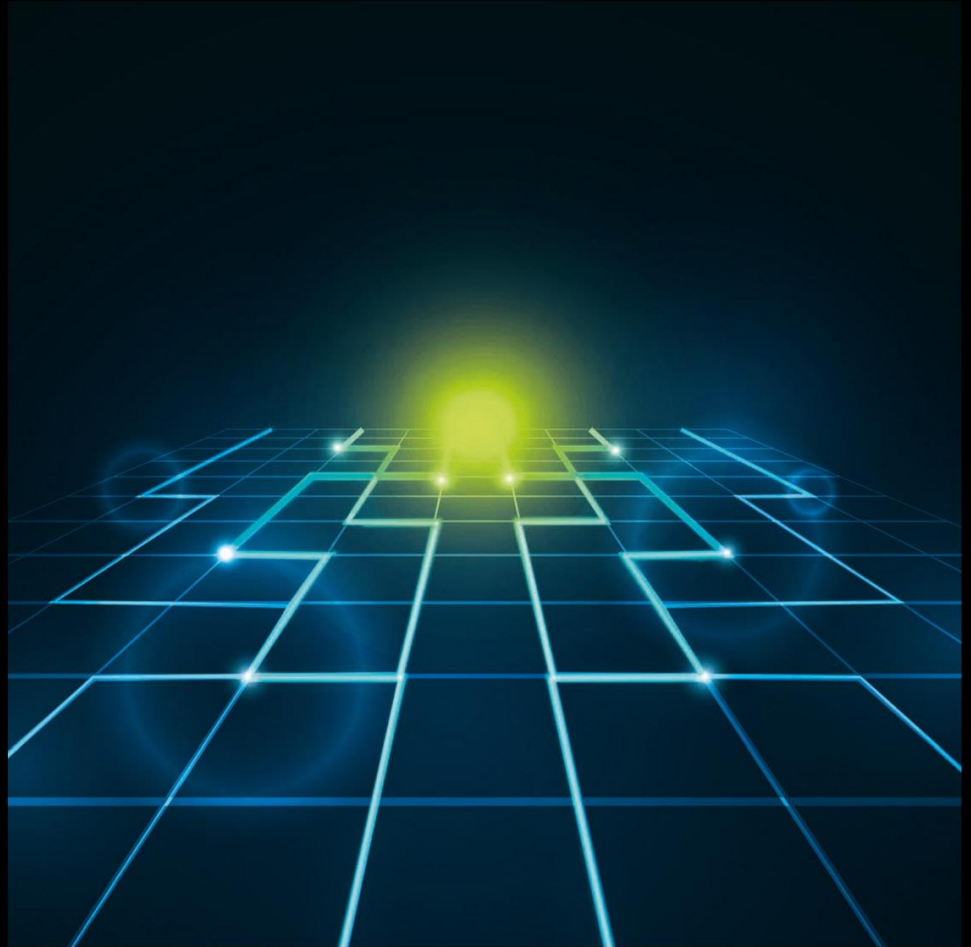


GI Glimpse



**Actuaries
Institute**

Tuesday 8 September 2015 • Sydney





Emerging risks, emerging opportunities

© Warren Dresner, Willis Re

This presentation has been prepared for the Actuaries Institute 2015 General Insurance Half Day Seminar. The Institute Council wishes it to be understood that opinions put forward herein are not necessarily those of the Institute and the Council is not responsible for those opinions.

Agenda

- What can we learn from the past?
- Where risks may emerge in future
- Managing emerging risks
- Turning risks into insurance opportunities

As we know, there are **known knowns**; there are things we know we know. We also know there are **known unknowns**; that is to say we know there are some things we do not know. But there are also **unknown unknowns**—the ones we don't know we don't know.

- Donald Rumsfeld, 2002

Although the language may be tortured, the basic point is both valid and important ... Having defended Rumsfeld, I'd point out that the considerations he refers to provide the case for being very cautious in going to war.

- John Quiggin, 2002

As we know, there are **known knowns**; there are things we know we know. We also know there are **known unknowns**; that is to say we know there are some things we do not know. But there are also **unknown unknowns**—the ones we don't know we don't know.

