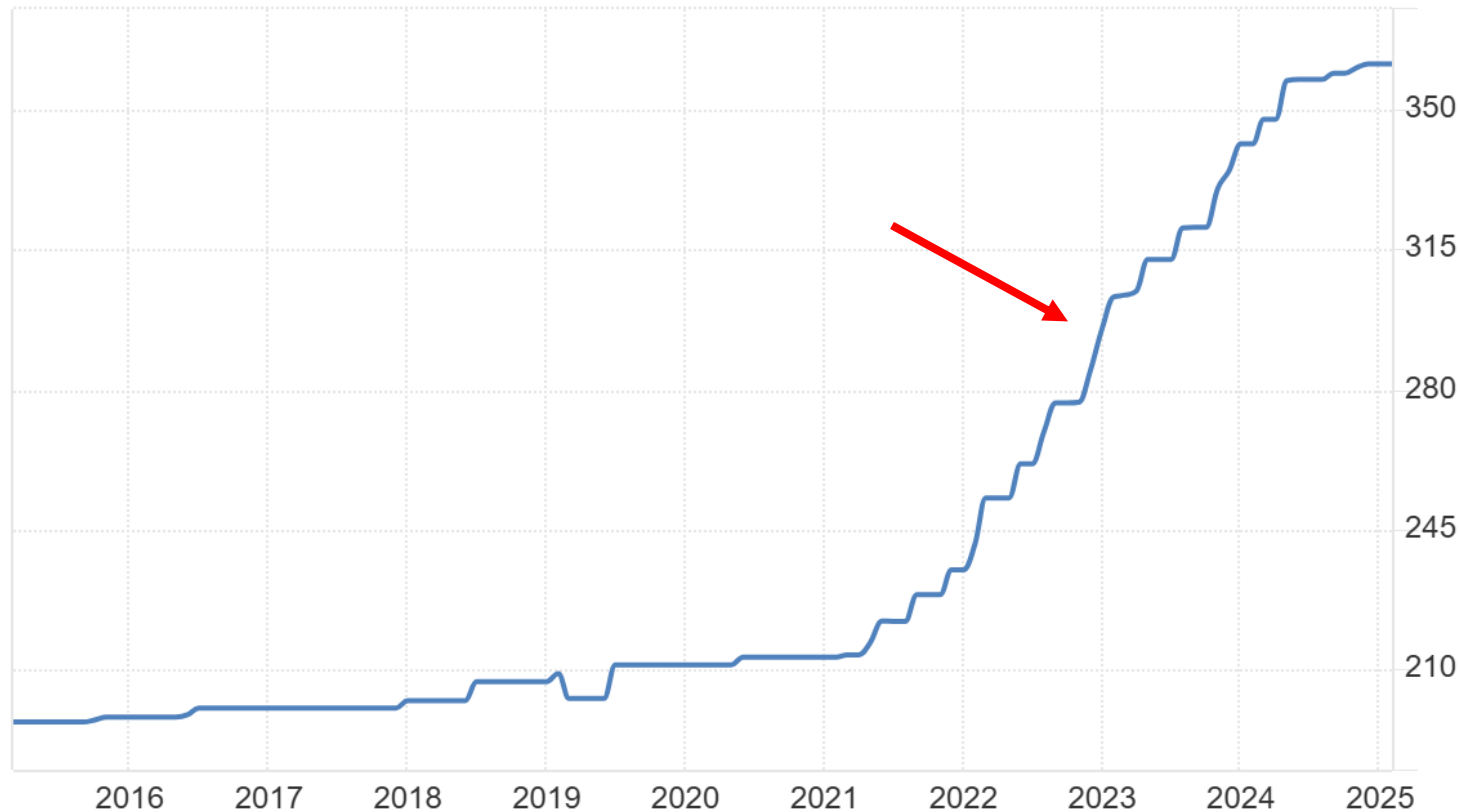
Kiel Trade Indicator



US: PRODUCER PRICE INDEX, SHIP BUILDING AND REPAIRING

NON-MILITARY

Producer Price Index by Industry: Ship Building and Repairing: Ship Repair, Nonmilitary - Index Dec
1985=100



