

# The 2013 Cefor NoMIS Ocean Hull Report

## Nordic Marine Insurance Statistics

Underwriting Years 1996–2013, as of 31 December 2013

If not indicated otherwise, data in this report is on **accident year basis**  
(i.e. claims allocated to the calendar year in which the accident occurred)

All **figures as reported by 31 December 2013**  
(i.e. without "IBNR" loading for claims not yet registered or incurred by this date)

Included are only **vessels with a registered IMO-nr.**  
(i.e. not small coastal tonnage)



## 2013 Nordic Marine Insurance Statistics – Part 1

- Part 1 Introduction  
(Contents / NoMIS history / Definitions)
  - Part 2 Cefor position in the Global insurance market  
(Global Marine Hull Insurance Market 2012 /  
Cefor Marine Hull Insurance Market 2013/ Cefor share of World fleet)
  - Part 3 NoMIS portfolio Key figures
  - Part 4 Key figures by age group
  - Part 5 Key figures by vessel type group
  - Part 6 Key figures by size group
  - Part 7 Key figures by sum insured layers
- (Part 4-7: Distribution of number of vessels / Claim frequency / Claim cost per vessel / per Sum Insured / per gross ton)



# 2013 Nordic Marine Insurance Statistics – Part 1

## Part 8 – Distribution by flag and classification society

- Distribution of number of vessels by flag, 16 largest
- Distribution of number of vessels by classification society, 6 largest

## Part 9 – Exposure curves

- Sum Insured bands  
(<5, <20, <100, and >100 MUSD; for partial claims / all claims)
- Explanations

## Part 10 – Cost Driving Factors Inflation Index (by date of loss)

**Legal disclaimer** Cefor provides the statistics material in this presentation for general information purposes only. All key figures are derived from the Cefor portfolio, which reflects a minor part of the world fleet, the selection of ships being biased by Nordic underwriting preferences. Therefore Cefor can accept no responsibility and shall not be liable for any loss which may arise from reliance upon the information provided.

With reference to [Commission Regulation \(EU\) No 267/2010 of 24 March 2010](#) (EU Block Exemption), it is further stressed that the statistical data presented in this publication is non-binding in its character.



## 2013 Nordic Marine Insurance Statistics – Part 1

The Nordic Marine Insurance Statistics (NoMIS) is a joint database project of Cefor members active on the Hull & Machinery market to compile insurance data and vessel characteristics for statistical purposes and administered by Cefor.

Since its foundation in 1985 until 1997, the data was compiled by appointing Cefor a facultative reinsurer to which members of the Norwegian Hull Agreement ceded 0.1% of their H&M insurance. Premium and claims information was exchanged via Borderaux, the lead insurer providing details of each claim. While the Hull Agreement was discontinued in 1996, the statistics cooperation continued.

In 1998 steps were taken to update the NoMIS' database electronically. Thus from December 1999, Cefor could produce up-to-date hull figures on a monthly basis and extend the database substantially by including non-lead business. From 2000, also business back to underwriting year 1995 was updated electronically. In the following years, several new major Cefor members joined the NoMIS cooperation, reporting retrospective data from 1995 underwriting year.

In 2009, data from Gjensidige and Tryg was integrated, dating back to underwriting years 2000 and 2003 respectively.

In 2012, data from Alandia was integrated, dating back to underwriting year 2005, and If extended their scope of reporting to include all Nordic business.

By 31st December 2013, in all 192,436 vessel years (vessels with IMO-number) and 59,160 claims were registered on underwriting years 1985 through 2013.

The NoMIS statistics in this report comprise data from the following marine insurers:  
Alandia, Bluewater (until 2008), Codan, Gjensidige, If, Gard, NEMI (until 2009), Norwegian Hull Club, Swedish Club, Tryg (until 2009), Zurich (until 2002).



## 2013 Nordic Marine Insurance Statistics – Part 1

All amounts are presented in USD.

Rate of exchange applicable to convert the figures from the original currencies into USD:

Premiums: average monthly rate of exchange of the month of transaction

Paid claims: average monthly rate of exchange of the month of transaction

Outstanding claims: average monthly rate of exchange of December 2013

Underwriting year = year in which the insurance policy attaches

All claims are net of any applicable deductibles.

Total Claims = Paid claims + Outstanding claims

TLO (or Total Losses) = claims in excess of 75% of the Sum Insured

Partial Losses = all losses less than or equal to 75% of the Sum Insured

IBNR ("Incurred but not reported") = reserve for claims adjustments and registration backlog



## 2013 Nordic Marine Insurance Statistics – Part 1

### Types of vessels specified

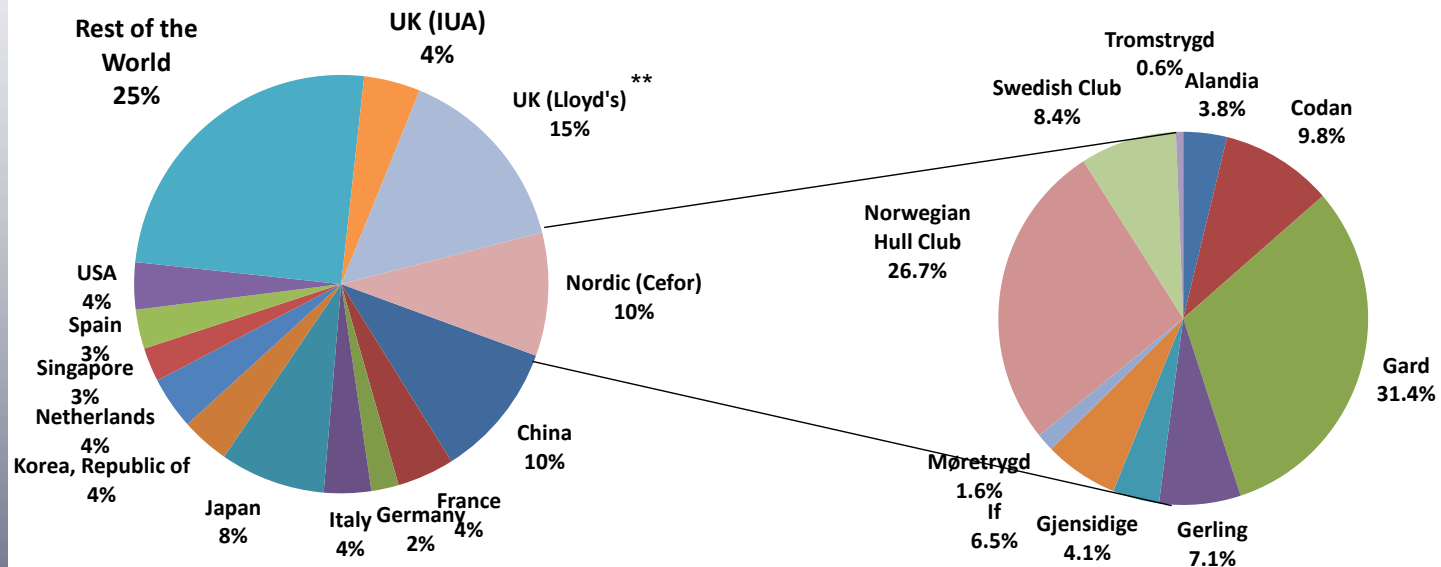
<u>Vessel Type group</u>	<u>Vessels Types included</u>	<u>Lloyds Conf. Index Code</u>
BULK	Bulk, Ore, Cement	BBU, BCB, BCE, BOR, BWC
CAR/RORO	Car Carrier, RoRo	MVE, URC, URR
CARGO	Dry Cargo, General Cargo, Reefers, Pallett Vessels, Animal Transport Vessels	GCT, GGC, GPC, GRF, MLV
CHEM./PRODUCT	Chemical Carriers, Product / Acid / Edible Oil / Fish Oil / Fruit Juice / Wine / Molasses / Waste/ Water Tankers	TAC, TCH, TCO, TEO, TFJ, TFO TMO, TPD, TWA, TWN, TWT
CONTAINER	Container	UCC, UCR
FISHING	Fishing vessels	FFC, FFF, FFP, FFS, FTR,FWF,FWH
LNG/LPG	Gas Carriers LNG, LPG, LNG/LPG	LNG, LPG, LNP
OBO	Combined Vessels Bulk, Ore, Oil	COO, CBO
OTHER	any other ships and floating units, any codes not specifically defined otherwise, like Barges, Cranes, Floating Storage, Floating Production, Pollution Control Vessels, Mud boat, Research vessels, Cable, Seismic Search vessel, Flo/Flo, etc.	

## Types of vessels specified contd.

<u>Vessel Type group</u>	<u>Vessels included</u>	<u>Lloyds Conf. Index Code</u>
PASSENGER	All types of passenger vessels and ferries, Passenger/Roro, Highspeed Craft	LOF, LOP, MPR, OFY, OHF, OHS, PRR
SUPPL/OFF	Supply, Anchorhandling, Standby, Drilling Vessel, General Service Vessel, Supply (Tug, Anchor), Tug/Icebreaker	OBS, OBT, ODS, OIB, OIF, OIS, OIT, OLT, OMN, OMT, OOS, OPP, ORP, OSU, OSY, OSZ, OWO, XAA, XAF, XAG, XAH, XAT, XCT, XFF, XFS, XPT, XTG, XTI, XTP, XTR, XTS, XTT, XTX
TANK	Tanker, Sludge Vessel, Crude Oil Tanker Asphalt Carriers, Bunkering Tanker, Naval Auxiliary	OSC, OTC, TAS, TBK, TCR, TNA, TTA

# 2013 Nordic Marine Insurance Statistics – Part 2

## Distribution of Global Marine Hull\* Premium 2012



World

Cefor

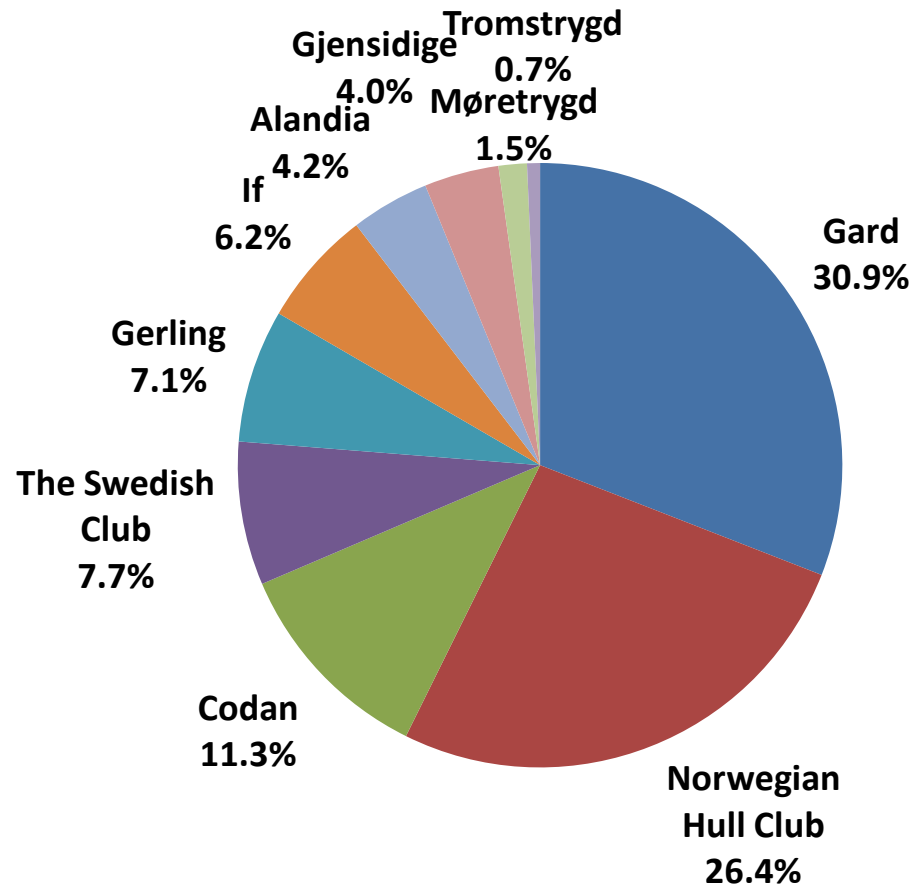
\* The «hull» premium on this slide includes both ocean and coastal hull business for all hull-related insurance types (Hull, hull interest, freight interest, loss of hire, builder's risk, fishing (catch & gear)).

\*\* Lloyd's premium includes also proportional and facultative reinsurance. Other countries' premium includes only direct business.



## 2013 Nordic Marine Insurance Statistics – Part 2

### Distribution of Cefor Marine Hull\* Premium 2013



\* The premium on this slide includes both ocean and coastal hull business for all hull-related insurance types (Hull, hull interest, freight interest, loss of hire, builder's risk, fishing (catch & gear)). **Source: Cefor Annual Report 2013**

All following statistics are pure H&M statistics based on vessels with IMO-number only, and EXCLUDE loss of hire, hull/freight interest, builder's risk. For claims trends for small craft & fishing vessels check «The Cefor NoMIS COASTAL Hull report 2013»



## 2013 Nordic Marine Insurance Statistics – Part 2

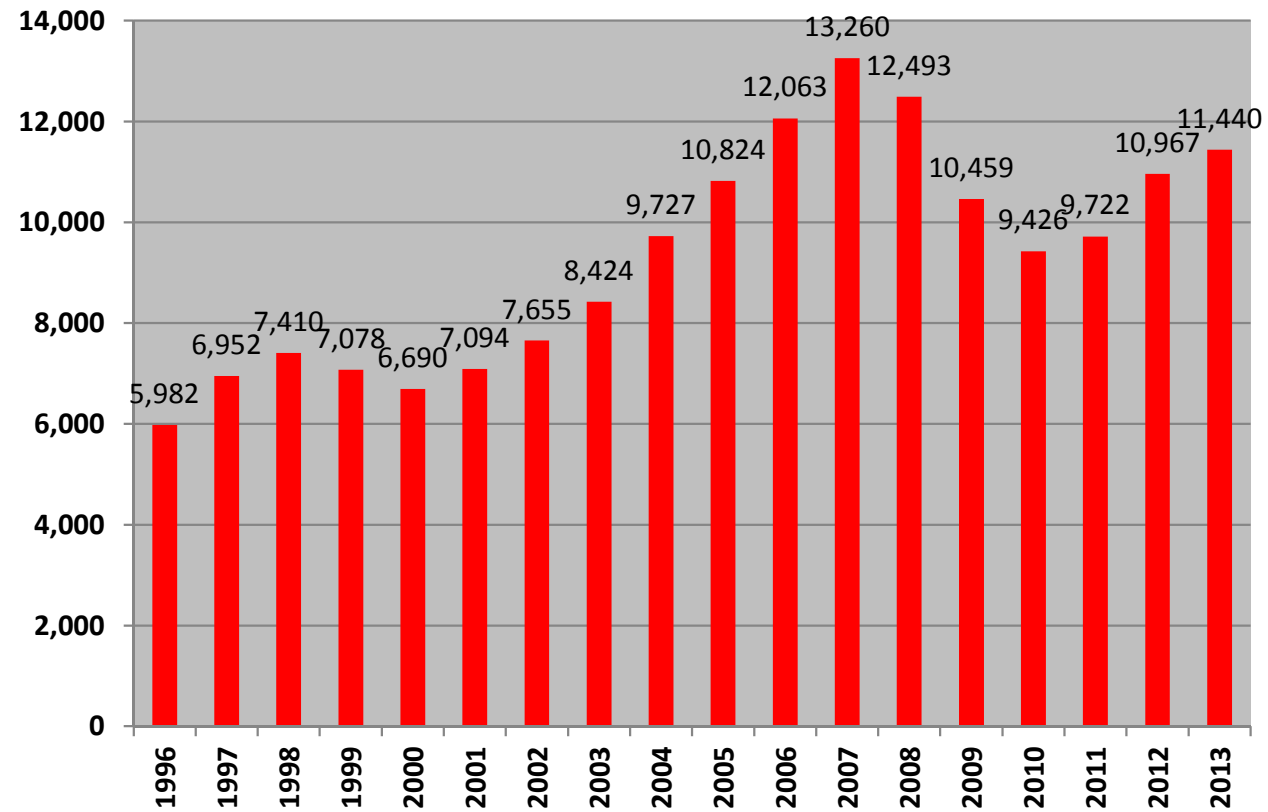
### Cefor market participation as % of World Fleet – IMO-number ships

Verdier	Year of Build	Gross Tonnage				Grand Total
		1000-3999	4000-6999	7000-10000	>10000	
<b>Cefor share *</b>	2008-2013	9%	22%	23%	36%	28%
	2003-2007	11%	24%	35%	45%	33%
	1998-2002	16%	25%	29%	49%	36%
	1993-1997	12%	13%	19%	38%	25%
	1988-1992	8%	11%	8%	27%	14%
	1983-1987	5%	6%	9%	16%	9%
	<1983 or (blank)	2%	3%	3%	10%	3%
<b>World fleet</b>	2008-2013	3491	1650	1137	9904	16182
	2003-2007	2231	843	804	4687	8565
	1998-2002	1478	717	364	3257	5816
	1993-1997	1617	717	340	2304	4978
	1988-1992	1843	591	239	1091	3764
	1983-1987	2286	618	206	1132	4242
	<1983 or (blank)	6422	1366	478	1237	9503
<b>Total Cefor share</b>		<b>7%</b>	<b>15%</b>	<b>21%</b>	<b>37%</b>	<b>22%</b>
<b>Total World fleet</b>		<b>19368</b>	<b>6502</b>	<b>3568</b>	<b>23612</b>	<b>53050</b>

\* "Cefor share" calculated as the number of vessels partly or wholly covered by Cefor members in 2012/2013, divided by the total number of ships with registered IMO-number in the world fleet. World fleet count as according to Lloyds List Intelligence "World Fleet Update" as of January 2014.