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- Warren Dresner, 2015



What can we learn from the past?



TERRORISM

- Common themes
 - May be known unknowns or unknown unknowns
 - Uncertainty about impact
 - Perceived to be significant risk

Where risks may emerge in future

- Legal / tort / regulatory system change
- Societal and behavioural norms
- Climate change
- Technology and innovation
- The 'Internet of Things'
- 'New Capital'

Technology and innovation

E-cigarettes

Systemic Food Chain risks

Electromagnetic fields (EMFs)

3-D Printers

Genetically modified Organisms
(GMOs)

Hydraulic Fracturing

Artificial intelligence

Pharmaceutical

Financial advisory

Nano-technology



Driverless vehicles and drones

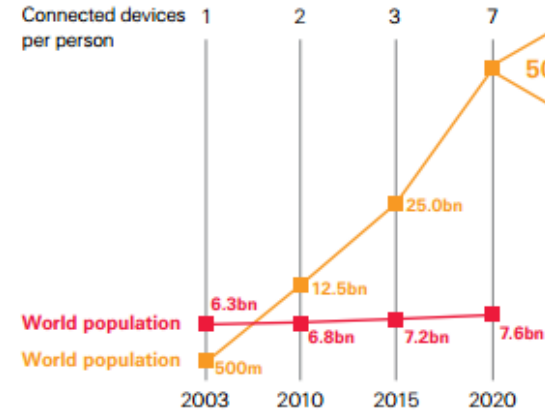
- Some commercial applications already in use
- Coverages at risk include PL, PI, Bodily injury covers
- Invasion of privacy and nuisance may become additional issues.





The Internet of Things

- Revolutionary
- Increased connectivity raises questions about network and data security
- Power of Big Data
 - Can be positive and negative for insurers



By 2020 there will be nearly **7 times** more networked devices than people in the world

Source: "Living in a hyperconnected world", Swiss Re



In the news...

Cybersecurity researchers use the internet to hack into car, turn off engine as it drives

Updated 22 Jul 2015, 11:31am



Cyber-security
Their own devices

Jul 18th 2015 | From the print edition



Teen's Gun-Firing Drone Triggers Federal Probe

POSTED 9:11 AM, JULY 22, 2015, BY CNN WIRE



“New Capital” – Insurance-Linked Securities

- Accounts for over 20% of worldwide Catastrophe Reinsurance capacity (\$65B out of \$300B)

Assets by Selected Investor Class



\$128 Trillion

Global Bond Market



\$99 Trillion

Global Equity Market
(Market Capitalisation)



\$69 Trillion

Global Asset-Backed Market



\$15 Trillion

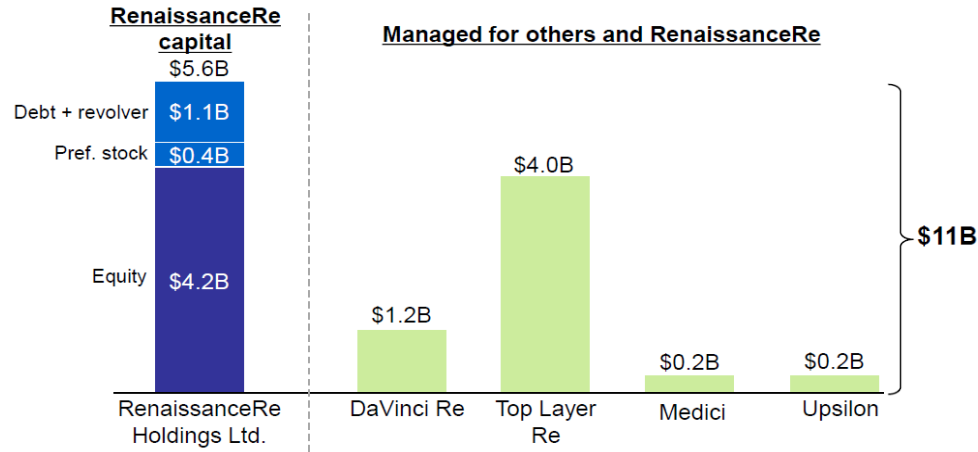
3rd Party Capital



\$65 Billion

“New Capital” as an emerging risk

- Most (re)insurers take advantage of Insurance-Linked Securities (ILS) appetite as a cheap form of capital



