

Bigger, wider, heavier more expensive

Peter Townsend

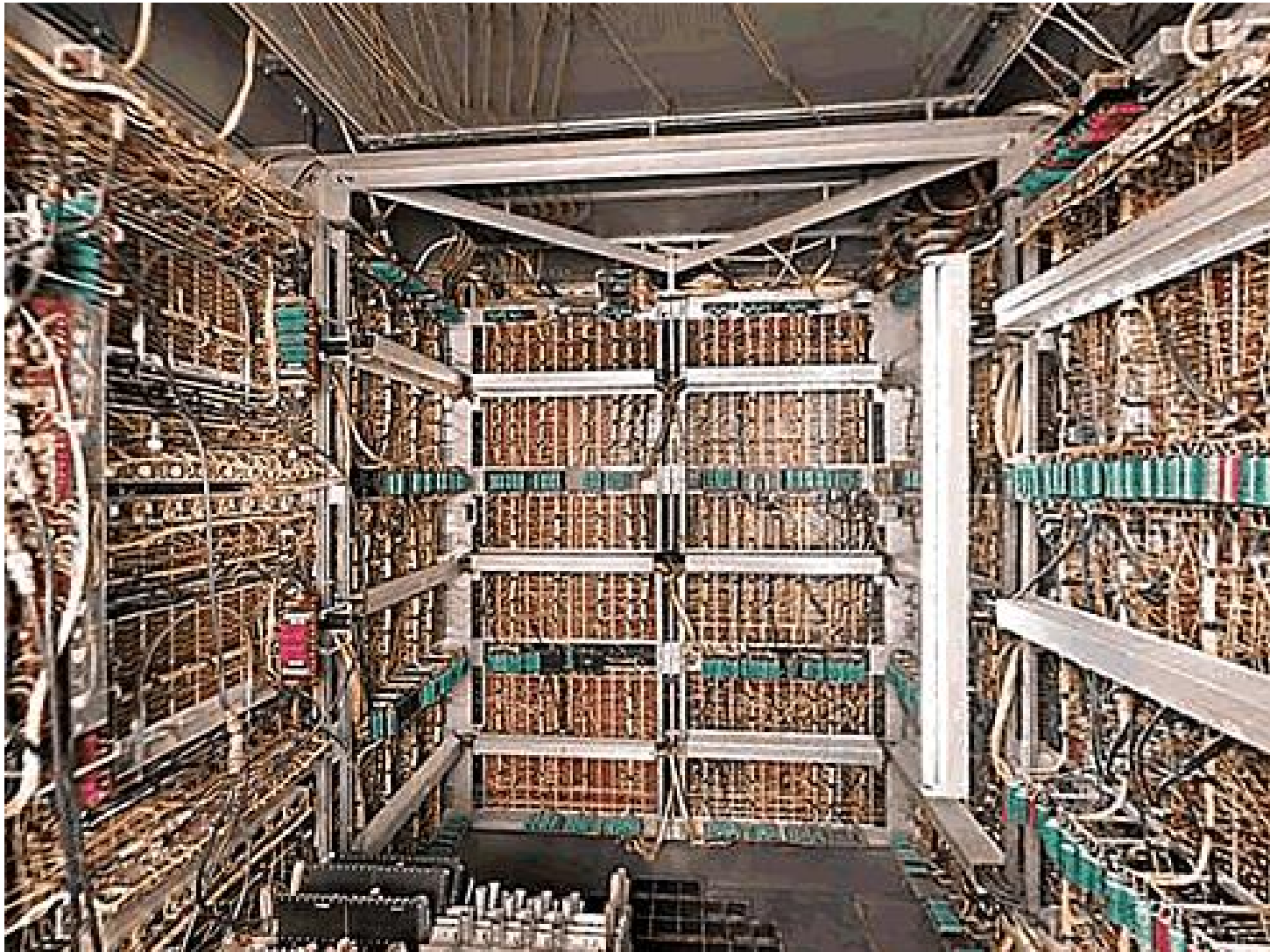


AmTrust at Lloyd's
An AmTrust Financial Company

78's to Spotify



UNIVAC 1



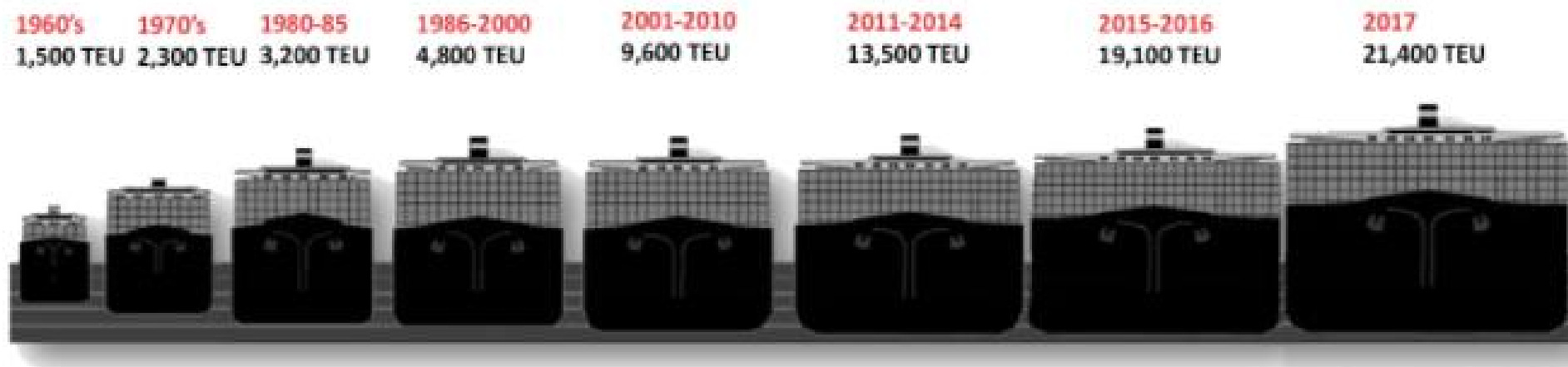
Martin Cooper (Motorola)