## 2013 Nordic Marine Insurance Statistics – Part 3

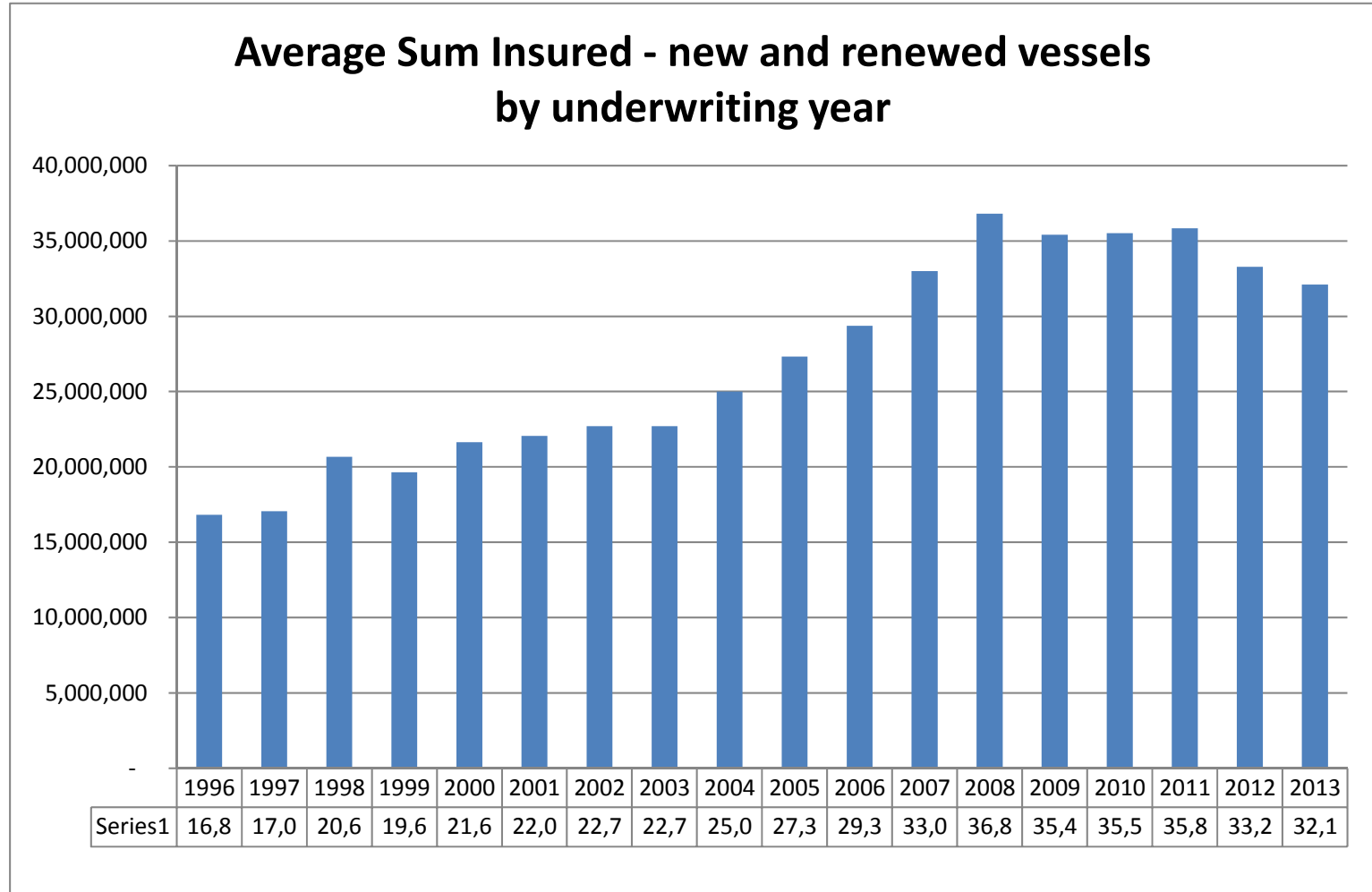
**Number of vessels  
by year of exposure**





# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013

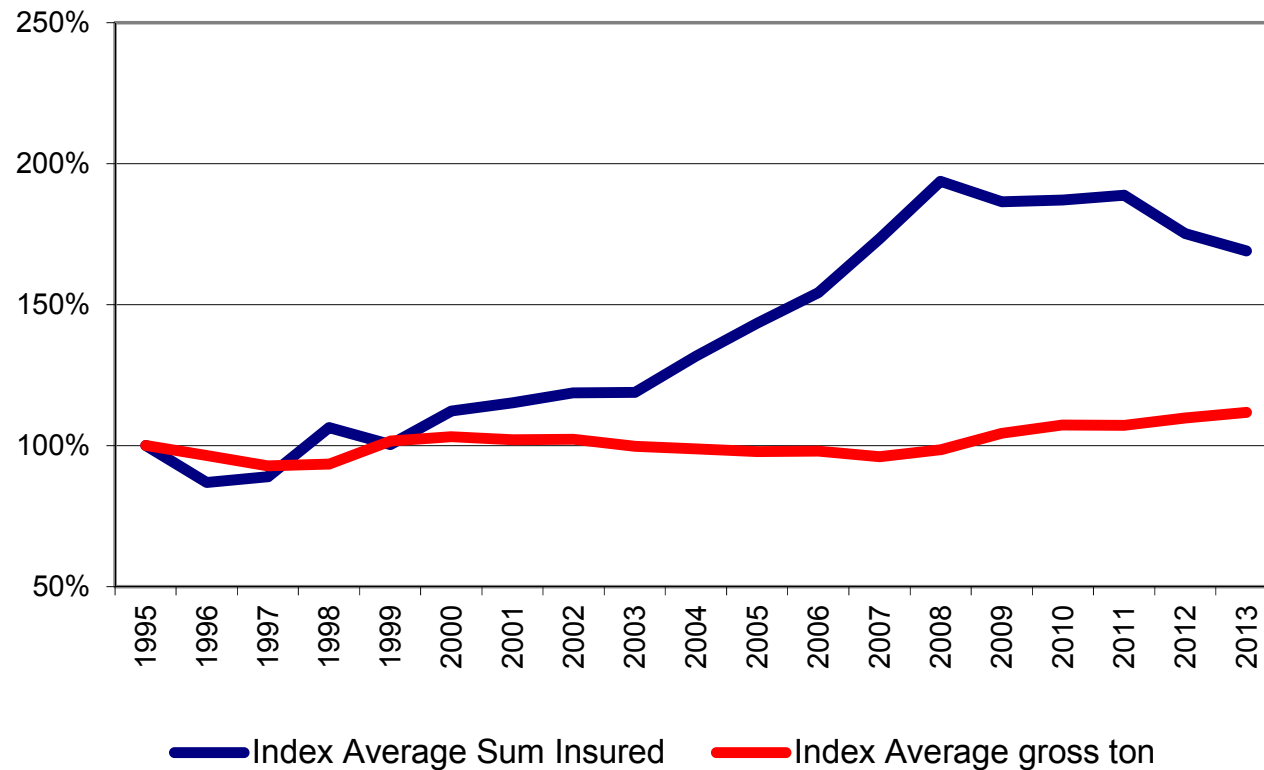


Includes all insured vessels per underwriting year (renewed and new business).

# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013

Index of evolution of average Sum insured and gross ton  
1995=100%



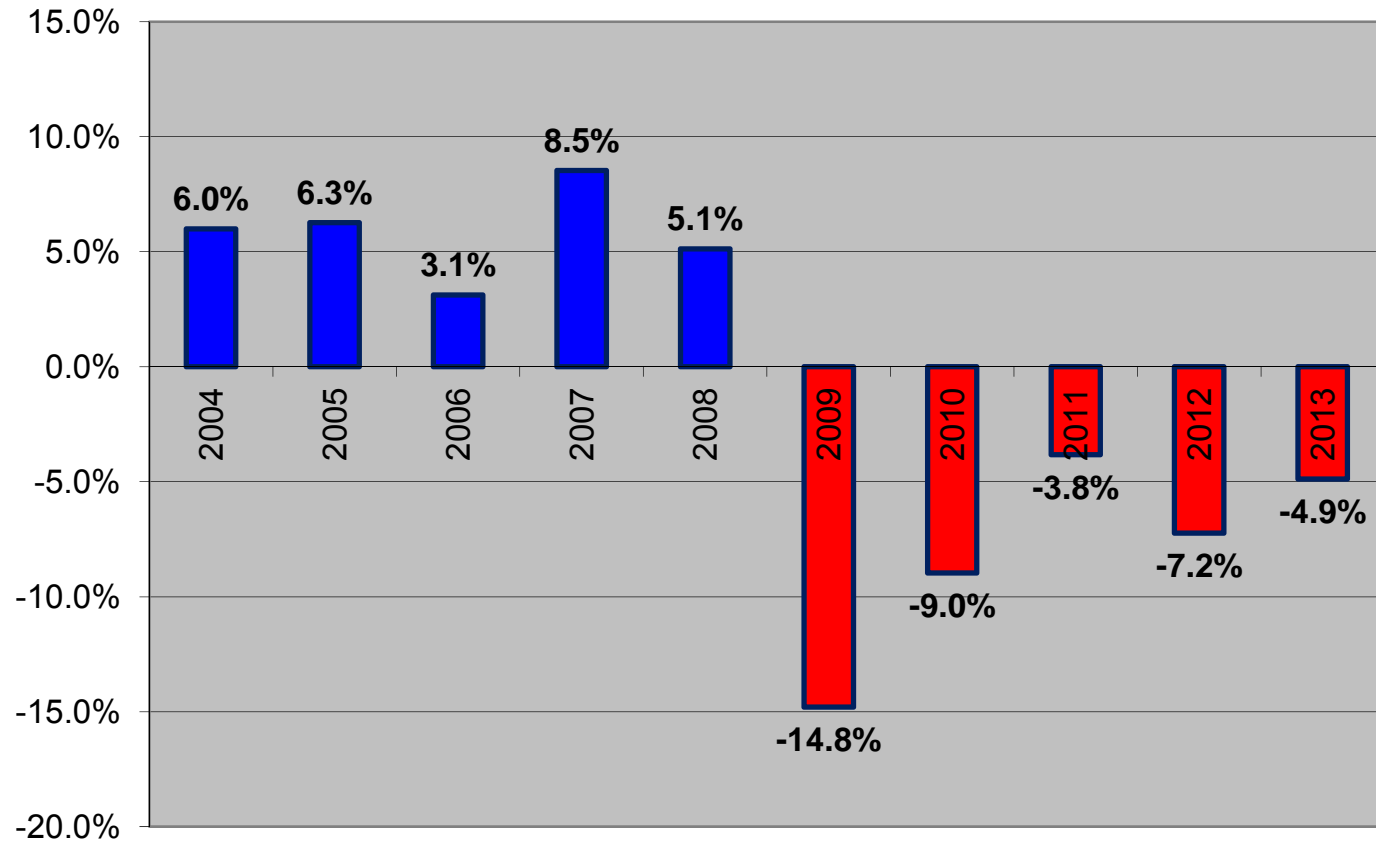
Includes all insured vessels per underwriting year (renewed and new business).



# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013

**Average annual change in insured values  
on renewed vessels**



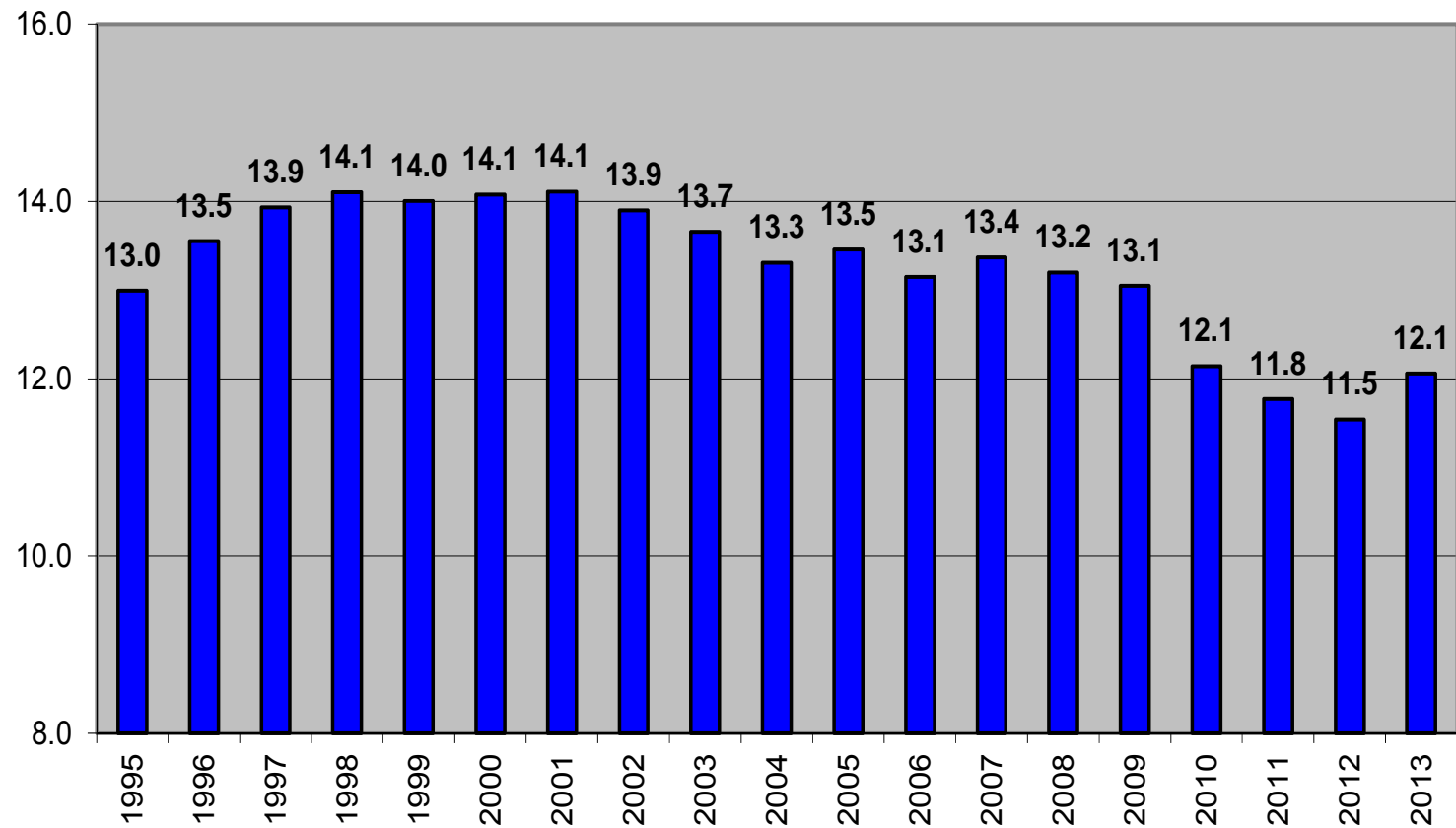
Based on renewals in respective year – excluding new business.



# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013

Average Age per underwriting year



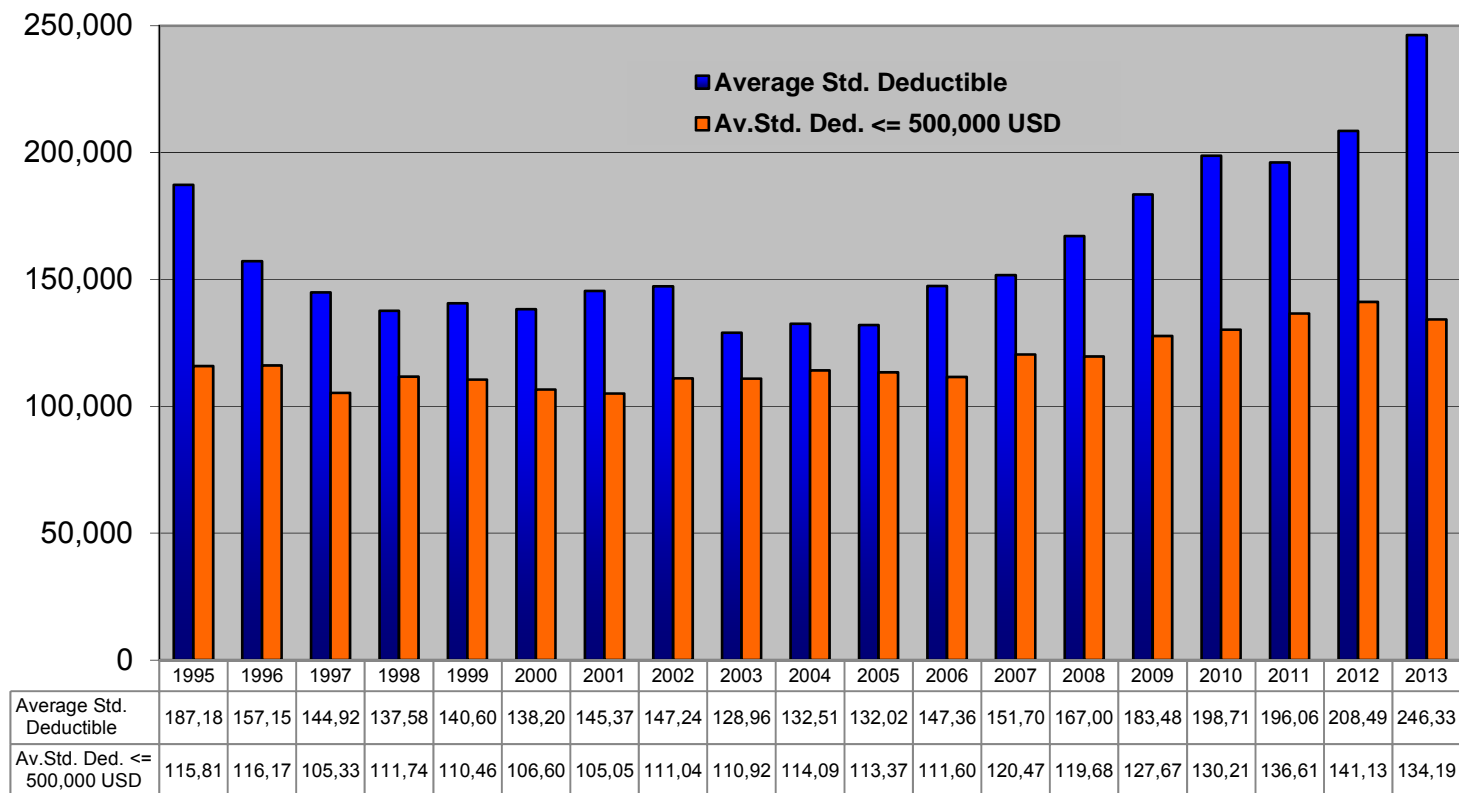


# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013

## Average Standard Deductible Development

All business, 100%, in USD



Includes all insured vessels per underwriting year (renewed and new business).