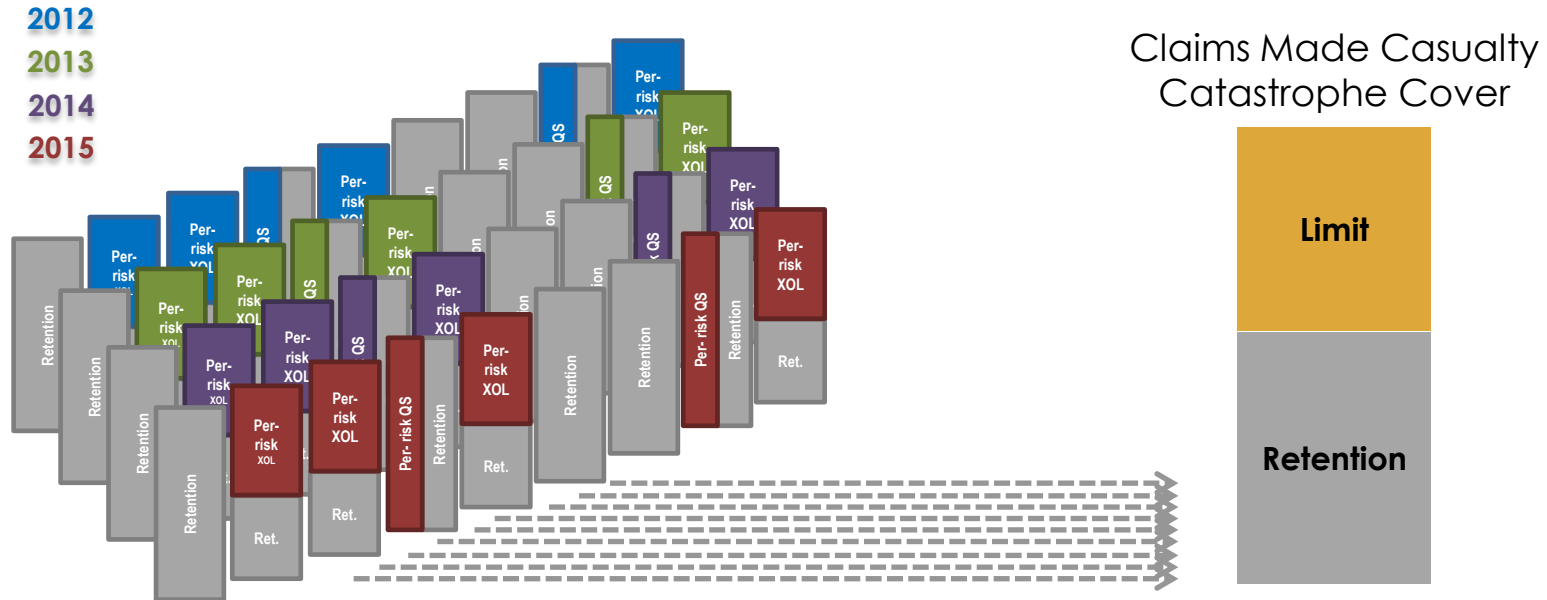
- What happens if there is a flight away from insurance as an investment class?

Managing emerging risks



Managing emerging risks

- Reinsurance solutions can mitigate unknown and systemic risks



Turning risks into insurance opportunities

- Coverage expansion
- New classes of business
- E.g. Cyber Liability Insurance
 - Demand for cover continues to grow due to increasing number of incidents
 - Difficult to underwrite, mitigate risk and track accumulations
 - USA at forefront of innovation
 - high interest in data protection and development of related laws



Conclusion

- There will always be known unknowns and unknown unknowns
- Technology is ever evolving
- We are more connected globally than ever before
- Ongoing management is required to minimise downside risk
- Change creates opportunities