



**Tomorrow's World: Customer, Investor  
or Risk**

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## Introduction

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### Financial Services Firms face significant challenges

#### 6 Megatrends Shaping the Financial Sector:

1. Investment, Capital Sources and Returns
2. Regulatory Changes and Complexity
3. Digitalisation and Technological Advances
4. Business Operating Model Pressures
5. Demographic and Behavioural Changes
6. Global Talent and Skills Race

These 6 megatrends are impacting insurance companies and their clients. The megatrends are *individually* and *collectively* driving change.

This will create potential new risks and opportunities for Actuaries.

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## Investment, Capital Sources and Returns

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There has been a convergence of Capital Markets and the Insurance Sector since the financial crisis. This trend will continue.

#### 3 key drivers:

- Uncorrelated Risks
- Yields
- Declining barriers to entry

##### 1. Uncorrelated Risks

- ILS: high-yield debt instruments used by insurance/reinsurance companies to transfer risk to the capital markets
  - Catastrophe, mortality, longevity and xxx bonds
  - Periodic coupon – risk free return plus spread
- Market has grown 800% since 2005
- Approximately \$65m in reinsurance spend currently backed by capital markets
- Alternative investments (Nephila, Athene) and structures

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## Investment, Capital Sources and Returns (2)

### 2. Yield

- Effects of QE; continued low interest environment
- Hedge fund investments in insurance vehicles
- Sidecars and alternative vehicles – market-changing structures where insurance carriers directly access capital markets
- CAT Bonds, collateralized reinsurance, ILWS and alternative structures

### 3. Barriers to Entry

- Access to capital and data is overcoming regulatory and relationship hurdles
- The rise of NBFI: alternative investment (Apollo); non-financial entrants (Amazon); technology-enabled structures (crowd-sourcing) and new insurance capital (China, Mexico)
- Ability to use structured and unstructured capital
- Increased competition for customers; reduced costs of intermediation
- Some customers (banks, tech firms) might not need outside capital

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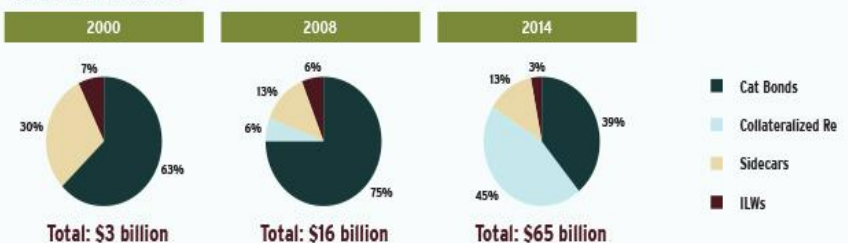
## Investment, Capital Sources and Returns (3)

Alternative Risk Transfer and Mitigation

- ILS (ILWs, Sidecars, Collateralised Reinsurance, Cat Bonds)
- Weather Derivatives

### The evolution of non-life ILS products\*

ILS market breakdown



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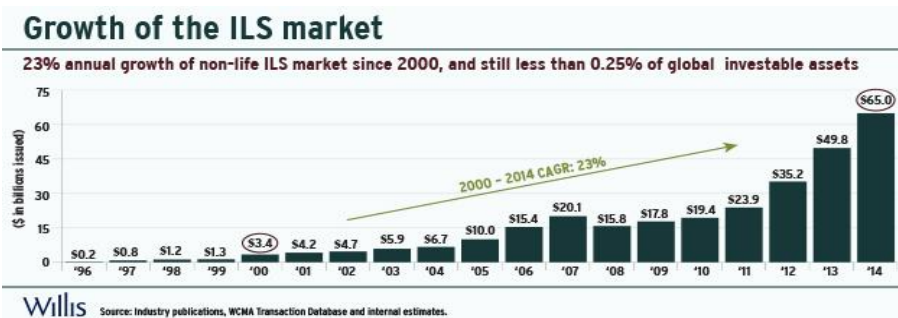
Source: Industry publications, WCMA Transaction Database as of December 31, 2014 and internal estimates.