Generations of mobile phones



Containership Evolution

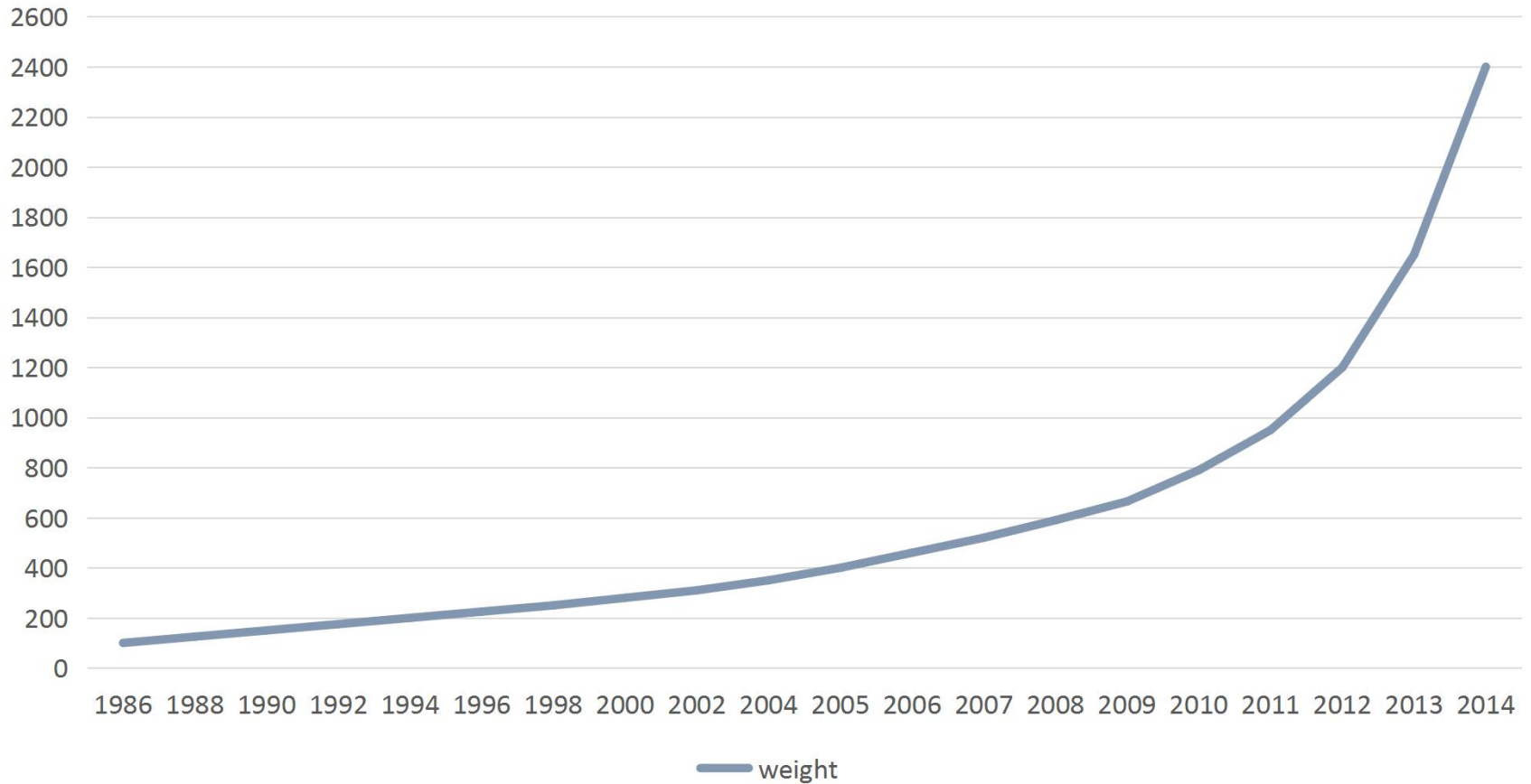




1981

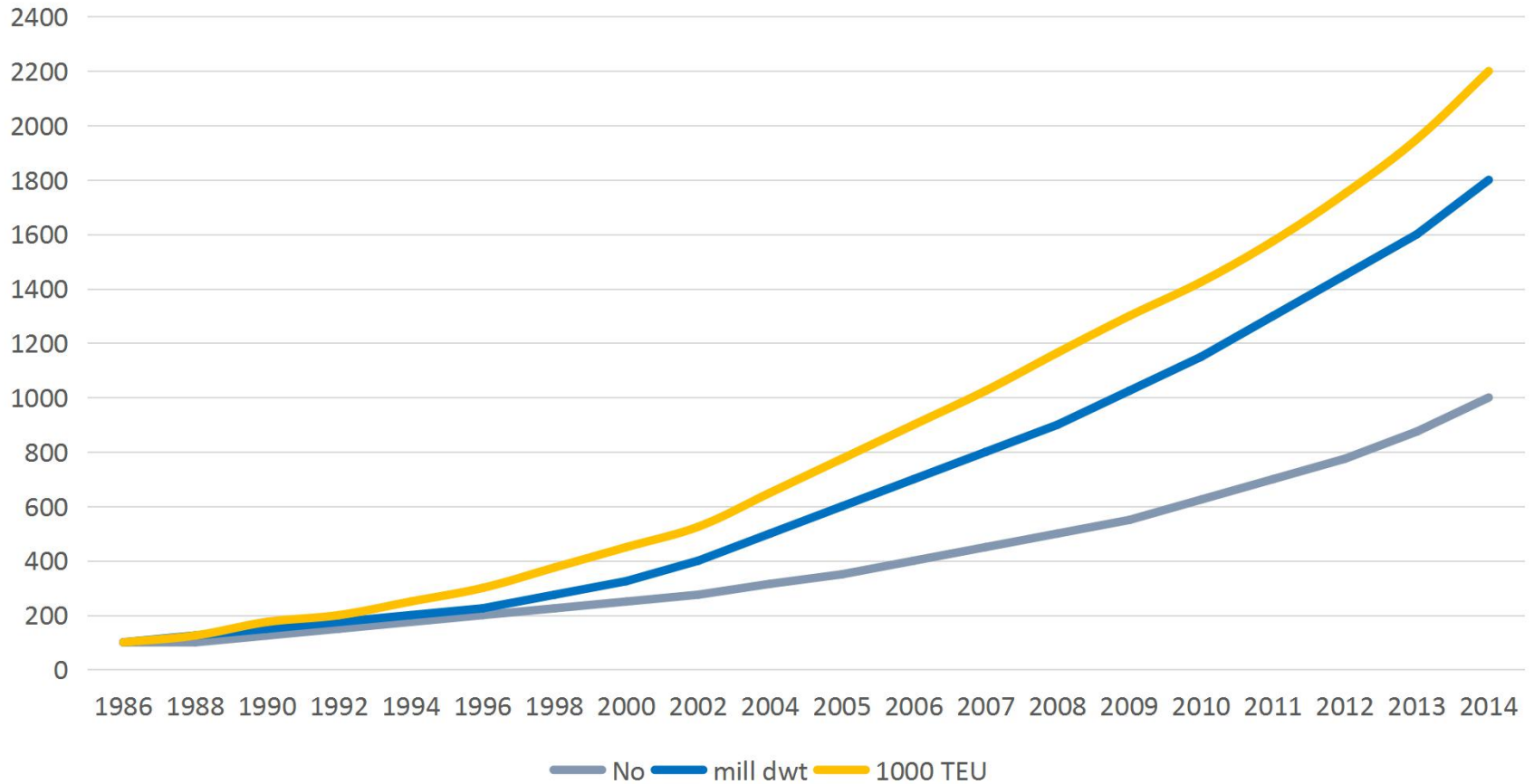
Townsend weight development

As of January 1st, 1986 – 2014 (index 1986 = 100)



Container Fleet Development

As of January 1st, 1986 – 2014 (index 1986 = 100)



