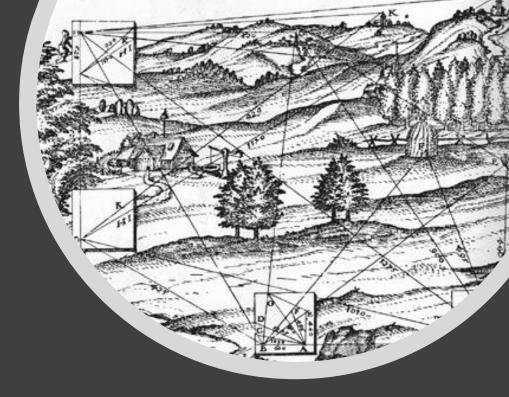
# No measurement w/o reference point

Global Market Stats & Benchmarking



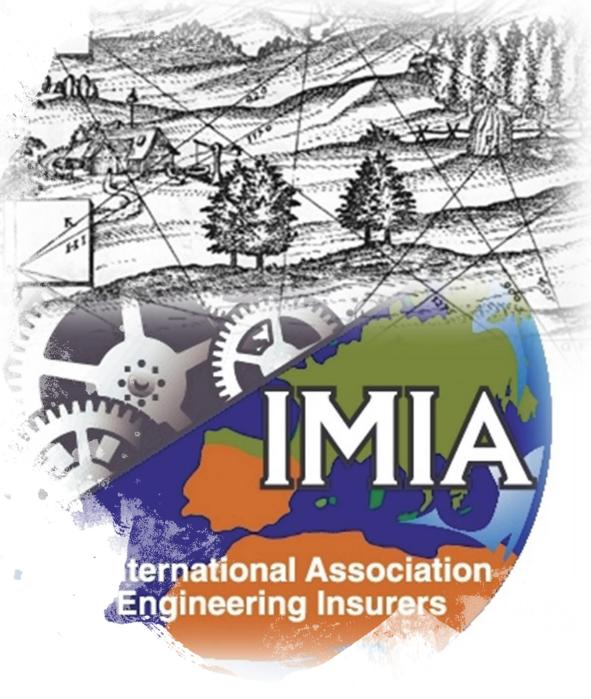


# Why benchmarking is important

We invest a lot in:

- education
- gathering know-how
- spreading best practices ...

BUT we do not measure the effectiveness of our efforts!!!





# Engineering Market is **PROPORTIONAL**

- Most risks are proportionally co-insured & FAC reinsured
- Most portfolios are proportionally reinsured
- Each market participants holds proportional fraction of the total



# Engineering Market is GLOBAL (brokers live on transactions)

- Many risks are atomized & spread over the globe
- Most if not all portfolios are globally reinsured
- > Local stats provide only **small part of entire picture**



# - *in accordance with antitrust law*



#### The International Association of Engineering Insurers

Amm

## ... well – nice idea – but is it legally compliant ...???

#### CLYDE&CO

#### Memorandum - Legally Privileged and Confidential

- То Olivier Hautefeuille, Simon Dejung (IMIA)
- сс Paul Lowrie Clyde & Co
- From John Milligan
- Date 1 October 2019 EU competition law information exchange

Dear Olivier, Simon, colleagues

1. Background

Re

IMIA is an international association whose members are national insurance associations around the world, individual insurers, reinsurers, and associate members who are loss adjusters consultants and brokers operating within the engineering insurance market

IMIA collects data from national associations, reproducing the data, and publishes them to its members.

2. Safeguards on IMIA handling of information

If IMIA receives any individualised data directly from insurers, if that data could be regarded as commercially sensitive, then it should not be viewed by members within IMIA who are employees of insurers.

I understand from Simon Dejung's email of 17 September that IMIA may collect certain information direct from insurers eq it lists guestions 1, 2 3.1, 3.2, with yellow and green boxes, such as: what is the size of your engineering portfolio, what is your typical position in a placement?

If this information is commercially sensitive or 'strategic' to use the European Commission's terminology, it should not be seen by competitors. Information will not be commercially sensitive if, for example, it is already in the public domain, or is sufficiently historic as to have no impact on competition, say 2-3 years old). We can discuss if necessary whether the questions asked seek information that could be viewed as commercially sensitive.

