

# Reinsurance Supervision under a Risk Based Approach

A Supervisor's Assessment of Insurers' Reinsurance Arrangements

Michael Holm

Panamá, April 23rd 2013



## Overview

- Business Model and Reinsurance
- Methods and Purposes
- Off-Site Monitoring
- Data Input and REMOS Analyses
- On-Site Inspections
- Renewal material Reinsurance strategy



## Business model



- What the business does, and how the business makes money doing these things. (Weill, P. et al (2005))
  - Main activities
  - Customer group
  - Geographical location
  - Distribution
  - Outsourcing
  - Competitive parameters
  - Growth and income
  - Guidelines
  - Procedures
  - Capital needs, Capital plan



## Business Model and Reinsurance

The supervisor requires that the insurer have reinsurance and risk transfer strategies appropriate to the nature, scale and complexity of their business.

The strategy shall be part of their wider underwriting, risk and capital strategies.

The reinsurance strategy should take into account the insurer's business model, levels of capital and business mix, with particular reference to:

- risk appetite (both gross limit and net retention);
- peak exposures and seasonality in the insurance book;
- levels of diversification; and
- appetite for credit risk.



# Methods and Purposes

## **METHOD & TOOLS**

The supervisor takes a risk-based approach to supervision that uses both

- off-site monitoring
- on-site inspections

## **PURPOSE**

- To examine the business of each insurer
  - To evaluate its condition
  - To monitor the risk profile
- and to monitor the quality and effectiveness of its corporate governance



# Off-site monitoring

# Danish Reporting and Analyses

- Annual accounts (retro spective)
  - Result of reinsurance
- Reinsurance programmes (pro spective)
  - REMOS

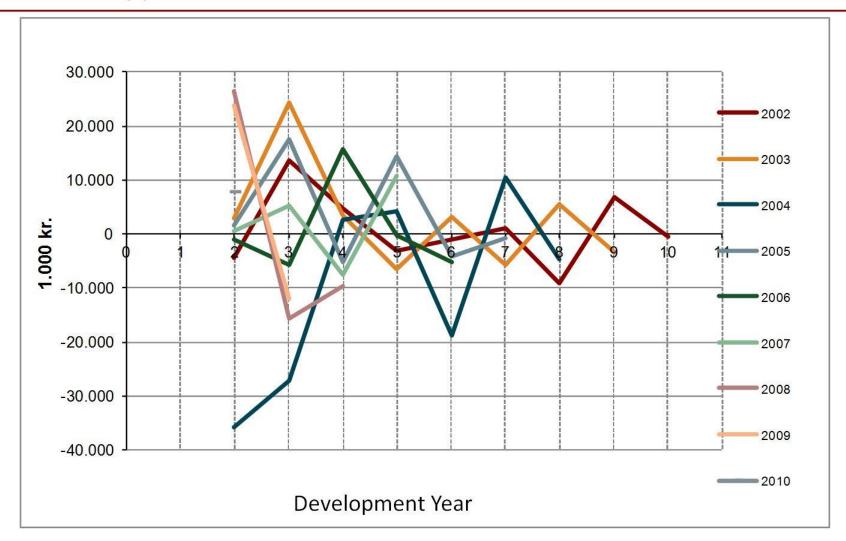


# Reinsurance program Analyses

- We need to have knowledge of
- Risk exposure and
- Gross business of the cedent/insurer
- Historical data regarding:
  - Claims pattern
  - Premium
  - Cost developments (changes)
- Run off