Panama canal expansion



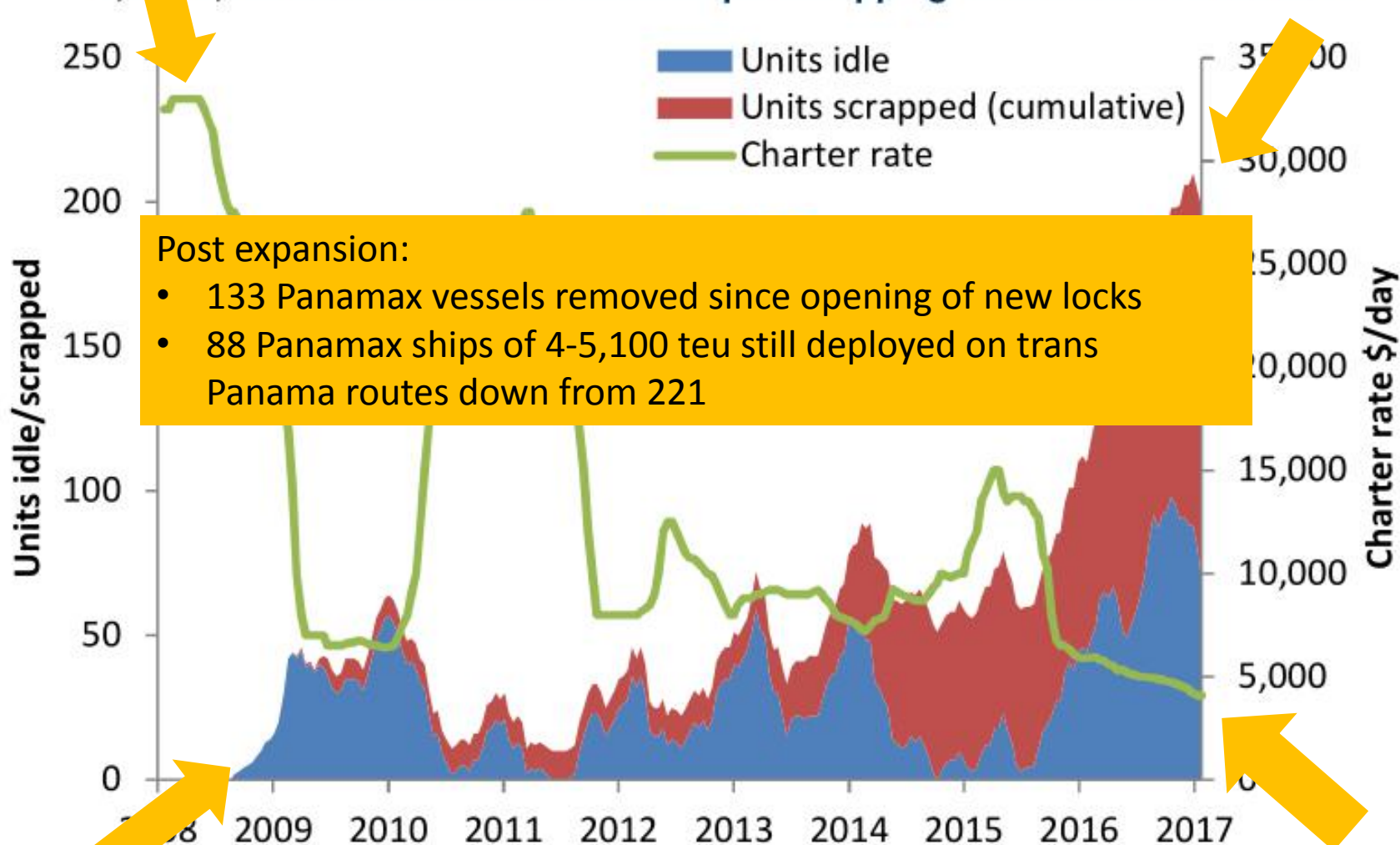
World containership fleet



7 year old 2010 built Hammonia Grenada sold for scrap



4,000-5,300 teu Panamax containerships scrapping vs idle units : 2008-2017



No Panamax idling prior to 2008

Mega containerhips

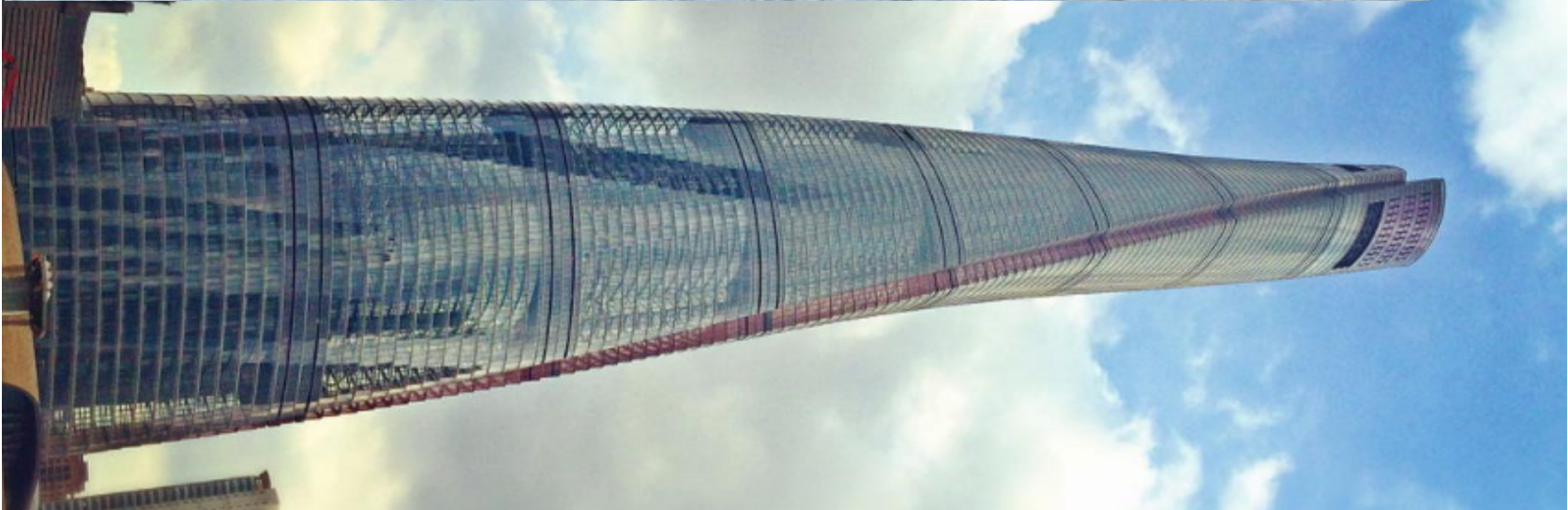
- "There were no ultra-large post panamax containerhips (of 12,000 teu or larger) until 2007; now there's nearly 3 m teu capacity in that category alone)"
- In 2017 25% of World containerhip fleet 10,000 teu or greater
- By 2020 36% of the World fleet will be 10,000 teu or greater
- A new containerhip > 10,000 teu is launched on average every 8 days.
- IMO regulations.....
 - Ballast water treatment systems
 - SOx scrubbers

How big.....?



17TH HOLE

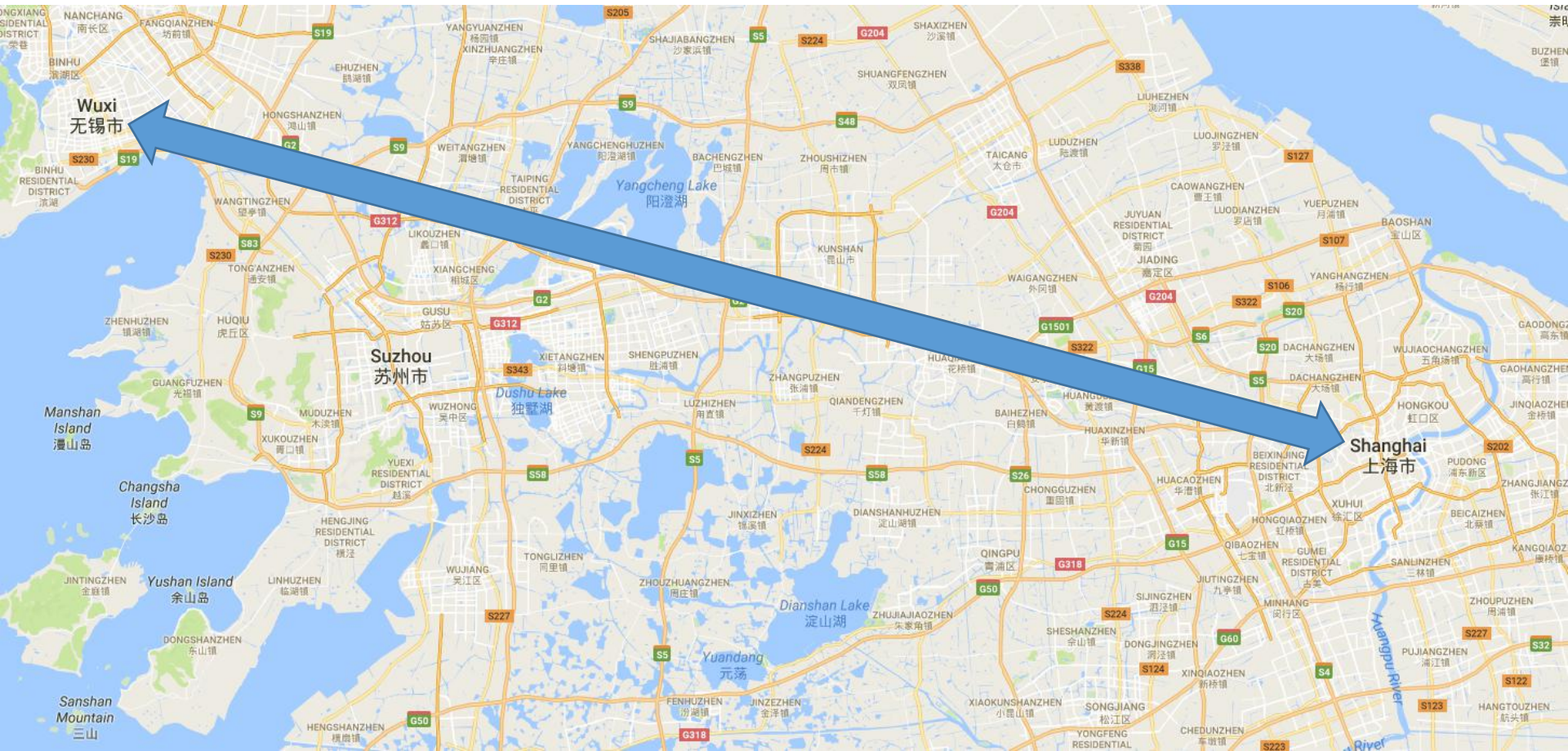
Shanghai Tower



Jing Mao Sky walk



Shanghai to Wuxi



OOCL Hong Kong 21,443 teu

McKinsey floats idea of 50,000-teu boxships

Consultancy gazes into crystal ball to imagine transformed sector in 50 years.