# 2013 Nordic Marine Insurance Statistics – Part 3

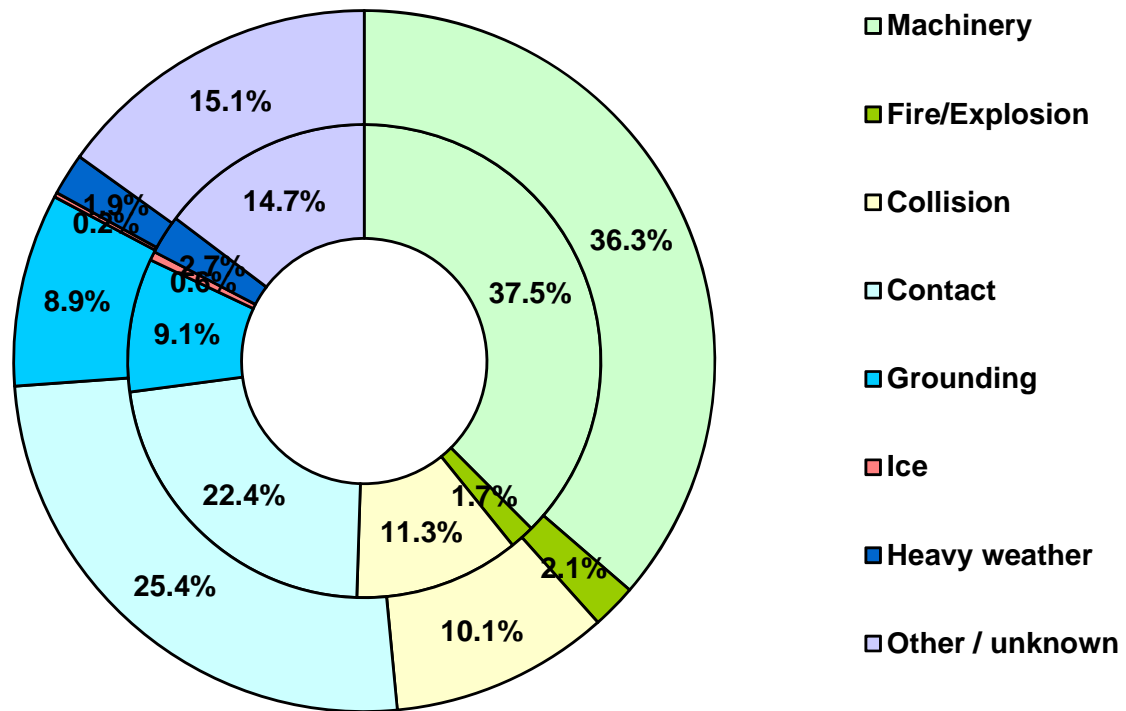
As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

## Claims by Claims type

### Number of claims

Inner ring: 2008-2012

Outer ring: 2013



Totals	
2008-12:	14,992
2013:	2,326

# 2013 Nordic Marine Insurance Statistics – Part 3

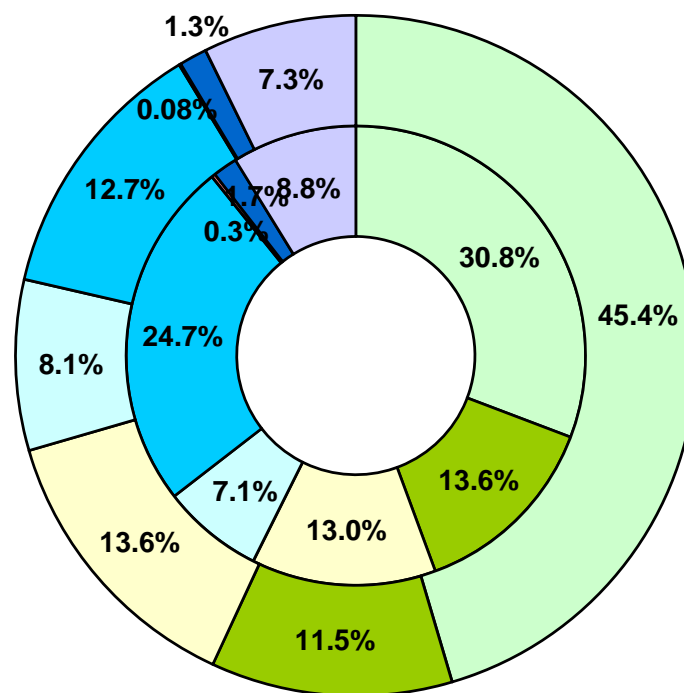
As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

## Claims by Claims type

### Cost of claims

Inner ring: 2008-2012

Outer ring: 2013



- Machinery
- Fire/Explosion
- Collision
- Contact
- Grounding
- Ice
- Heavy weather
- Other / unknown

Totals

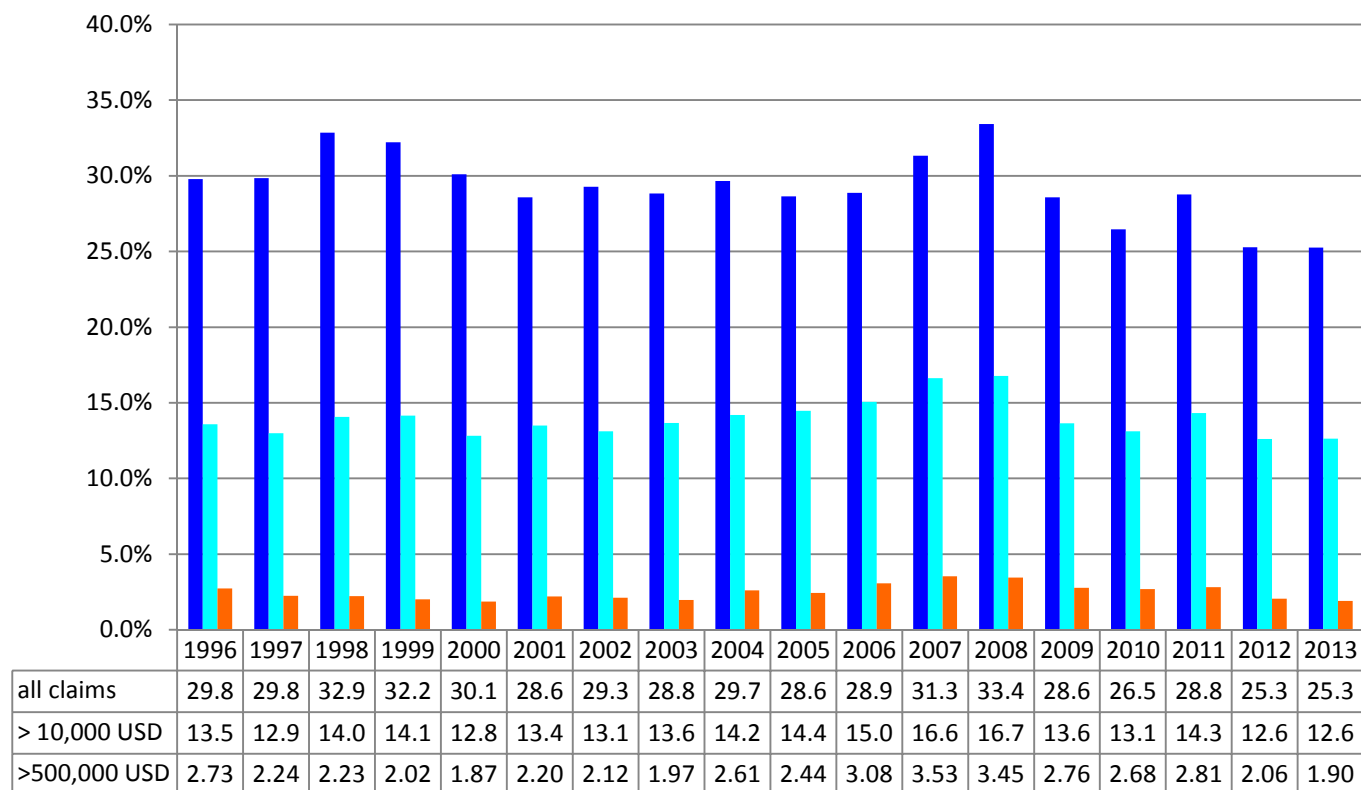
2008-12: 4,340.3 MUSD

2013: 717.7 MUSD

# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for frequency of partial claims

### Claim frequency by date of loss (%)



Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency

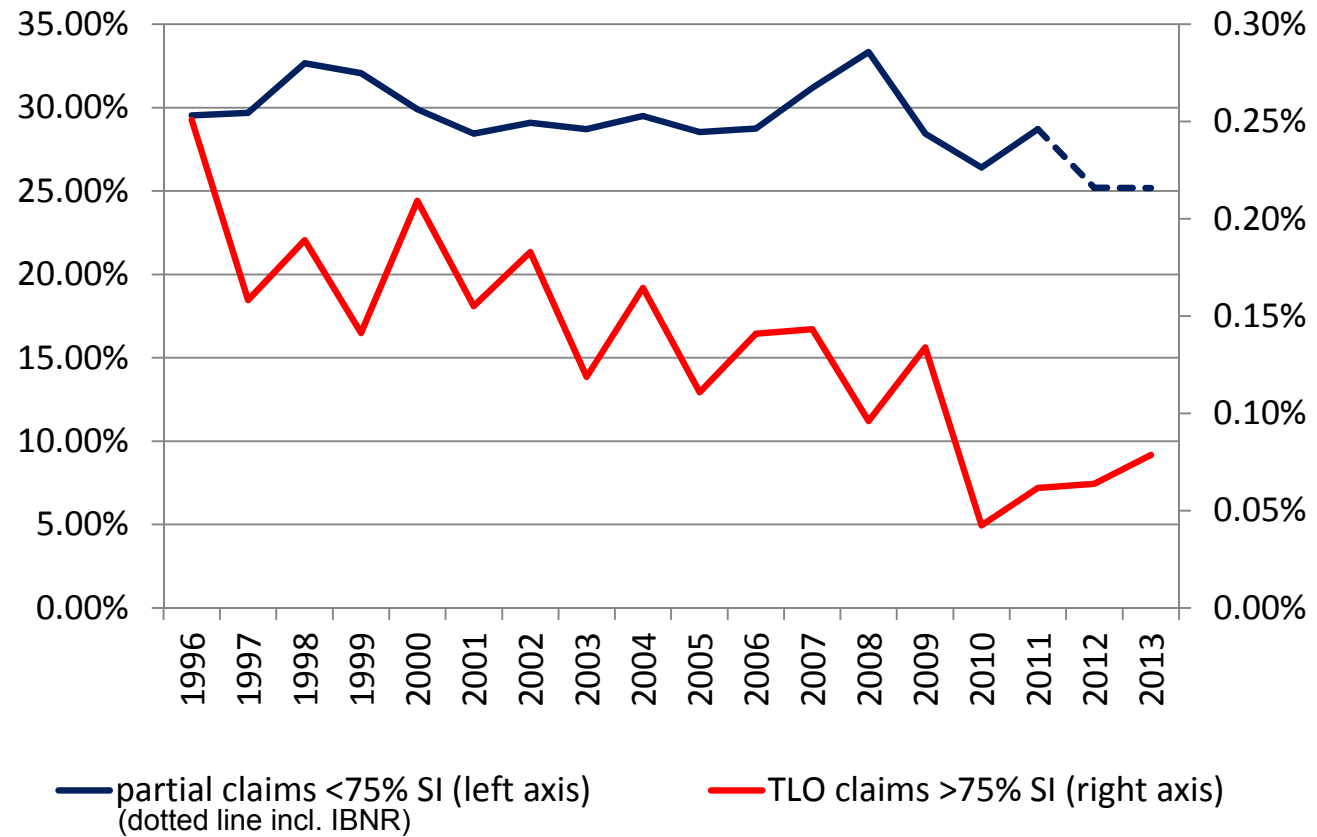


Cefor

## 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for claim frequency partial claims

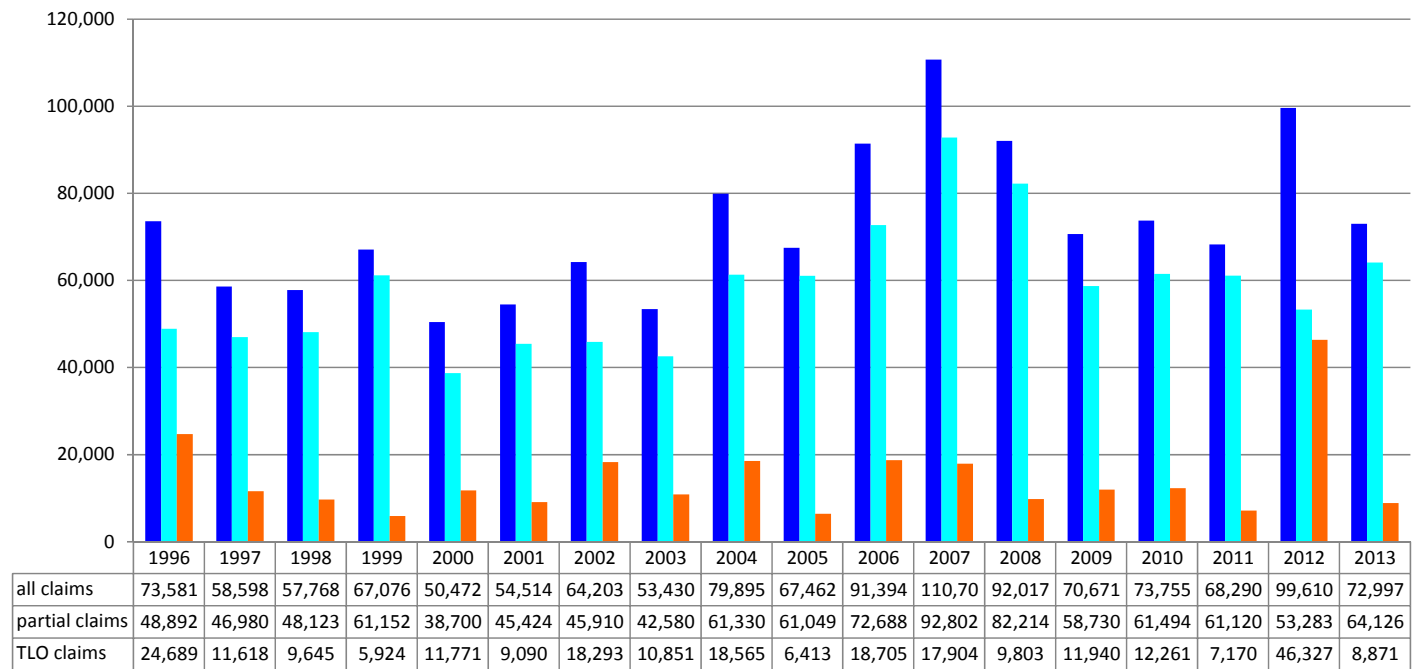
### Claim frequency, by date of loss



# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for partial claims

Claim per vessel by date of loss (USD)



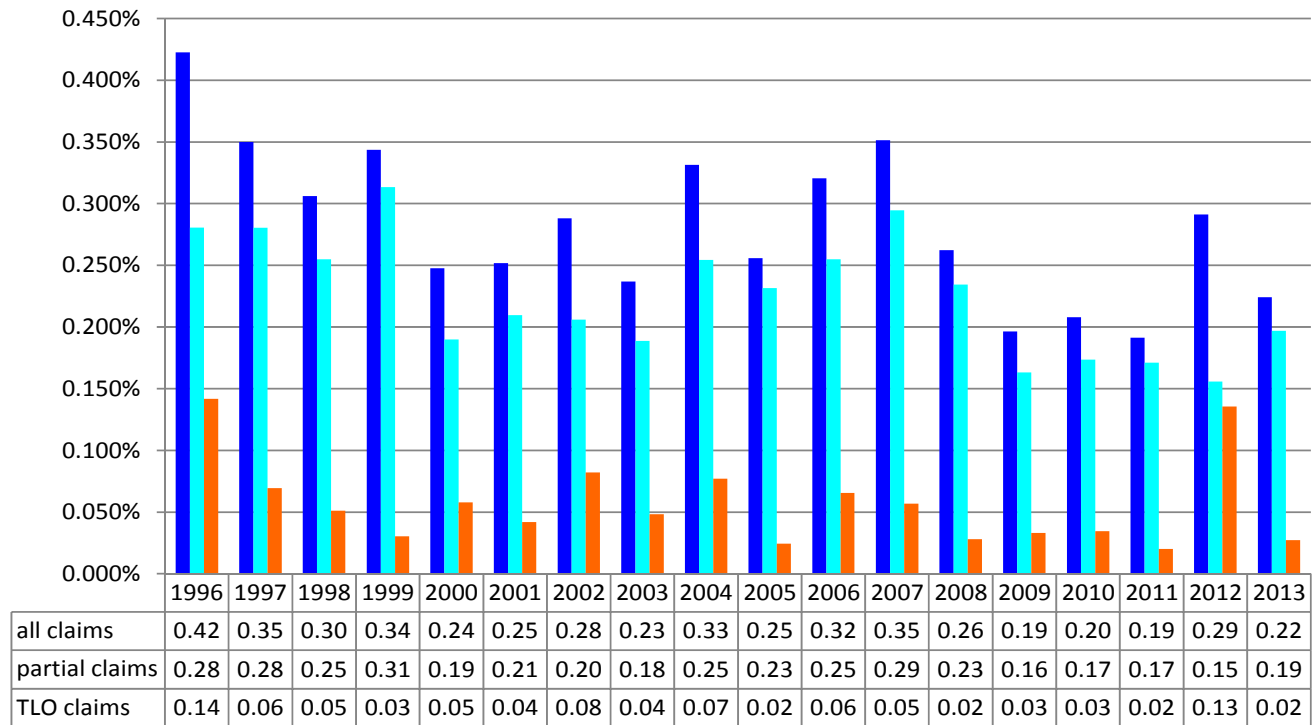


Cefor

# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for partial claims

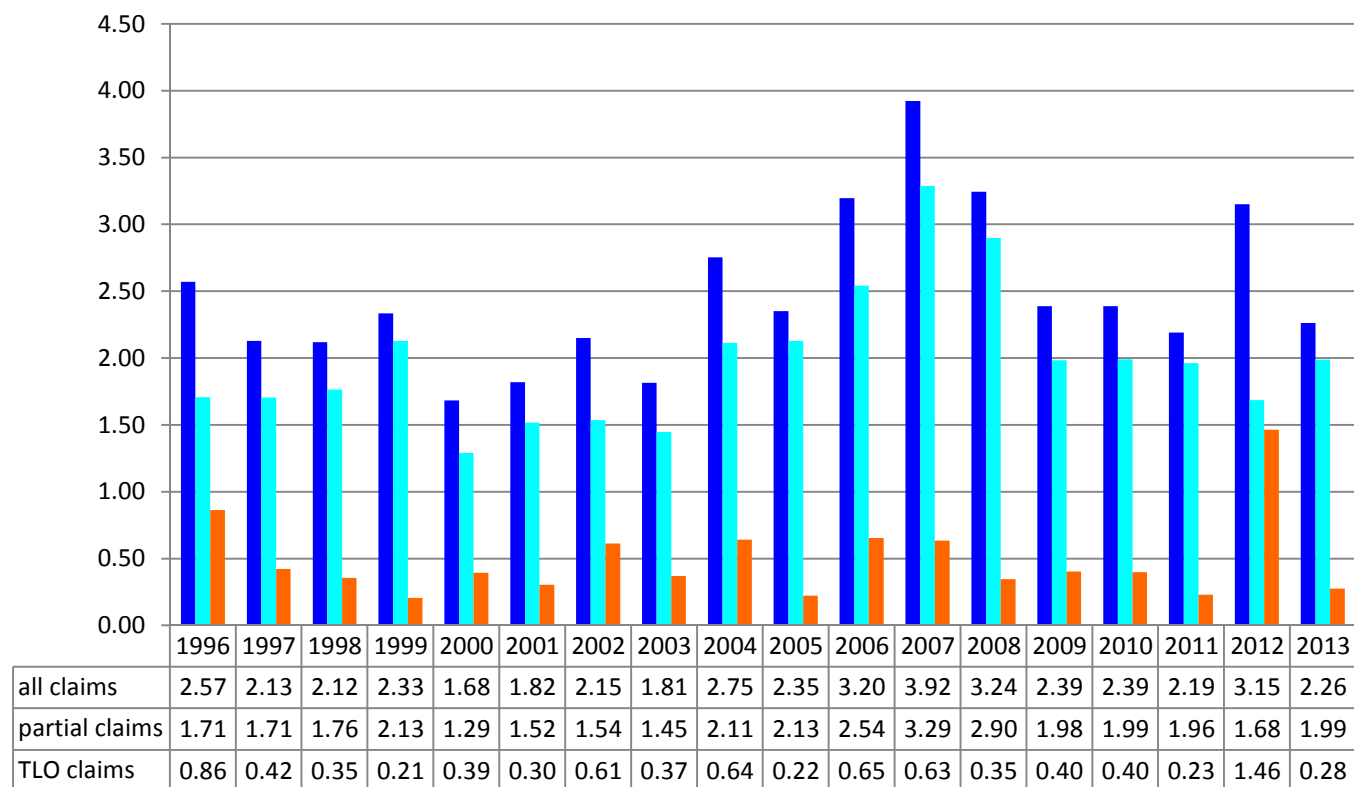
**Claim per Sum Insured by date of loss (%)**



# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for partial claims

### Claim per gross ton by date of loss (USD)

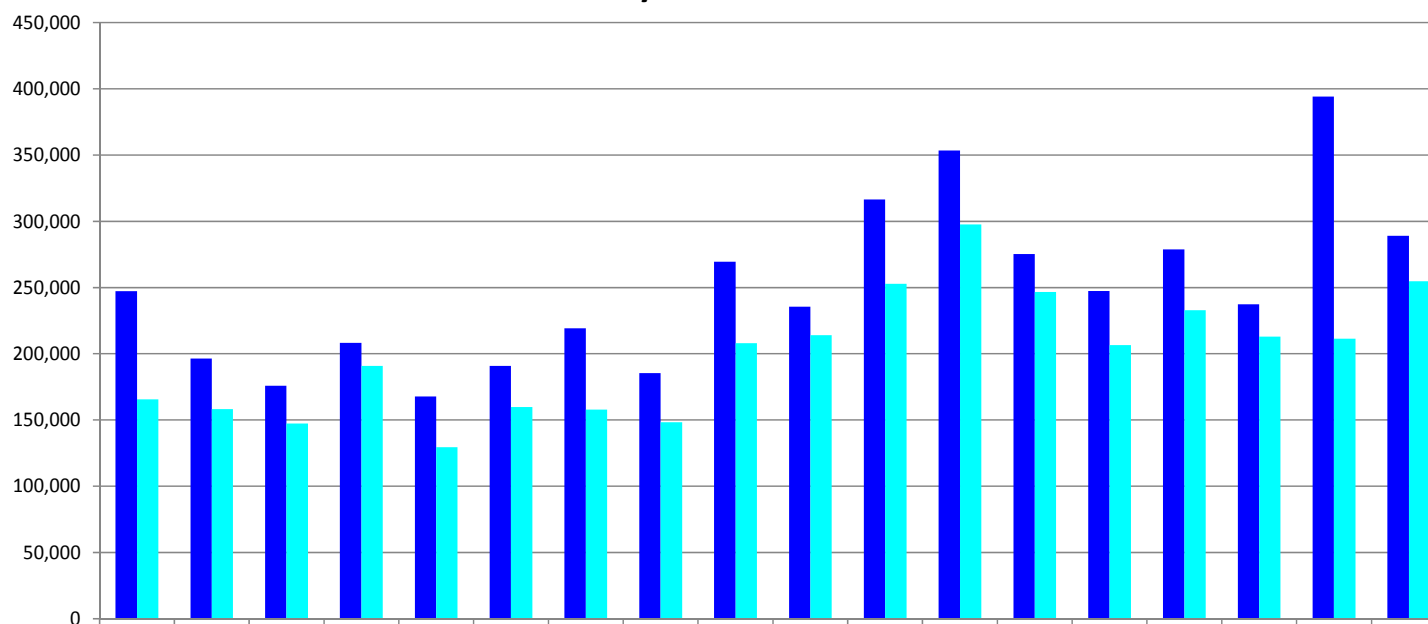




# 2013 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2013 – incl. IBNR reserve for partial claims

**Average claim amount per individual claim (USD)  
by date of loss**



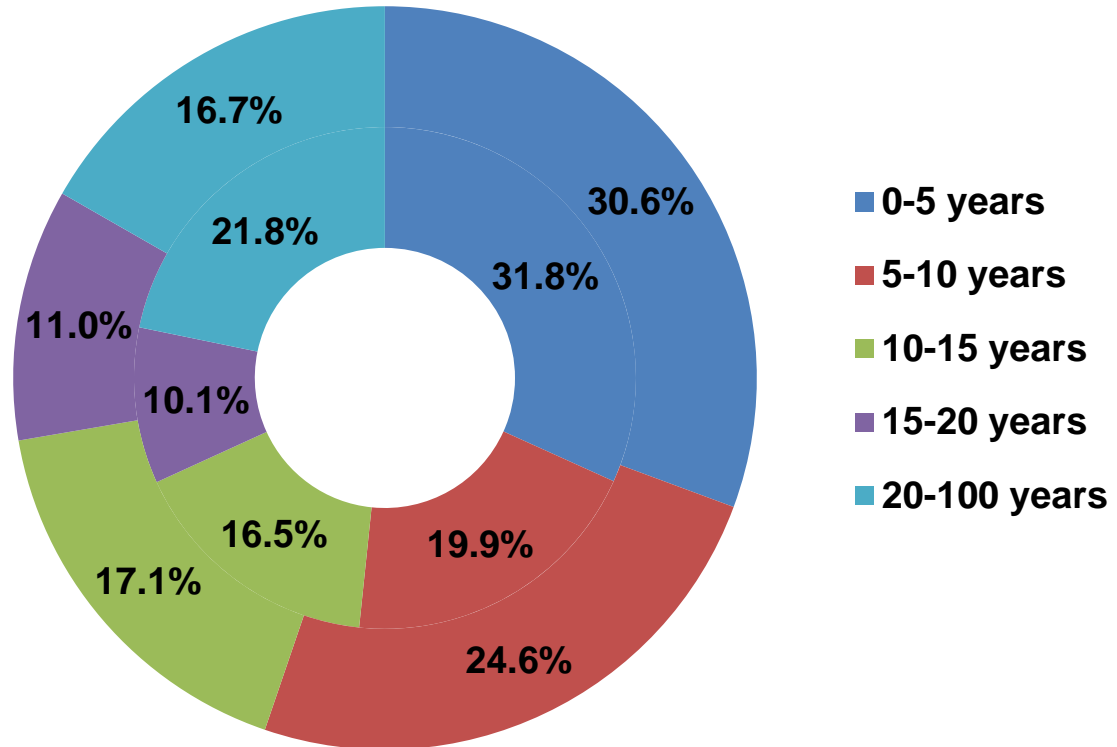
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
all claims	247,127	196,326	175,804	208,240	167,650	190,701	219,298	185,306	269,455	235,553	316,446	353,396	275,269	247,376	278,793	237,381	394,203	289,077
excl. total losses	165,602	158,239	147,299	190,686	129,449	159,769	157,802	148,285	207,996	213,988	252,914	297,603	246,653	206,548	232,820	212,914	211,401	254,740

# 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013

Number of vessels per age group, by year of exposure

Inner ring: 2008-2012  
Outer ring: 2013

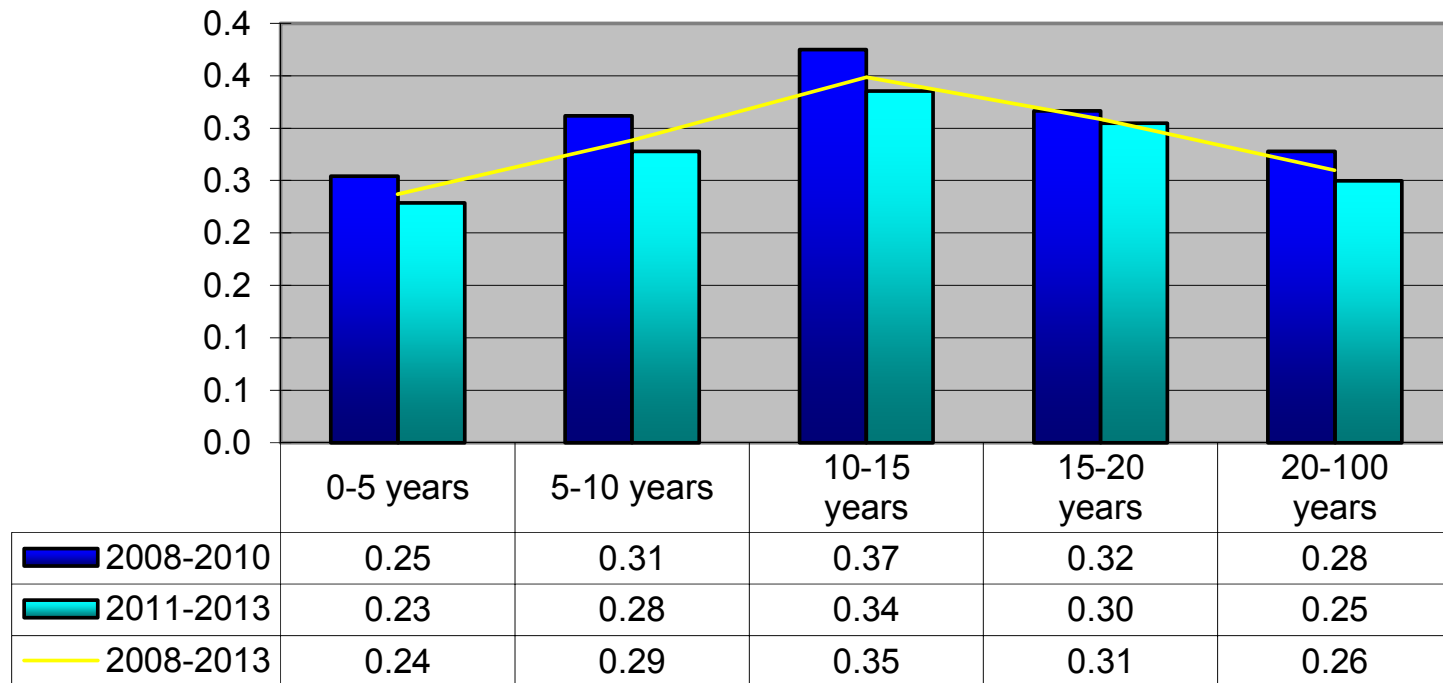


Total number of vessels  
2008-12: 53,067  
2013: 11,440

## 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

### Claim frequency per age group



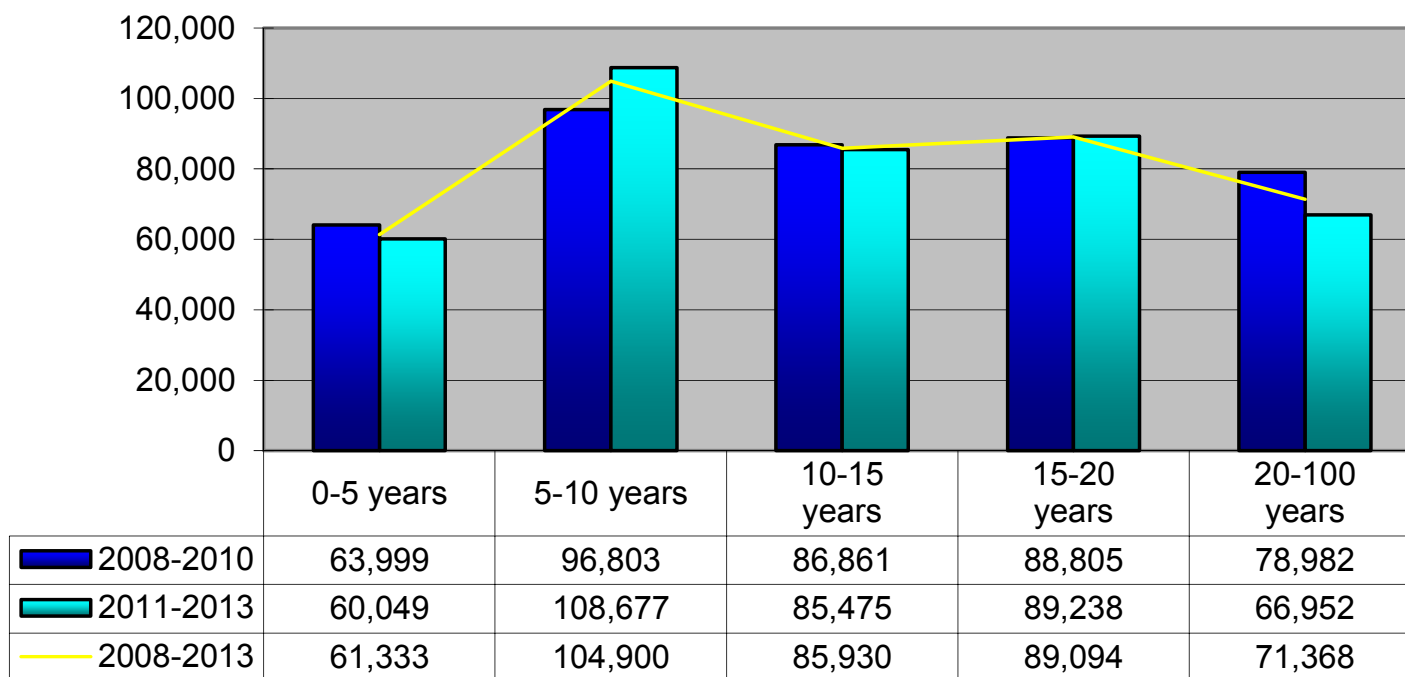
Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency



# 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

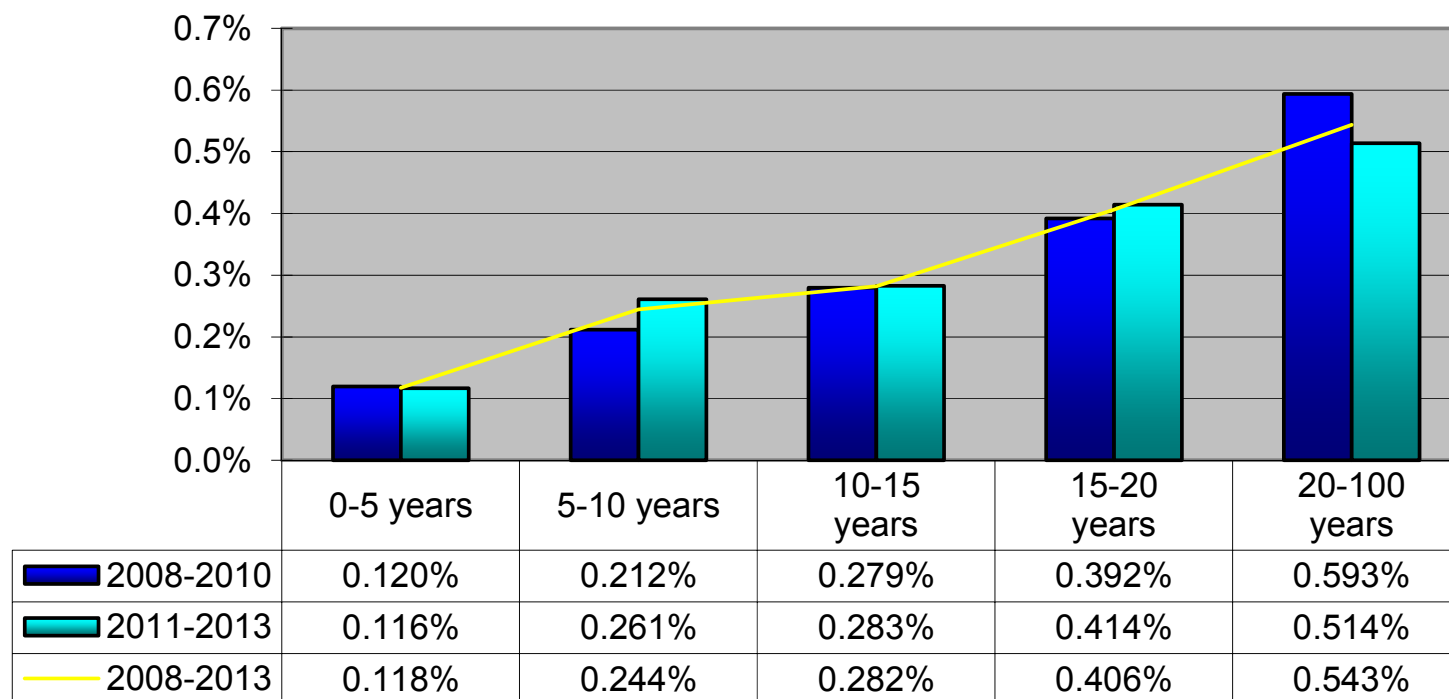
**Claim per vessel per age group**  
in USD