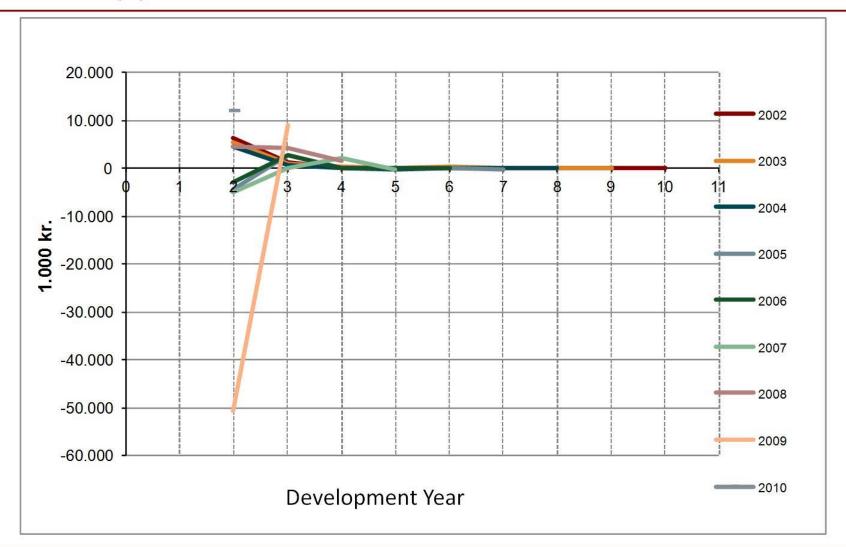


# Run Off (1)



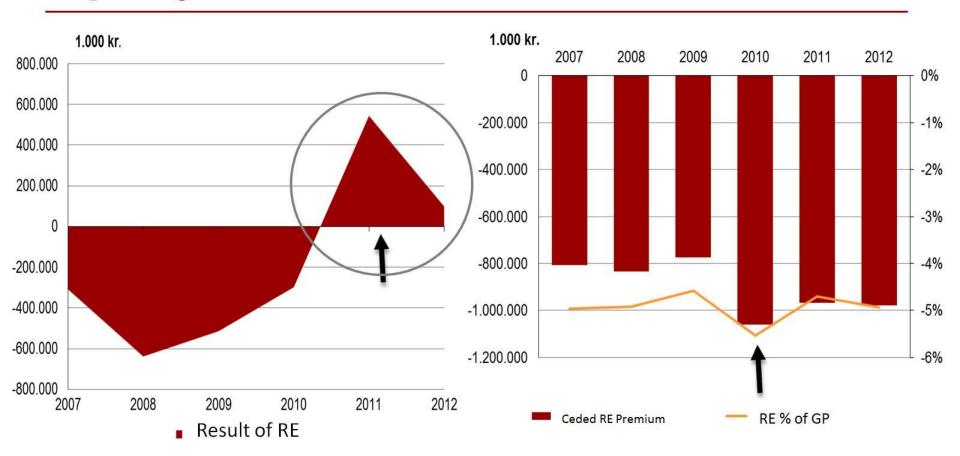


# Run off (2)





# Reporting



2 July 2010: Copenhagen cloud burst

Reinstatement premium



# REMOS - The input process

- Insurers report to Finanstilsynet, the Danish Financial Supervisory Authority their treaty contracts incl. the participating reinsurers.
- Reporting sheets can be found on Finanstilsynet's website: <a href="http://www.finanstilsynet.dk/da/Indberetning/Virksomhedsomraader/Andre/Reassurancekontrakter.aspx">http://www.finanstilsynet.dk/da/Indberetning/Virksomhedsomraader/Andre/Reassurancekontrakter.aspx</a>

- Finanstilsynet collects information on reinsurers:
  - Companies rated by S&P data automatic loaded into REMOS
  - Companies not rated by S&P data manually loaded into REMOS



## Provided information

## Proportional reinsurance:

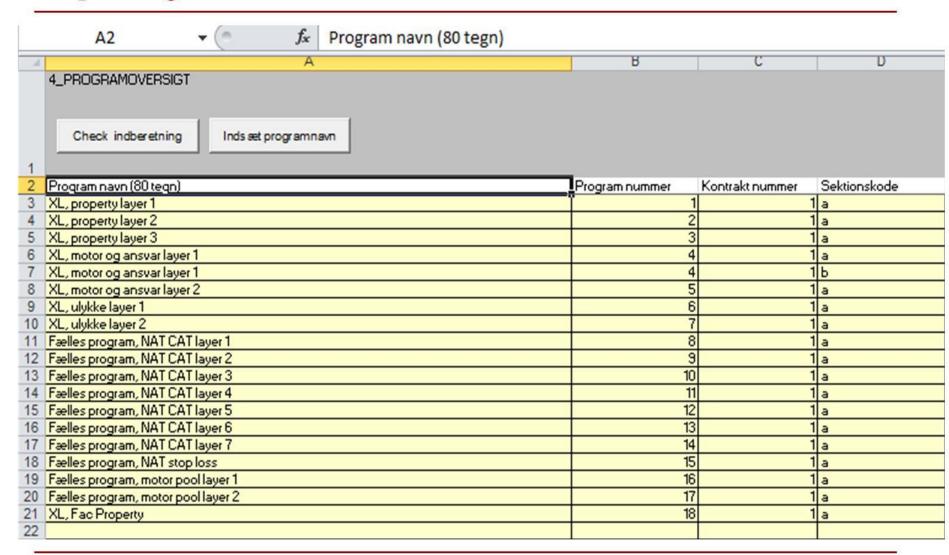
- Contract type (QS or Surplus)
- EML/Sum insured
- Net retention
- Maximum capacity/number of lines and size of each line
- The covered risks
- Premium

## Non-proportional reinsurance:

- Contract type (Excess of loss or Stop loss)
- Limit
- Excess point
- The covered risks
- Aggregates
- Reinstatements
- Rate on line
- Premium
- Terrorism coverage