October 23rd, 2017 14:41 GMT by Gary Dixon

Published in **LINER**

Consultancy McKinsey has gazed into its crystal ball and imagined a world where 50 years into the future, huge 50,000-teu containerships ply the oceans.

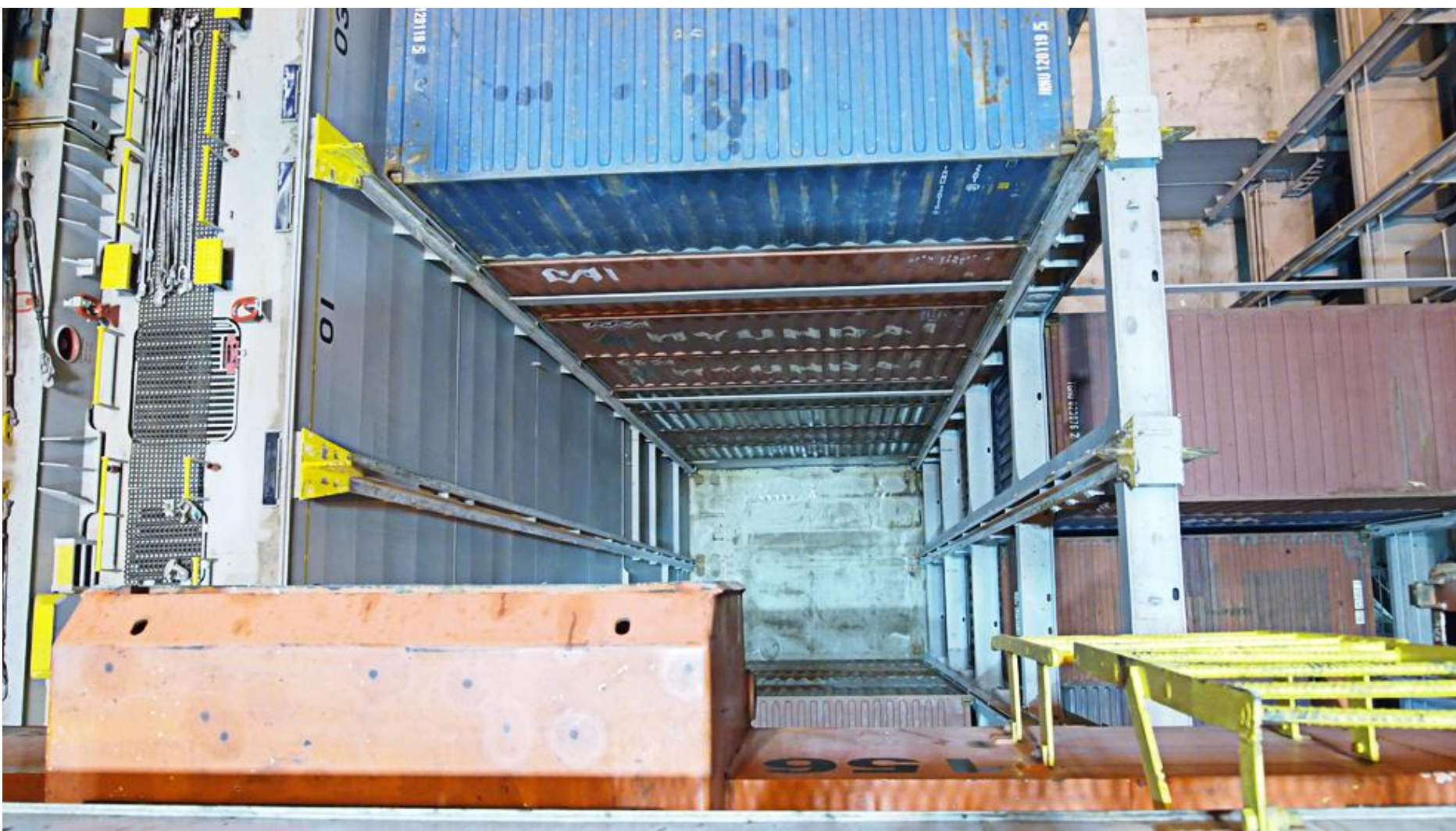
In a look at how the industry could reinvent itself for the digital age, the company said these giant vessels will likely be autonomous and could perhaps operate alongside "modular, drone-like floating containers."

Despite the limiting factors of infrastructure, it does not view the current 20,000-teu monsters as the natural end point for vessels.

"50,000-teu ones are not unthinkable in the next half-century," it said.

Problem?

What problem?







Realistic Disaster Scenario



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APL Panama (Ensenada - Christmas Day 2005)



- 4,038 TEU
- 1,805 containers on board
- 52,250 dwt
- LOA 261 metres
- Breadth 32.25 metres (13 containers across)
- Draught 12.52 metres

APL Panama (Ensenada - Christmas Day 2005)



- Grounded Dec 25th 2005
 - Refloated March 10th 2006
- Almost no damage
- 1805 containers on board
 - Approx. 1,300 discharged
- 1,445 cargo interests
 - Approx. 1,600 adjuster man hours

APL Panama

- DWT: 52,250
- TEU: across 13
- TEU: 4,038
- 1,805 boxes on board
- 1,445 cargo interests
- 1,600 adjuster man hours

Not completely adjusted 5 year later

USD 68 million GA

Madrid Maersk

- DWT: 206,000
- TEU: across 26
- TEU: 20,568
 - Say 75% laden – 15,426 teu o/board
- Assume all FEU 7,713 boxes on board
- 6,965 cargo interests
- 7,712 adjuster man hours?

Final adjustment??

USD ???,000,000

Realistic Disaster Scenario (courtesy of Rogers Wilkin Ahern)

Assumptions:

- 20,548 teu capacity containership, 90% laden
- (say 18,500 containers on board)
- Average container value \$30,000
- Cargo value - \$555,000,000
- Ships sound value assessed at \$180,000,000
- Lloyds' Open Form Salvage awards 15-20%

Realistic Disaster Scenario (courtesy of Rogers Wilkin Ahern)

- Overall venture value \$750,000,000 +/-
- Split:
 - 74% cargo
 - 26% hull
- LOF 15% = \$112,500,000 (+ interest and costs)
- With Additional GA sacrifice and expenditure a total of \$175,000,000 or more could be anticipated
 - Plus hull PA?
 - Plus cargo PA?
 - Removal of wreck?

General Average – tipping point reached??

- Multiplicity of cargo interests
 - Average bond
 - Average guarantee
 - Bill of lading
 - Basis of valuation
- Storage of casualty containers
- GA absorption clause – however big will be inadequate
- UASC 10,000 teu – Sue and labour
- Slot charter arrangements and consortia

CSCL Indian Ocean 19,000 teu



- Aground 6 days
- 50,000 Cubic M spoil dredged
- 6,500 tons of bunkers and ballast water discharged
- 13 tugs
- According to “The Loadstar” the CSCL Indian Ocean salvors had ascertained that the nearest floating crane with sufficient height and reach to offload its containers was in Canada.