## 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

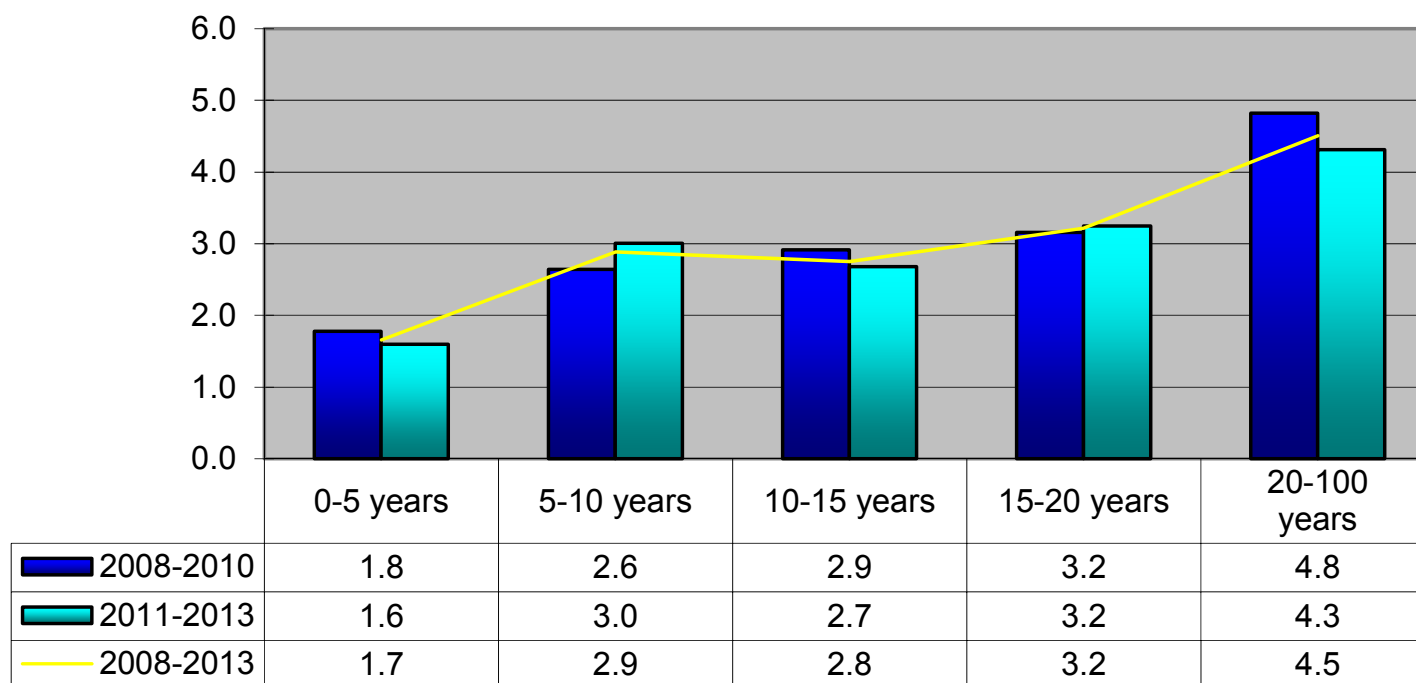
### Claim per Sum Insured per age group



## 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

**Claim per gross ton per age group**  
in USD

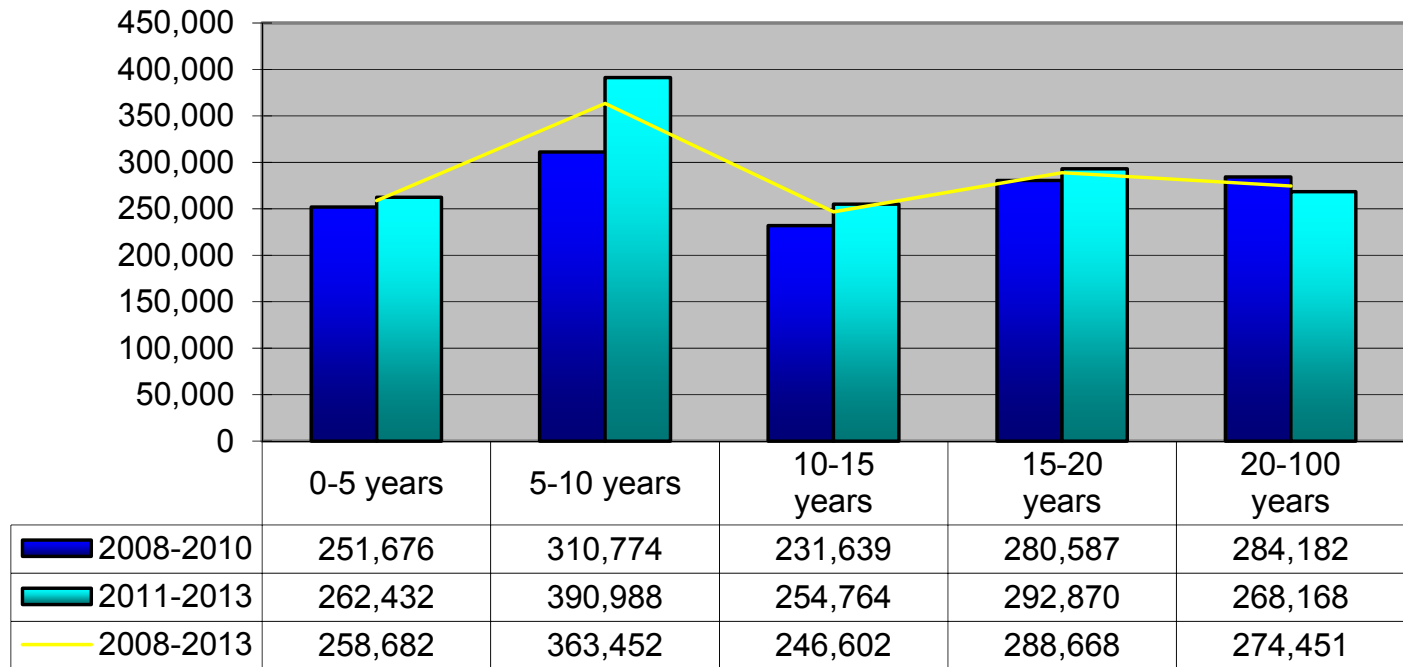




# 2013 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

**Average claim amount per age group**  
in USD





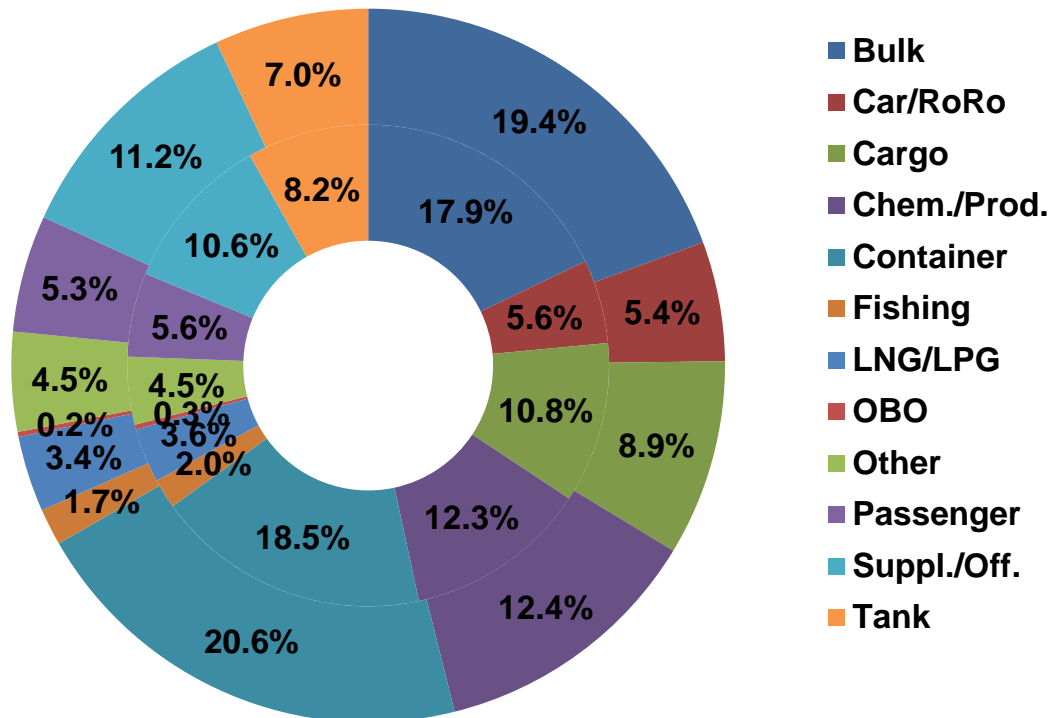
Cefor

# 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013

## Number of vessels per vessel type, by year of exposure

Inner ring: 2008-2012  
Outer ring: 2013



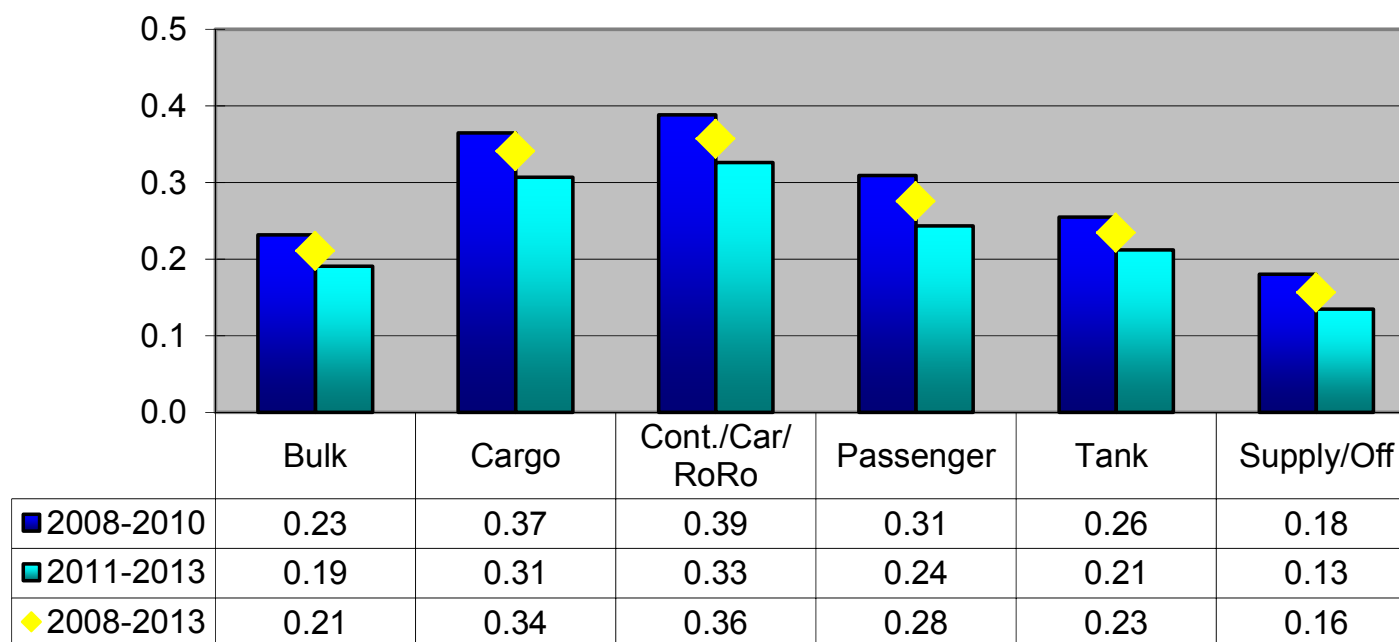
Total number of vessels  
2008-12: 53,067  
2013: 11,440



## 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

### Claim frequency per vessel type group



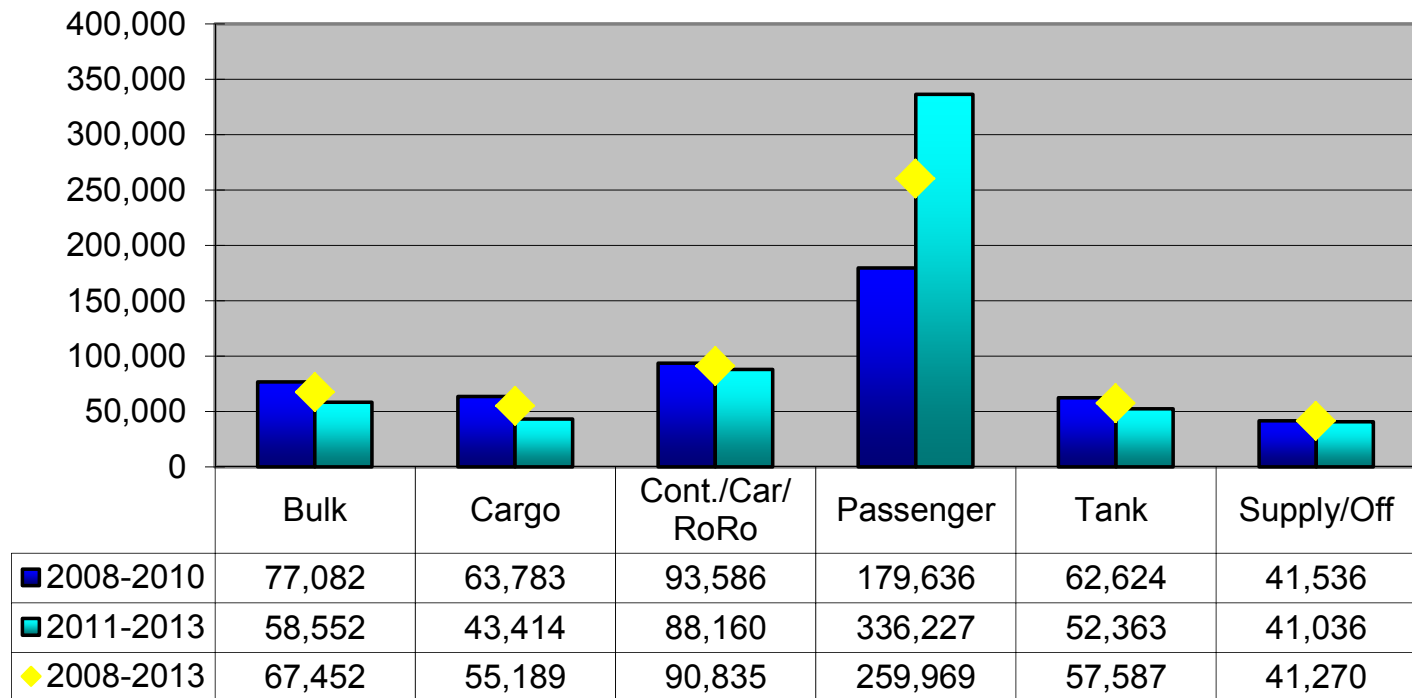
#### Notes:

- "Tank" includes in this and the following slides: Chemical/Product, LNG/LPG, OBO and other tank vessels
- Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency.  
In addition any increase/decrease of insurance deductibles has impact on the registered frequency

# 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

### Claim per vessel per vessel type group

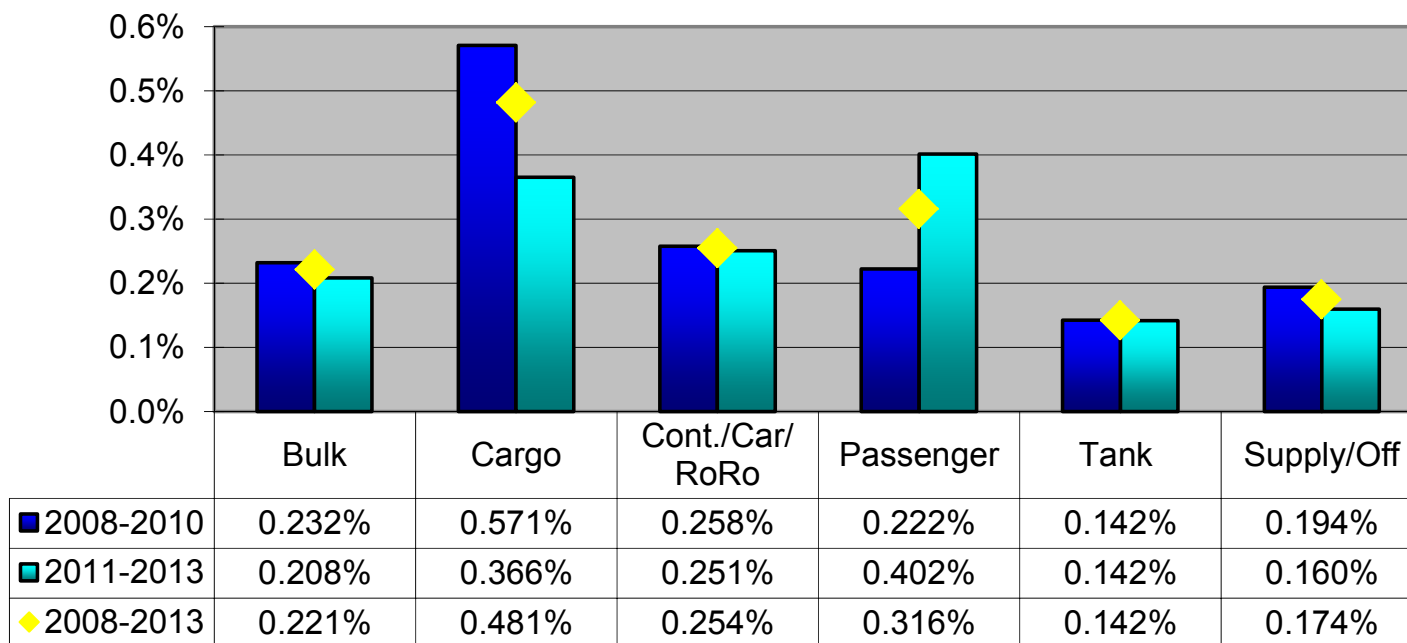




# 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

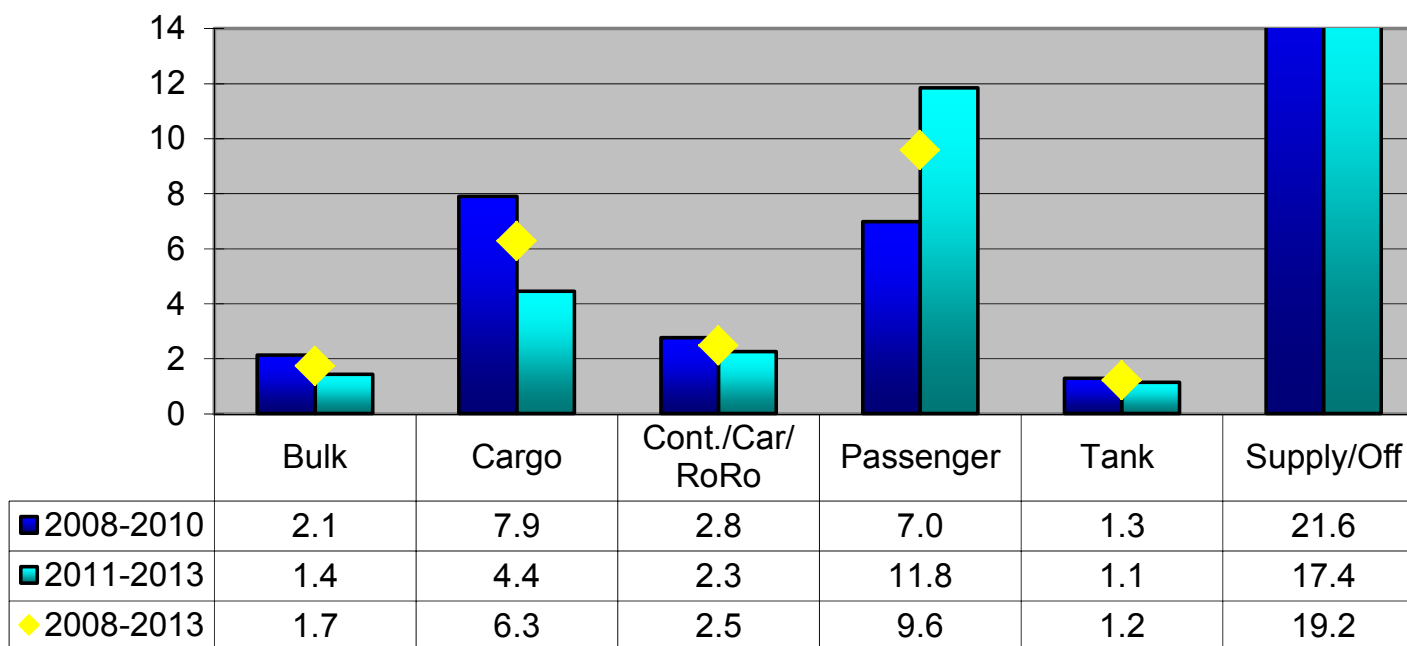
### Claim per Sum Insured per vessel type group



## 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

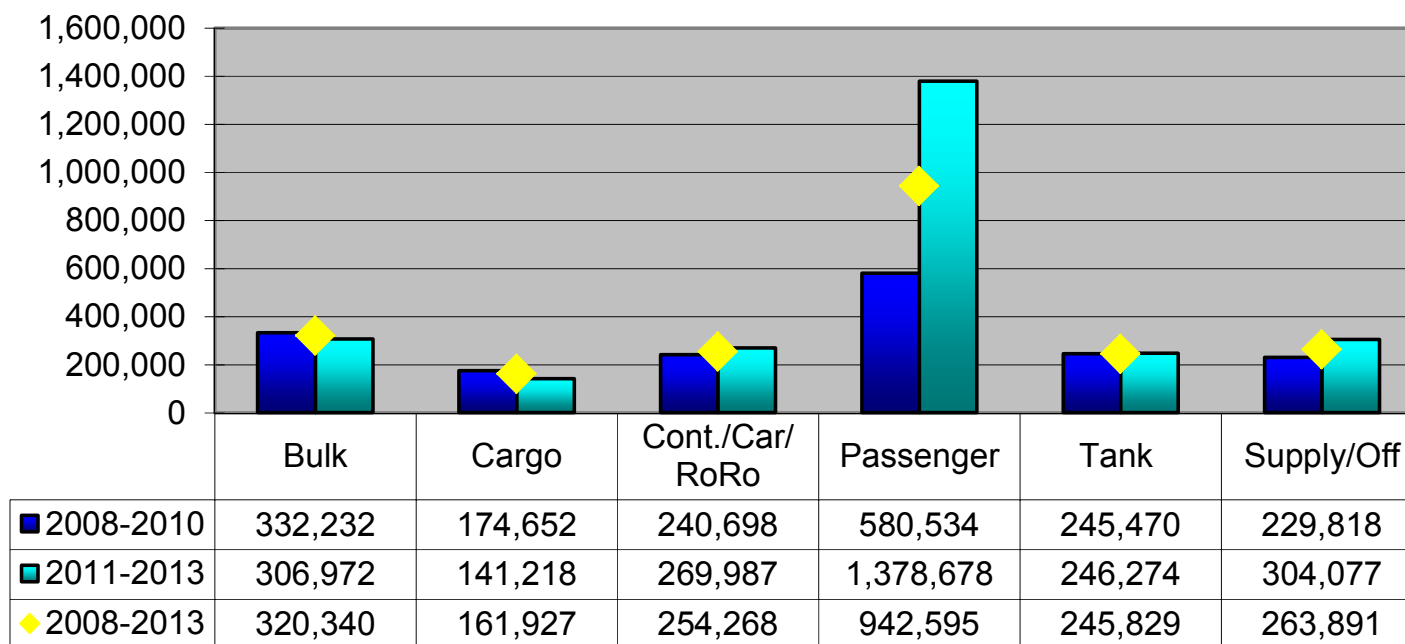
### Claim per gross ton per vessel type group