#### 3. Data on combined ratios

Data is processed to produce figures on the average performance of the market. This is for benchmarking purposes, so insurers can measure their performance against the market and does not raise competition issues.

I note your comment that you are aware of companies producing to the financial market their combined ratio as a KPI of their overall performance, but not publishing their combined ratio per line of business

I do not see that there should be a competition difficulty with an insurance association disseminating combined ratio per business line information - subject to all the safeguards of anonymity, aggregation, independent secretariat handling information to the extent it relates

415306/111 37800995.1

#### Clydf&Co

to other insurers. I would add one caveat - that the level of detail in aggregated figures must not be such as to identify the conduct/performance of any individual insurer.

I would mention that in its 2007 Business Insurance Sector Report, the European Commission published country by country combined ratios for the years 2000-2005, with reference to lines of business. It may be assumed this was not anticompetitive.1 We can discuss this further if required

4. Your bullet point guidance (Simon Dejung's email 17 September)

I do not disagree with this.

I understand from speaking to Simon that the 66% limit is based on German guidance and that it is in any event not controversial from IMIA's point of view.

John Milligan Consultant EU & Competition Clyde & Co LLP

COMMISSION STAFF WORKING DOCUMENT Accompanying the COMMUNICATION FROM THE COMMISSION Sector Inquiry under Article 17 of Regulation (EC) No 1/2003 on business insurance (Final Report) 2007

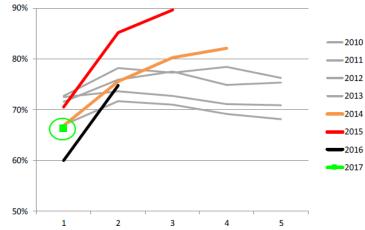
See eg pages 8-9: https://ec.europa.eu/competition/sectors/financial services/inquiries/final report annex.pdf The EC stated 'In order to investigate profitability, an economic measure was used which is simple and in widespread use in the industry: the so-called "combined ratio". It is calculated by dividing the sum of incurred losses net of reinsurance and expenses by earned premium net of reinsurance; Claims (net of reinsurance) + Expenses incurr

Earned premiums (net of reinsurance)

This therefore measures the amount that an insurer must pay out to cover claims and expenses per euro of earned premium 415306/111 37800995.1

#### Gross\* loss ratios Cargo Europe (& partly US) \*\*

Underwriting years 2010 to 2017, as reported at 1, 2, 3, 4, 5 years Gross premiums, paid+outstanding claims



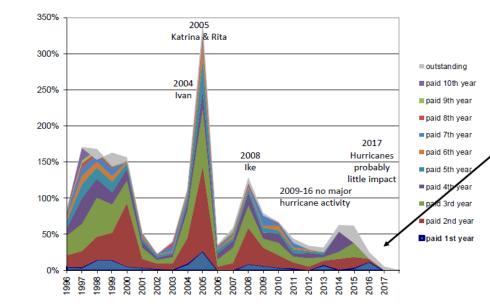
2014, 2015, 2016: Each year extraordinary increase in loss ratios. Change in typical pattern. The new normal?

2017 starts at 2014 level. With a 'normal' pattern (grey lines), 2017 would end around 70%. With recent pattern, 2017 ends around 80%.

Offshore Energy – Gross Loss Ratios



Underwriting years 1996 to 2017 / incl. liability / data from UK, Nordic, US/ reported as of Dec. 2017



Youngest underwriting years still develop, will deteriorate over time.

Other lines of business communicate transparently about settled claims – why not engineering?

# Good examples



### Method



Format: undeveloped triangulation (entries yearly)

Currency: US\$

#### Period: UWY 2008-2015

**Premium**: aggregated booked gross premium retained per uwy (aggregated across the portfolio) – *no indication of deductions and/or commissions allowed!* 

Losses: incurred & retained losses per uwy (aggregated across the portfolio) – *large losses & attritional losses combined* 

