

# The 2011 Cefor NoMIS Ocean Hull Report

## Nordic Marine Insurance Statistics

Underwriting Years 1996–2011, as of 31 December 2011

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 2011  
(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)



# 2011 Nordic Marine Insurance Statistics – Part

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# 2011 Nordic Marine Insurance Statistics – Part 1

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# 2011 Nordic Marine Insurance Statistics – Part 1

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**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 Norwegian 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.



## 2011 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, including retrospective data back to underwriting years 2000 and 2003 respectively.

By 31st December 2011, in all 166,673 vessel years (vessels with IMO-number) and 51,201 claims were registered on underwriting years 1985 through 2011.

The NoMIS statistics in this report comprise data from the following marine insurers: Bluewater (until 2008), Codan Group (Codan, Denmark and Norway; Trygg-Hansa, Sweden), Gjensidige (coastal), If, Gard, NEMI (until 2009), Norwegian Hull Club, Swedish Club, Tryg (until 2009), Zurich (until 2002).



## 2011 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 2011

Underwriting year = year in which the insurance policy attaches

All claims are net of any deductibles applicable.

Total Claims = Paid claims + Outstanding claims

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

Partial Losses = all losses  $\leq$  75% of the Sum Insured

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



## 2011 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.	

## 2011 Nordic Marine Insurance Statistics – Part 1

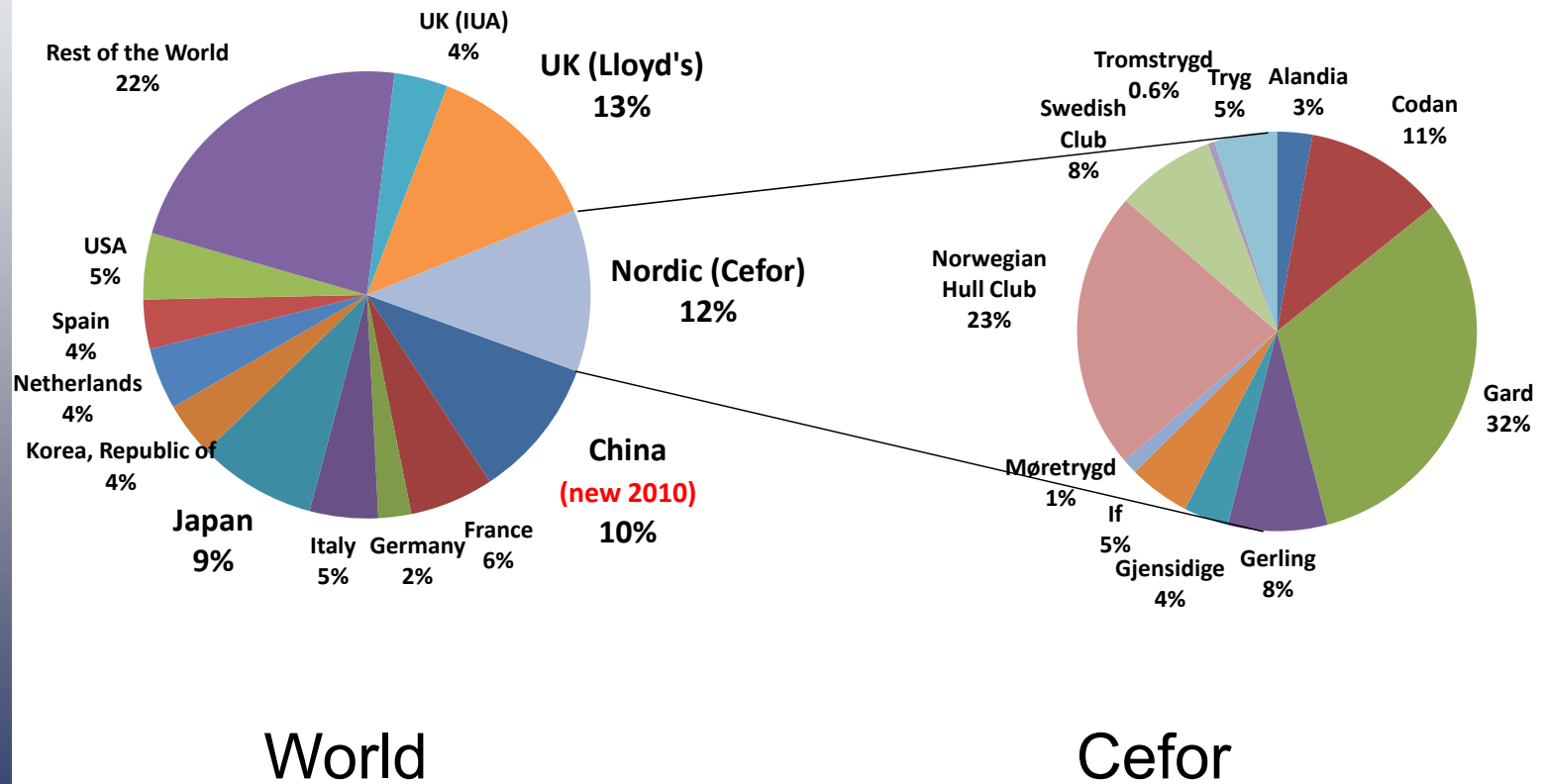
### Types of vessels specified contd.

<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



## 2011 Nordic Marine Insurance Statistics – Part 2

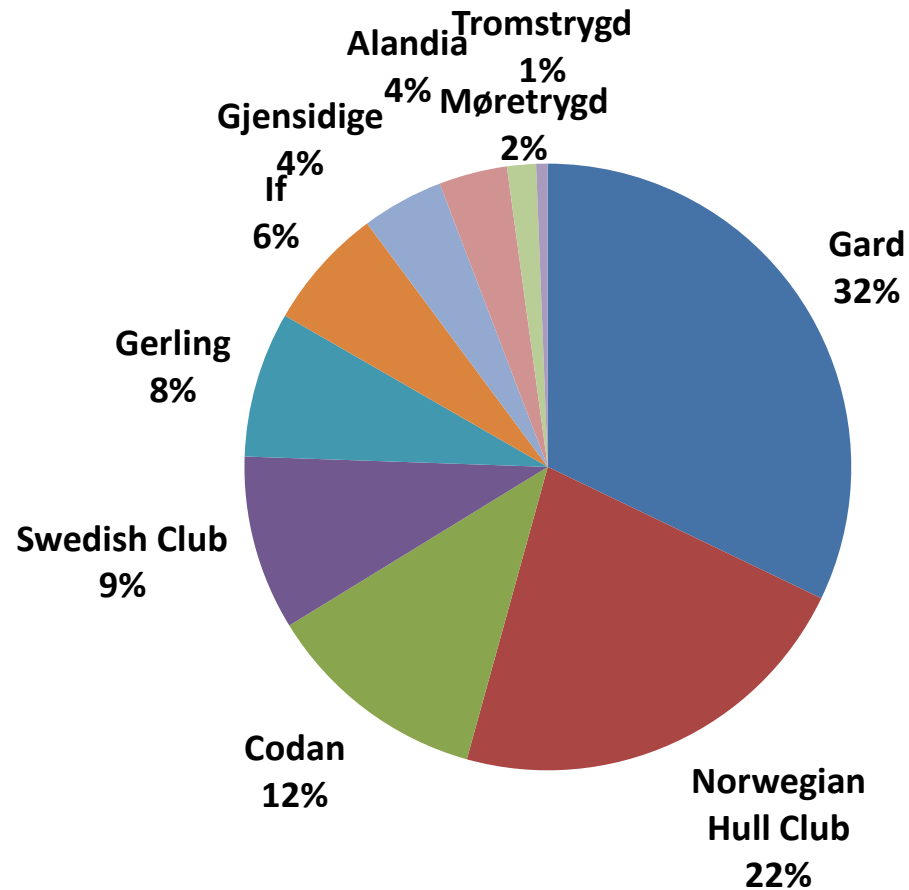
### Distribution of Global Marine Hull Premium 2010





## 2011 Nordic Marine Insurance Statistics – Part 2

### Distribution of Cefor Marine Hull Premium 2011



Note:

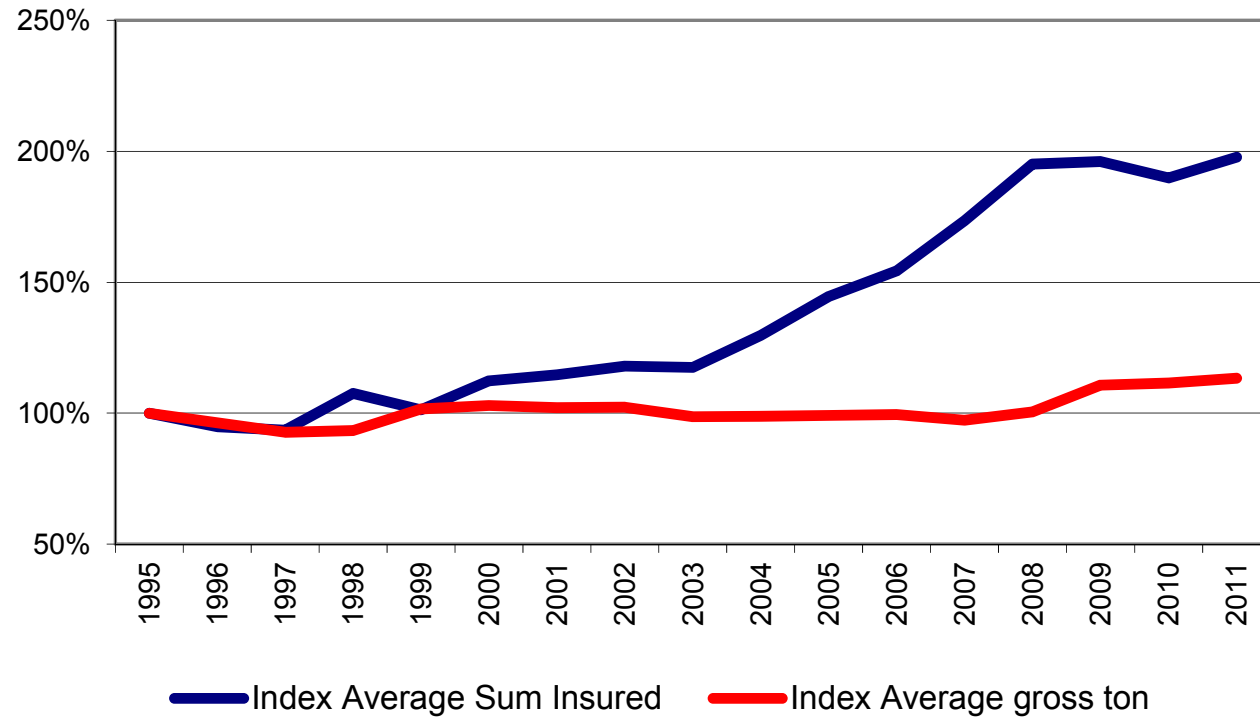
The premium overview on this slide INCLUDES Loss of hire, hull and freight interest and building risk in addition to hull. Whereas all following statistics are pure hull statistics and EXCLUDE Loss of hire, hull and freight interest and building risk !



# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011

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



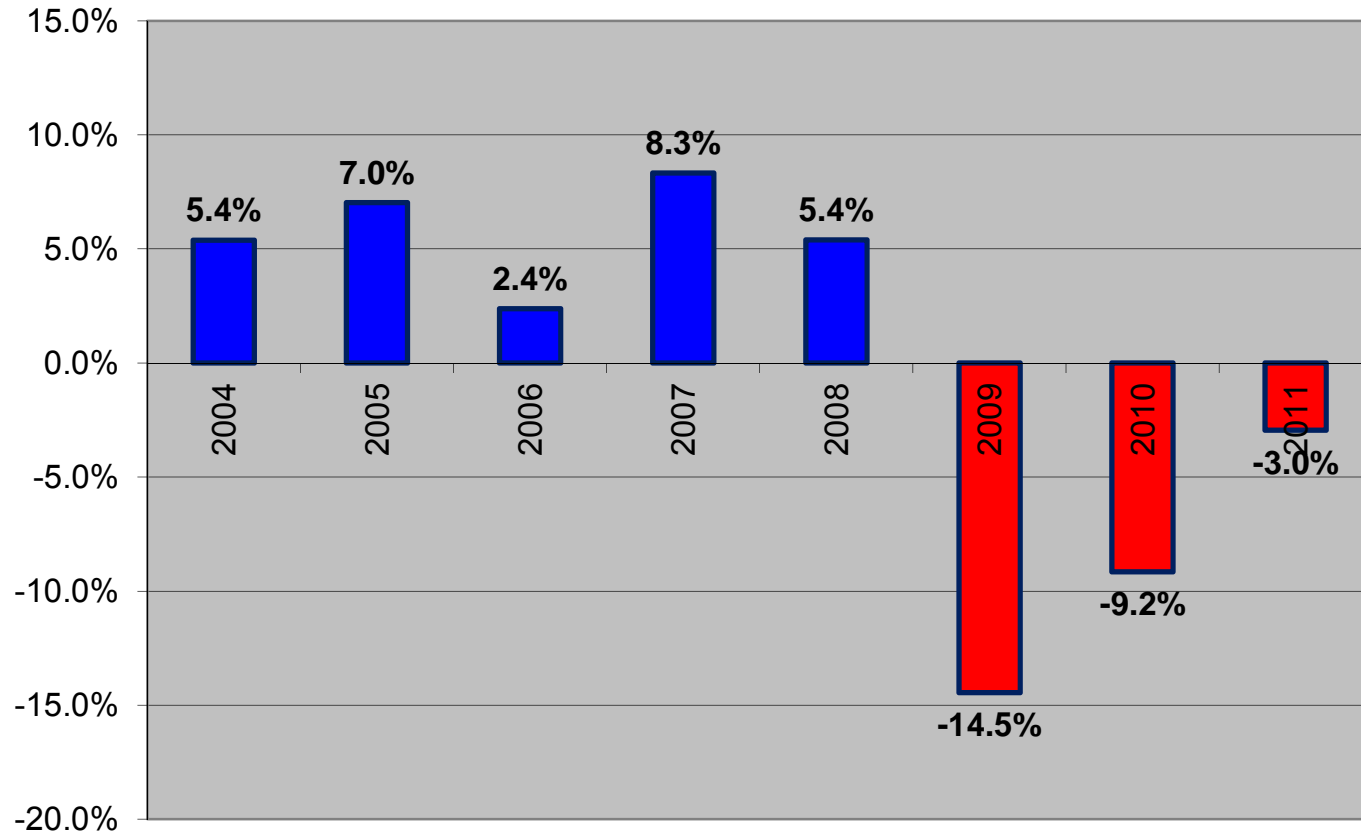
Includes all insured vessels per underwriting year (renewed and new business).



# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011

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



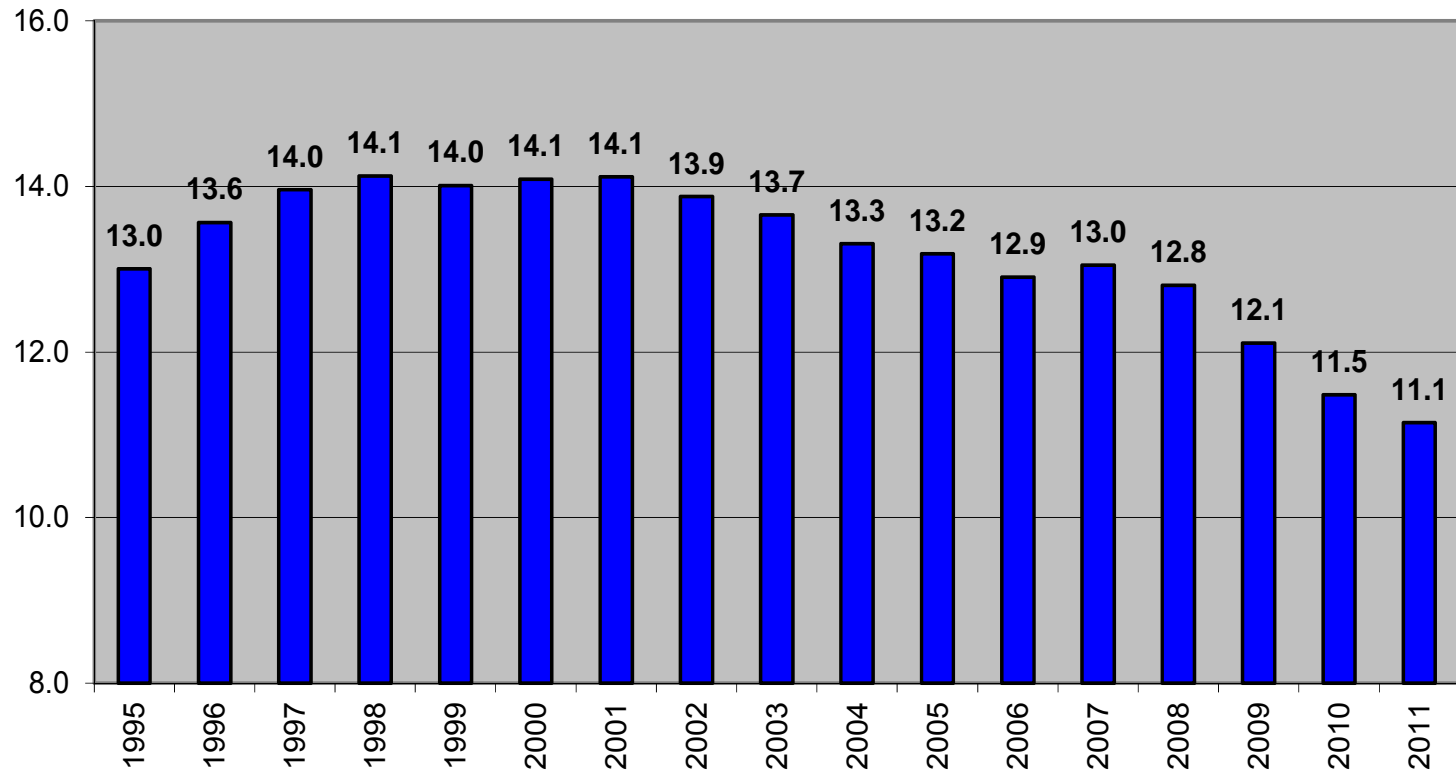
Based on renewals in respective year – excluding new business.



# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011

Average Age per underwriting year



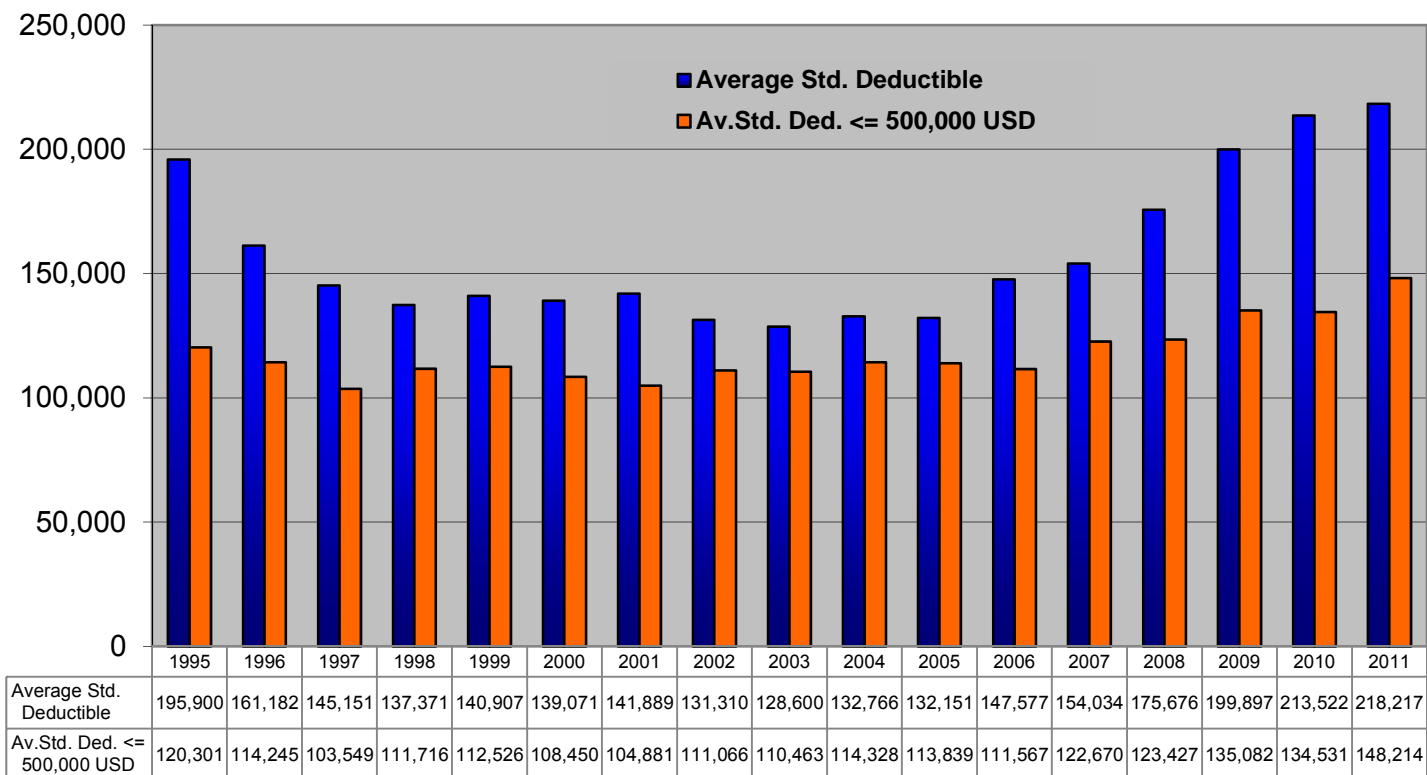


# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011

## Average Standard Deductible Development

All business, **100%**, in USD



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



# 2011 Nordic Marine Insurance Statistics – Part 3

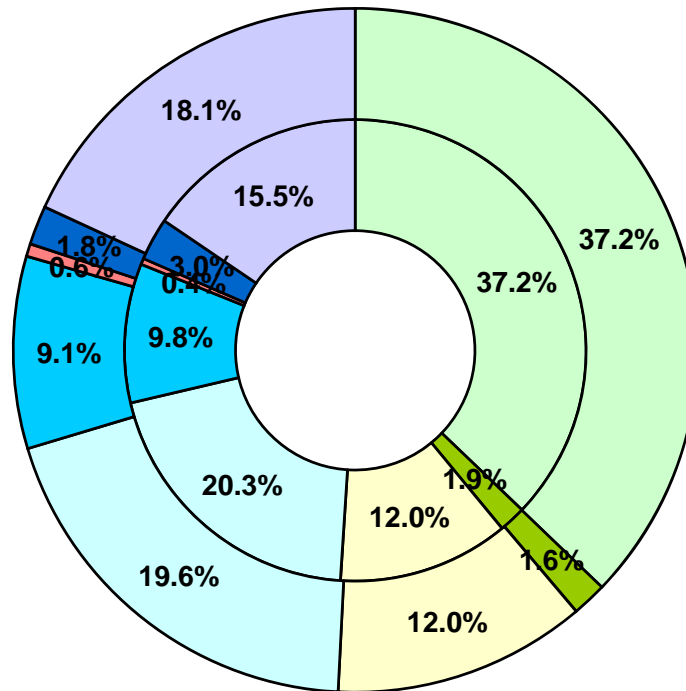
As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

## Claims by Claims type

### Number of claims

Inner ring: 2006-2010

Outer ring: 2011



- Engine
- Fire/Explosion
- Collision
- Contact
- Grounding
- Ice
- Heavy weather
- Other

Totals  
 2006-10: 17,894  
 2011: 2,004



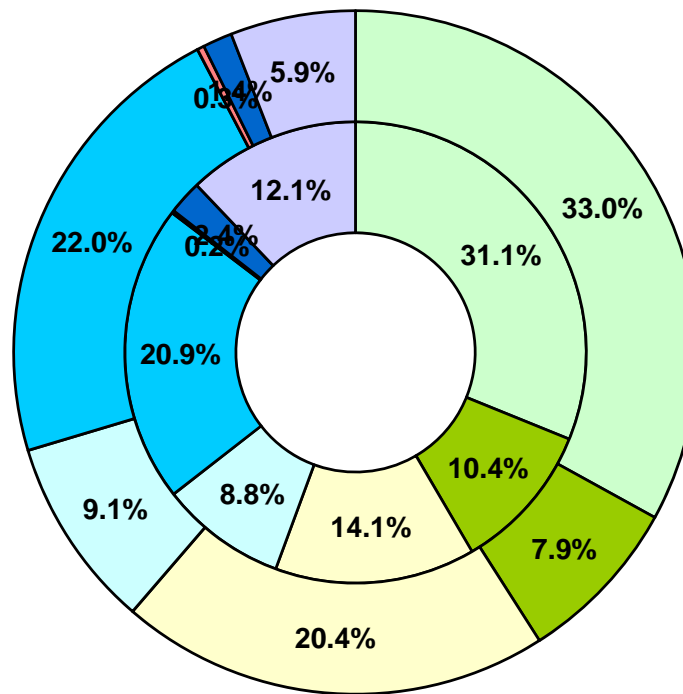
# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

## Claims by Claims type

### Cost of claims

Inner ring: 2006-2010  
Outer ring: 2011



- Engine
- Fire/Explosion
- Collision
- Contact
- Grounding
- Ice
- Heavy weather
- Other

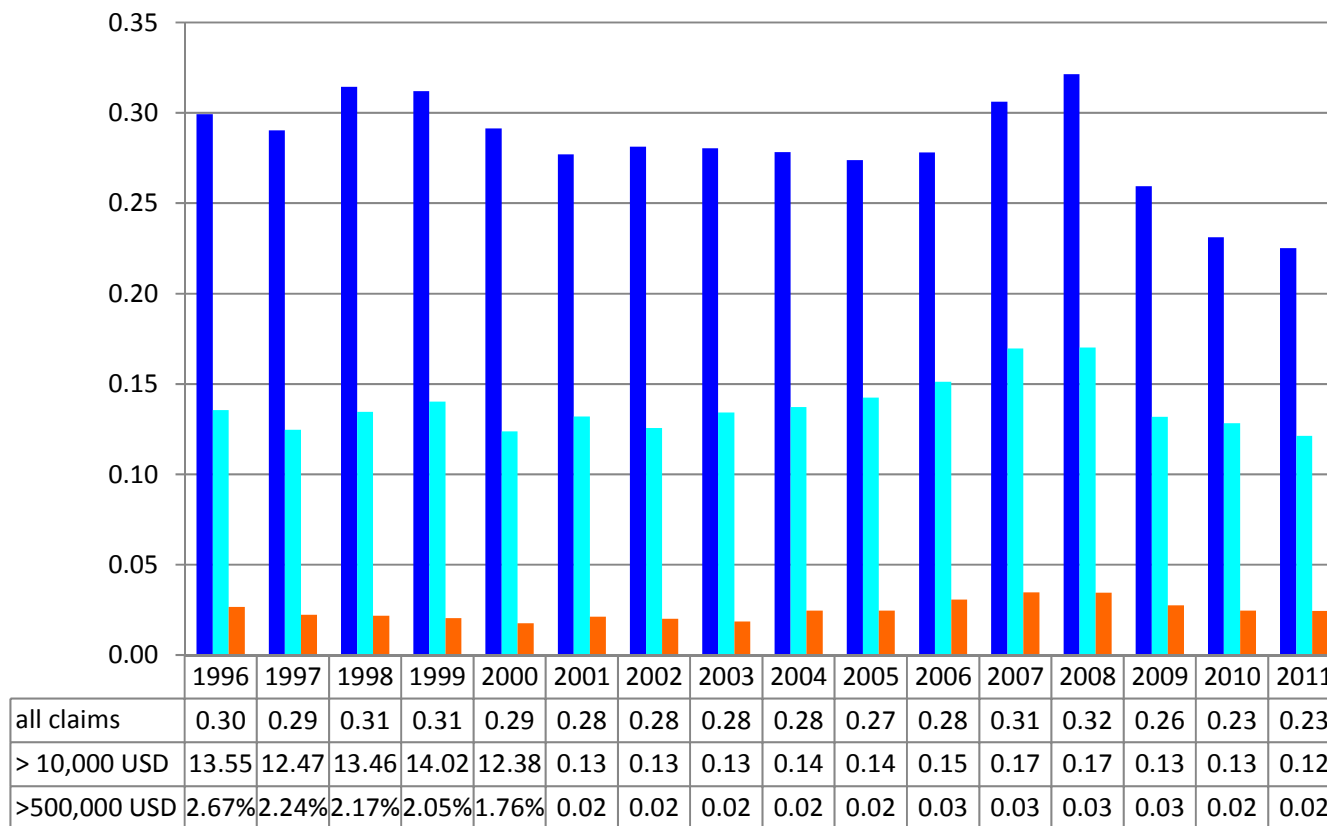
Totals  
2006-10: 5,528.1 MUSD  
2011: 579.1 MUSD



# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

### Claim frequency by date of loss

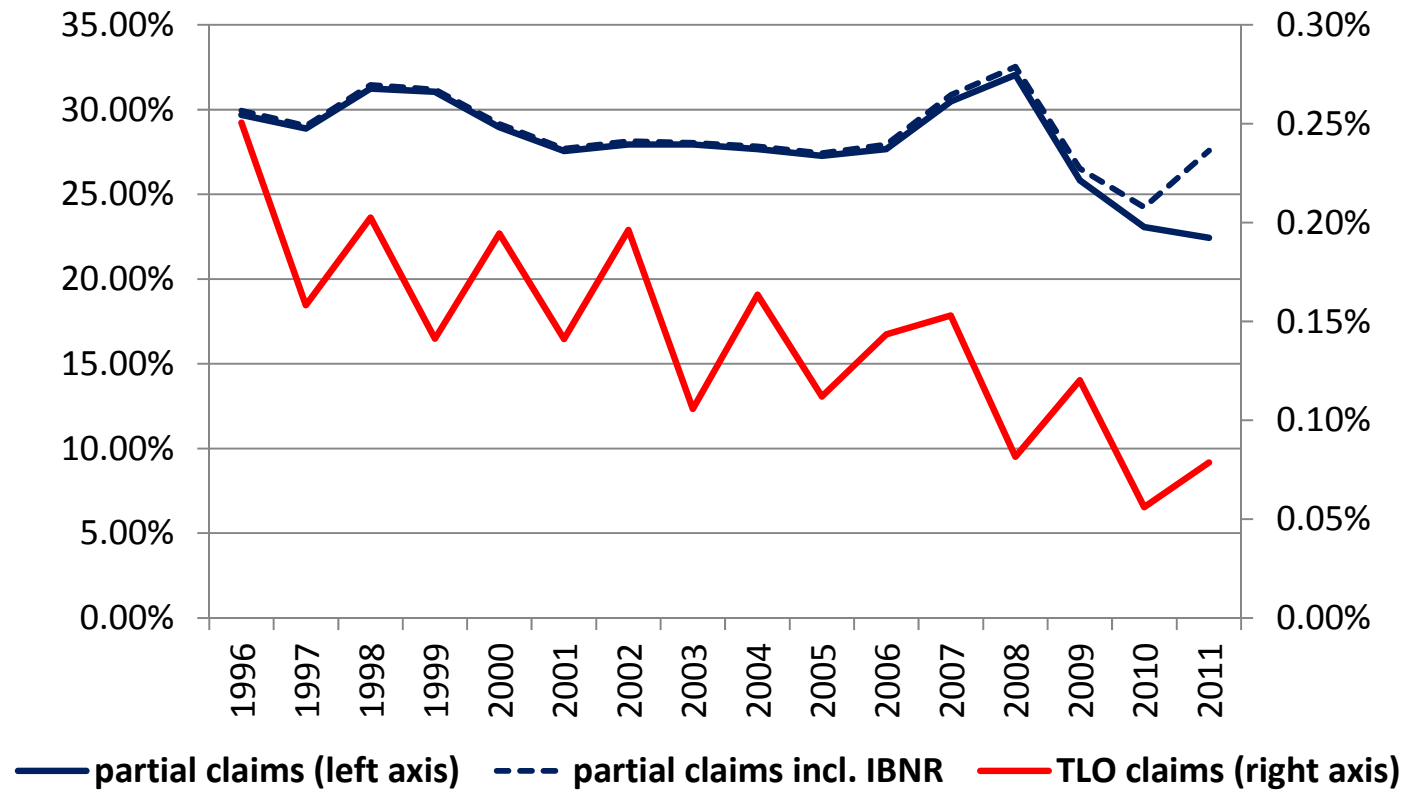


Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency

# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

## Claim frequency, by date of loss



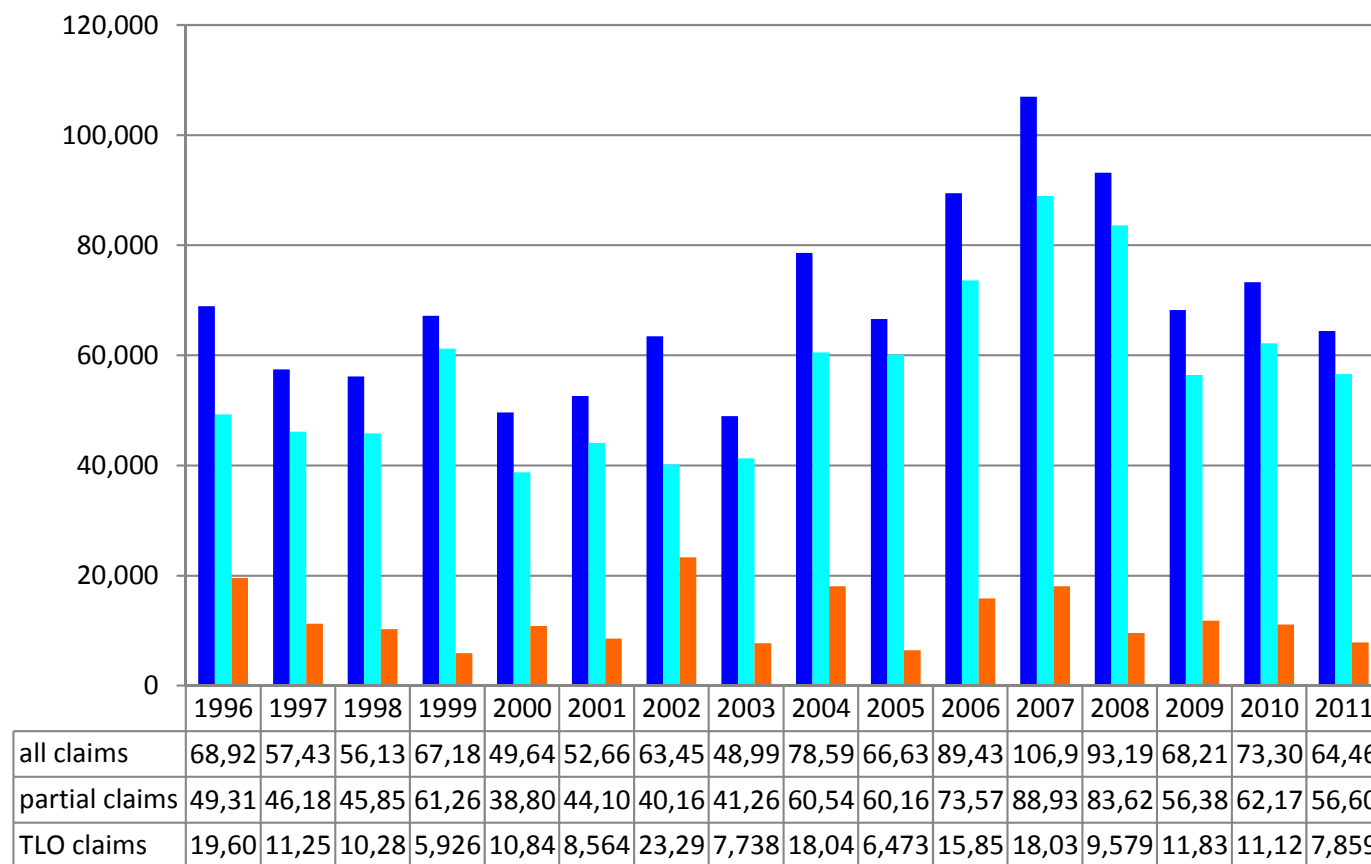


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## 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

### Claim per vessel by date of loss



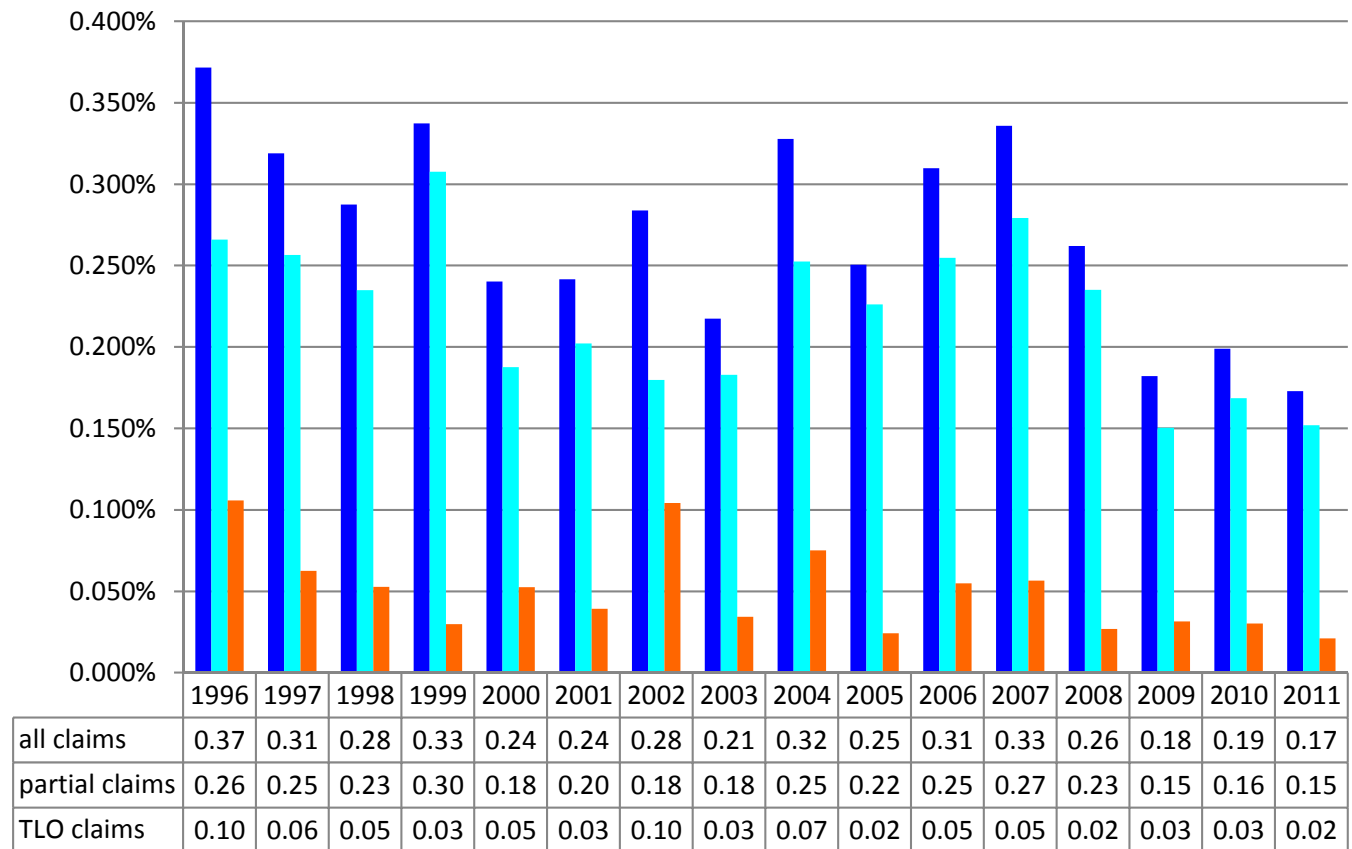


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## 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR added

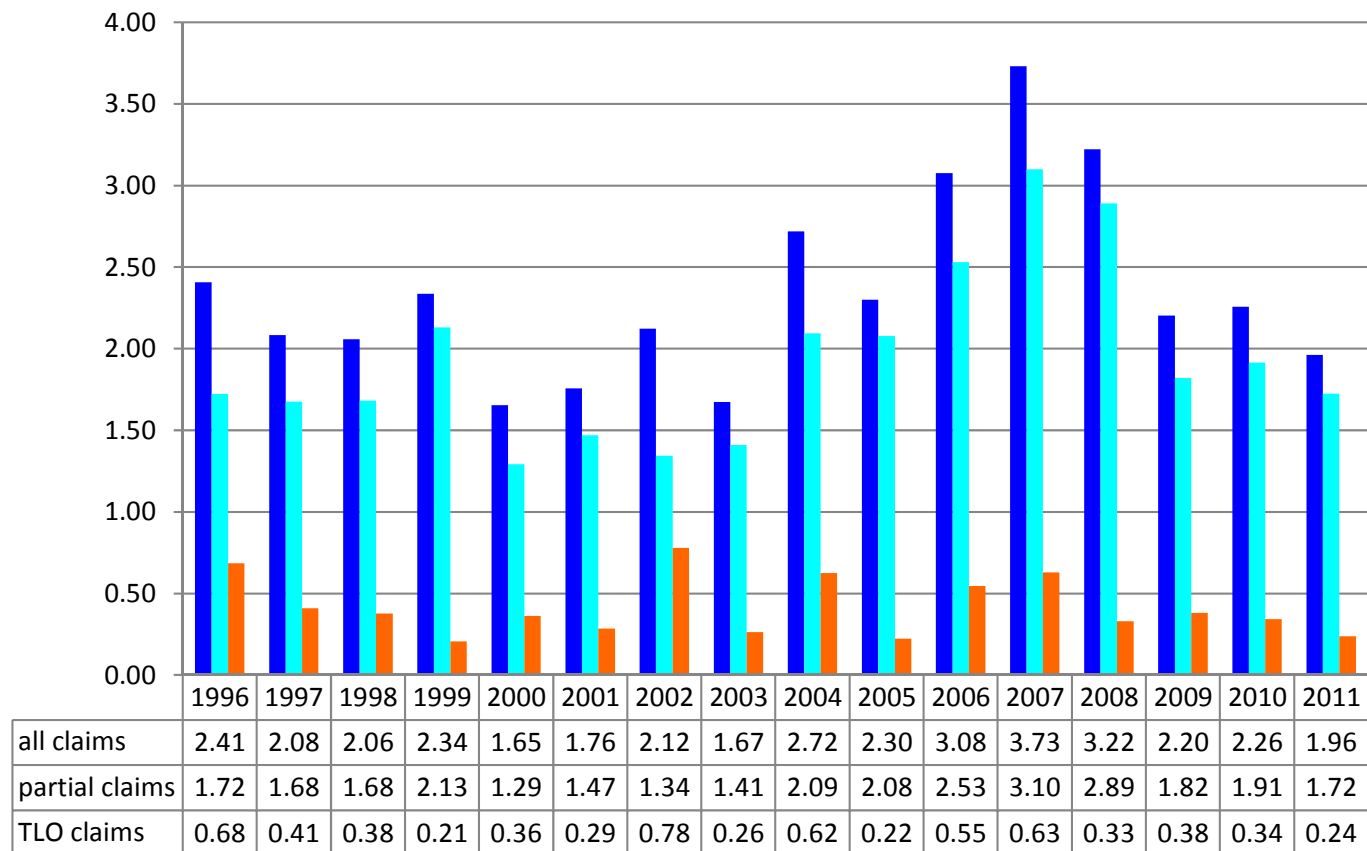
### Claim per Sum Insured by date of loss



# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported, no IBNR added

### Claim per gross ton by date of loss

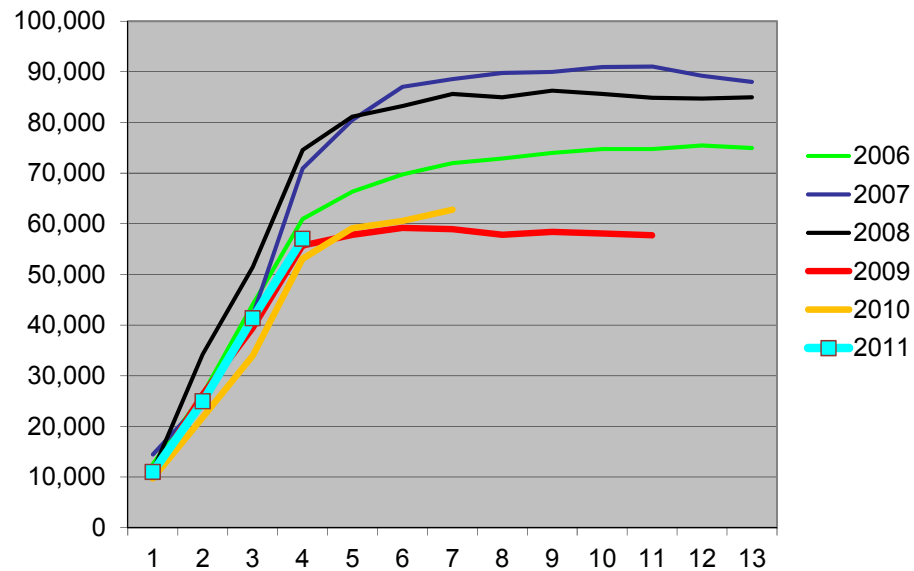




# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported

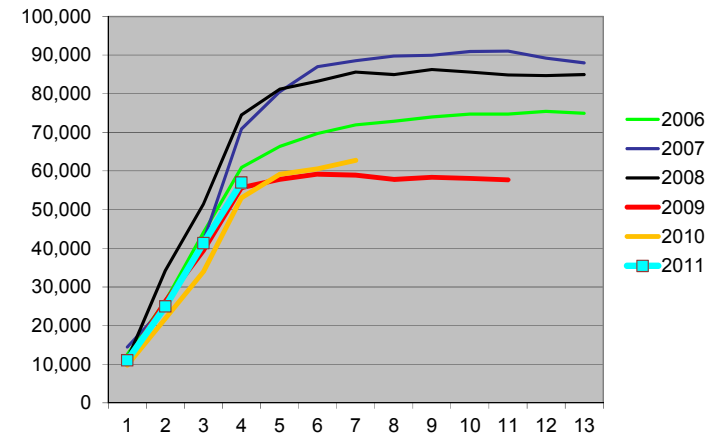
**Claim per vessel-  
accumulated quarterly development**



Partial claims – excluding total losses.