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## Investment, Capital Sources and Returns (4)

- ILS now make up 15% of the total global capital dedicated to reinsurance
- Non-life ILS products totalled \$3 billion in 2000. By 2014 it reached \$65 billion



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## Regulatory Change and Complexity

### 3 key changes:

1. **Cost of Capital:** changes for insurers *and* customers
  - Creates barriers and opportunities
2. **Risk-Reward:** Solvency II, Basel 3, AIFMD
  - Long vs. short-dated assets
  - Portfolio correlation and rebalancing
  - Insurance used for RWA reduction and capital optimisation, *not* simply risk transfer
3. **Bottom-up review and challenge of key risks**
  - For large clients, insurance currently transfers 10-20% of key risks
  - Insurers and clients understand more about risk portfolio and appetite

Insurers are changing – becoming investors and stakeholders, as well as capital providers (e.g. infrastructure lending)

Clients are changing – they understand key risks and want more than traditional, limited risk transfer

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## Digitalisation and Technological Advance

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Three key aspects:

**1. Data and analytics are key**

- CAT Risks – Detailed modelling and data
- Motor telematics - UBI (Usage Based Insurance) predicted to be tried by over 50 million US drivers by 2020
- Haulage companies – monitor driver behaviour and track vehicle locations

**2. Disintermediation and Re-intermediation**

- Shift from cost to value
- Different parties may be intermediaries in the value chain

**3. Changing customer relationships**

- Transactional approach vs. the ability to understand more of the customer/work across the life-cycle
- Move from transaction to consultation

There will be a true battle to understand risk and add value

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## Digitalisation and Technological Advance (2)

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**Today:**

- Insurance aggregator sites- disrupting traditional intermediaries

**Tomorrow:**

- Internet of Things – client activity in real time to monitor and offer rewards for healthy and safe behaviour
- Telemedicine – Doctors and nurses monitoring discharged patients to reduce Hospital stays
- Monitoring post surgery treatment and ensuring patients are taking medication

Impacts into other Megatrends – Demographics and Talent

- Wearables – Clothing incorporating technology
- Sobriety Society – Realtime monitoring of blood sugar, pressure, heart rate, etc.. to manage increasingly diverse worklife and stresses.

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## Demographics and Behaviour

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### Demographics

#### 2 key trends:

- Youth versus maturity (Accumulation vs decumulation)
- Developed vs Emerging/Emergent Economies

Need to drive real innovation to respond to demographic and other changes (e.g. Pensions – decumulation strategies, reverse mortgages, portfolio optimisation, health issues) and increased specialisation/segmentation to respond to customer needs.

### Behaviour

#### 2 key trends:

- Behavioural economics – “nudge” behaviours and improved client outcomes
- Harnessing data to understand employees and customers

Insurance will move from *transferring* risk to preventing it (telematics and controls). New concept of “dynamic operational risk”

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## Insurance and Actuaries

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What will happen in the Future?

### 1. Traditional insurance - may no longer exist

- Traditional lines– many are no longer tenable (Crime? E&O?)
- Clients want to understand and mitigate *more* risks
- Clients need insurance to *optimise capital*; work within their capital framework to drive profits

### 2. The insurance market will be much more competitive

- Insurers will increasingly be required to compete/work with alternative capital to win business
- The winners will differentiate based on their understanding of clients and their use of data/correlation
- Insurance is ripe for disruption (ArchOver)

### 3. Insurance will have to become more Agile

- Winners will have to respond *dynamically* to a dynamic risk environment
- Everyone will need to operate in a global framework
- Talent will have to be nimble and innovative

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## Insurance and Actuaries (2)

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Actuaries manage Risk! The future creates huge opportunities for Actuaries

Actuaries already possess critical skills:

- Analysis and understanding of risk
- Management of significant data
- Identification of patterns, trends, predictive analysis

Actuaries' role - dynamic assessment of risk and data.

Constant monitoring of data feeds, from the aggregate to individual level.

The challenge will be to translate this knowledge into controls/nudges and/or capital efficiency/return.

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Questions



Comments

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