## 2013 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

### Average claim amount per vessel type group





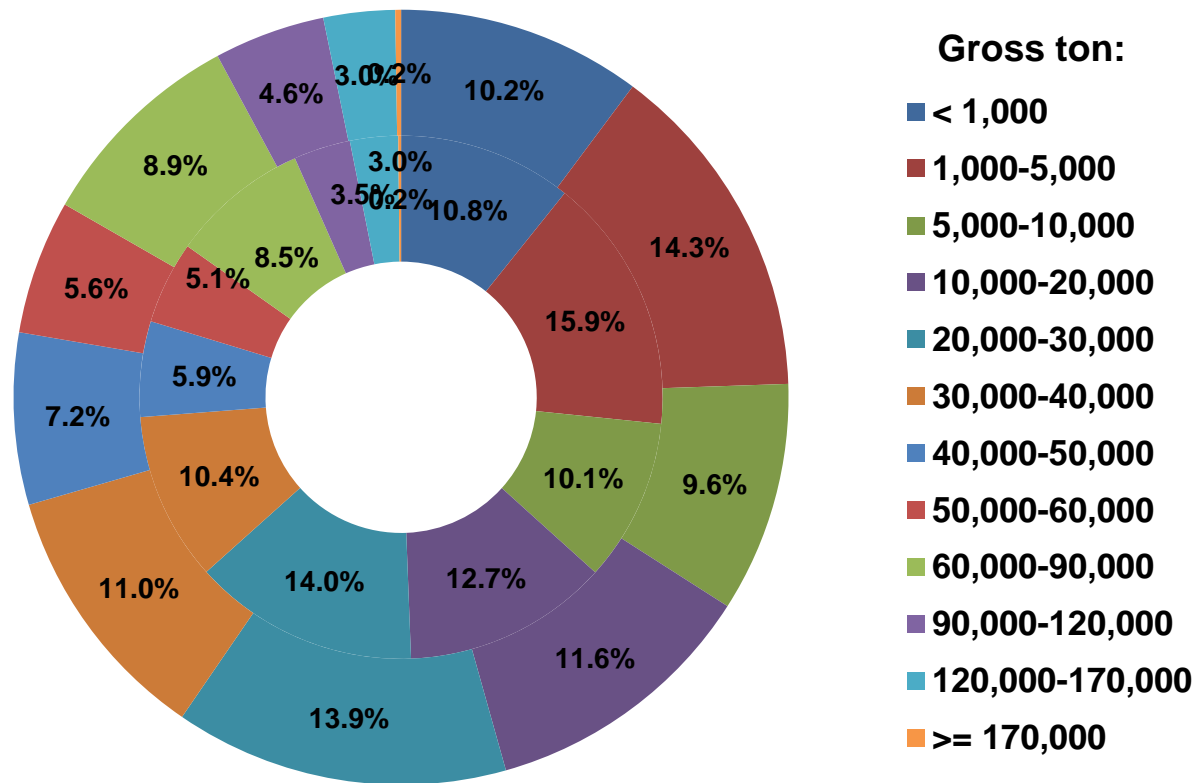
Cefor

# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013

Number of vessels per GT Size Group, by year of exposure

Inner ring: 2008-2012  
Outer ring: 2013



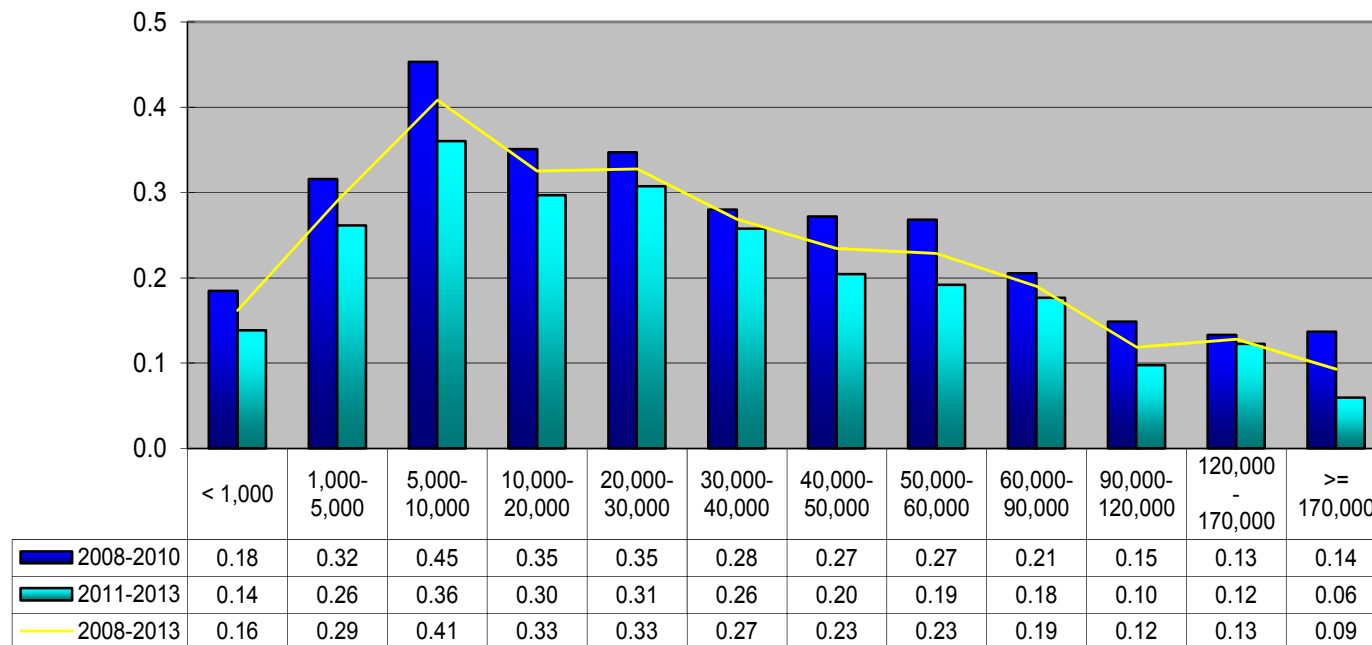
Total number of vessels  
2008-12: 53,067  
2013: 11,440



# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim frequency per GT size group



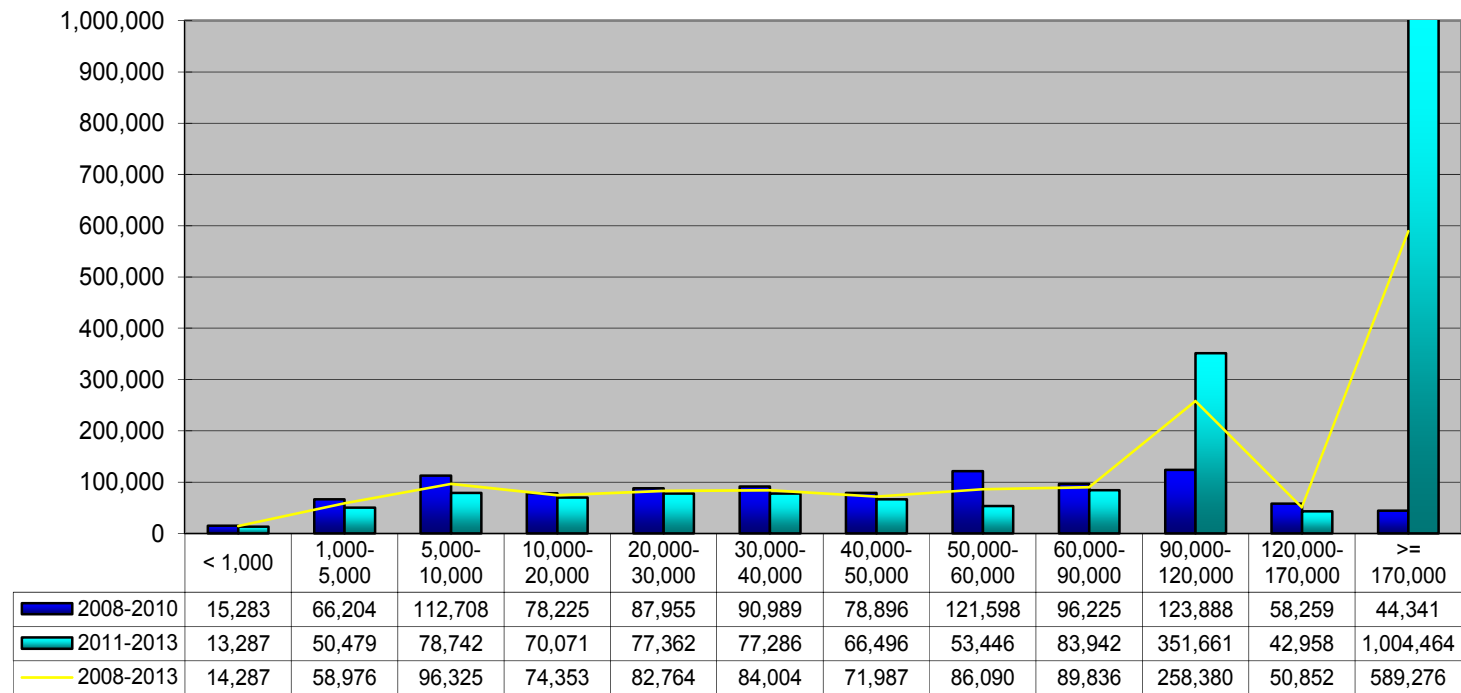
Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency



# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim per vessel per GT size group



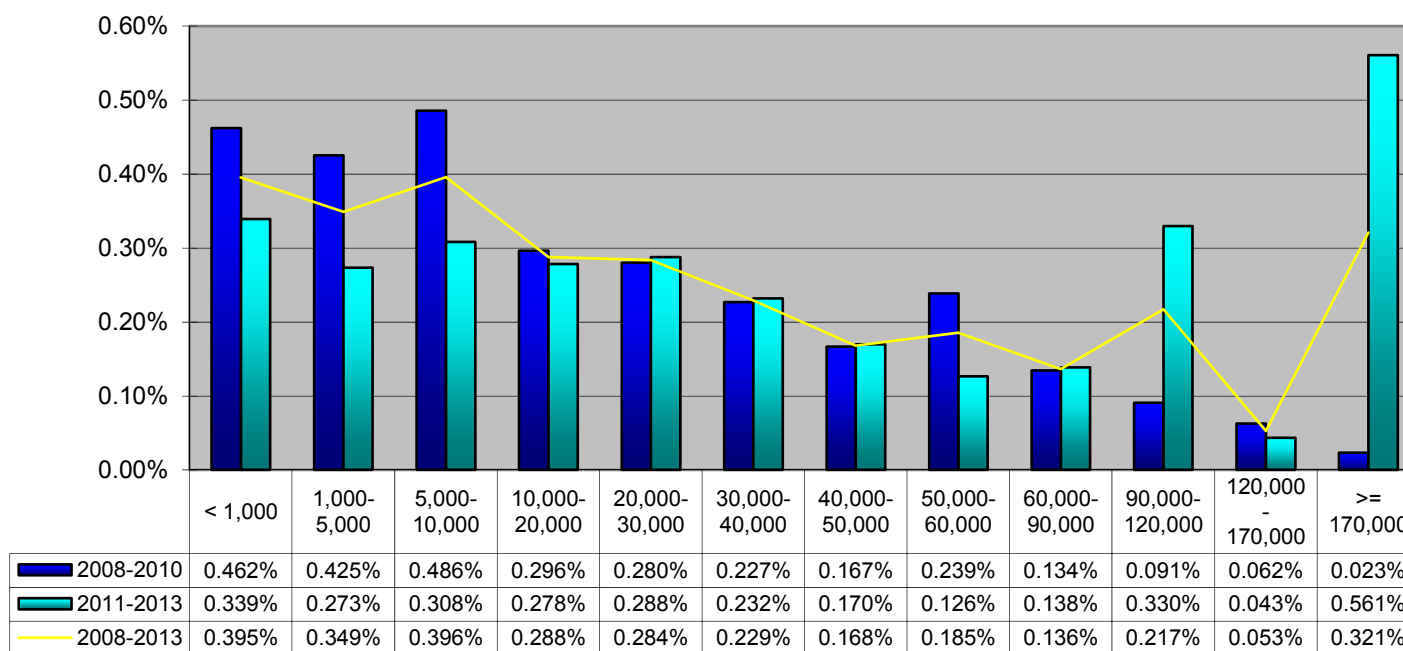




# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim per Sum Insured per GT size group

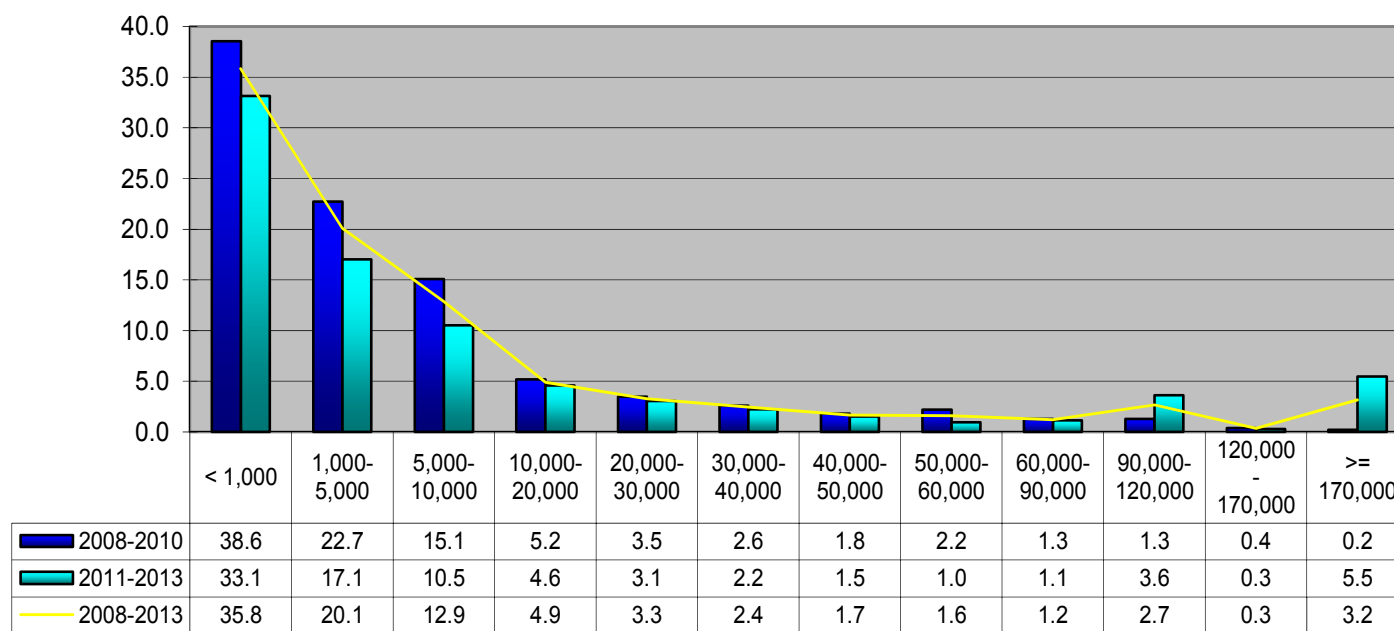




# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim per GT per GT size group

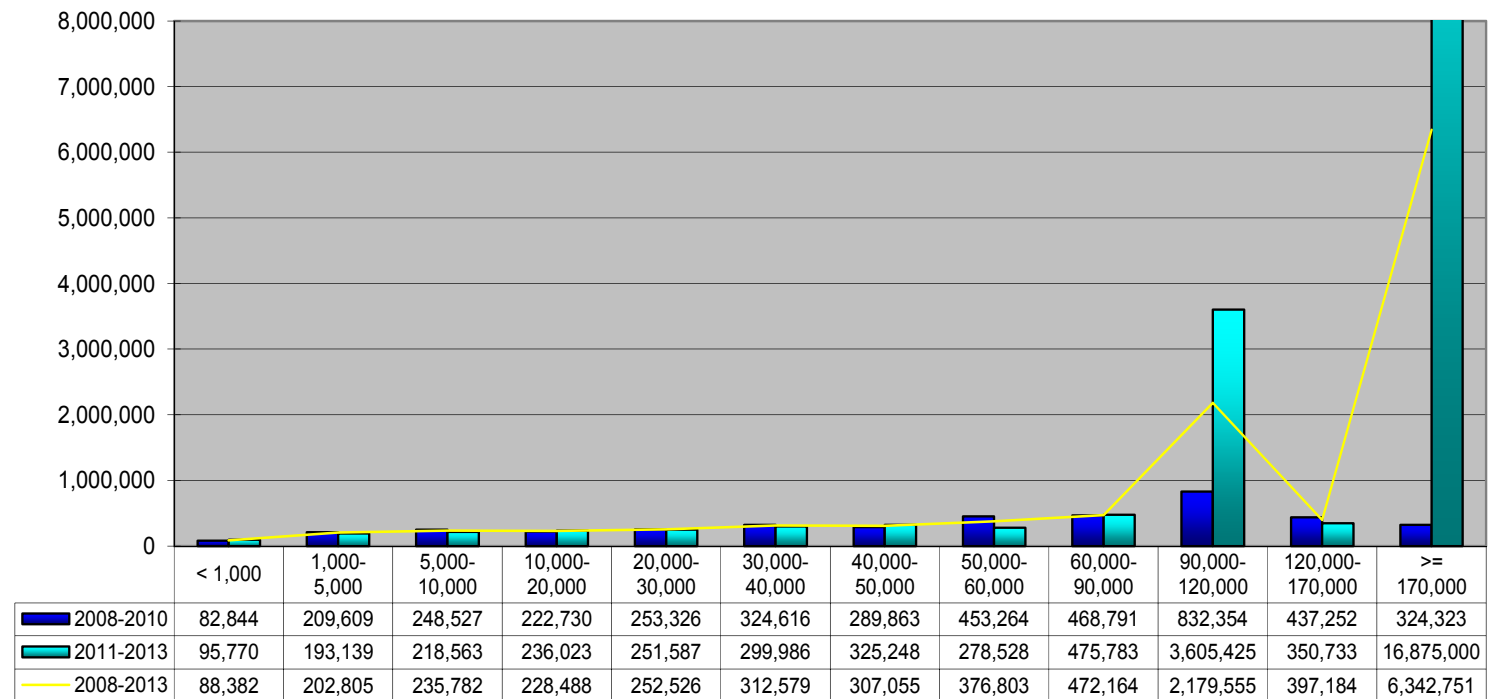




# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Average Claim amount per GT size group