Claims by date of loss (claims occurred in respective year)

**Claim per vessel-  
accumulated quarterly development**

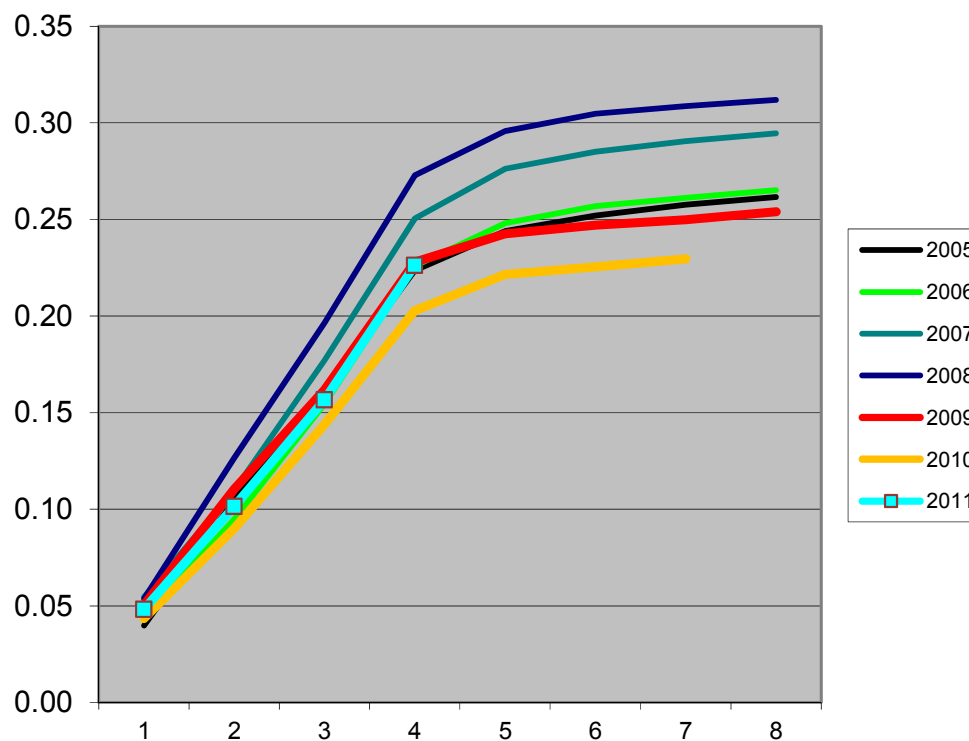


All claims, including total losses.

## 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported

Marine Hull - Claim frequency  
quarterly development



All claims. Claims by date of loss (claims occurred in respective year)

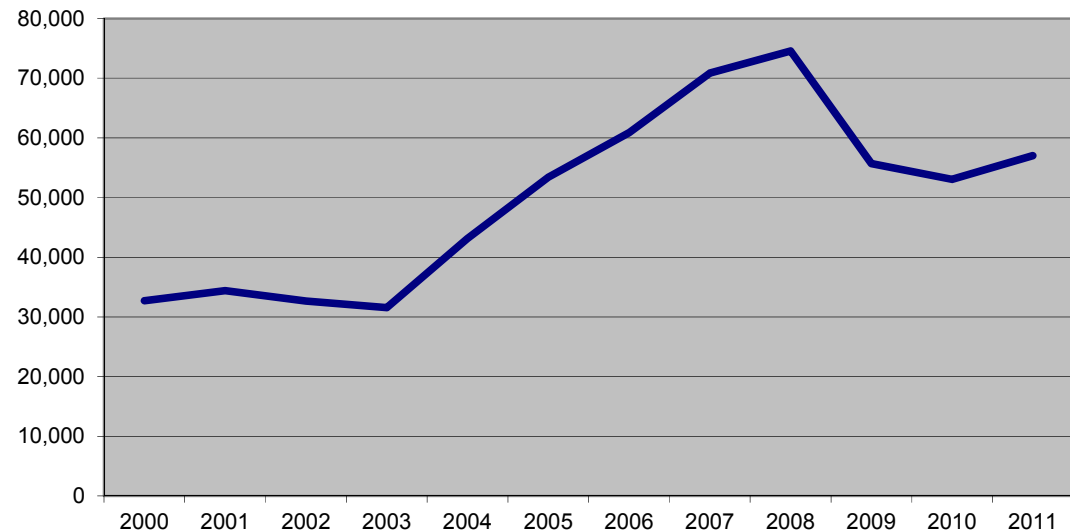




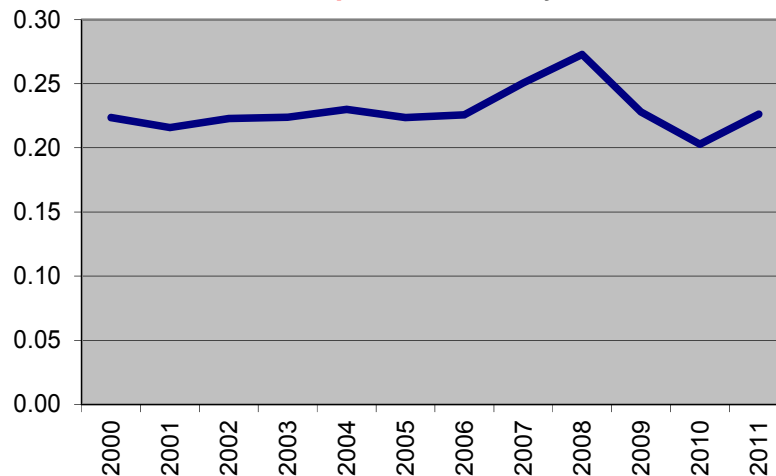
# 2011 Nordic Marine Insurance Statistics – Part 3

As of 31 December 2011 – paid+outstanding as reported

**Claim per vessel - as reported**  
**as of 4th quarter** of each year



**Claim frequency - as reported**  
**as of 4th quarter** of each year



Partial claims – excluding total losses.

Claims by date of loss.  
(claims occurred in respective year)



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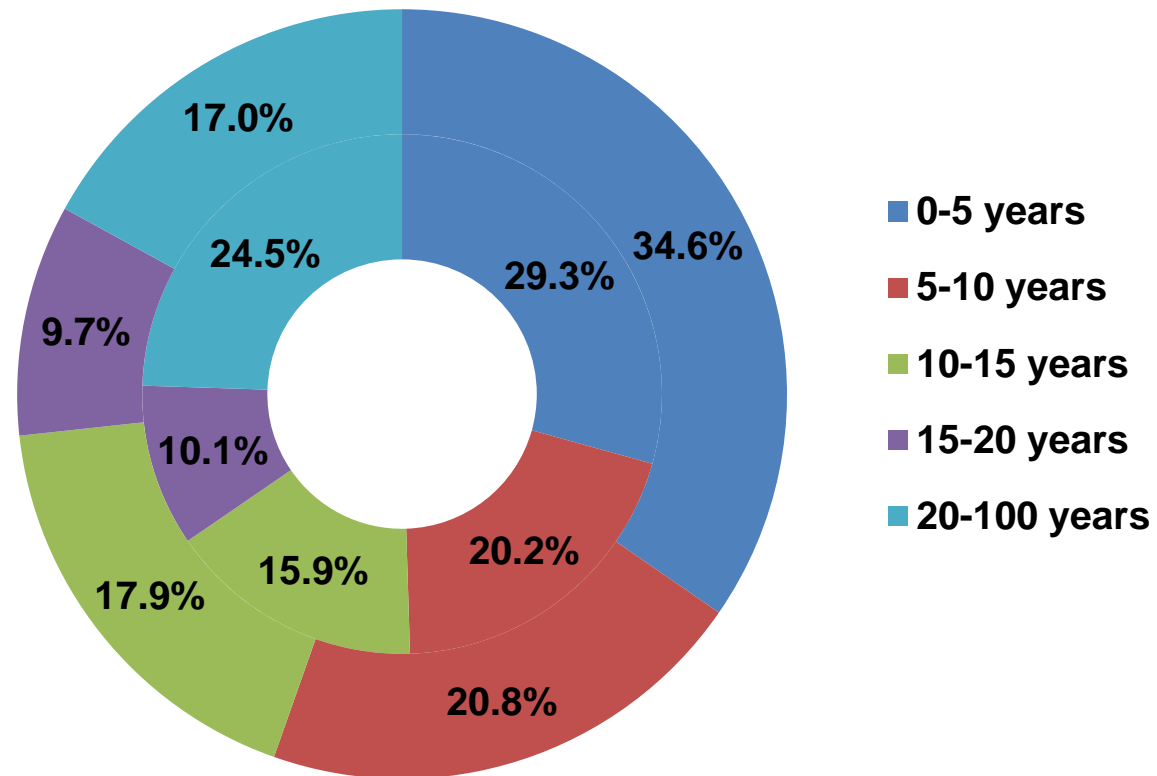
# 2011 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2011

Number of vessels per age group, by year of exposure

Inner ring: 2006-2010

Outer ring: 2011



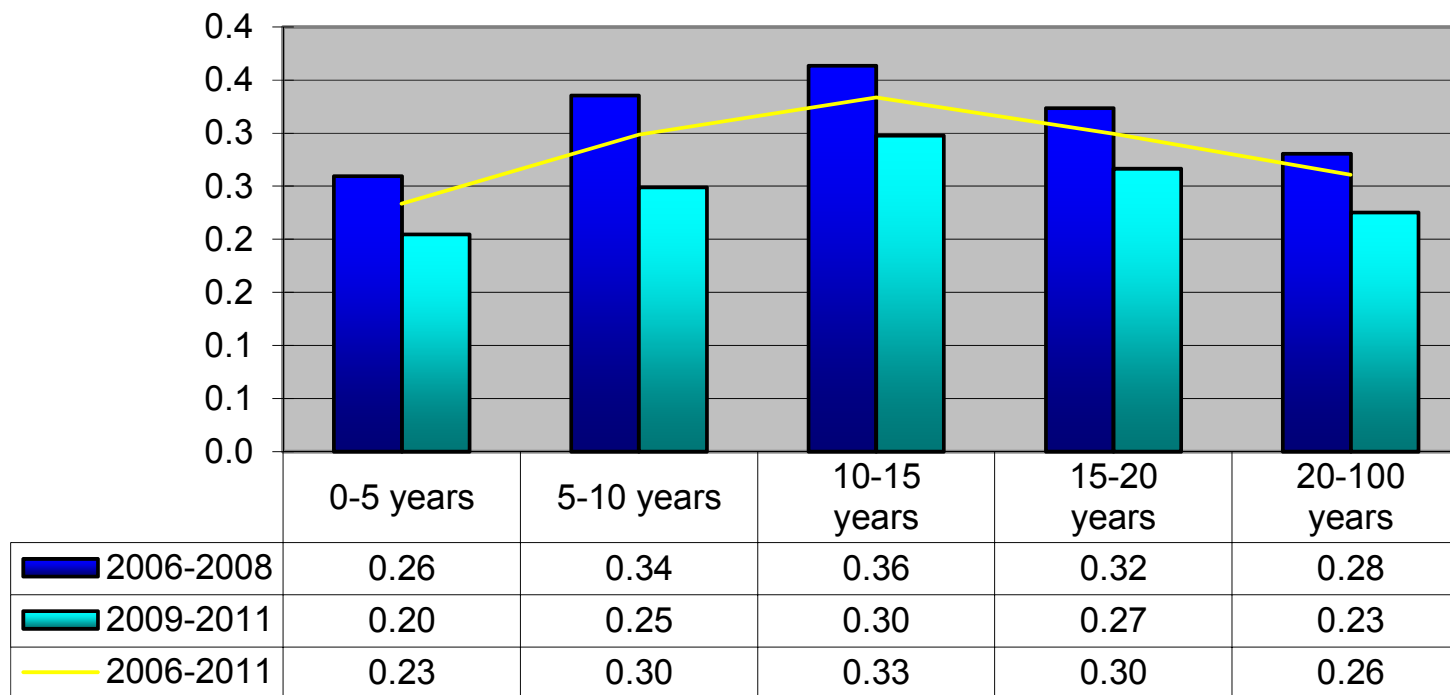
Total number of vessels  
2006-10: 56,077  
2011: 8,898



# 2011 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

## Claim frequency per age group



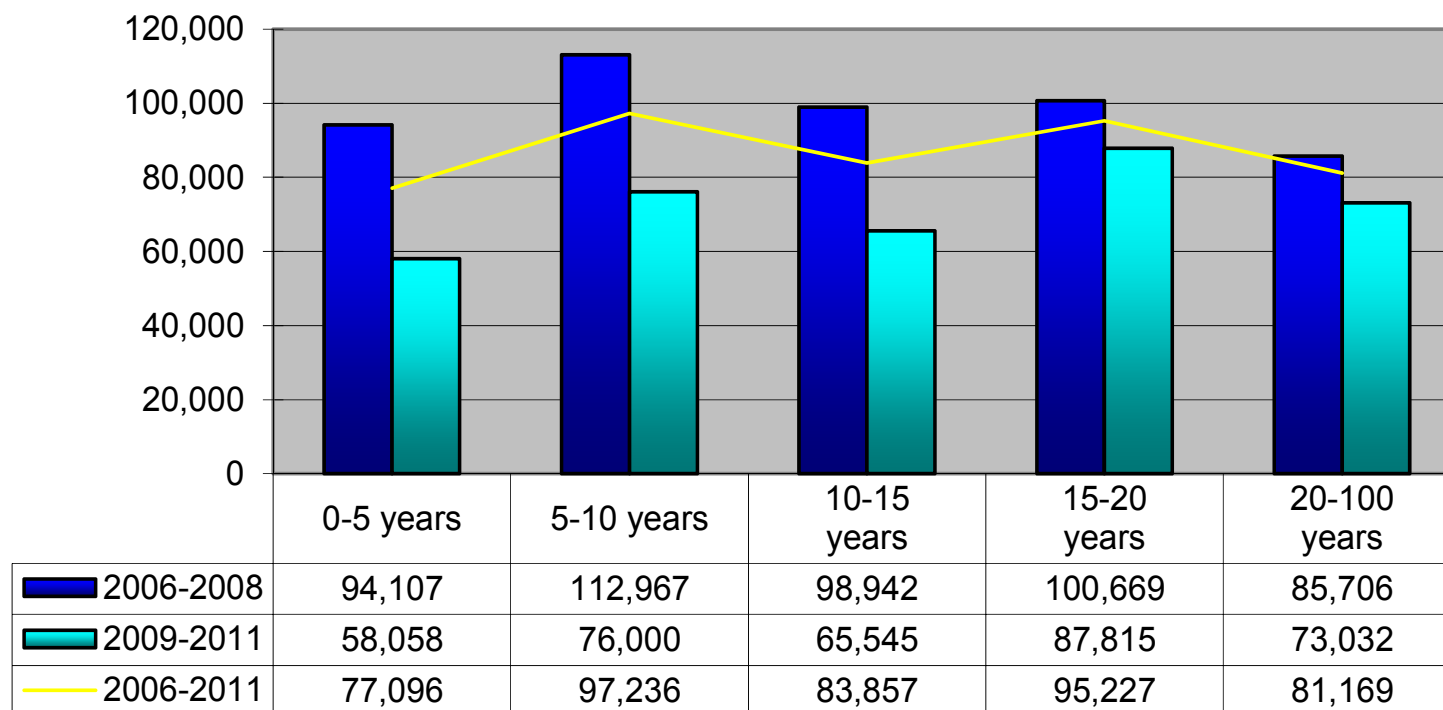
Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency

# 2011 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

## Claim per vessel per age group

in USD

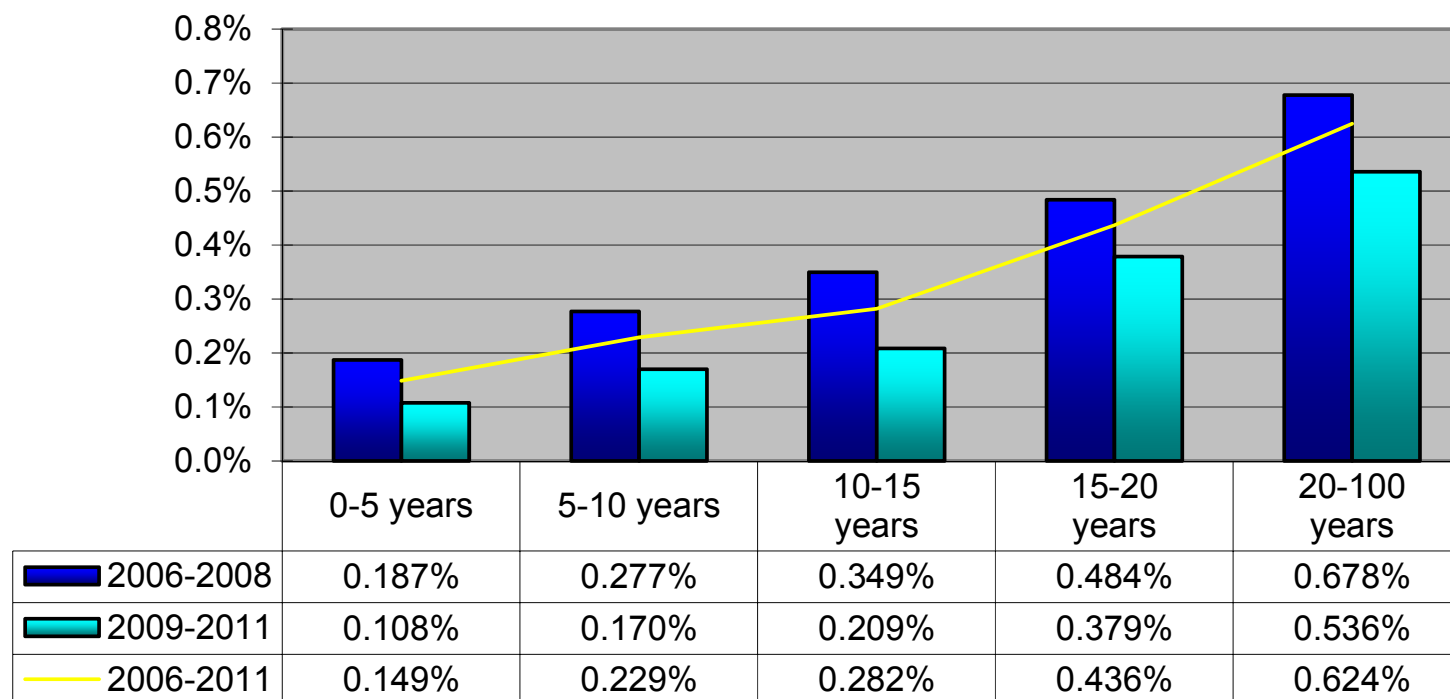




## 2011 Nordic Marine Insurance Statistics – Part 4

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

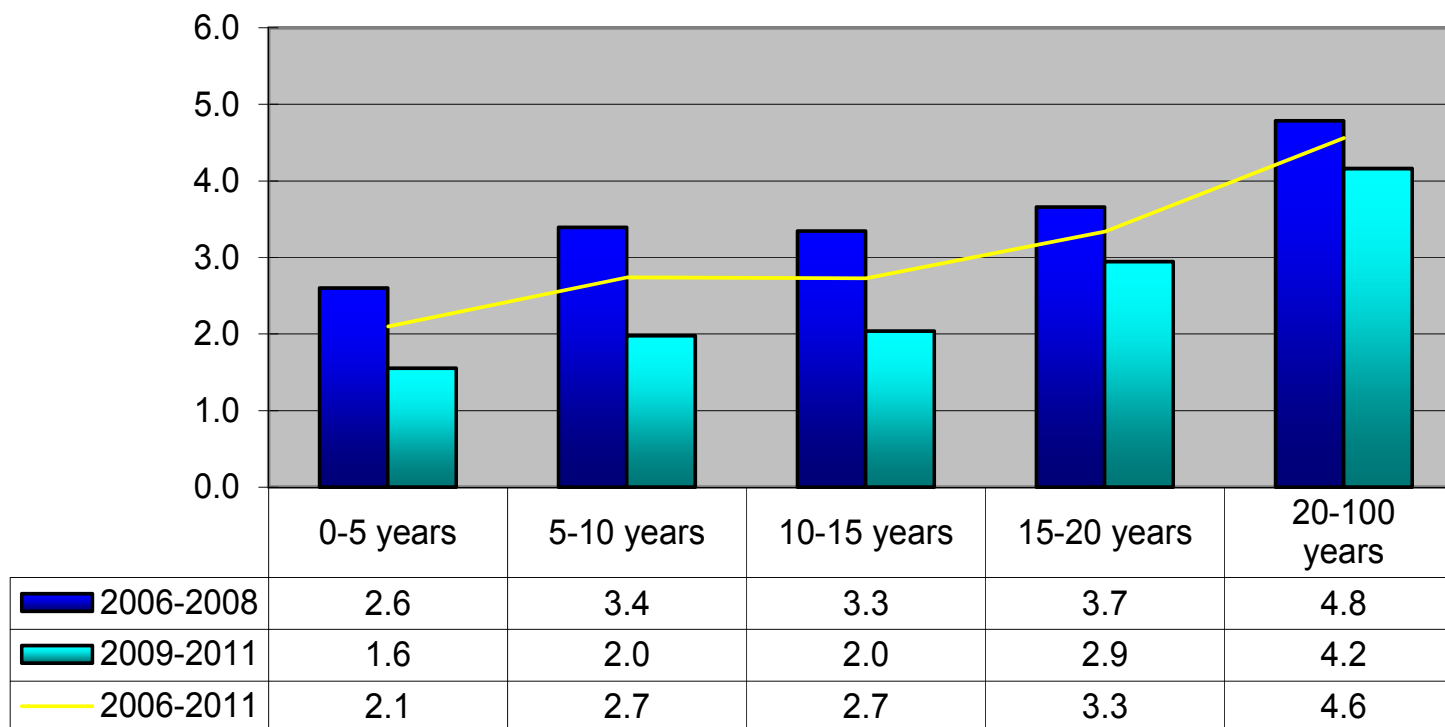
### Claim per Sum Insured per age group



# 2011 Nordic Marine Insurance Statistics – Part 1

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

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



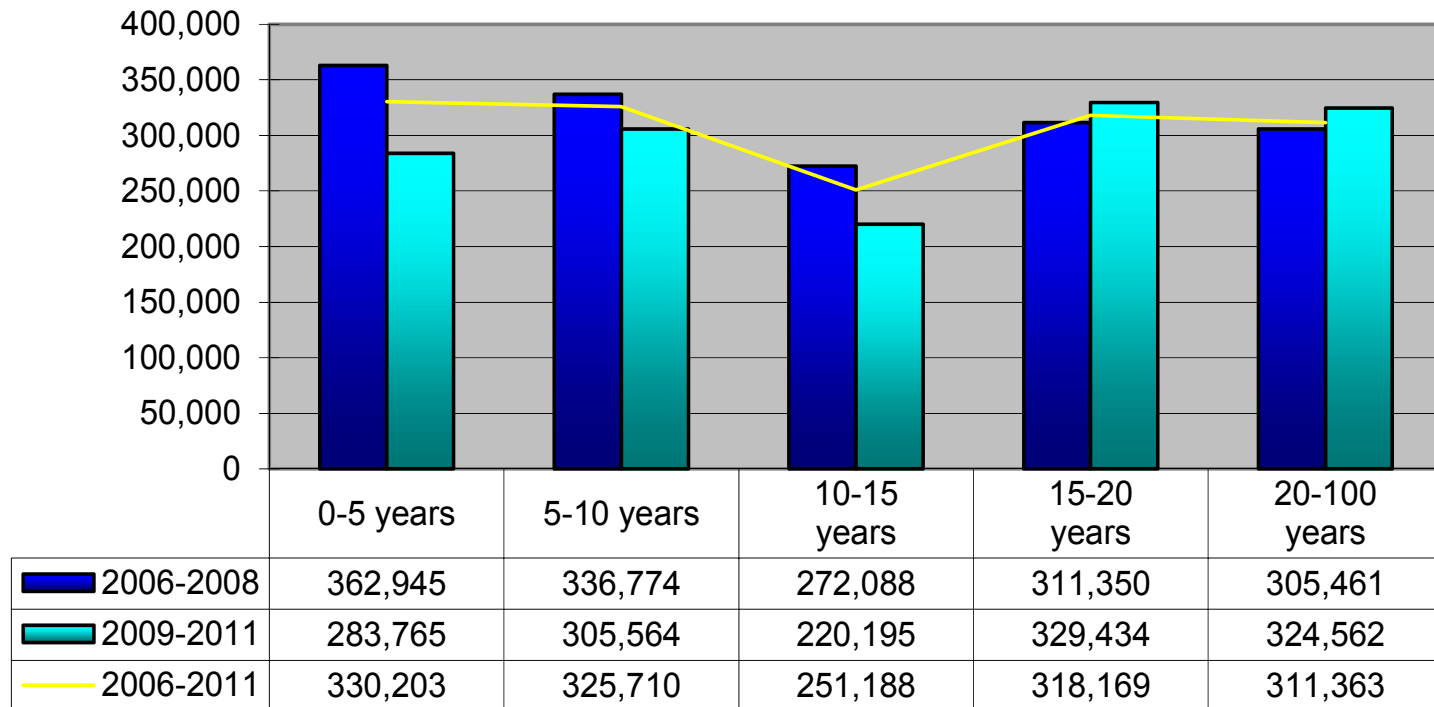


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# 2011 Nordic Marine Insurance Statistics – Part 1

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

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

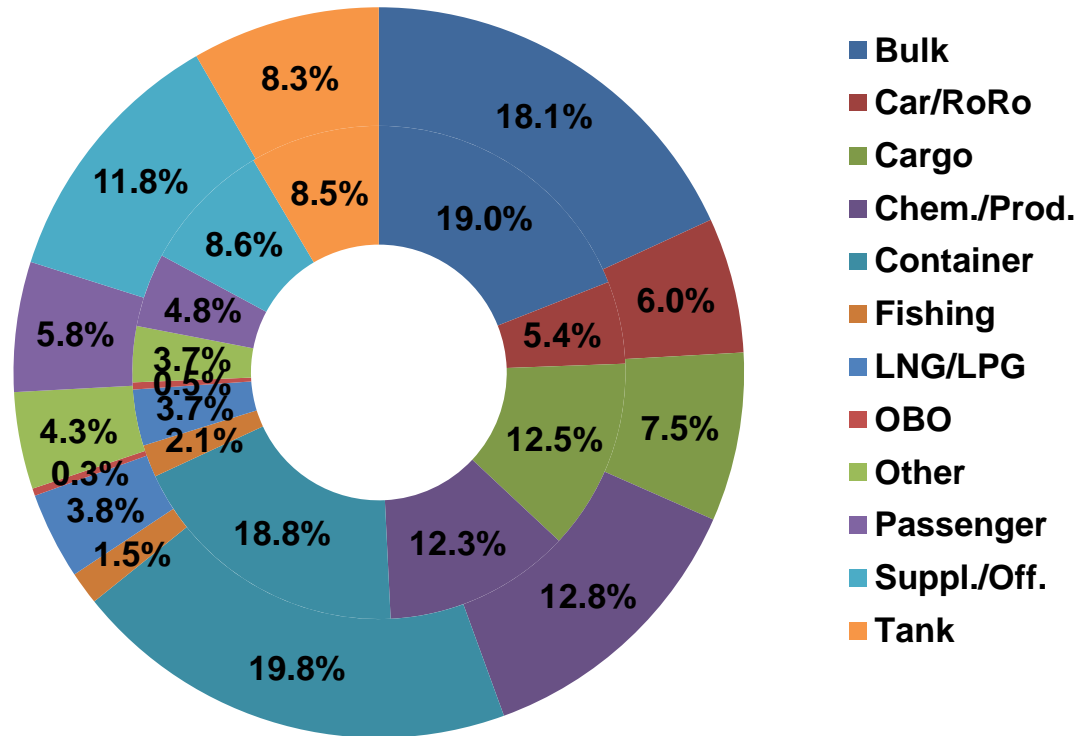


# 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011

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

Inner ring: 2006-2010  
Outer ring: 2011



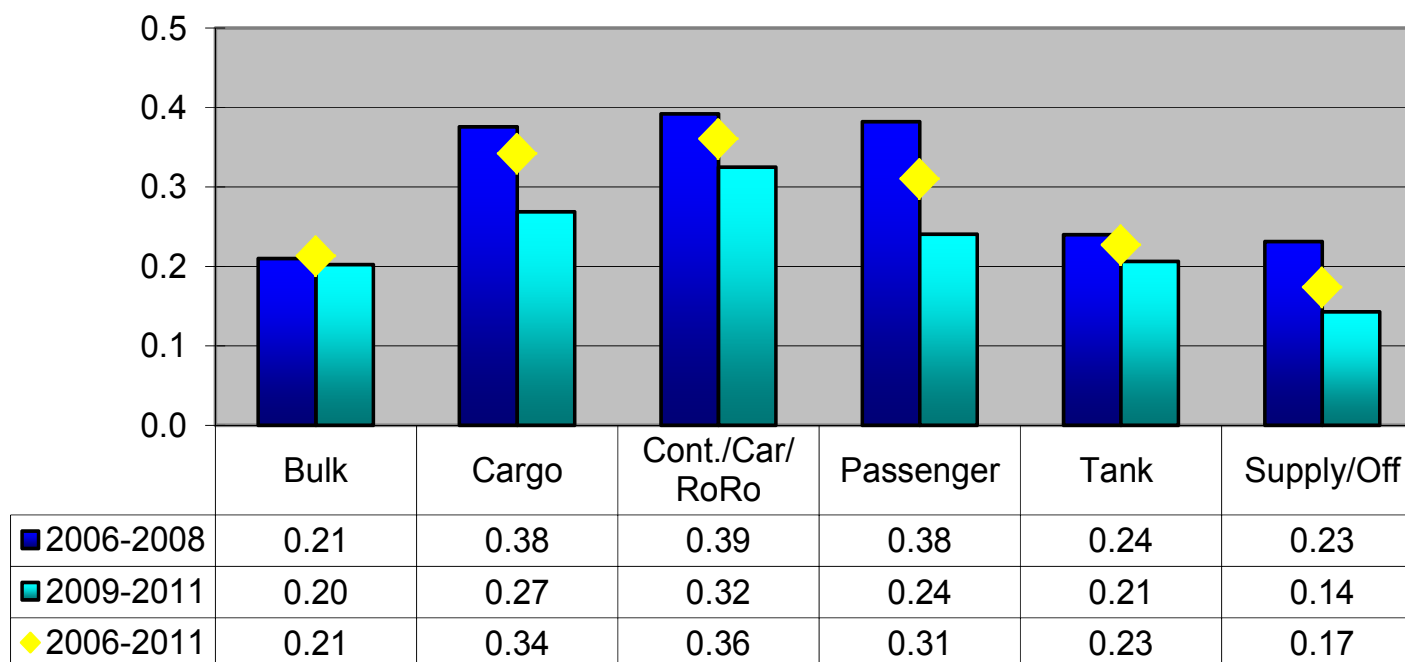
Total number of vessels  
2006-10: 56,077  
2011: 8,898