Basis: premium/losses on same basis -

retained

## Fictitious outcome

	¢			Yearly Development of incurred LR on carned premium basis								
		Dev 12m	Dev 24m	Dev 36m	Dev 48m	Dev 60m	Dev 72m	Dev 84m	Dev 96m	Dev 108m D	Dev 120m	
	2008	1%	5%	23%	53%	54%	60%	59%	64%	63%	69%	
	2009	0%	5%	13%	29%	25%	34%	50%	49%	52%		
	2010	0%	1%	33%	54%	68%	70%	70%	88%	1		
	2011	0%	3%	5%	23%	21%	54%	61%				
LBADY	2012	0%	0%	9%	16%	25%	47%					
UWY	2013	0%	11%	27%	32%	69%						
	2014	1%	7%	12%	32%							
	2015	0%	3%	9%								
	2016	0%	7%	1								
	2017	0%										

# Template for anonymized entries

	Aggregated net retained Po	rtfolio Pr Yearly a	remium (bo ggregated r	o <i>ked)</i> let retaine	ed premi	um deve	elopmen	t per uw	/		
		(on book	ked premiur	n)							
		Dev 12	Dev 24	Dev 36	Dev 48	Dev 60	Dev 72	Dev 84	Dev 96	Dev 108	Dev 12
	2008										
	2009										
	2010										
≥	2011										
M	2012										
	2013										
	2014										
	2015										
-	Incurred net retained losses										
	incurred het retained losses		evelopment	on net re	tained ir	ourred	losses				
		Dev 12						Dev 84	Dev 96	Dev 108	Dev 12
	2008		20121	201 00	001 10	201 00	00112	20101	201 30	201 100	001 12
8-	2009										
<u> </u>	2010										
ר צ	2011										
₩ N	2012										
21 <b>-</b> -	2013										
1	2014										
	2015										
_	Incurred net retained LR										
	incurred net retained Erc	Yearly d	evelopment	on net re	tained ir	ourred	losses				
		Dev 12						Dev 84	Dev 96	Dev 108	Dev 12
	2008		#DIV/0!	########	######	######	######	######		#DIV/0!	
		#DIV/0!			######	######				#DIV/0!	
	2010	#DIV/0!	#DIV/0!	#######	######	######	######	######	######	#DIV/0!	·
` ≿		#DIV/0!	#DIV/0!	########	#######	######	######	######	######		•
M		#DIV/0!	#DIV/0!	########	#######	#######	######	######			
		#DIV/0!	#DIV/0!	########	#######	#######	######		r		
		#DIV/0!		########	######	######					
-	2015		#DIV/0!	<b>K</b> uunnun			F				

# iLR & booked premium range to 3<sup>rd</sup> party

0	< 5 Mio	Values in \$[US]
0	5 Mio to 20 Mio	
0	20 Mio to 50 Mio	
0	50 Mio to 100 Mio	
$\cap$	more than 100 Mio	

νγ

ncurred net reta	ined LR									
	Yearly d	evelopme	nt on inc	urred loss	es					
	Dev 12	Dev 24	Dev 36	Dev 48	Dev 60	Dev 72	Dev 84	Dev 96	Dev 108	Dev 120
2008	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2009	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2010	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2011	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
2012	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			
2013	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!				
2014	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!					
2015	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!						

independent 3<sup>rd</sup> party (not IMIA)

### Recall - Fictitious outcome «

	Yearly Development of incurred LR on carned premium basis										
		Dev 12m	Dev 24m	Dev 36m	Dev 48m	Dev 60m	Dev 72m	Dev 84m	Dev 96m	Dev 108m [	Dev 120m
	2008	1%	5%	23%	53%	54%	60%	59%	64%	63%	69%
	2009	0%	5%	13%	29%	25%	34%	50%	49%	52%	
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	2011	0%	3%	5%	23%	21%	54%	61%			
LBAD	2012	0%	0%	9%	16%	25%	47%				
UWY	2013	0%	11%	27%	32%	69%					
	2014	1%	7%	12%	32%						
	2015	0%	3%	9%	1						
	2016	0%	7%								
	2017	0%									

# IMIA Benchmarking

#### ASK!

- Is this of interest & Will you contribute?
  - Anonymization Confidentiality & Data

protection guaranteed

- Submitted to independant party
- Aggregated retained premium & losses
- Raw data deleted after having retrieved the LR