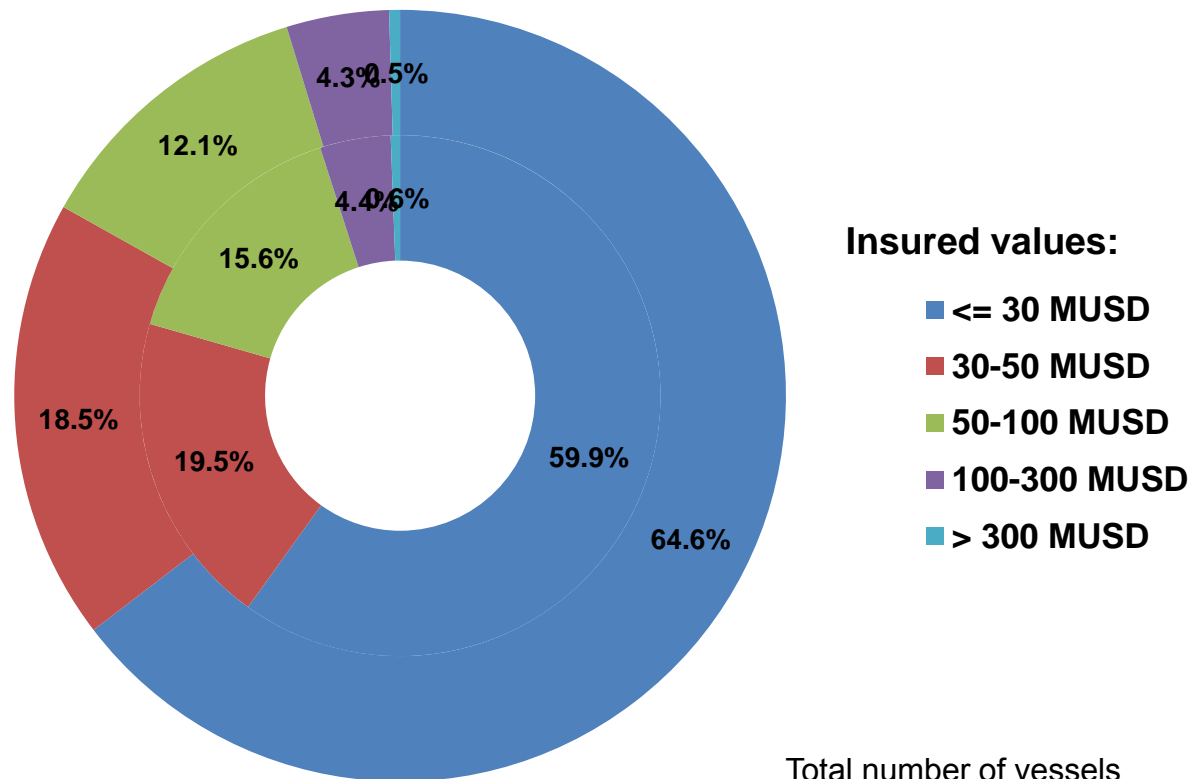
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# 2013 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2013

Number of vessels per Sum insured layer, by year of exposure

Inner ring: 2008-2012  
Outer ring: 2013

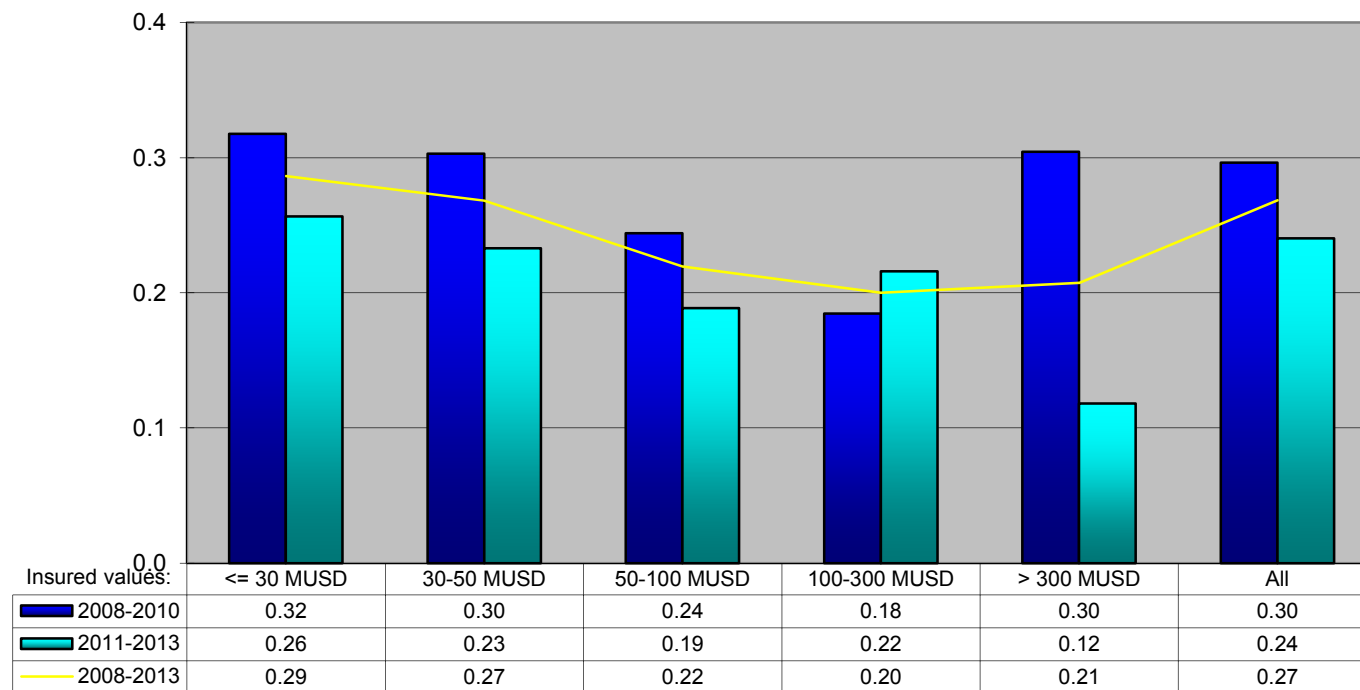


Total number of vessels  
2008-12: 53,067  
2013: 11,440

# 2013 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim frequency per Sum Insured layer

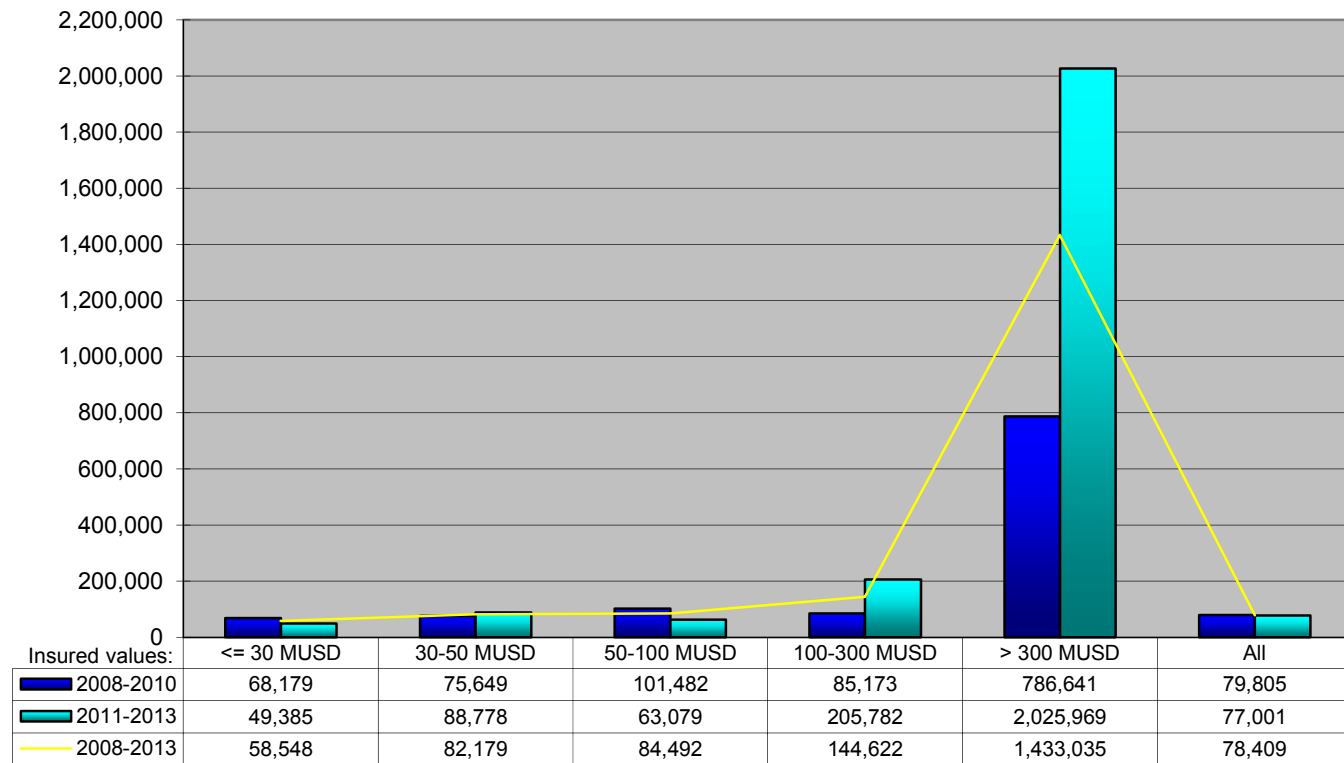


Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency

# 2013 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim per vessel per Sum Insured layer

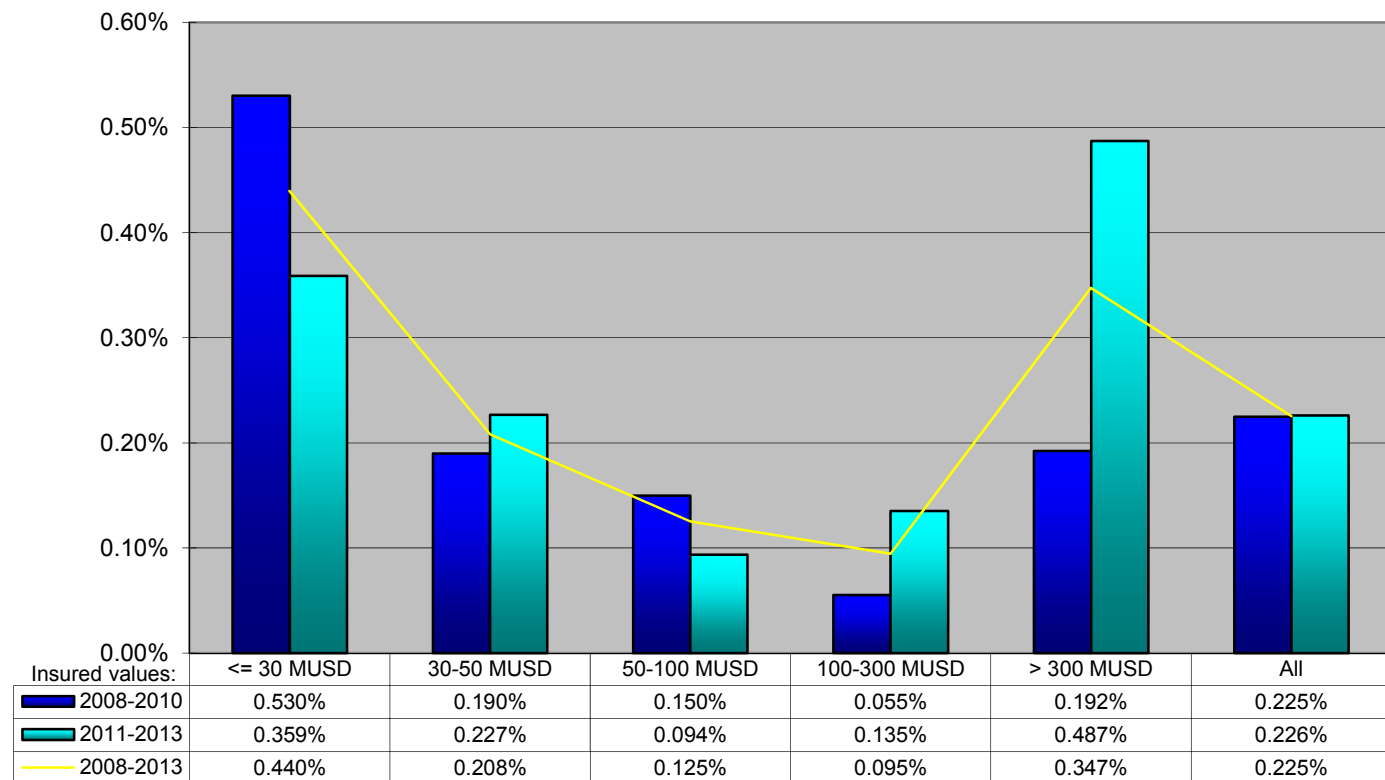




# 2013 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

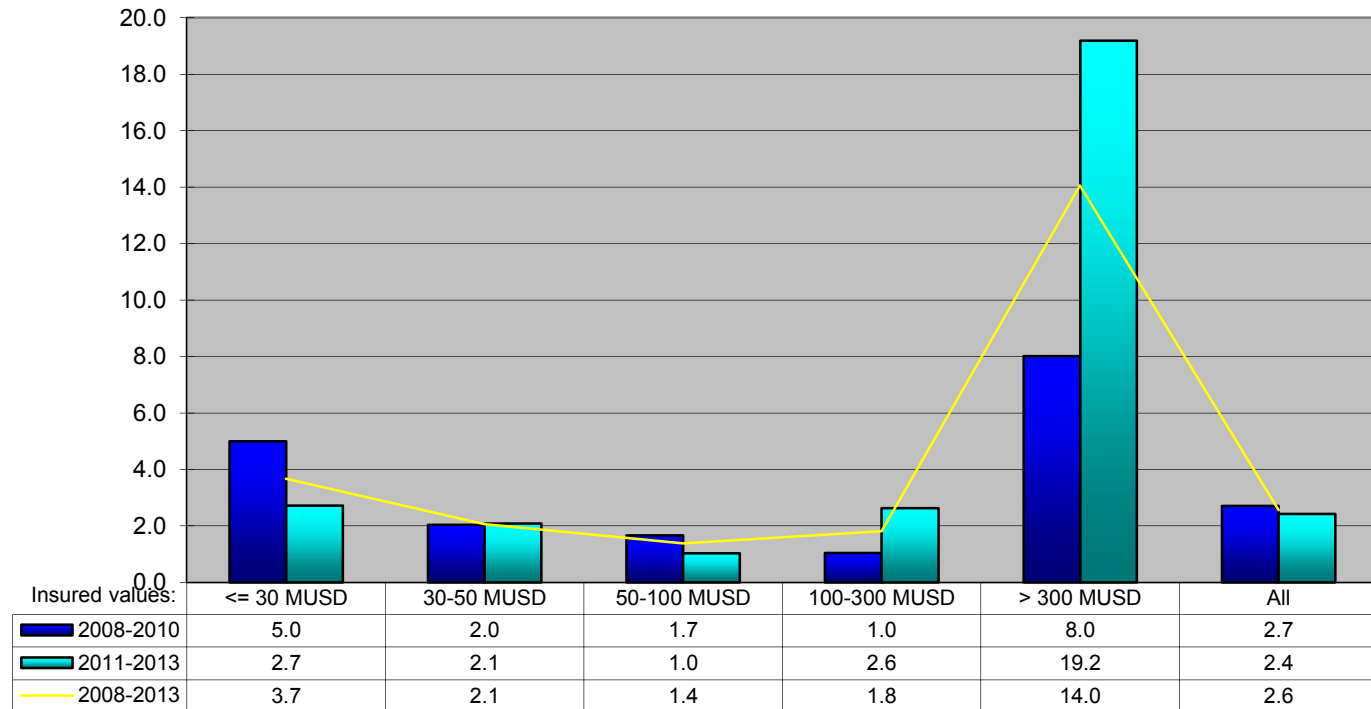
**Claim per Sum Insured per Sum Insured layer**