## 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

### Claim frequency per vessel type group



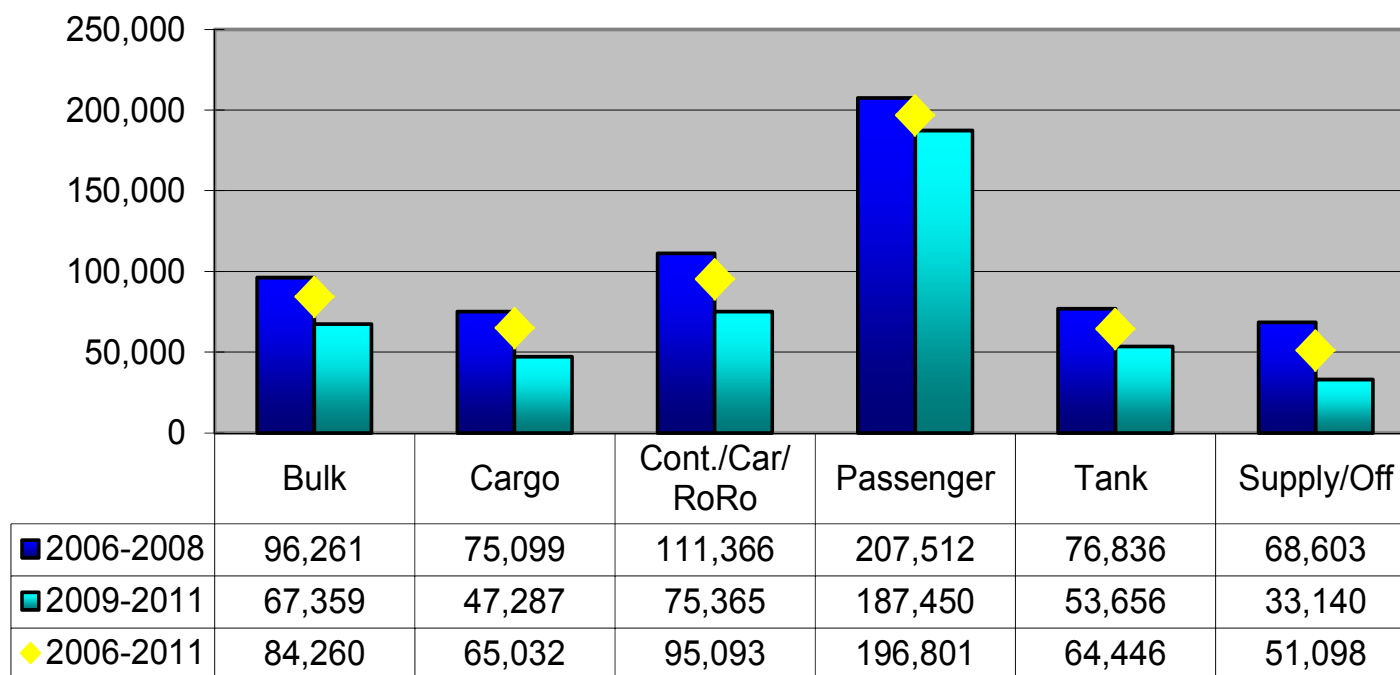
#### Notes:

- "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

## 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

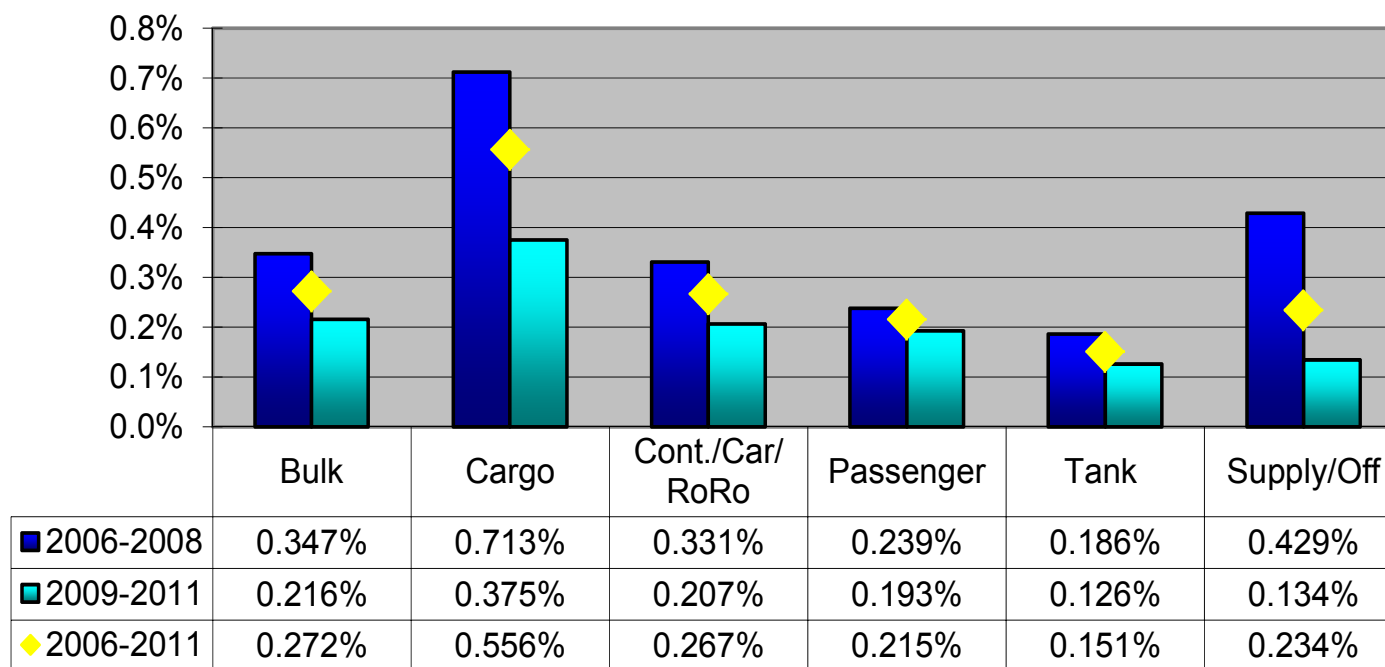
### Claim per vessel per vessel type group



## 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

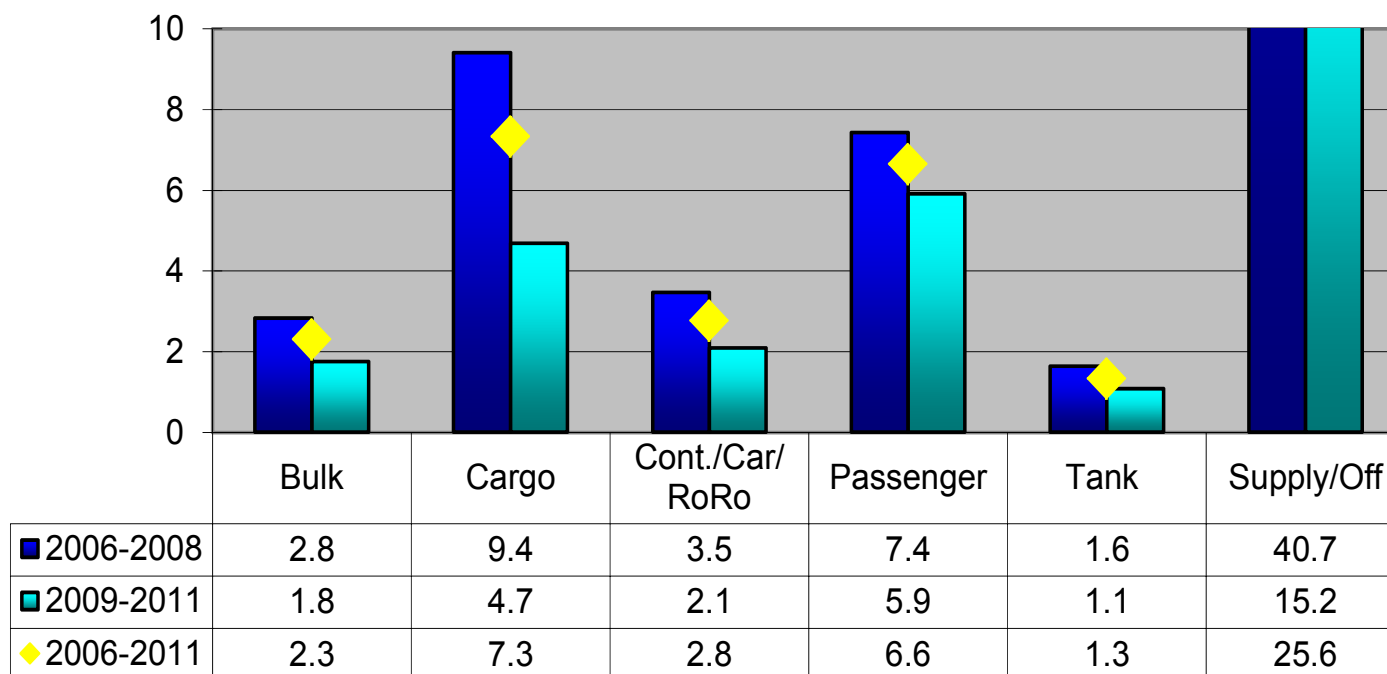
### Claim per Sum Insured per vessel type group



## 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

Claim per gross ton per vessel type group

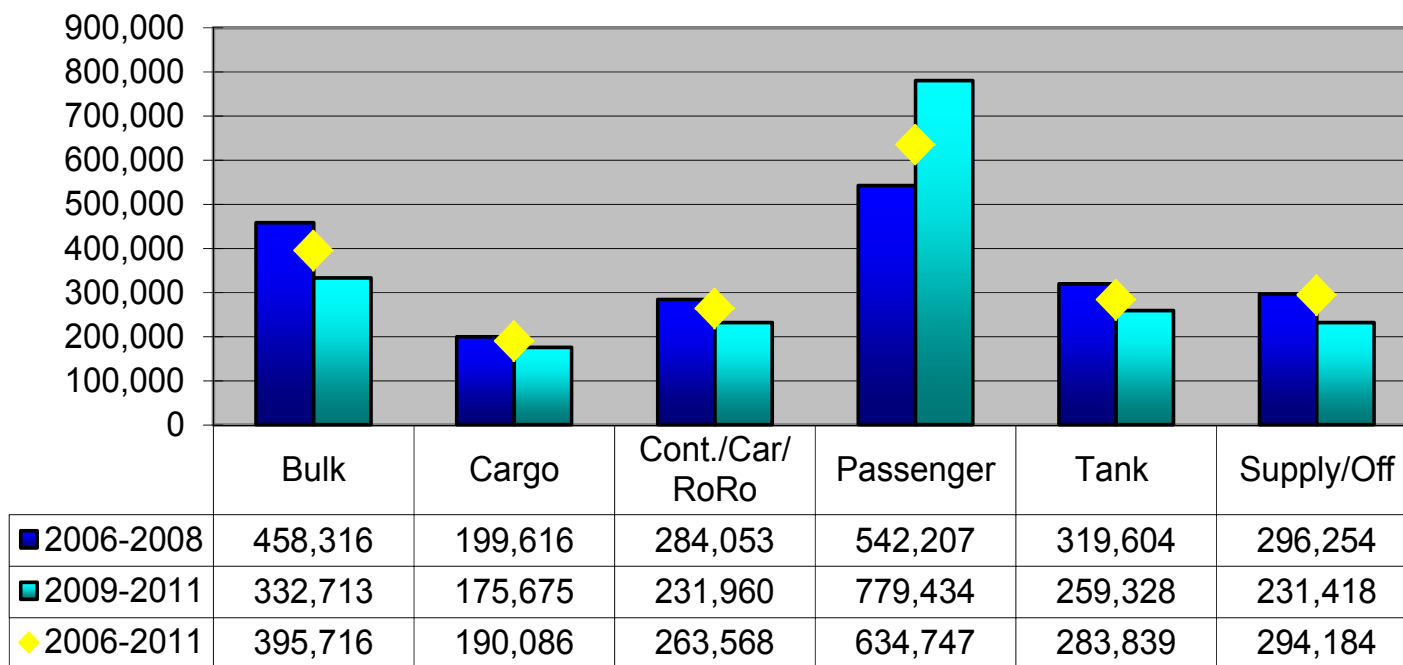




# 2011 Nordic Marine Insurance Statistics – Part 5

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

### Average claim amount per vessel type group





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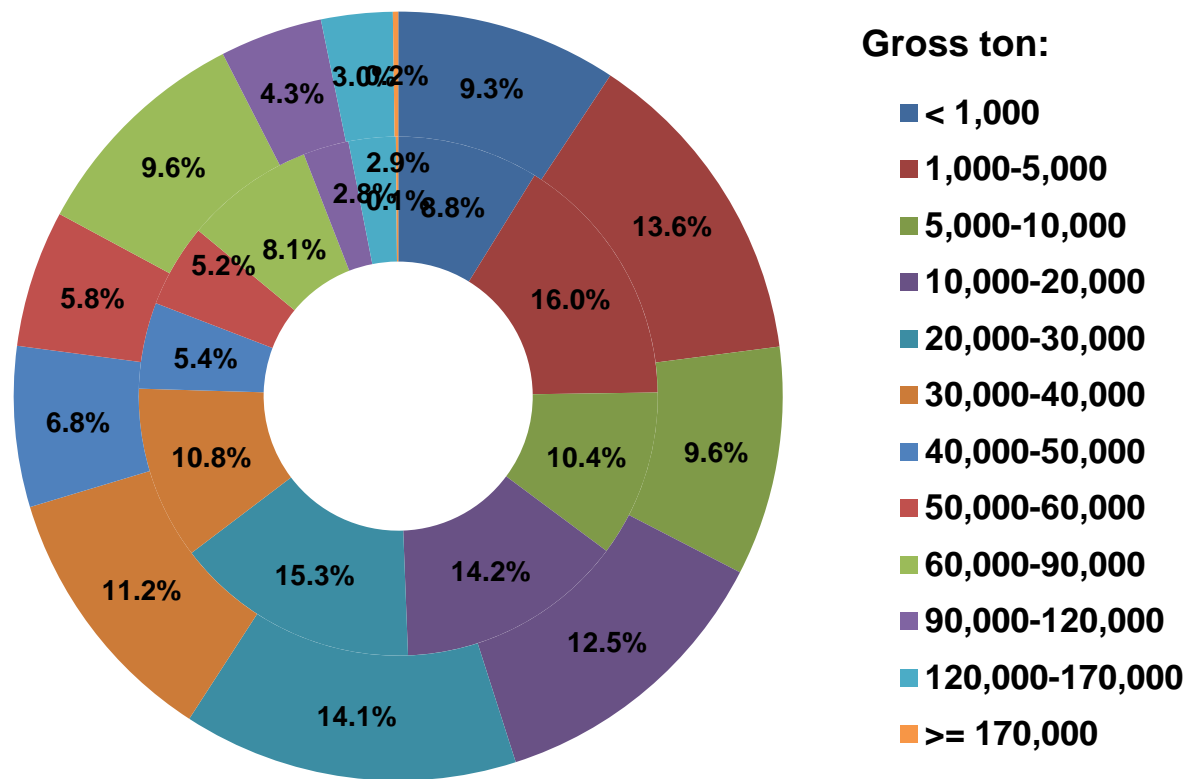
# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011