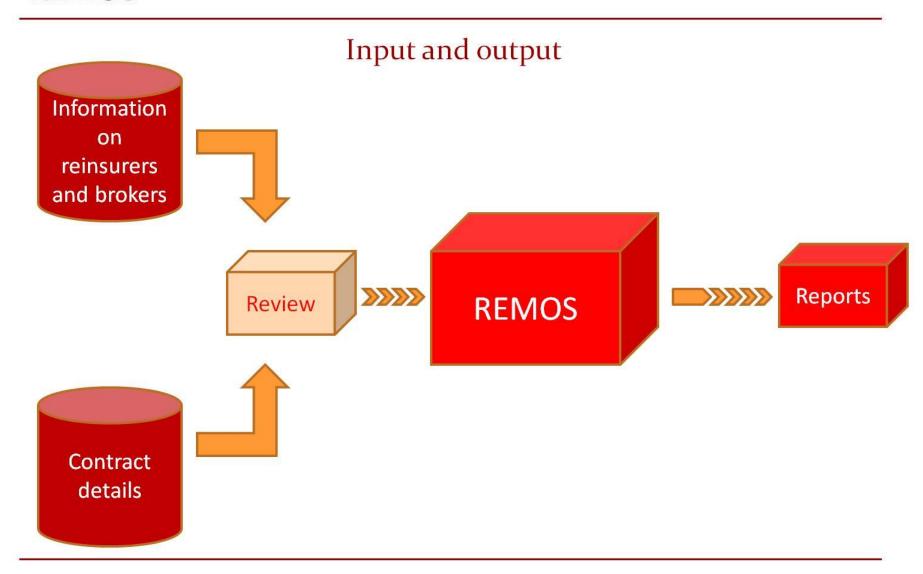
# Reporting Sheets



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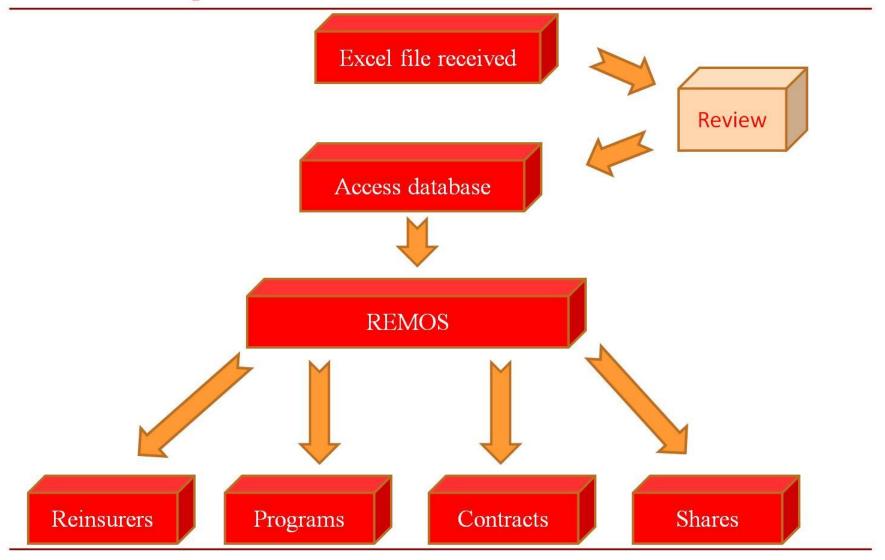


# **REMOS**





# From Excel spread sheet to REMOS





# The Danish REinsurance MOnitoring System: REMOS

## It collects information on:

- Insurers reinsurance programmes
  - Risk profile
  - Security
- Reinsurers
- **Brokers**
- S&P ratings

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Under the scheme, reinsurance contracts are logged through IT links to FiNANSTILSYNET,

NET have devised its own ratings system which assesses reinsurers' strength, using five key criteria: reserving provisions as a percentage of net

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A financial services supervisor in Copenhagen will safeguard the interests of policyholders

# Danish insurers get electronic watchdog

DANISH insurance companies will be required from next year to register their reinsurance pro-grammes electronically with the country's financial services supervisor as part of a government move to protect policyholders from the financial difficulties of companies, writes Jessica McCai-

The supervisor will review the insurer's reinsurance programmes on an annual basis and will have the power to ask the companies to deal with what it sees as weaknesses in their cover.

However, this power is only to be used as a last

which tracks the programmes, measuring both the

volume and quality of cover bought.

To assist it with the process FiNANSTILSY-

premium income; gearing ratios; combined ratios; return on equity; return on investment.

Commenting on the scheme, Michael Holm, insurance director at FiNANSTILSYNET said: "Reinsurance is the biggest area of potential vulnerability for most insurers, and we feel it our duty to the Danish public to protect them in this

The emphasis is very much on dialogue and discussion, on asking the right questions.

Our experience so far is that reinsurance buy-

ers see the value in what we are doing. "They see it as supporting their companies." The scheme, which has just completed its pilot

phase, affects 110 insurers and 350 reinsurers. It is understood to have attracted the interest of overseas insurance supervisors.

Far Eastern authorities are also said to have visited FiNANSTILSYNET with a view to setting up a similar arrangement in their own counOVER: Indian Develo Lok Sa

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Regulatory



#### Regulation

The age of electronic tree global insurance that consumer project tree global insurance that time, be required for the global insurance that the grammer which grather for the global insurance that the grammer which the global insurance that the global emost difficult aspect of ne system is to determine how much catastrophe coverage a company should be buying. The storms that ravaged Denmark on December 3 and 4 helped to provide Holm and his team with a benchmark for how much a one-in-one-hundred-years storm could cost the Danish industry. He wrote to every company asking them what they thought their losses might be. As claims continued to pour in their loss estimates edged higher and higher"

But none of his staff knew what the biggest risk was. "The problem is, we have 250 paragraphs in the Danish business insurers act, but none of them regulate the risks they face." After studying the threats to an insurer it was decided that uncollected reinsurance receivables were the biggest danger to an insurer's financial stability. The trouble was that no one in the department knew how reinsurance worked.

are the biggest risks involved in non-life insurance? What

makes the companies go bankrupt?"

Holm hired former Copenhagen Re underwriter Henning Kristensen to give him and his staff a crash course on the fundamentals of reinsurance. During his four years with Finanstilsynet, Kristensen (now the chief executive of Provinzial's Danish subsidiary) gave them a firm grasp on how the industry operates. "We kept asking him the same questions until we understood the answers," says Holm. The next question that he needed to find an answer to was: now I know the biggest risk facing insurers, how do I regulate it?

The answer was an ambitious plan to build a computer ware system that logged all the reinsurance bought by Dani insurance companies. This involved finding out the type of contracts which had been signed, what their policy limits and terms are, which company brokered the risks and which assumed them. It also involved creating tools to rank reinsur-

New software is hard taskmaster

der to fulfil its obligation to protect

ish state will not only regulate the comnose aspects of its operations that could

urvival. Having regulated banks and big consorne past, Holm was well aware that companies face

inancial risks that could hit their customers. On his val he says: "The first question I wanted to know was what



expected to file their returns electronically, which are then logged on the regulator's system

Although the system's primary task is to monitor the gleaned by the department's on-the-spot ions allows it to get an idea of a company's risk profile. Holm says: "You develop a picture of a company: what it is doing and how it covers its risks."

The most difficult aspect of the system is to catastrophe coverage a company should provide Holm and his team with a benchmark for h one-in-one-hundred-years storm could cost the Dani

company asking them wha be. As claims continued to pour l higher and higher. Total insu reached Dkr8bn (\$1.1bn) - a figur

were generally under-reinsured for s: "The previous benchmark was the und Dkr900m. We realised that the than double that." Companies had n a catastrophic storm but the real

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five key ratios to assess the strength ers: risk-based reserving as a percentgearing ratio; combined ratio; return vestment. Based on these criteria the any a rating from one to 100. After sesses the reinsurers it uses for San ks. Holm has decided to weigh the >

Reactions March 2000 43

## Monitoring reinsurance



A new Danish scheme for monitoring and supervising reinsurance programmes is exciting considerable overseas interest and could help to speed changes within the industry. Mark Baylis reports.