MSC Fabiola 29th April 2016



MSC Fabiola 12,500 teu aground at
the Southern end of Suez canal

MSC Daniela – 13,800 teu

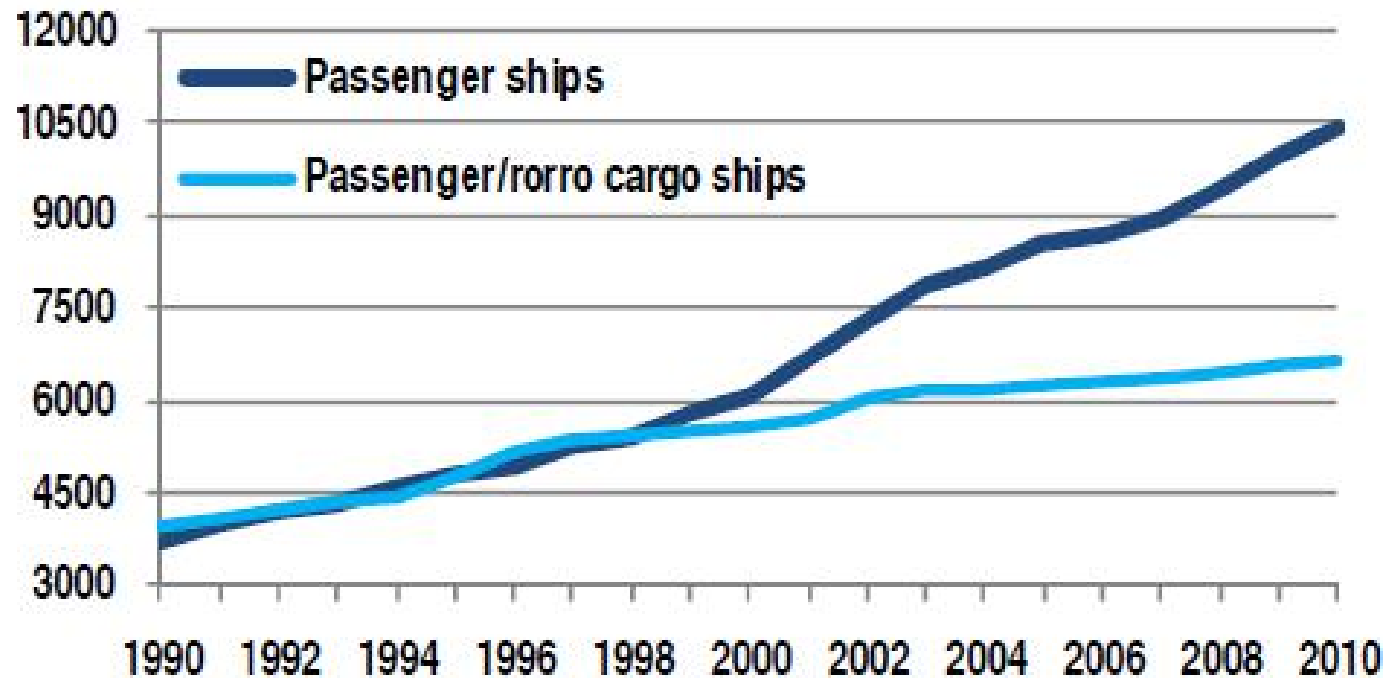


4th April 2017 Fire off Columbo

Vale Beijing - 7th December - 2011



Passenger ship average GT



The average size of passenger ships has grown continually over the last two decades, with the average Gross Tonnage doubling in the last 10 years

Source: Braemar

'Titanic' compared to 'Allure of the Seas'



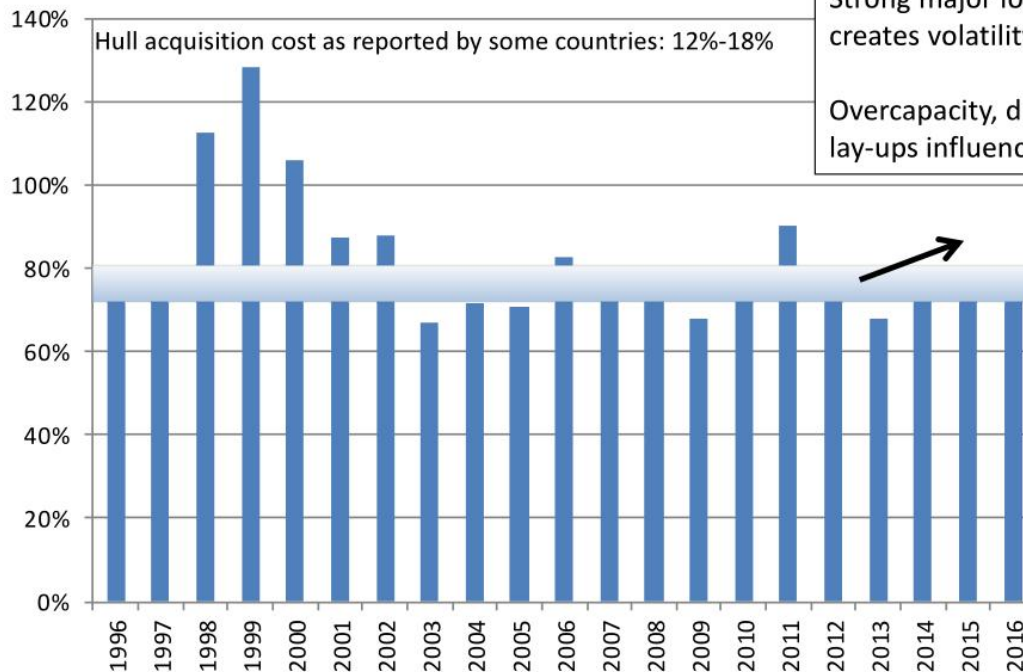
Over capacity??



Harmony of the seas valued \$1.6 billion

Ultimate Gross* loss ratios Hull Europe** (& partly US)

Underwriting years 1996 to 2016



Strong major loss impact in certain years creates volatility in results.

Overcapacity, dropping vessel values and lay-ups influence income negatively.

*Technical break even: gross loss ratio does not exceed 100% minus the expense ratio (acquisition cost, capital cost, management expenses)

** Data included from: Belgium, France, Germany, Italy, Nordic (Cefor), Spain (until 2007), UK, USA

A title for my talk



HELLO
I AM...