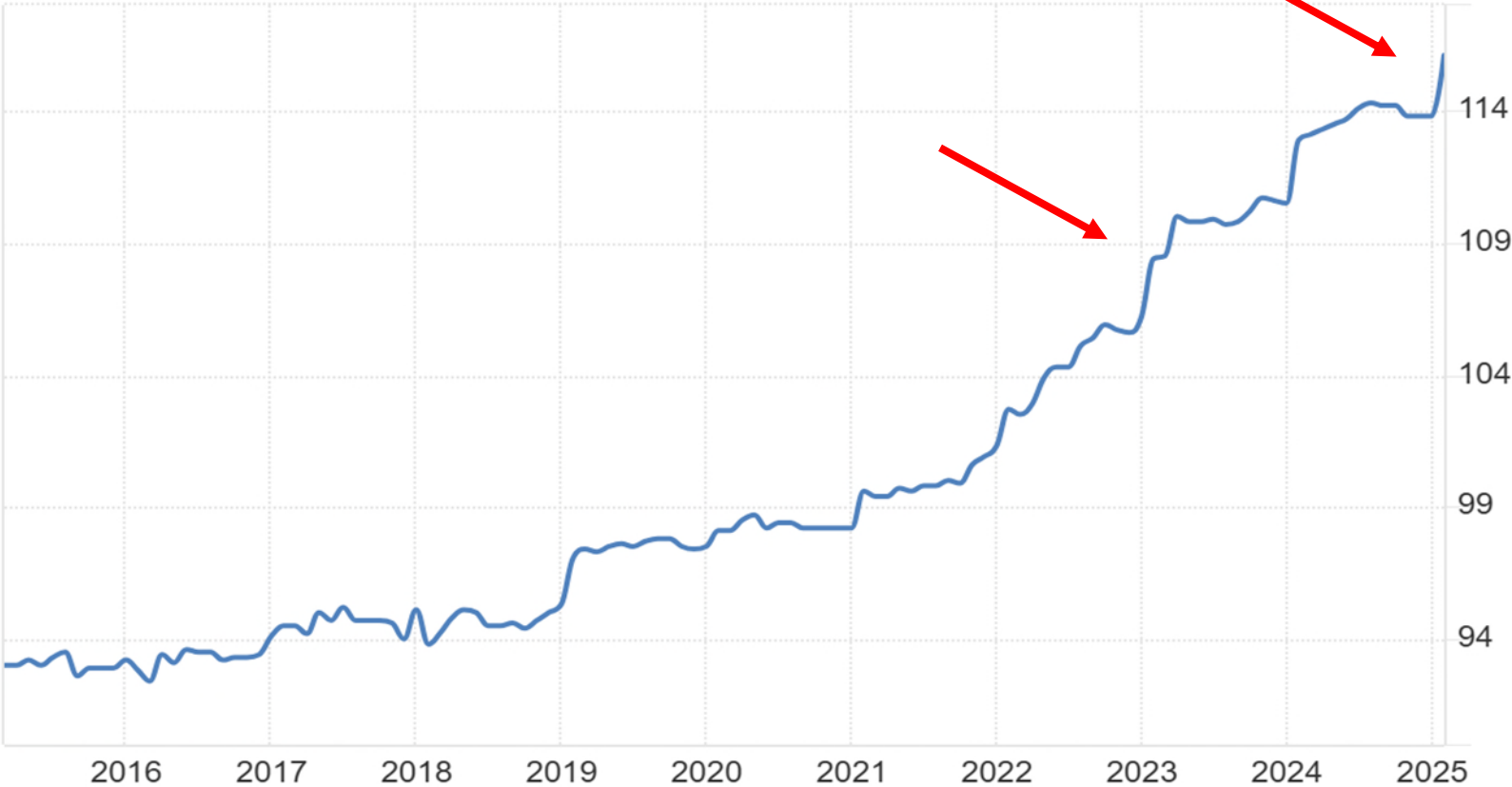
Steep increase 2022 / 2023,
easing in 2024.

Source: tradingeconomics.com | Federal Reserve of St. Louis



EU: PRODUCER PRICE INDEX, REPAIR AND MAINTENANCE OF SHIPS AND BOATS

Euro Area Producer prices in industry: Repair and maintenance of ships and boats



Steep increase 2023,
easing in 2024
But new increase 2025.

Effect on repair cost inflation?

Source: tradingeconomics.com | Eurostat



2025 ORACLE – MORE HEADWINDS AHEAD

- **Global trade:** Big uncertainties.
- **Fleet:** ageing; newbuilds larger & more complex (hybrid propulsion, various fuel types). Geopolitics, climate, tariffs change demand.
- **Claims:** unlikely to decline (Ageing fleet, vessel activity, new technology/ risks, inflation, climate)
- **Hull capacity:** returning, attracted by previous years' improved results
- **Rerouting:** likely to continue (Geopolitics, climate, tariffs)
- **Complexity:** increasing (Technical developments, decarbonisation, regulations, compliance/sanctions, new tariffs)



Photo: Astrid Seltmann

Complexity & Uncertainty

OCEAN AND COASTAL HULL TRENDS PUBLISHED 2025:



2024 Cefor analysis:
Vessel emissions and
alignment with IMO
decarbonisation goals:



Next update:
Cefor mid-year Hull Report August 2025

All NoMIS stats: <https://cefor.no/statistics/nomis/>

Special focus analyses: <https://cefor.no/statistics/analysis-with-special-focus/>

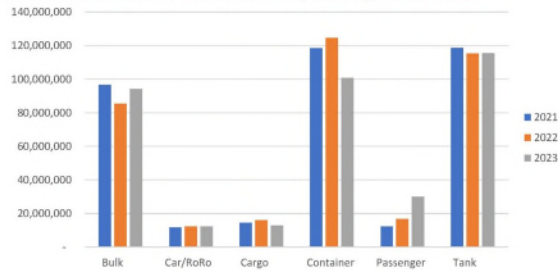
NoMIS
Nordic Marine
Insurance Statistics