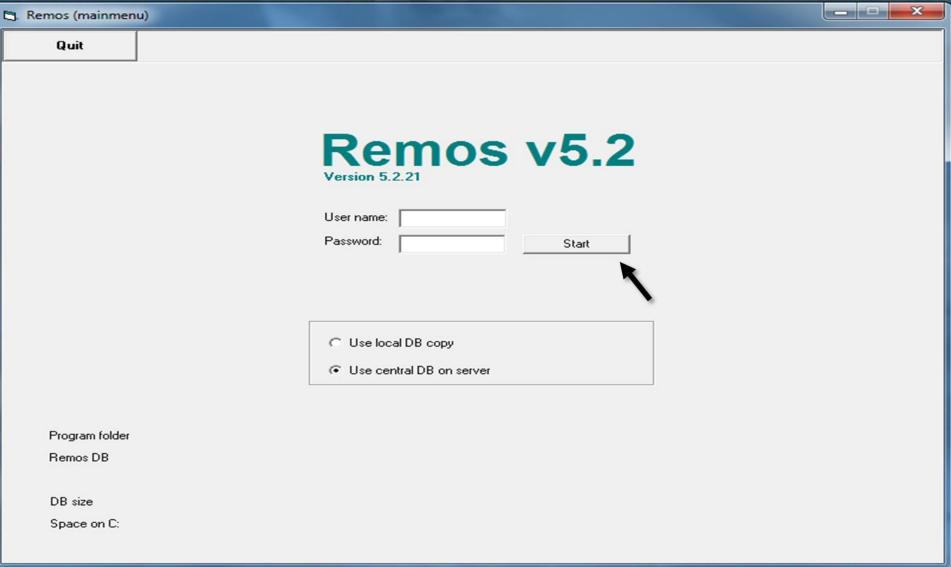
From January 2000, Danish insurers have been required to register their reinsurance programmes with the country's financial carvicae' conservient



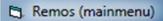
Holm says: "You develop a picture of a company: what it is doing and how it covers its risks."



Latest version of the program



The program is based on an Access database



ok

Quit

System Data

# Remos v5.2

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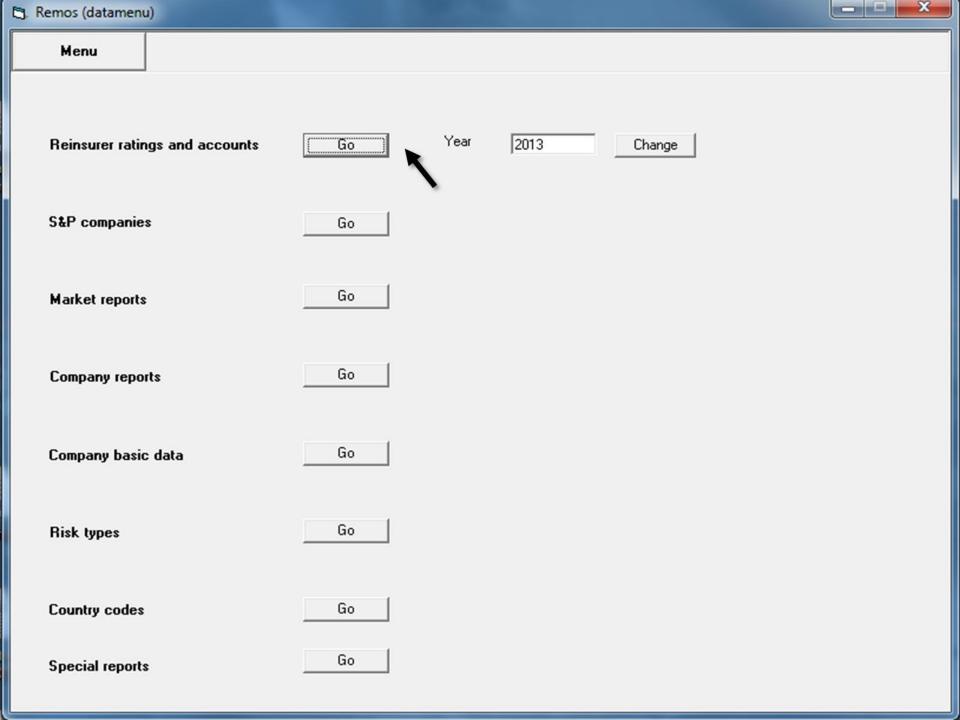
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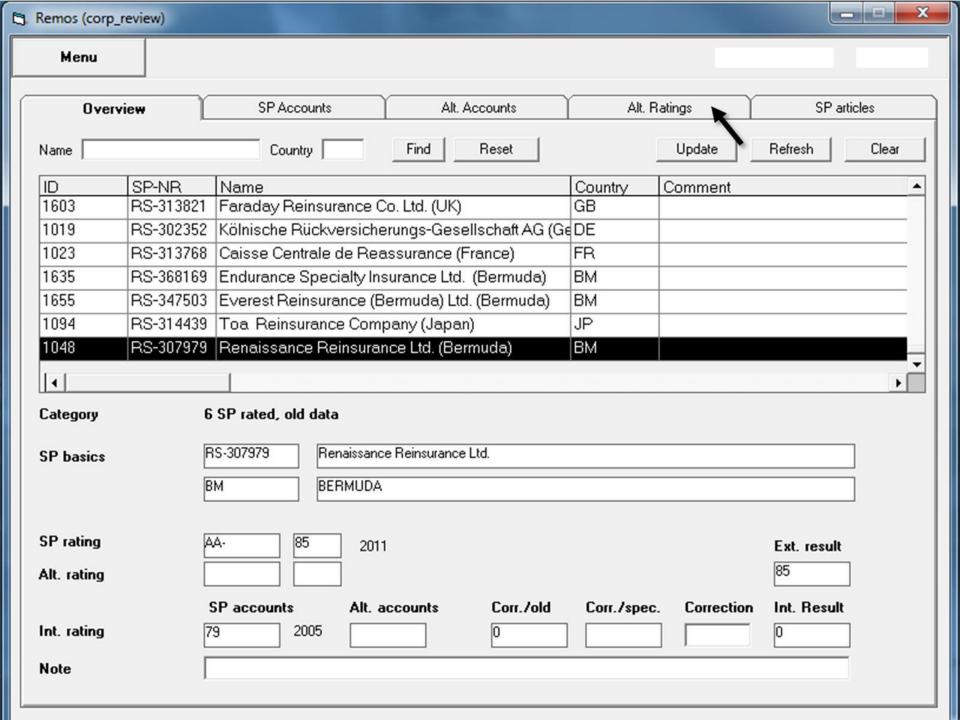
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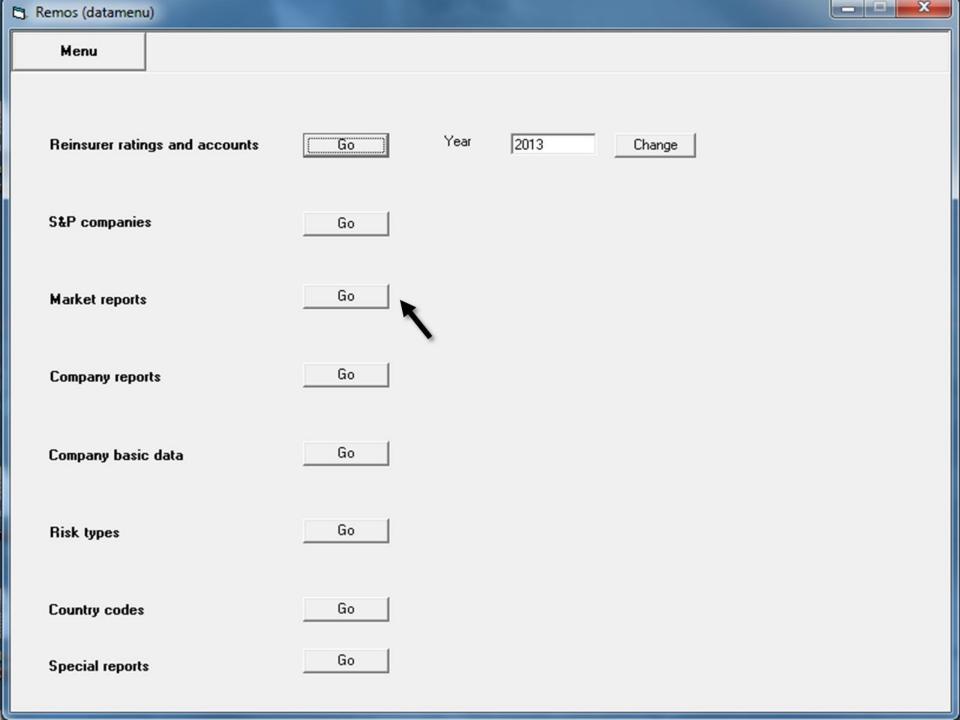
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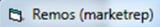
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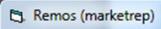