# 2013 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

Claim per GT per Sum Insured layer



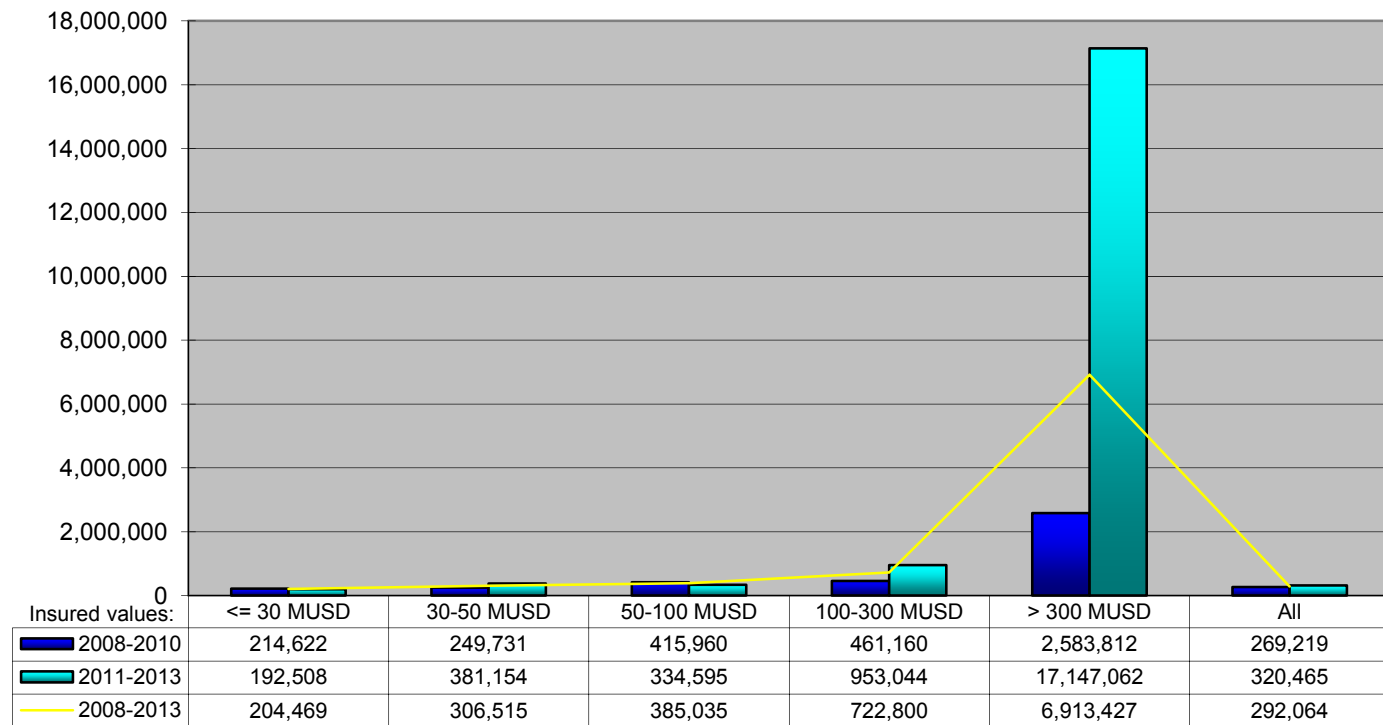




# 2013 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2013 – paid+outstanding as reported, no IBNR reserve added

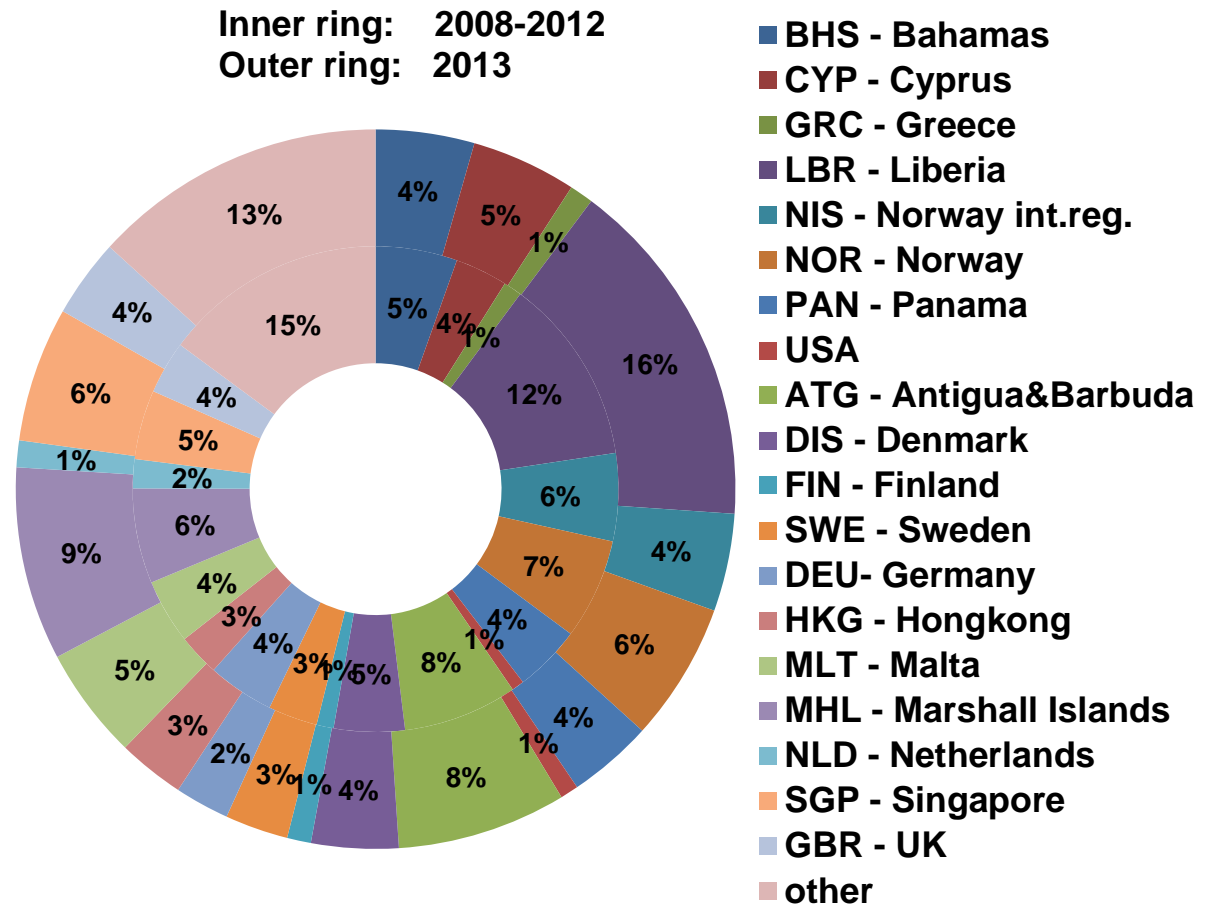
**Average Claim amount per Sum Insured layer**



# 2013 Nordic Marine Insurance Statistics – Part 8

As of 31 December 2013

Number of vessels per largest flags, by year of exposure



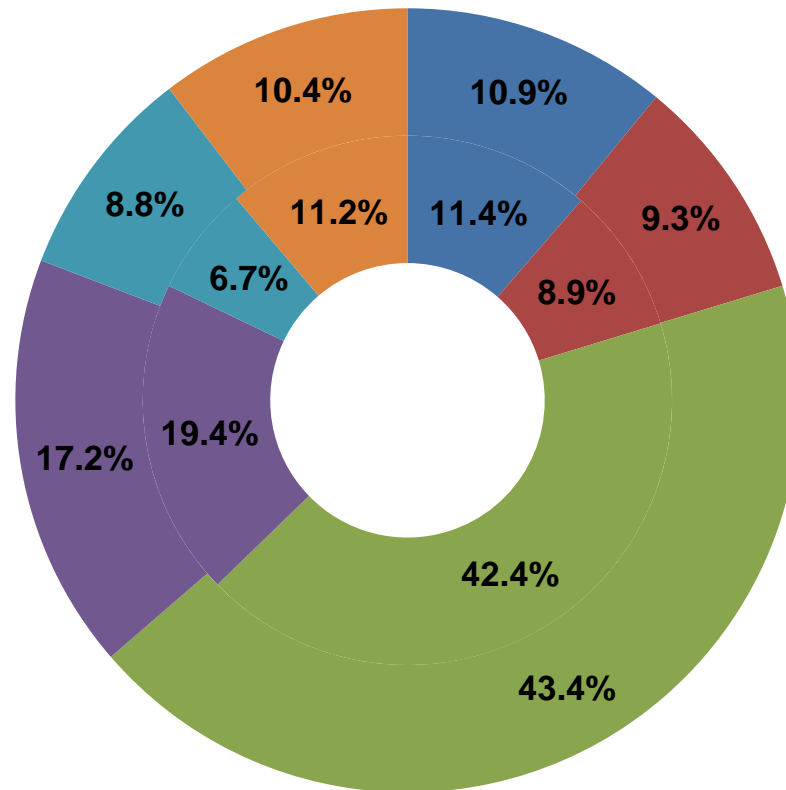
Total number of vessels  
 2008-12: 53,067  
 2013: 11,440

# 2013 Nordic Marine Insurance Statistics – Part 8

As of 31 December 2013

## Number of vessels per classification society, by year of exposure

Inner ring: 2008-2012  
Outer ring: 2013



- American Bureau
- Bureau Veritas
- DNV-GL \*
- Lloyd's Register
- Nippon Kaiji Kyokai
- others

\* 2008-2012: Vessels classified by Germanischer Lloyd (18%) and Det Norske Veritas (24.4%)

Total number of vessels	
2008-12:	53,067
2013:	11,440



# 2013 Nordic Marine Insurance Statistics – Part 9

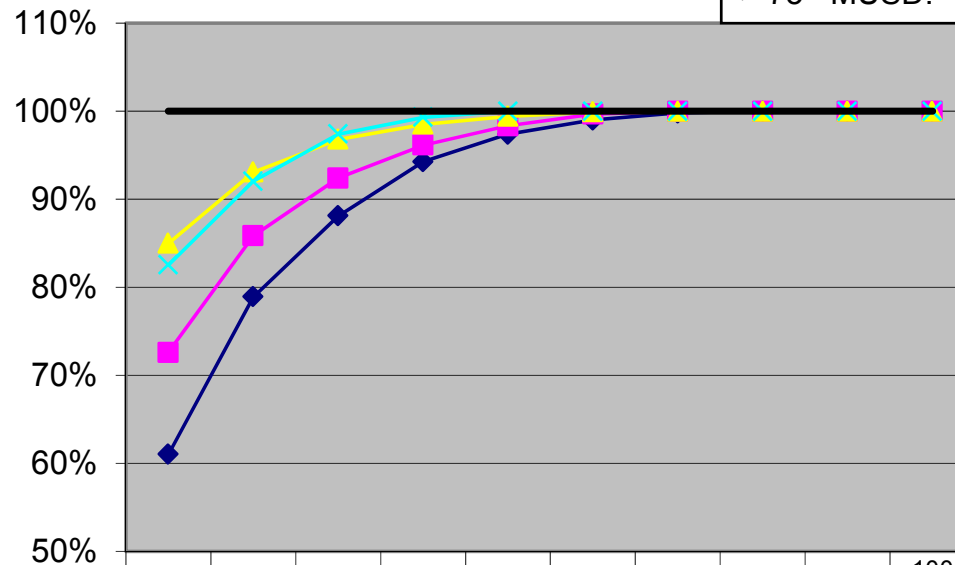
As of 31 December 2013 – paid & outstanding as reported

Based on claims occurred in years 2008-2013

Ceding company's retention of claims  
(in % of total claims)

## Exposure curves by Sum Insured Partial Claims only (<=75%SI)

PA claims in % of all claims\* :  
 0-5 MUSD: 81%  
 5-20 MUSD: 84%  
 20-75 MUSD: 81%  
 > 75 MUSD: 70%\*



\* «all claims» includes Costa Concordia cost; PA% for claims >75 MUSD is therefore lower than previously

Sum Insured	10%	20%	30%	40%	50%	60%	70%	80%	90%	100 %
0-5 Mio USD	0.610	0.789	0.881	0.943	0.974	0.990	0.998	1.000	1.000	1.000
5-20 Mio USD	0.726	0.859	0.924	0.962	0.983	0.997	1.000	1.000	1.000	1.000
20-75 Mio USD	0.850	0.931	0.968	0.985	0.994	0.999	1.000	1.000	1.000	1.000
> 75 Mio USD	0.825	0.921	0.974	0.993	1.000	1.000	1.000	1.000	1.000	1.000
100%	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Ceding company's retention as % of SI

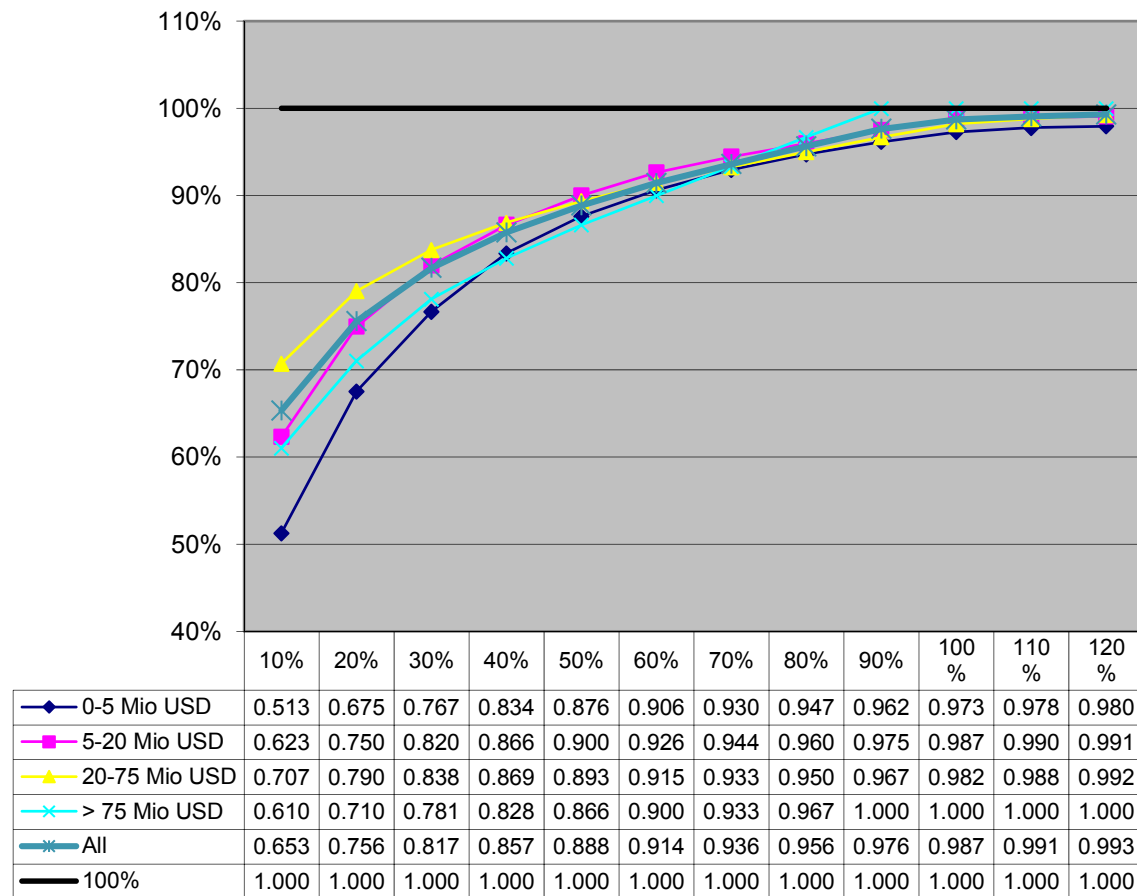
# 2013 Nordic Marine Insurance Statistics – Part 9

As of 31 December 2013 – paid & outstanding as reported

Based on claims occurred in years 2008-2013

Ceding company's retention of claims  
(in % of total claims)

**Exposure curves by Sum Insured  
All claims including total losses**



**Ceding company's retention as % of SI**



# 2013 Nordic Marine Insurance Statistics – Part 9

As of 31 December 2013

## Exposure Curves

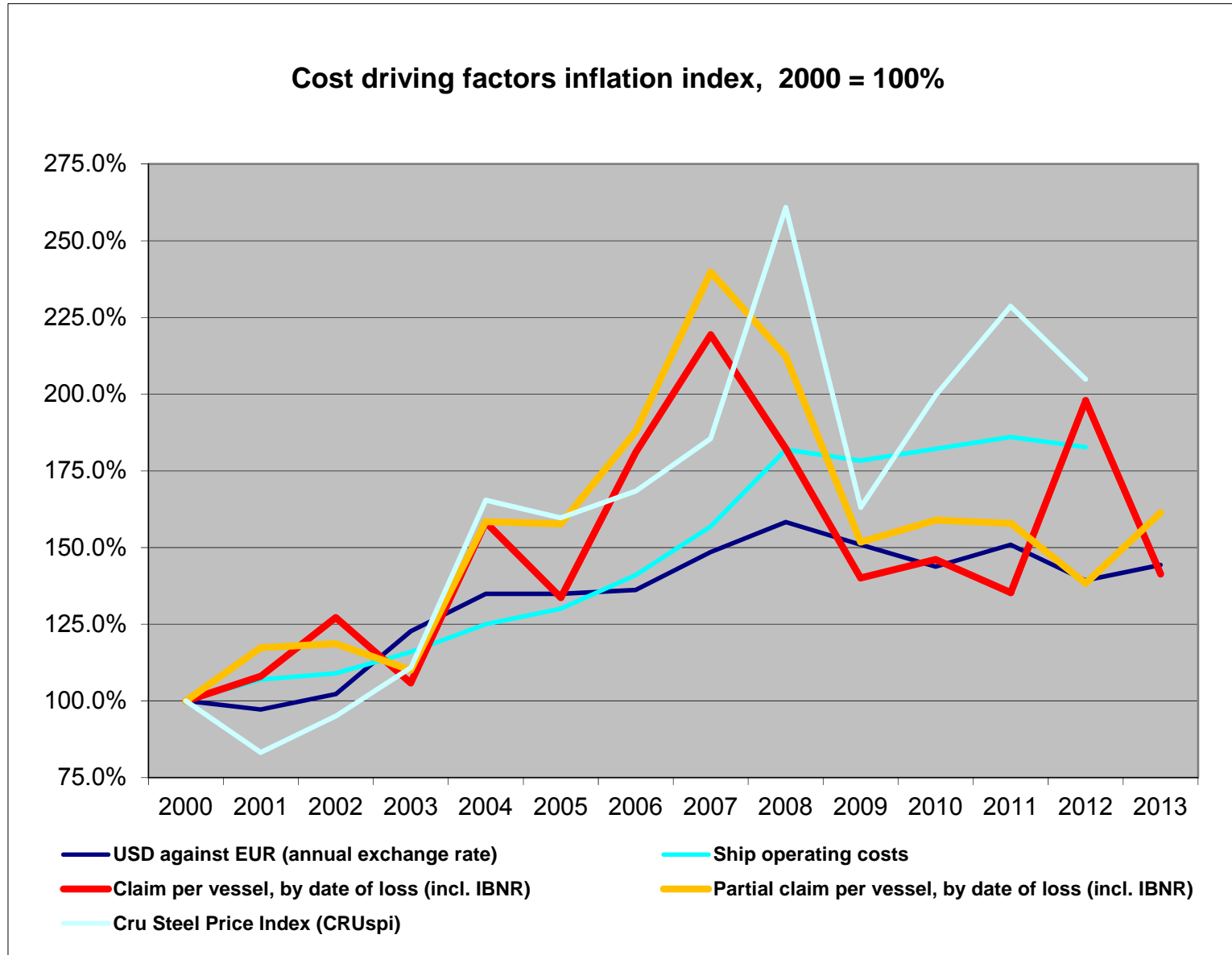
- Exposure curves are used by reinsurers to price excess of loss reinsurance.
- The curves indicate the ceding company's retained share of PA claims after ceding claims in excess of a given percentage of a vessel's sum insured.
- The curves should be applied on individual vessels or groups of vessels with similar values and written shares.
- The curves are calculated for 100% values. In applications the choice of curve should thus also be based on 100% values.
- The curves are based on USD claims amounts. Due to exchange rate fluctuations, the ratio between claim cost and insured value may deviate in the original currency.

## Exposure Curves technicalities

- The curves are based on H&M covers only for vessels with valid IMO-No.
- The curves are based on the years 2008-2013  
(14,018 partial claims; 14,070 claims in all; only claims with cost > 1USD included)
- The curves are calculated as follows:  
x = percentage retained  
C = Individual claims <sup>1)</sup>  
V = Vessel value  
 $f(x) = \frac{\sum \min[C, V \cdot x]}{\sum C}$

<sup>1)</sup> First set of exposure curves: based on partial claims only; Second set of exposure curves: based on all claims, including total losses / claims exceeding the Sum Insured

# 2013 Nordic Marine Insurance Statistics – Part 10



Sources:  
 Claim index: Cefor NoMIS data as of 31 December 2013; Exchange rates: Norges Bank, Ship operation costs: Moore Stephen's,  
 Steel: CRU Steel Price Index



## 2013 Nordic Marine Insurance Statistics

Cefor marine insurance statistics publications at [www.cefor.no/statistics](http://www.cefor.no/statistics) :

- Cefor Annual Report 2013
- The 2013 Cefor NoMIS OCEAN Hull Report
- The 2013 Cefor NoMIS COASTAL Hull Report
  
- Half-yearly Claims Update Fact Sheet
  
- All Cefor statistics, including previously published reports, are available for download from the statistics section of the Cefor website:  
[www.cefor.no/statistics](http://www.cefor.no/statistics)  
(check the “NoMIS” section – Nordic Marine Insurance Statistics)

Other marine insurance statistics:

- IUMI (International Union of Marine Insurance):  
Statistics issued by IUMI’s Facts & Figures Committee:  
<http://www.iumi.com/index.php/committees/facts-a-figures-committee/statistics>