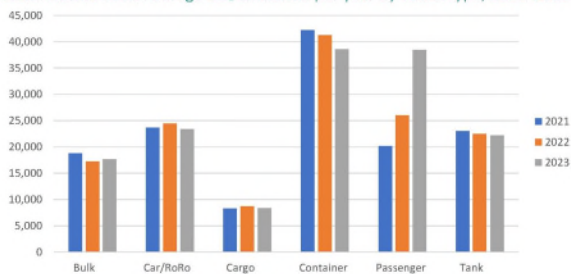
2024 VESSEL EMISSION ANALYSIS:

TOTAL & AVERAGE CO₂ EMISSIONS & CLIMATE ALIGNMENT BY SEGMENTS; HOW DO CLAIMS RELATED TO CO₂ EMISSIONS?

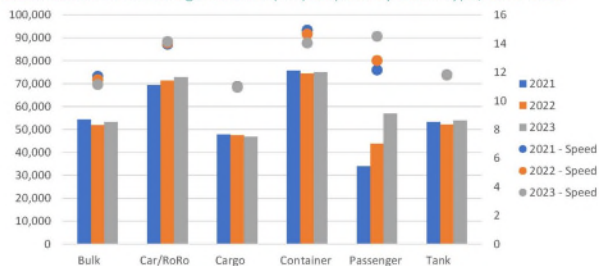
2.1.a: NoMIS fleet: Total CO₂ emissions by vessel type, 2021-2023



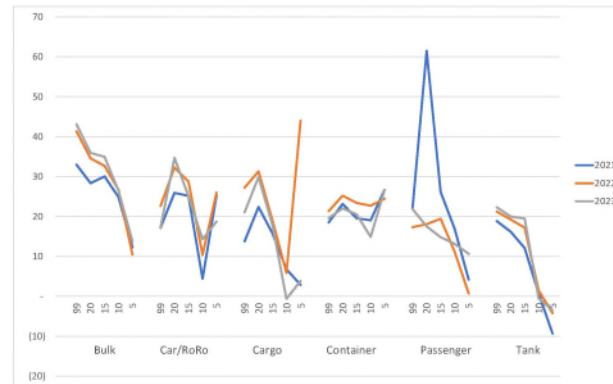
2.1.b: NoMIS fleet: Average CO₂ emissions per year by vessel type, 2021-2023



2.1.c: NoMIS fleet: Average distance (nm) & speed by vessel type, 2021-2023



3.1: Average climate alignment 2021 (% weighted with dwt), 2021-2023 NoMIS fleet, by vessel types and age intervals



Graph 3.1 shows the average climate alignment by vessel segment and age group for the years 2021 to 2023. The climate alignment in most vessel segments is best for the youngest vessels. This holds particularly true for tank vessels. This is partly due to stronger engines in vessels built before the EEDI regulation entered into force (2013), wear-and-tear and technological progress.

For container, all age groups have a similar and relatively high percentage figure, which signifies a comparably bad alignment.

It is unclear why tankers perform better than bulk carriers in terms of climate alignment for all age groups. If the targets are correctly calibrated, this implies that tankers have achieved a larger reduction in emissions per nautical miles since 2012.



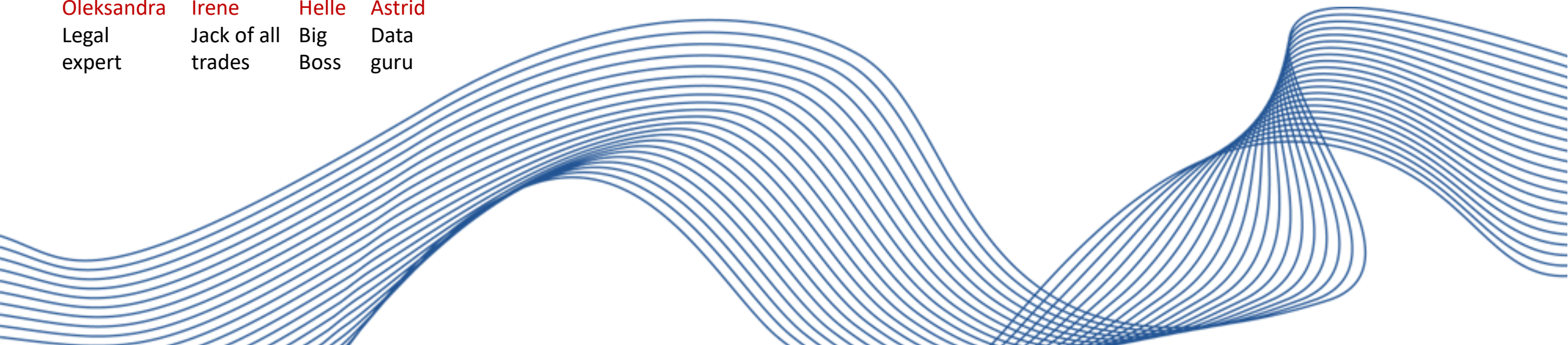


THANK YOU!

Questions? astrid.seltmann@cefor.no

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CEFOR AT WORK: REALITY CHECK

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