## Back

Report	Year	2
Reinsurers ordered by liability	2013	
Reinsurers ordered by rating	2013	
Reinsurers ordered by country	2013	
Reinsurer watch list	2013	
Cedents ordered by ceded risk	2013	
Brokers ordered by placed risk	2013	
Market stratified on reinsurer country	2013	
Market stratified on risk class	2013	
Market stratified on contract class	2013	
Market stratified on reinsurer rating class	2013	
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Reinsurers ordered by liability	2011	
Reinsurers ordered by rating	2011	

Report





MARKET STATE

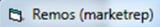


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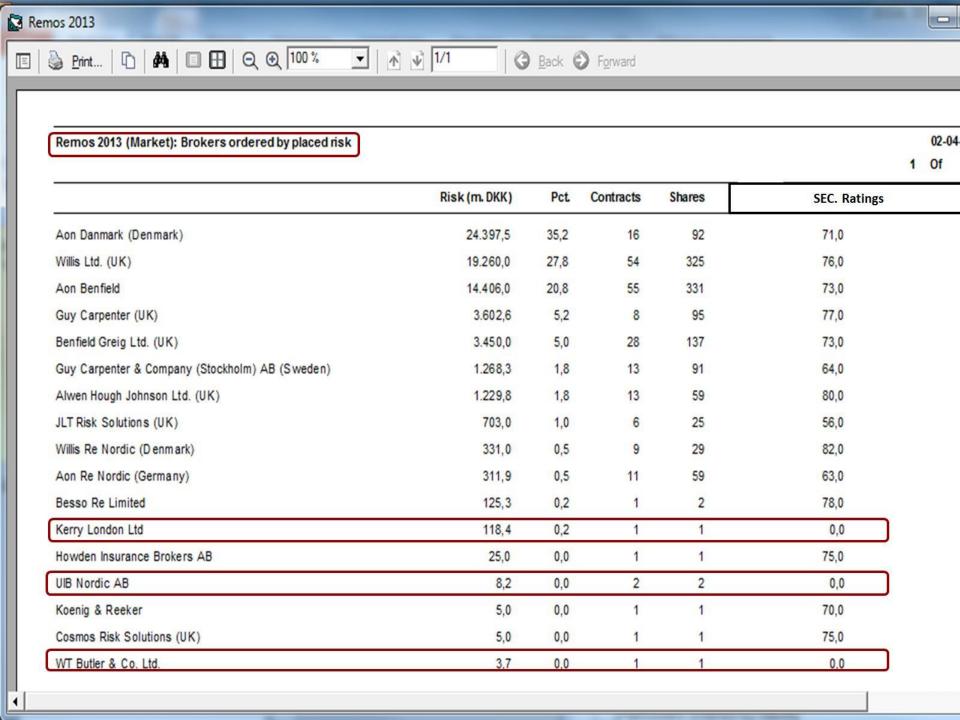