AN EXPERT

Perennial soft market – overcapacity

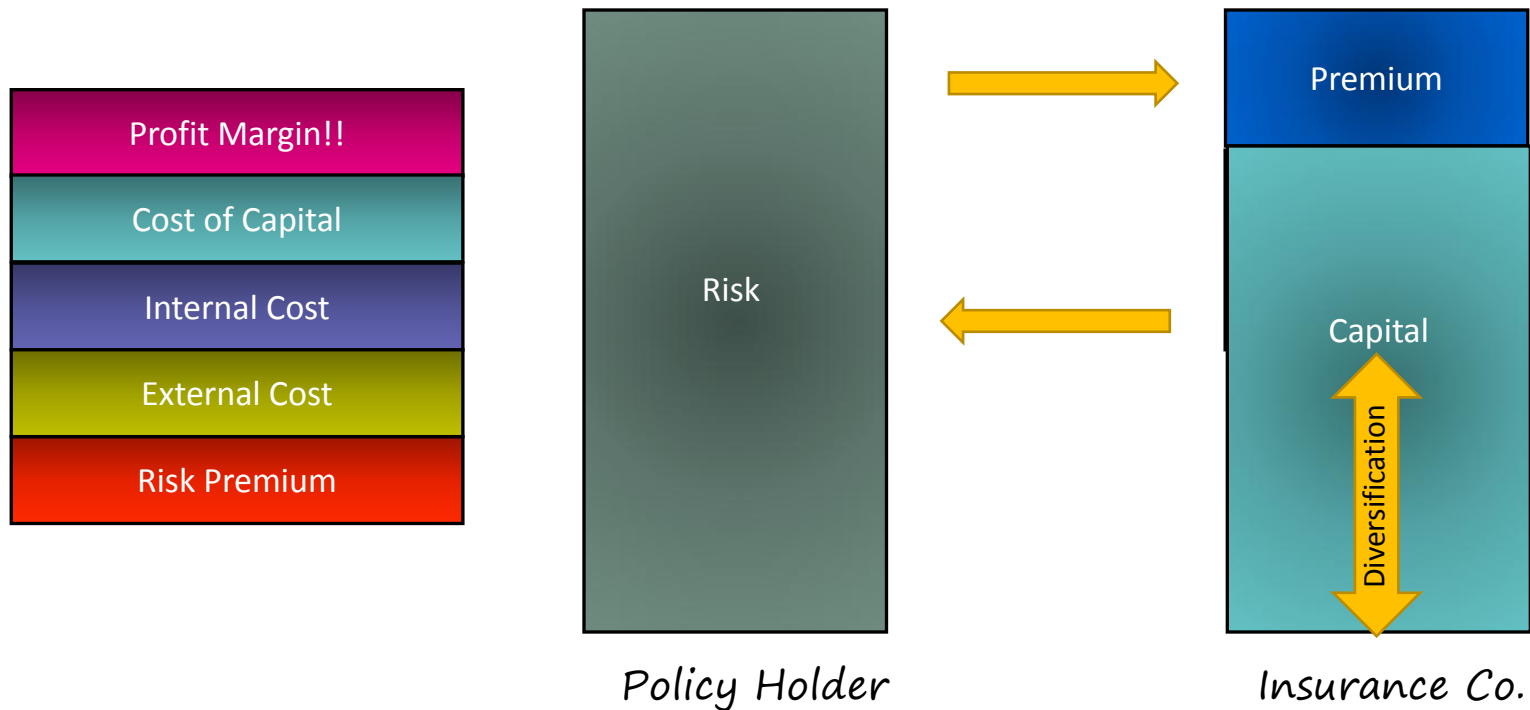


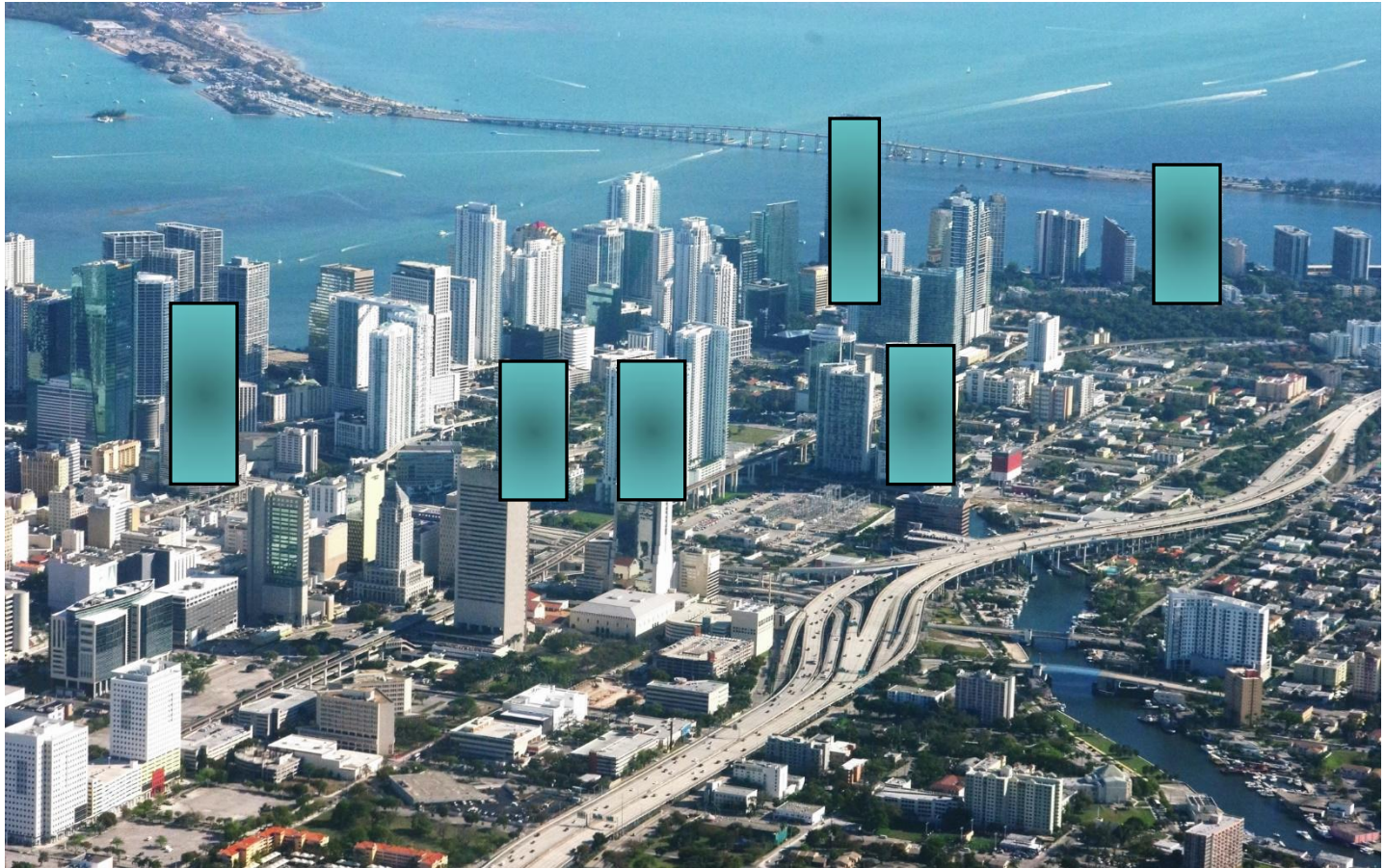
Premium Components



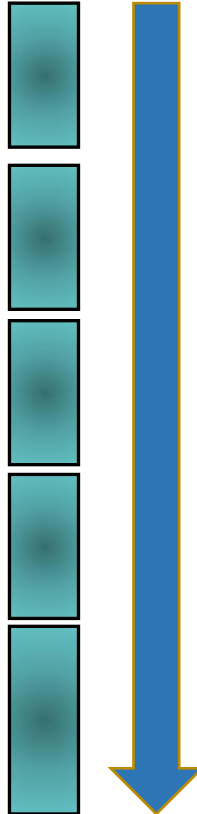
What is “capital”?