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

Inner ring: 2006-2010

Outer ring: 2011



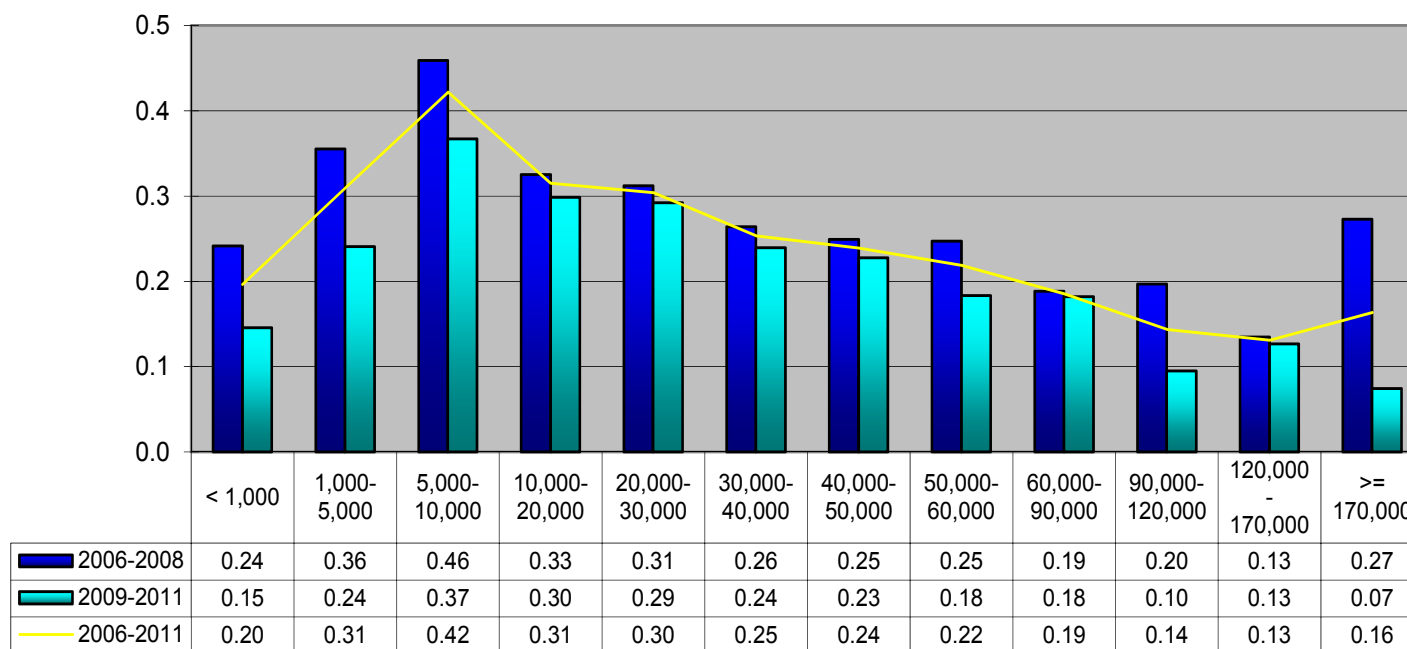
Total number of vessels  
2006-10: 56,077  
2011: 8,898



# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

Claim frequency per GT size group



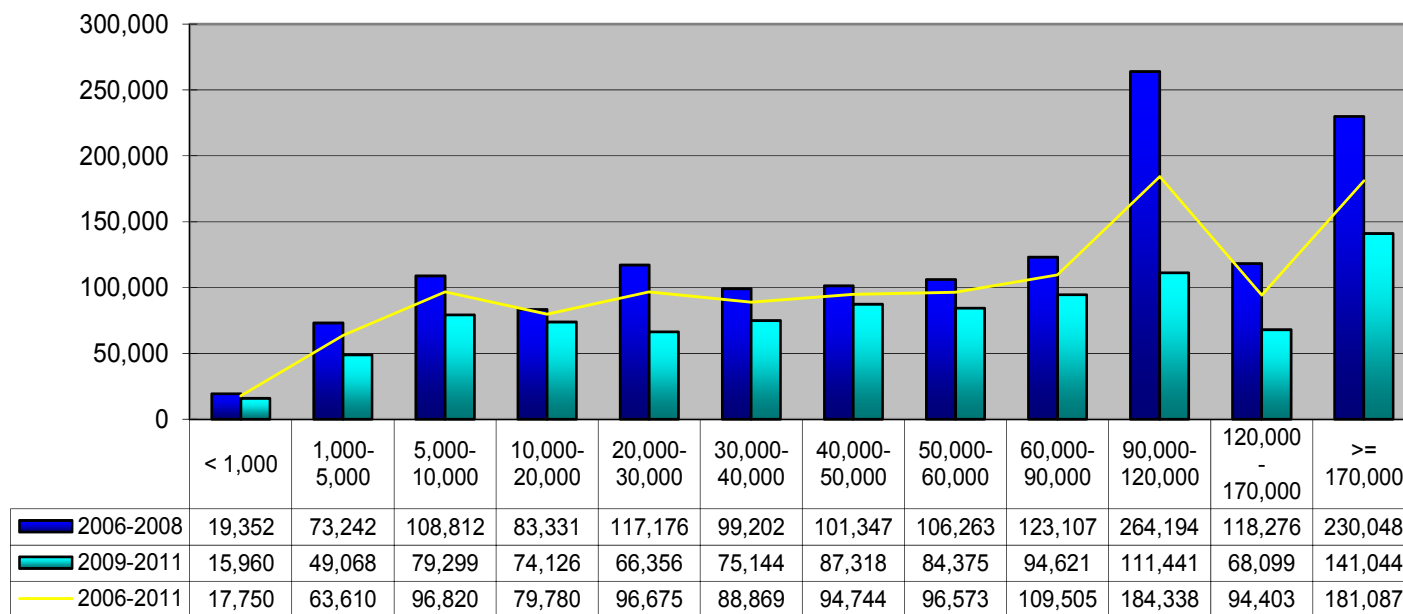
Comment: Claims < 10.000 USD account for about half of all claims. Registration of these may vary over time and in each company and will thus influence the registered frequency. In addition any increase/decrease of insurance deductibles will have impact on the registered frequency



# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

Claim per vessel per GT size group



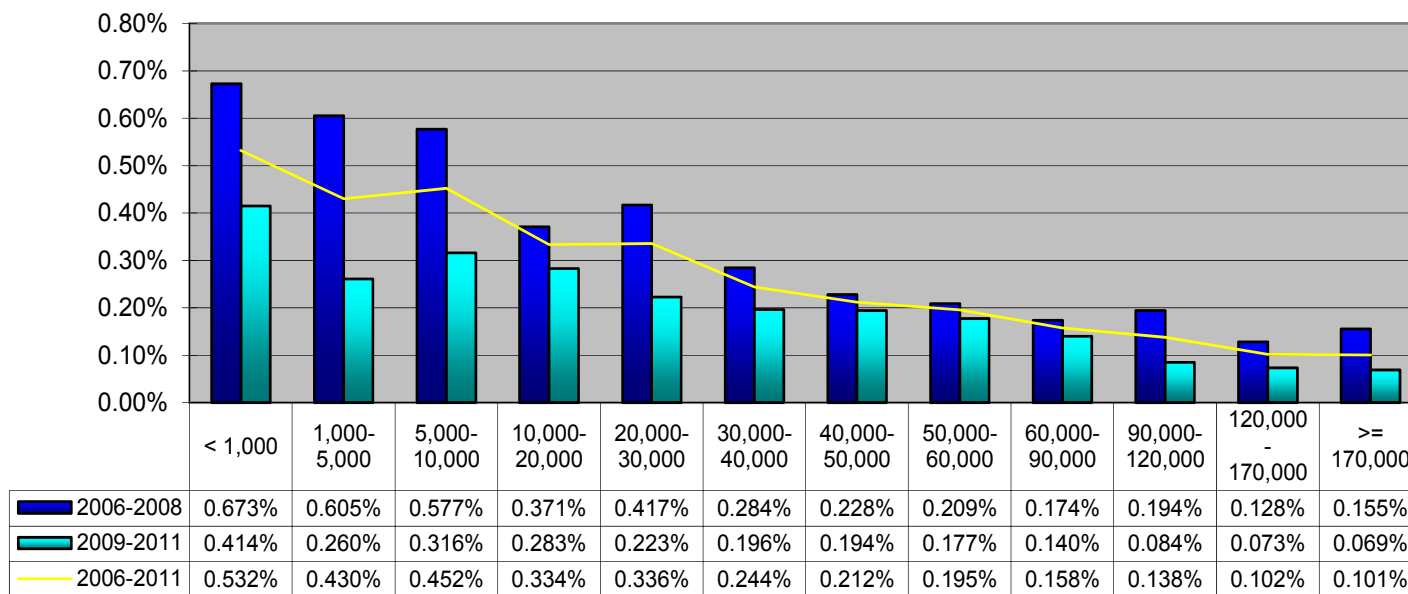




# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

**Claim per Sum Insured per GT size group**

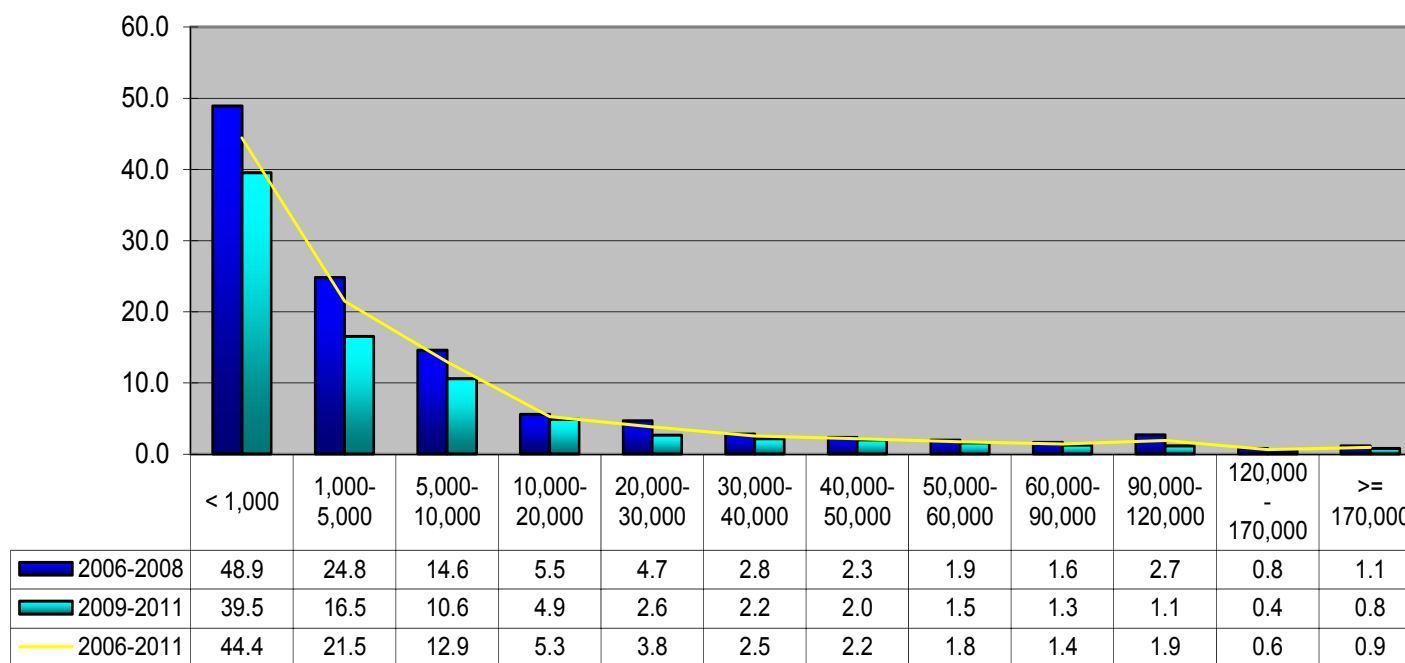




# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

Claim per GT per GT size group

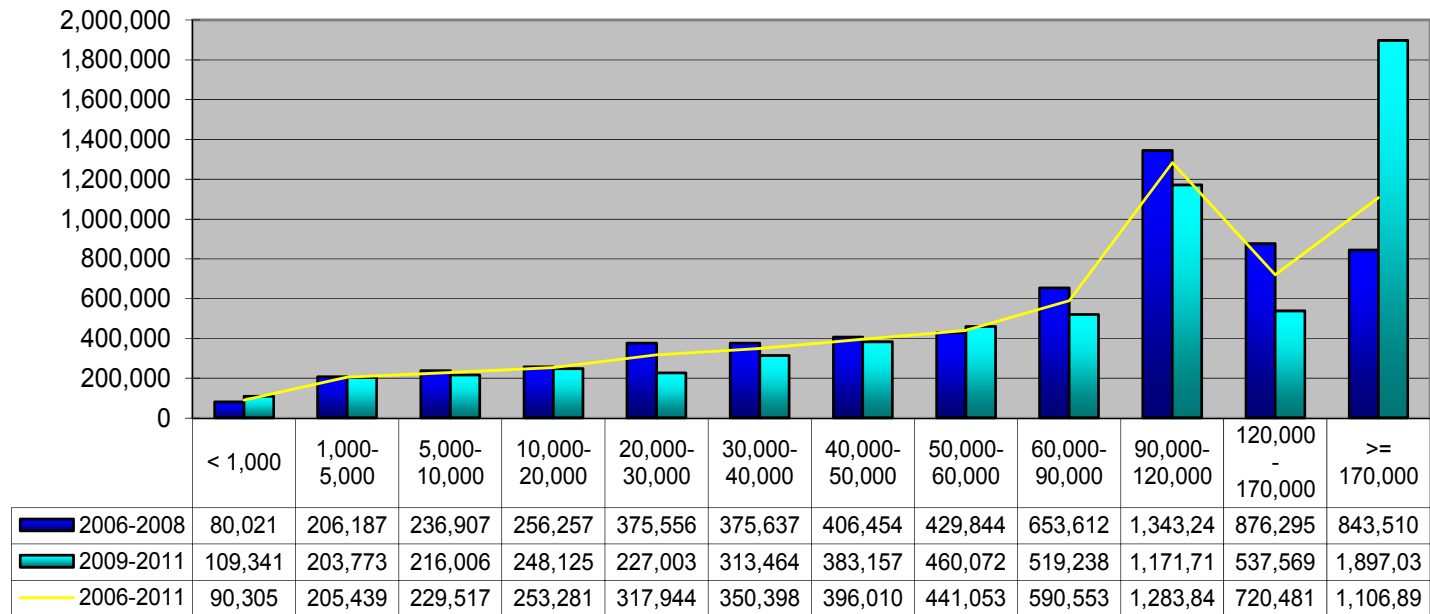




# 2011 Nordic Marine Insurance Statistics – Part 6

As of 31 December 2011 – paid+outstanding as reported, no IBNR reserve added

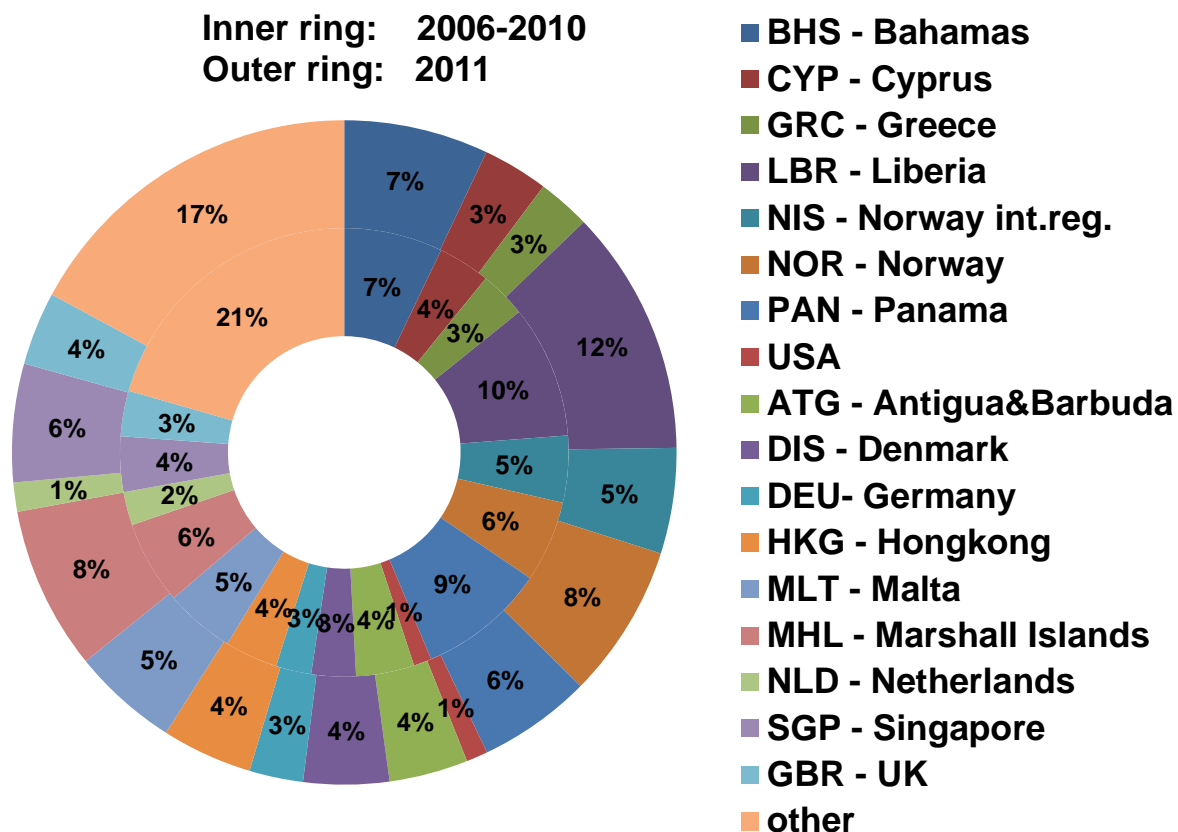
**Average Claim amount per GT size group**