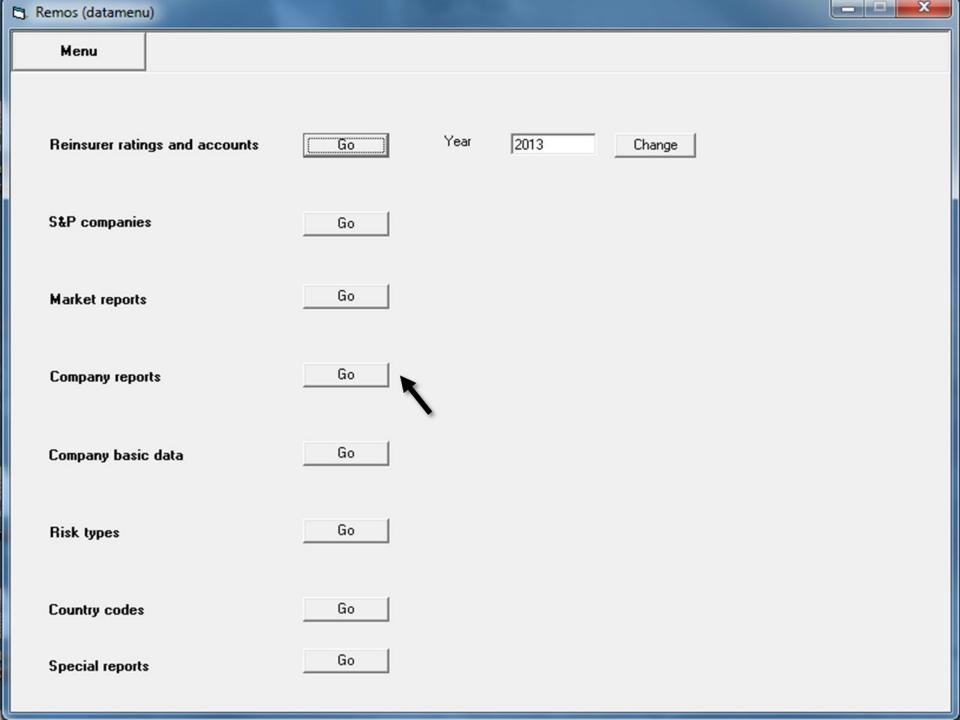
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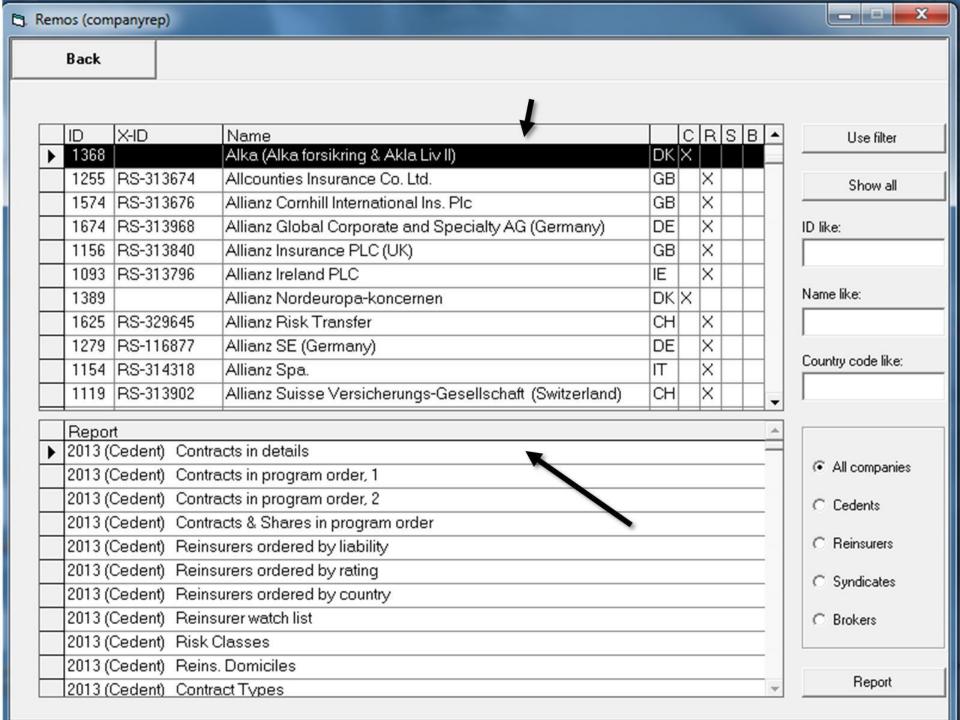
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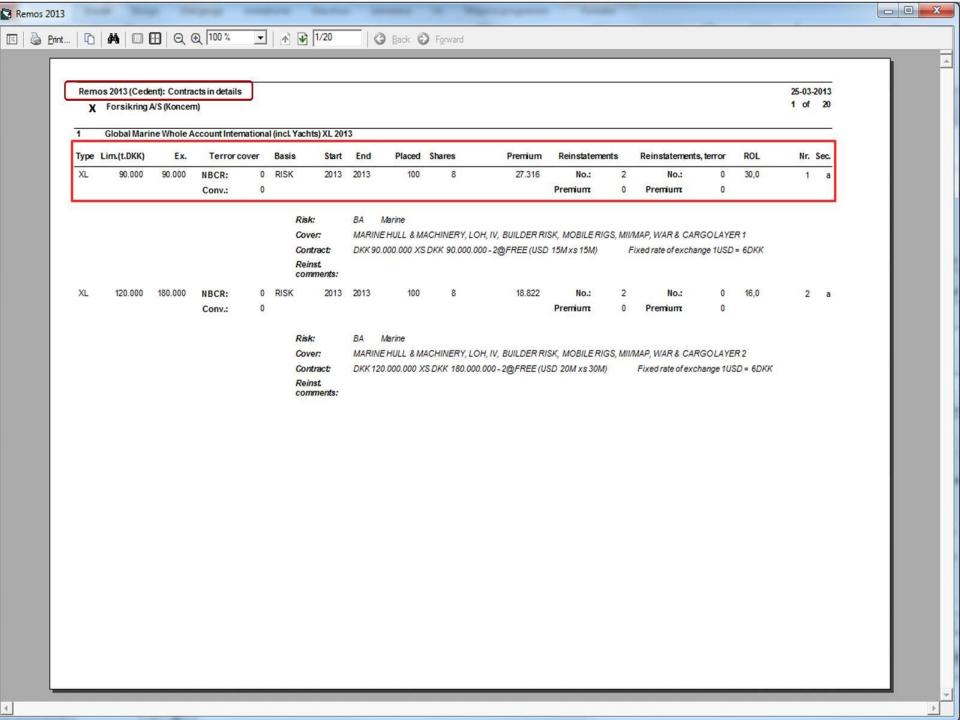
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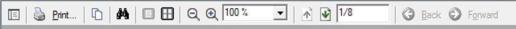