In case of insurance company



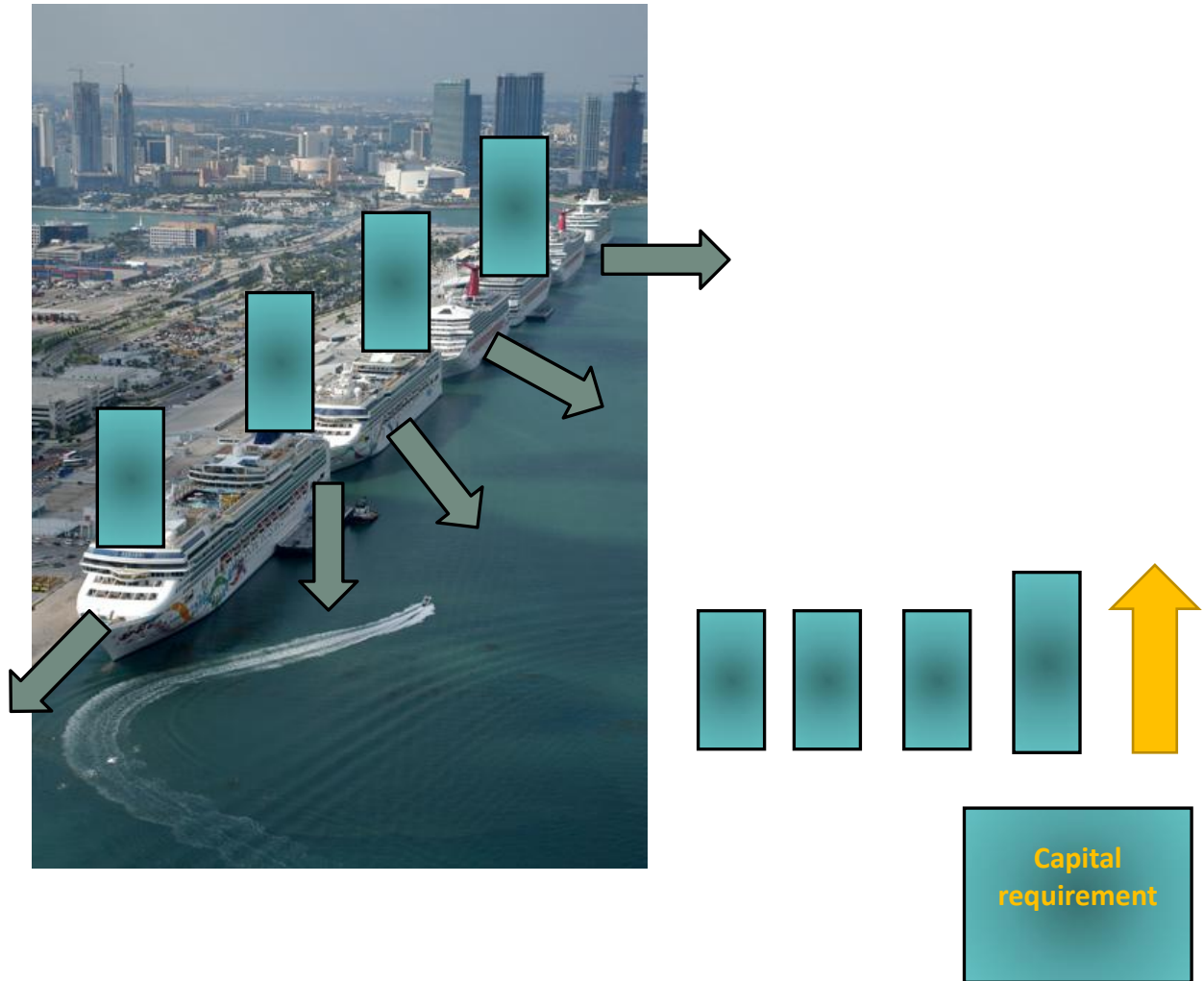


Capital
requirement



Capital
requirement

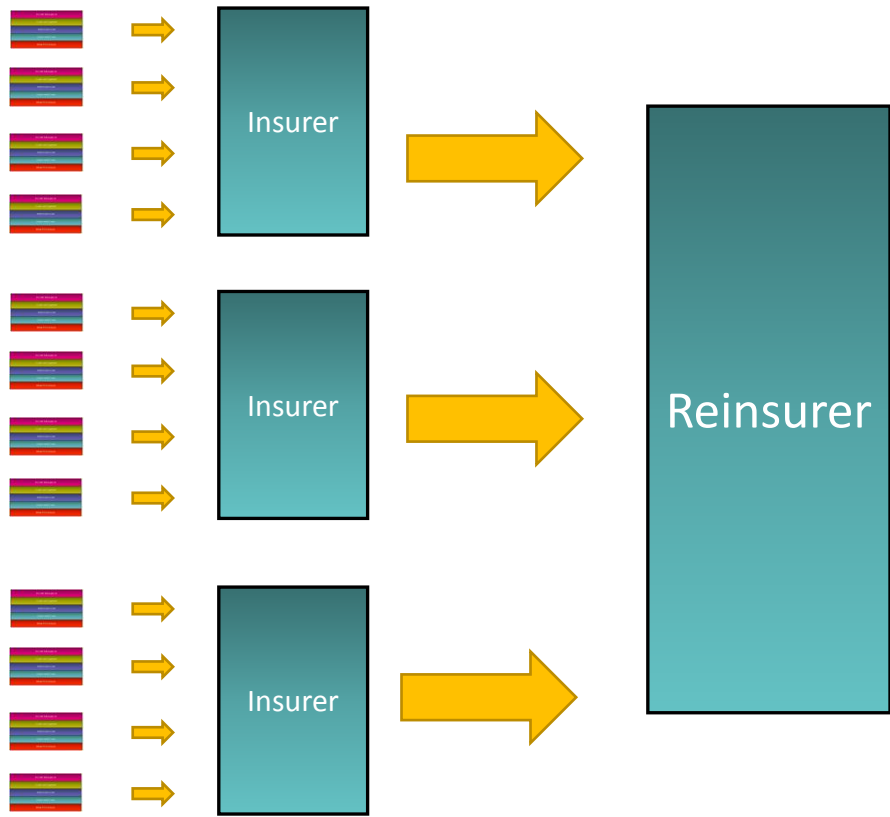
- Less capital
- Less reinsurance?
- Improved gearing
- Lower cost of capital