# 2011 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2011

Number of vessels per largest flags, by year of exposure



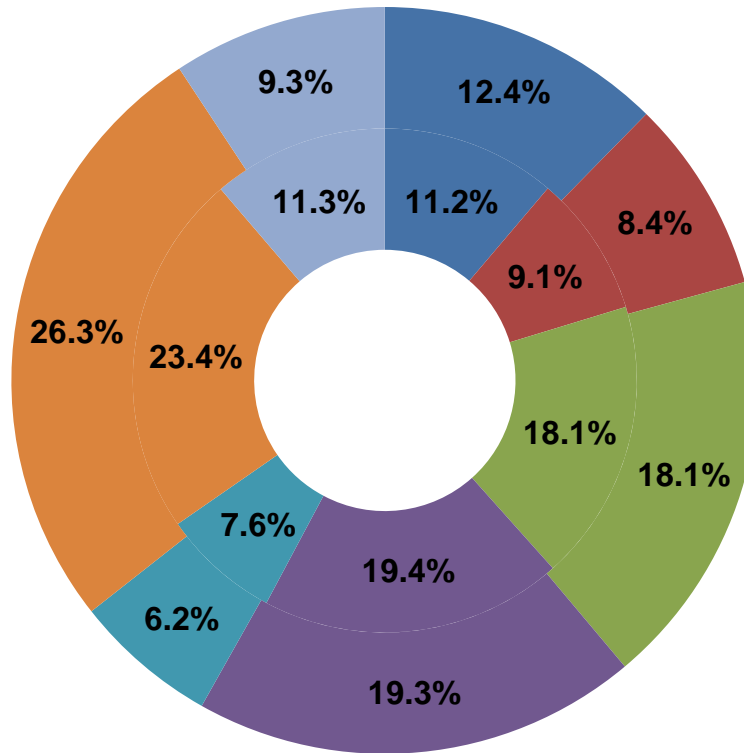
Total number of vessels  
2006-10: 56,077  
2011: 8,898

# 2011 Nordic Marine Insurance Statistics – Part 7

As of 31 December 2011

Number of vessels per classification society, by year of exposure

Inner ring: 2006-2010  
Outer ring: 2011



- American Bureau
- Bureau Veritas
- Germanischer Lloyd
- Lloyd's Register
- Nippon Kaiji Kyokai
- Det Norske Veritas
- others

Total number of vessels  
2006-10: 56,077  
2011: 8,898

# 2011 Nordic Marine Insurance Statistics – Part 8

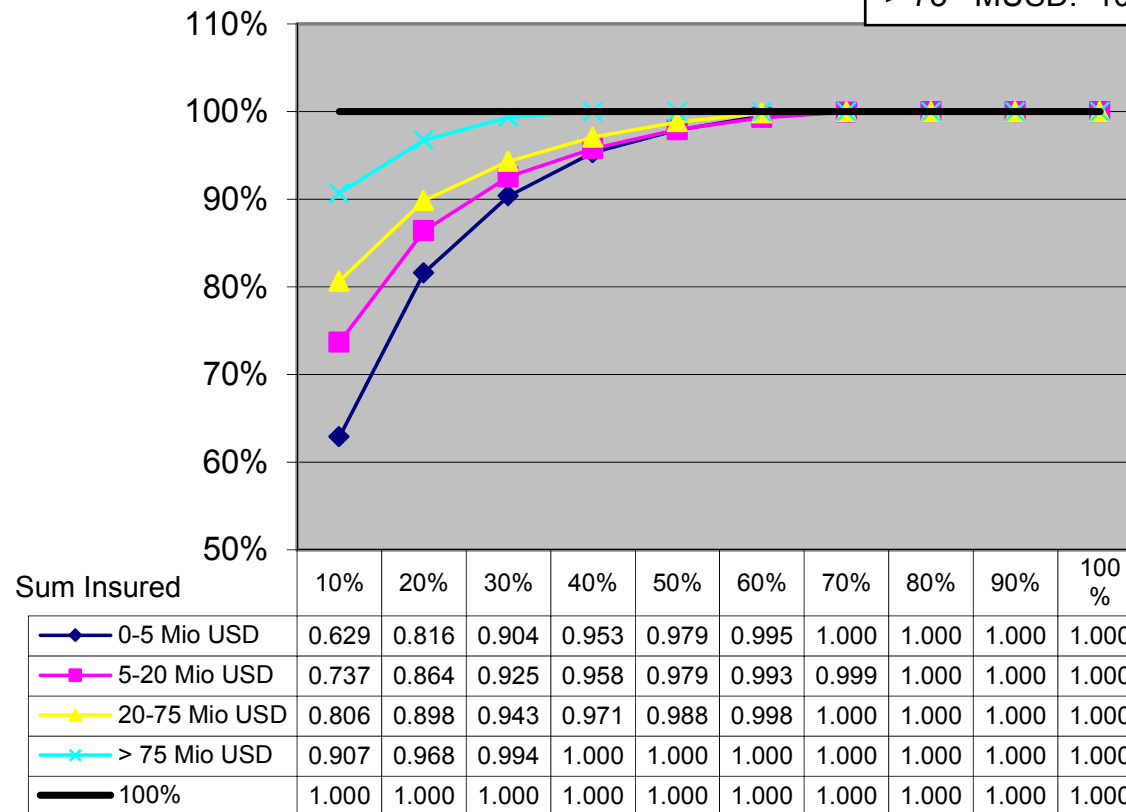
As of 31 December 2011 – paid & outstanding as reported

Based on claims occurred in years 2006-2011

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: 76%  
 5-20 MUSD: 85%  
 20-75 MUSD: 82%  
 > 75 MUSD: 100%



Ceding company's retention as % of SI

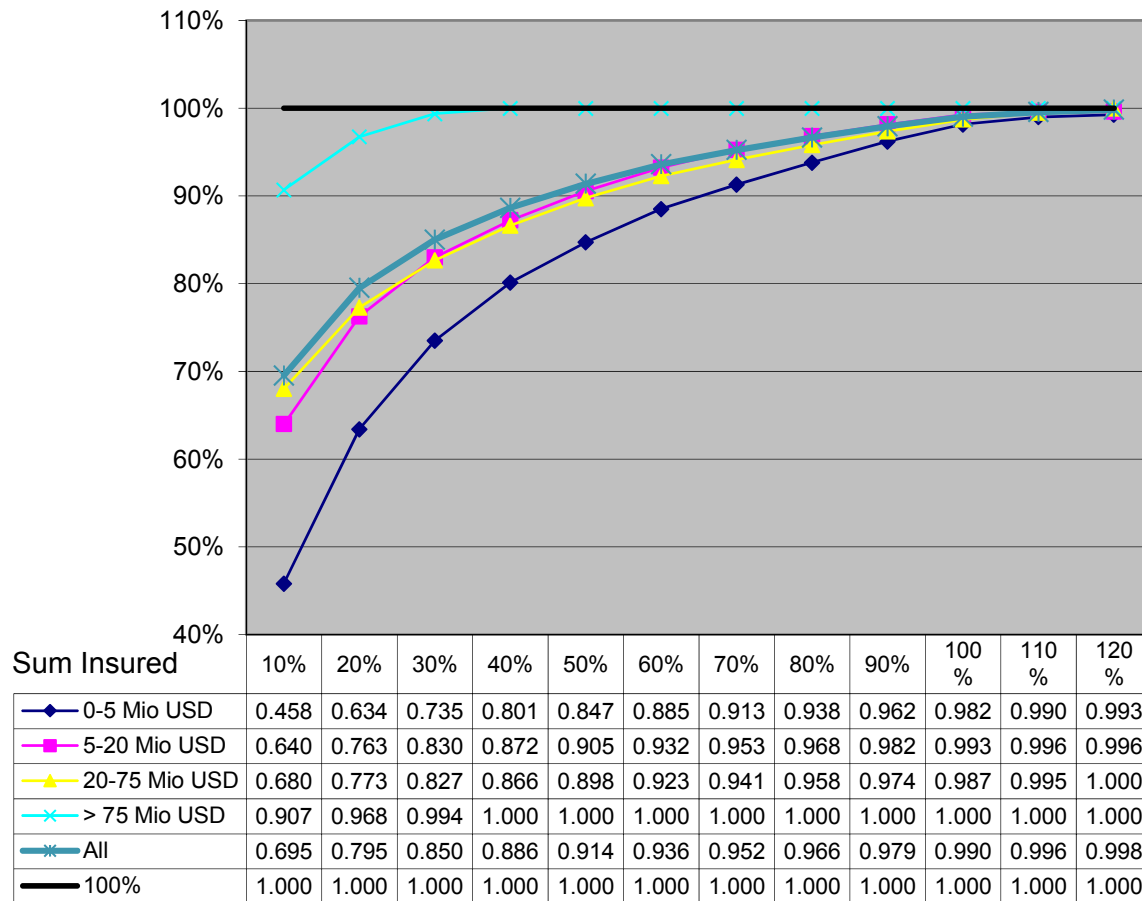
# 2011 Nordic Marine Insurance Statistics – Part 8

As of 31 December 2011 – paid & outstanding as reported

Based on claims occurred in years 2006-2011

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



# 2011 Nordic Marine Insurance Statistics – Part 8

As of 31 December 2011

## 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.

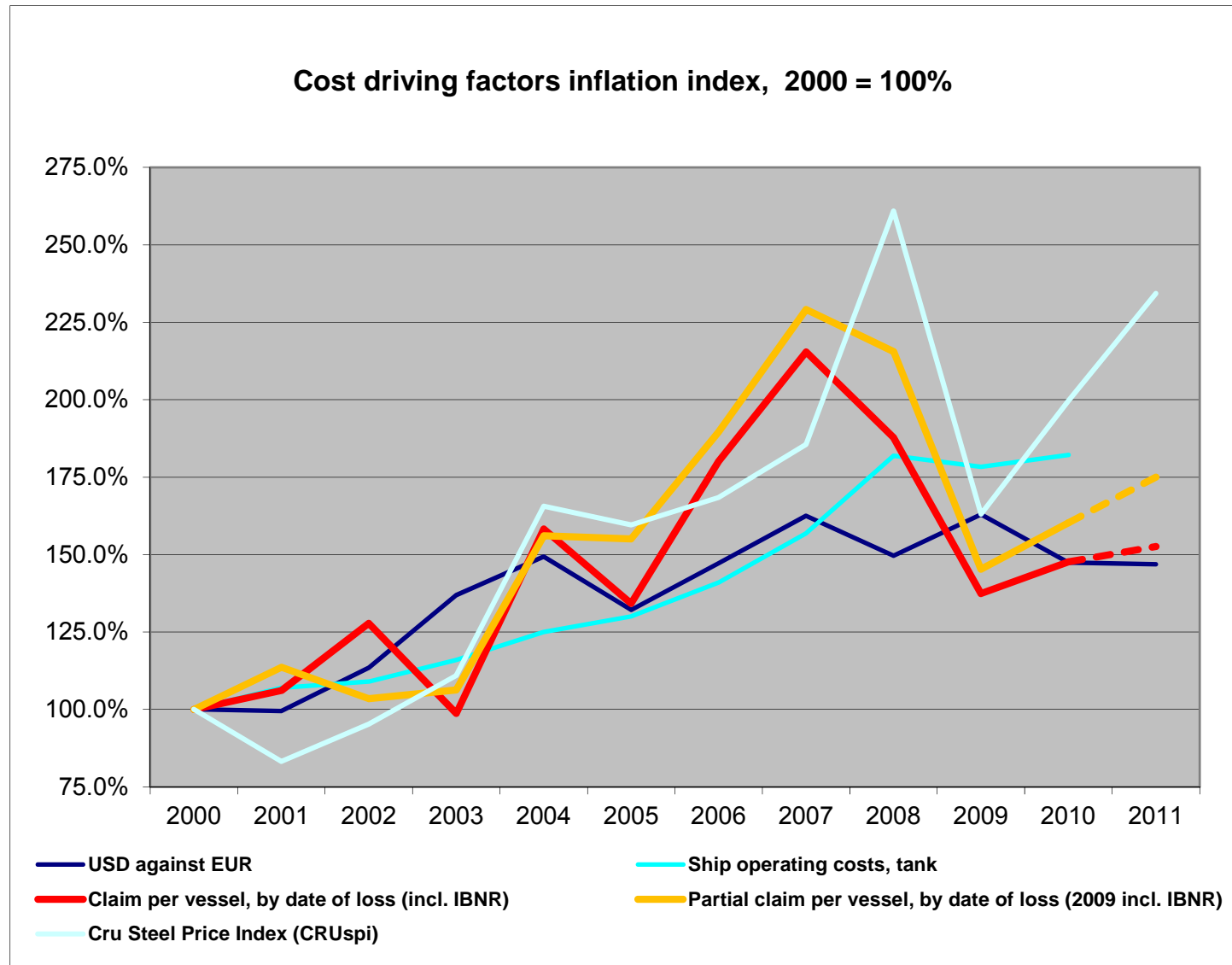
## Exposure Curves technicalities

- The curves are based on H&M covers only for vessels with valid IMO-No.
- The curves are based on the years 2006-2011  
(15,605 partial claims; 15,672 claims in all)
- The curves are calculated as follows:  
x = percentage retained  
C = Individual claims <sup>1)</sup>  
V = Vessel value  
 $f(x) = \frac{\sum \min[C, V*x]}{\sum C}$

<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



## 2011 Nordic Marine Insurance Statistics – Part 9



**Sources:**

Claim index: Cefor NoMIS data as of 31 December 2011; Exchange rates: Norges Bank, Ship operation costs: Moore Stephen's, Steel: CRU Steel Price Index (<http://www.cruonline.crugroup.com/Steel/CRUspi.aspx>)



## 2011 Nordic Marine Insurance Statistics

Cefor marine insurance statistics publications at <http://www.cefor.no> :

- Cefor Annual Report 2011
- The 2011 Cefor NoMIS Report & The 2011 Cefor NoMIS COASTAL 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:  
<http://www.cefor.no/statistics/statistics.htm>

Other marine insurance statistics:

- IUMI (International Union of Marine Insurance):  
Statistics issued by IUMI's Facts & Figures Committee:  
<http://www.iumi.com/index.cfm?id=7165>