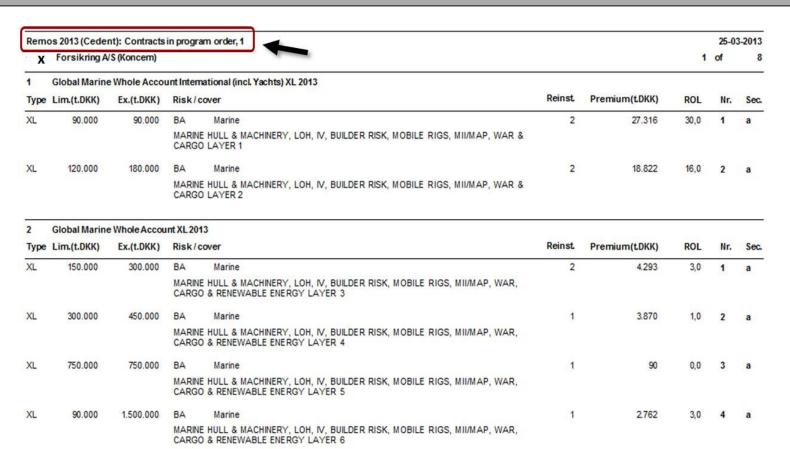


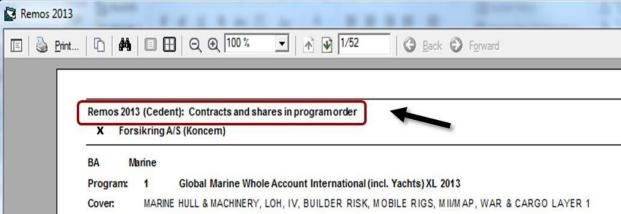












Contract DKK 90.000.000 XS DKK 90.000.000 - 2@FREE (USD 15M xs 15M) Fixed rate of exchange 1USD = 6DKK

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Pct.	Reinsure	er .	Rating
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20,0	DE	Munich Reinsurance Co. (Germany)	85
20,0	LU	Swiss Re Europe (Luxembourg)	85
4,0	JP	Toa Reinsurance Company (Japan)	80
3,0	GB	Lloyds 33	75
2,0	GB	1882	75
1,0	US	Odyssey America Reinsurance Corp. (US)	70



# On-Site Inspections – Why?

On-site inspections may provide information that can supplement

- the analysis from off-site monitoring and
- the opportunity to verify information received

On-site inspections may also help detect problems that may not be apparent through off-site monitoring



## Verification of REMOS

- Reinsurance strategy is part of the over all risk and capital strategy
- Reinsurance strategy
  - Interview with the Chair of the Board and the CEO
  - Renewal material

- Facultative covers/contracts contain operational risks
  - Number of contracts
  - Size of the insurer's organisation



# Renewal material - Reinsurance strategy

## How do we get the information?

- In Denmark we ask for the renewal material when we are preparing an on-site inspection
- Supervisors can use the renewal material to obtain important information on insurers.
- Renewal material contain all essential material for understanding the insurers business and its strategy:
  - Information on the insurer and its market position
  - future business initiatives and plans
    - changes and new initiatives
  - Detailed information on the reinsured business line(s)
  - As-if analyses

## This material is a source to understand the business model



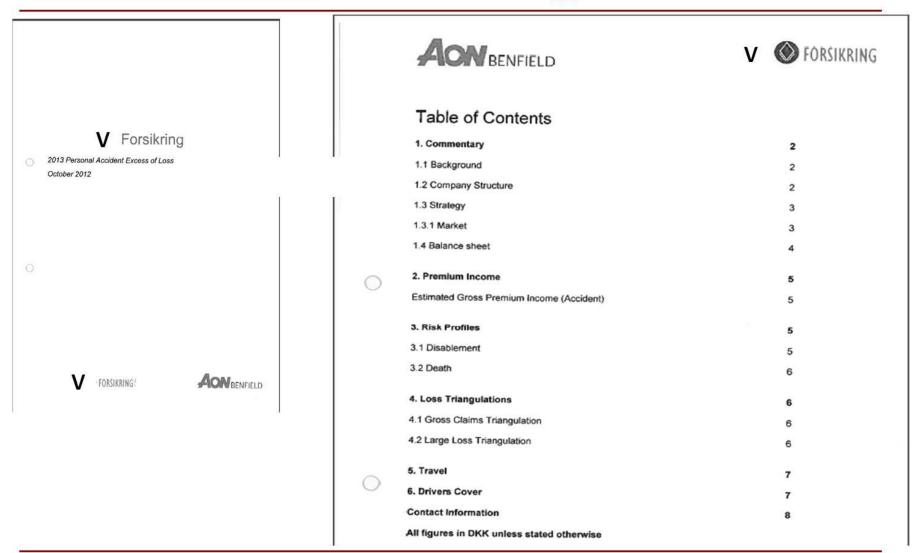
# Renewal material - Reinsurance strategy

The detailed information on the reinsured business line(s) include:

- Changes since last contract year important changes in the business strategy or structure.
- Values number of policies, sum insured, premiums etc.
- PML profile estimated PML for each major entity
- Loss history above the retention, 10 largest losses etc.
- Programme design deductible, retention, cover etc.