## Large Losses

### The International Association of Engineering Insurers

### Let's get out of the clouds

MARSH REPORT March 2018

FIGURE 4	FIGURE 4 LARGEST LOSSES 2016-2017 Source: Marsh Research										
DATE	PLANT TYPE	EVENT TYPE	LOCATION	COUNTRY	PROPERTY LOSS (US\$M)						
02/11/2016	EXPLORATION AND PRODUCTION (E&P) OFFSHORE	MECHANICAL DAMAGE	JUBILEE FIELD	GHANA	450						
12/01/2016	REFINERY	FIRE	SANNAZZARO DE' BURGONDI	ITALY	250						
01/11/2017	REFINERY	FIRE	RUWAIS, ABU DHABI	UNITED ARAB EMIRATES	1,000+						
01/30/2017	CHEMICAL	FIRE	PORI	FINLAND	267						
03/14/2017	REFINERY	FIRE	FORTMCMURRAY, ALBERTA	CANADA	220						

THE 201 ARGEST LOSSES 1978 - 2017

FIGURE 5	THE 20 LARGEST LOSSES 1978 - 2017 Source: Marsh Research								
DATE	PLANT TYPE	EVENT TYPE	LOCATION	COUNTRY	PROPERTY DAMAGE1 (US\$M)				
07/06/1988	E&P OFFSHORE	EXPLOSION, FIRE	PIPER ALPHA, NORTH SEA	UNITED KINGDOM	1,960				
01/11/2017	REFINERY	FIRE	RUWAIS, ABU DHABI	UNITED ARAB EMIRATES	1,000+				
10/23/1989	CHEMICAL	EXPLOSION, VAPOR CLOUD EXPLOSION (VCE)	PASADENA, TEXAS	UNITED STATES	1,520				
06/08/2009	E&P OFFSHORE	BUSINESS INTERRUPTION	NORTH SEA	NORWAY	910				
03/19/1989	E&P OFFSHORE	EXPLOSION, FIRE	BAKER, GULF OF MEXICO	UNITED	900				
03/15/2001	E&P OFFSHORE	EXPLOSION	RONCADOR FIELD, CAMPOS BASIN	BRAZIL	850				
09/25/1998	GAS PROCESSING	EXPLOSION, VCE	SALE, LONGFORD, VICTORIA	AUSTRALIA	810				
04/24/1988	E&P OFFSHORE	BLOWOUT	ENCHOVA, CAMPOS BASIN	BRAZIL	760				
09/21/2001	FERTILIZER	EXPLOSION	TOULOUSE	FRANCE	730				
06/25/2000	REFINERY	EXPLOSION, FIRE	MINA AL-AHMADI KUWAIT		720				
05/04/1988	CHEMICAL	EXPLOSION	HENDERSON, NEVADA	UNITED	690				
01/19/2004	GAS PROCESSING	EXPLOSION, FIRE	SKIKDA	ALGERIA	690				
4/01/2015	E&P OFFSHORE	FIRE	ABKATUN, BAY OF CAMPECHE	MEXICO	690				
05/05/1988	REFINERY	EXPLOSION, VCE	NORCO, LOUISIANA	UNITED STATES	670				
03/11/2011	REFINERY	EXPLOSION, FIRE	SENDAI	JAPAN	650				
04/21/2010	E&P OFFSHORE	EXPLOSION, FIRE	GULF OF MEXICO	UNITED STATES	640				
07/27/2005	E&P OFFSHORE	EXPLOSION, FIRE	MUMBAI, HIGH NORTH	INDIA	520				
11/14/1987	CHEMICAL	EXPLOSION, VCE	PAMPA, TEXAS	UNITED	520				
12/25/1997	GAS PROCESSING	EXPLOSION	BINTULU, SARAWAK	MALAYSIA	510				
02/04/2011	E&P OFFSHORE	BUSINESS INTERRUPTION	NORTH SEA	UNITED KINGDOM	500				