Insurance / Reinsurance chain

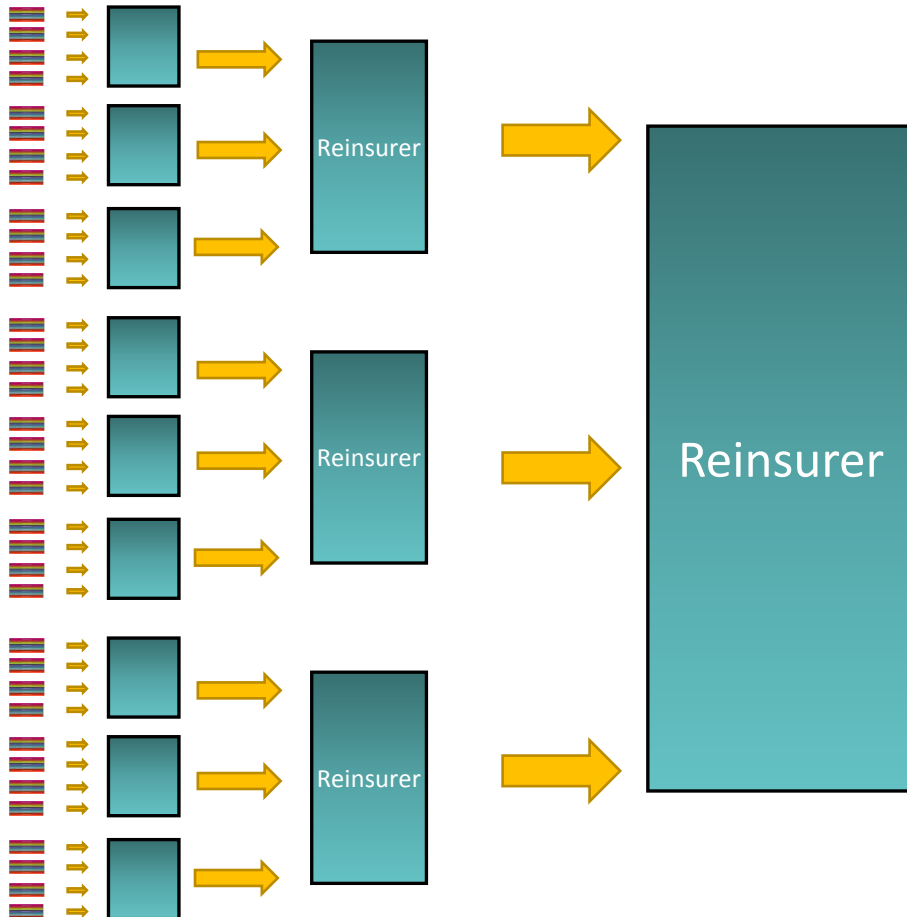


Tier 1 reinsurer



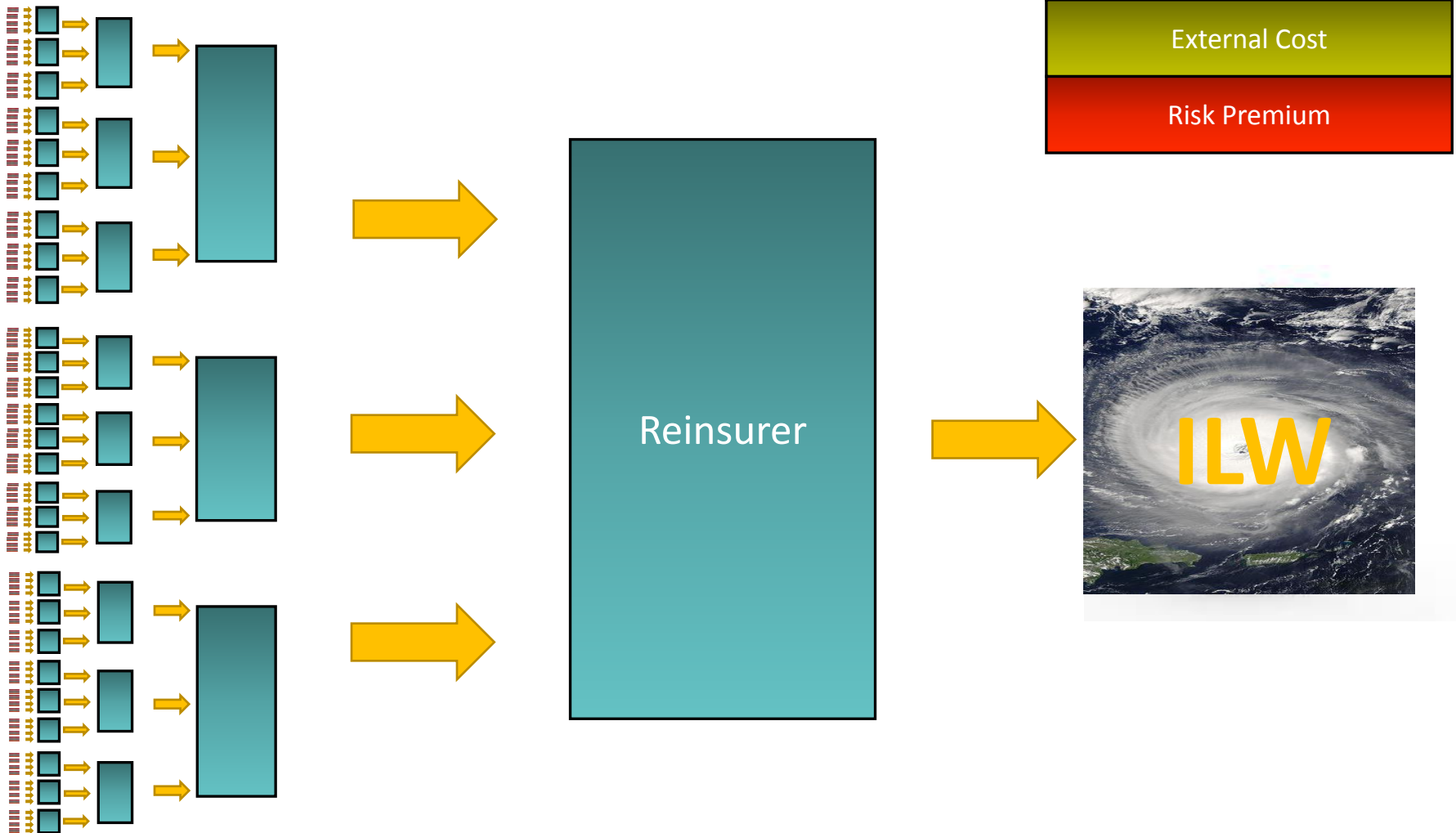
Profit Margin!!
Cost of Capital
Internal Cost
External Cost
Risk Premium

Tier 2 reinsurer

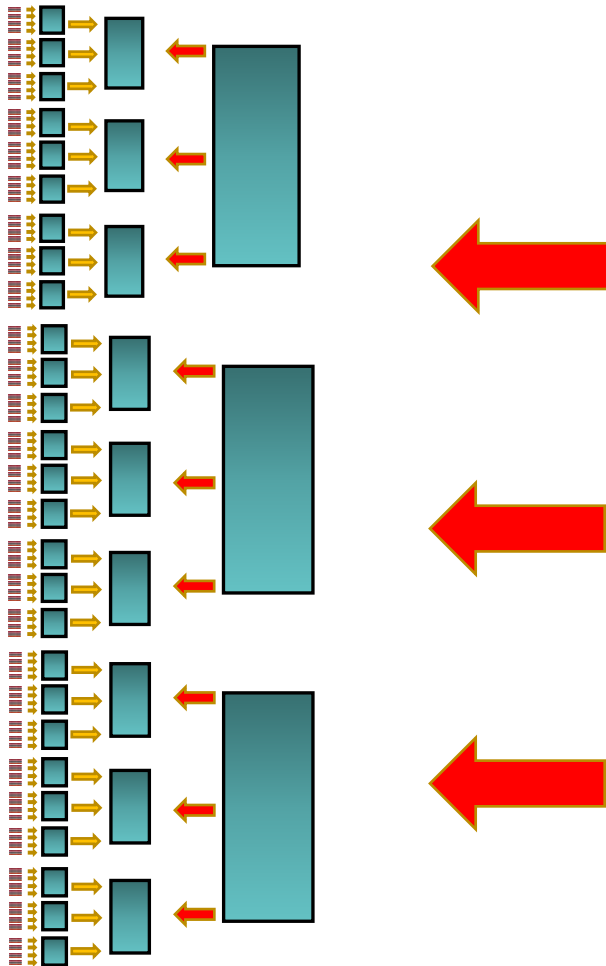


Profit Margin!!
Cost of Capital
Internal Cost
External Cost
Risk Premium

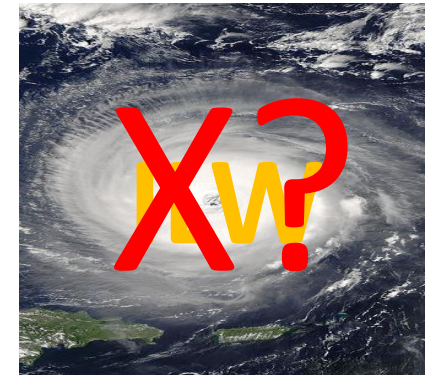
Retrocessional reinsurer



Insurance / Reinsurance chain



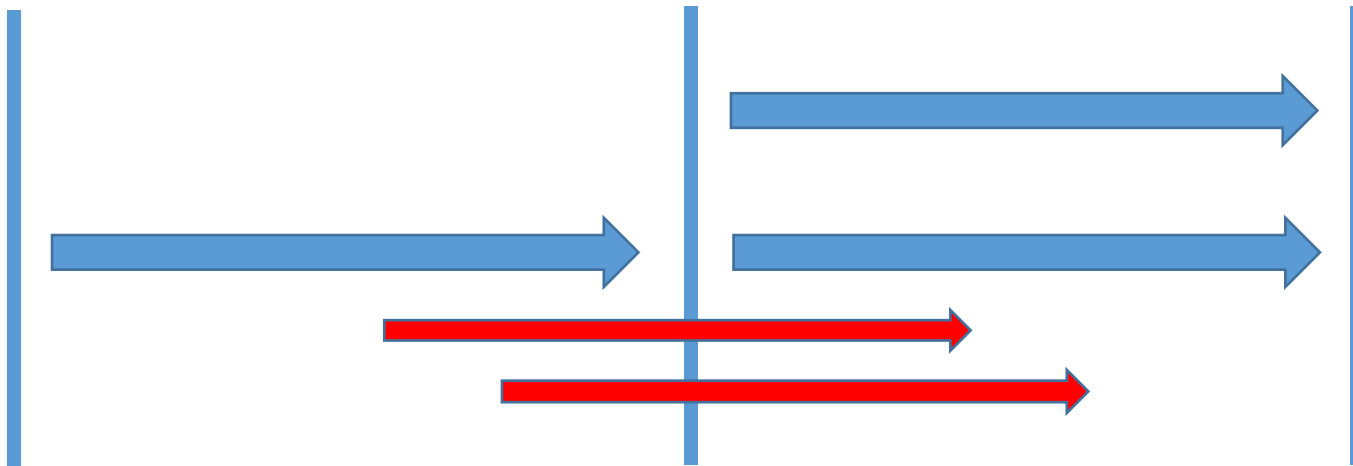
Profit Margin!!
Cost of Capital
Internal Cost
External Cost
Risk Premium




Excess of loss R/I and cost of risk

LOD 1/1/2017

LOD 1/1/2018



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- Non correlating lines attractive
 - Macro v micro
 - Perennial soft market
 - Over capacity – get used to it
 - Roulette underwriting – business model
 - Increased cost of capital - 911
 - Increased cost of risk

Survival of the fittest



- Know your ships
- Know your owners
- Be lucky!

Even experts make mistakes

- You've carefully thought out all the angles.
- You've done it a thousand times.
- It comes naturally to you.
- You know what you're doing, its what you've been trained to do your whole life.
- Nothing could possibly go wrong, right?



Think Again.



Acknowledgement to: The Beaver