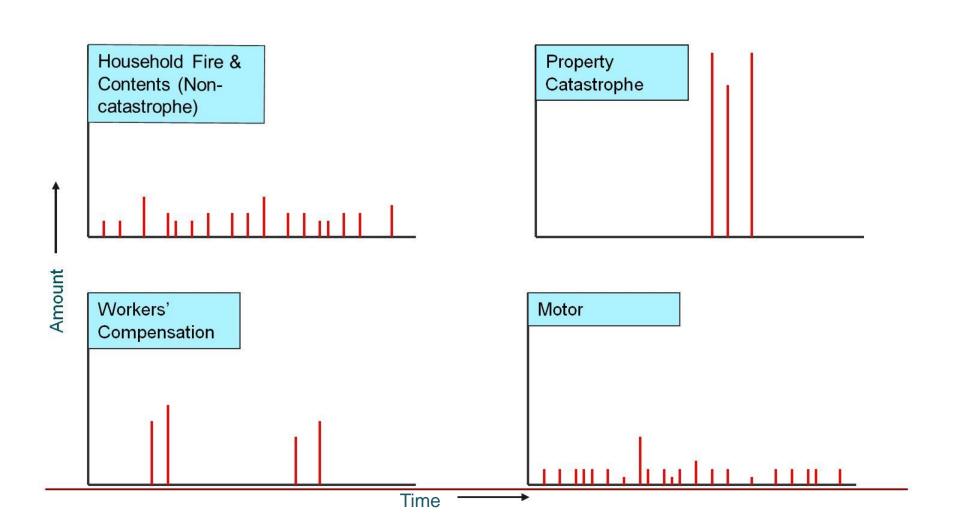


# Renewal Material - Reinsurance Strategy

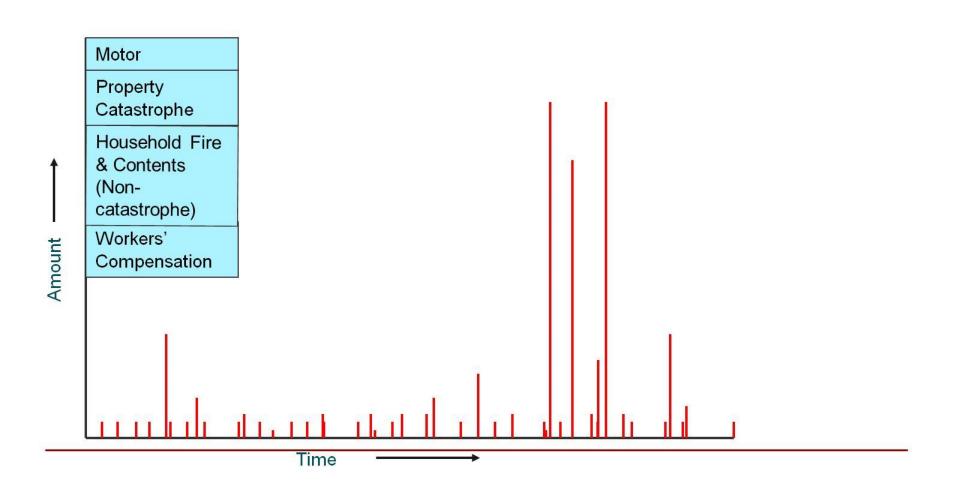


# Role of the Reinsurance Broker

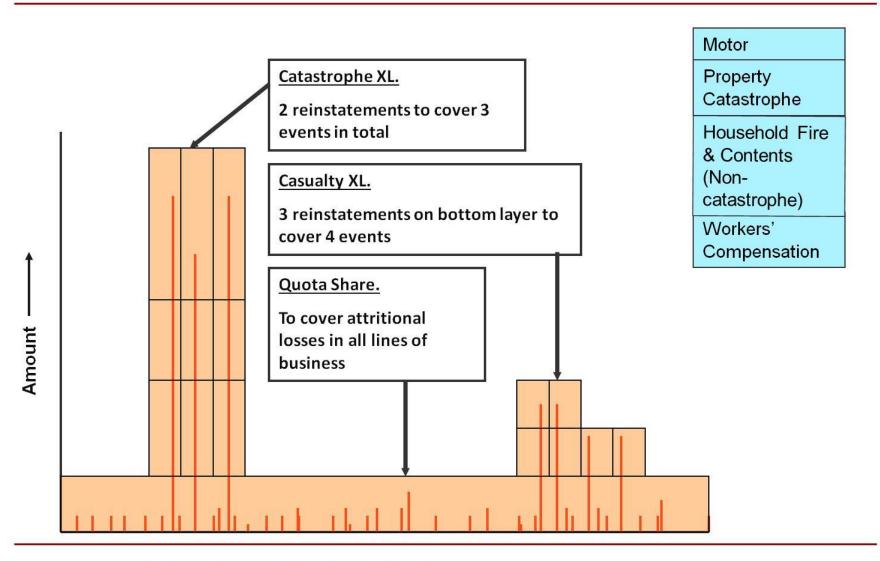














# Thank you for the attention