#### . Losses

#### Figure 2 – Upstream losses excess of US\$100m, 2015 -17

Туре	Cause	Region	PD US\$	BI US\$	Total US\$
2015				· · · ·	
Platform	Fire + explosion/VCE	Latin America	650,000,000		650,000,000
Platform	Misc	North America	650,000,000		650,000,000
MOPU	Explosion no fire	Latin America	382,000,000	112,500,000	494,500,000
Plant	Terrorism	Africa	455,000,000		455,000,000
Platform	Collision	Middle East	260,000,000		260,000,000
Rig	Leg punch through	Latin America	240,000,000		240,000,000
Pipeline	Ruptured pipeline	North America	220,300,000		220,300,000
MOPU	Faulty work/operating error	Latin America	143,000,000		143,000,000
Plant	Terrorism	Africa	141,649,500		141,649,500
MOPU	Corrosion	Latin America	100,000,000		100,000,000
2016	·		· · ·		
MOPU	Mechanical failure	Africa	620,000,000	900,000,000	1,520,000,000
Rig	Mechanical failure	North America	83,500,000	95,000,000	178,500,000
Platform	Fire + explosion/VCE	Latin America	150,000,000		150,000,000
Pipeline	Anchor/jacking/trawl	Africa	100,000,000		100,000,000
2017				· · ·	
Vessel	Pipelaying/trenching	Latin America	128,500,000		128,500,000
MOPU	Faulty work/operating error	Africa	100,000,000		100,000,000

Only two losses over US\$100m have recorded to date in 2017 - less than in 2016 and significantly less than in 2015

Source: WTW Energy Loss Database as of February 12 2018 (figures include both insured and uninsured losses)

Other lines of business communicate transparently about settled claims – why not engineering?

### Good examples





### Listing of settled claims

### anonymized format

	Country	Occurrence Year	Policy inception year 👻	CAR; Operation al or E	USD Physical Damage F	Third Party Liability in USD	DSU / ALOP FGU in US	FGU Total in USD	Natural Cat	Type of Risk / Project Ty	Cause of Loss
	Mexico	2012	2012		34'500'000			34'500'000	No		Fire- Explosion
	Saudi Arabia	2015	2011		35'000'000			35*000*000	No	Power Plant	
	United Kingdom	2018	1900	CAR	40'500'000			40°500°000	Yes	Building	Fire- Explosion
	France	2015	2015	CAR	430000000			43000000	No	Buildin <u>a</u>	
	Qatar	2018	2015	EAR	45'000'000			45'000'000	Yes	Power Plant	Rain-Flood
	South Africa	2014	2012	EAR	45'400'000			45'400'000	Yes	Building	Wind
	France	2011	2008	CAR	46'700'000		0	46'700'000	No	Building	Fire
	İsrael	2012	2006	EAR	47'171'860			47*171*860	No	Power Plant	Fire- Explosion
	Germany	2015	1900		26'065'700		21'700'711	47*766*411	No		Fire- Explosion
	Netherlands	2015	2009	EAR	50'000'000			50°000°000	No	Power Plant	T24
-	Korea South	2012	2011	EAR	51'662'400			51'662'400	No	Power Plant	Fire
	Australia	2012	2011		52°551'882			52°551°882	No		
	USA	2010	2008	CAR	54'290'664		0	54*290*664	No	Tunnel	Flood



Above image is used for illustration purposes only / Credit: Shutterstock

### IUMI proves concept for global large loss database

Speaking at this week's IUMI conference in Cape Town, Donald Harrell, chair of IUMI's Facts & Figures Committee, reported a successful conclusion to the Union's large loss database pilot project. IUMI has been running the project for the past year to understand if is feasible to collect, through its member associations, hull and cargo claims data for large losses. This is expected to be a unique database of large loss data for marine underwriters, who will not find this information anywhere else.

CASUALTIES | 17/09/18

### The International Association of Engineering Insurers

### IMIA Large Loss listing <u>– ASK!</u>

- collect <u>settled</u> engineering claims xs \$30m FGU
- Losses with DOL 2000 onwards (past 20 years)
- Publication of an updated large loss list twice a year
- Anonymization: NO involved parties will be mentioned
- Focus on:
  - Occupancy
  - Country
  - PD, DSU, TPL (amounts)
  - DOL (only calendar year)

## Recap

- Market Stats, Benchmarking & Large Loss listing provide urgently needed reference points
- Common practice among sister associations
- Compliant with Anti-Competition Law

#### <mark>2 Asks!!</mark>

- Are you interested to be part of the benchmarking initiative?
- Will you support the anonymized Large Loss listing?



# Questions

?

The International Association of Engineering Insurers