Global insurance trends

<table>
<thead>
<tr>
<th></th>
<th>Macro trends</th>
<th></th>
<th>Insurance business model transformation</th>
<th></th>
<th>Innovation and Talent</th>
<th></th>
<th>What does it all mean?</th>
</tr>
</thead>
</table>

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Macro trends
Global insurance industry: Macro trends

Global Premiums this decade

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Global Premiums</th>
<th>Global LIFE Premiums</th>
<th>Global NON-LIFE Premiums</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$4.3 Trillion</td>
<td>$2.5 Trillion</td>
<td>$1.8 Trillion</td>
</tr>
<tr>
<td>2017</td>
<td>$4.9 Trillion</td>
<td>$2.7 Trillion</td>
<td>$2.2 Trillion</td>
</tr>
</tbody>
</table>

CAGR % this decade

<table>
<thead>
<tr>
<th>Category</th>
<th>2010-2017 CAGR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global GDP</td>
<td>3.4%</td>
</tr>
<tr>
<td>Global population</td>
<td>1.2%</td>
</tr>
<tr>
<td>Global non-life premiums</td>
<td>3.0%</td>
</tr>
<tr>
<td>Global life premiums</td>
<td>0.8%</td>
</tr>
</tbody>
</table>

Source: KPMG analysis; Swiss Re Institute sigma No 3/2018; Swiss Re Institute sigma No 3/2010
Global insurance premium growth: CAGR % this decade

**Americas**
- Canada: +0.5%
- U.S.A.: +2.4%
- Latam: +4.0%

**Europe, Middle East + Africa**
- W. Europe: -1.2%
- Cee: -3.8%
- Middle East: +9.4%
- Africa: 0.0%

**Asia**
- Japan: -3.9%
- China: +14.1%
- Rest of Asia: +6.8%
- Oceania: +1.6%

Source: KPMG analysis; Swiss Re Institute *sigma* No 3/2018; Swiss Re Institute *sigma* No 3/2010
Global insurance prems: % Change market share this decade

- Americas
  - Canada: 0.0%
  - Americas: +1.0%
  - Latam: +0.5%

- Europe, Middle East + Africa
  - W. Europe: -6.4%
  - Cee: -0.7%
  - Middle East: +0.5%
  - Africa: -0.1%

- Asia
  - Japan: -4.2%
  - China: +6.2%
  - Rest of Asia: +3.3%
  - Oceania: 0.0%

Source: KPMG analysis; Swiss Re Institute *sigma* No 3/2018; Swiss Re Institute *sigma* No 3/2010
Global story as told by the bond market

Source: KPMG Economics, Tullet Prebon Information, Federal Reserve Board, Bank of England, Haver Analytics as of November 26, 2018
Fewer workers per elderly person around the world

Ratio of Age 20-64 Population to Age 65+ Population

Historical

Forecast

### U.S. Insured catastrophic losses 1989 – 2017

The table below shows the U.S. insured losses from catastrophic events from 1989 to 2017:

<table>
<thead>
<tr>
<th>Year</th>
<th>Losses</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>$14.7</td>
</tr>
<tr>
<td>90</td>
<td>$5.1</td>
</tr>
<tr>
<td>91</td>
<td>$8.4</td>
</tr>
<tr>
<td>92</td>
<td>$9.3</td>
</tr>
<tr>
<td>93</td>
<td>$13.2</td>
</tr>
<tr>
<td>94</td>
<td>$11.5</td>
</tr>
<tr>
<td>95</td>
<td>$15.1</td>
</tr>
<tr>
<td>96</td>
<td>$12.1</td>
</tr>
<tr>
<td>97</td>
<td>$4.0</td>
</tr>
<tr>
<td>98</td>
<td>$6.4</td>
</tr>
<tr>
<td>99</td>
<td>$7.9</td>
</tr>
<tr>
<td>00</td>
<td>$17.1</td>
</tr>
<tr>
<td>01</td>
<td>$11.1</td>
</tr>
<tr>
<td>02</td>
<td>$7.8</td>
</tr>
<tr>
<td>03</td>
<td>$12.0</td>
</tr>
<tr>
<td>04</td>
<td>$15.2</td>
</tr>
<tr>
<td>05</td>
<td>$13.3</td>
</tr>
<tr>
<td>06</td>
<td>$15.3</td>
</tr>
<tr>
<td>07</td>
<td>$15.8</td>
</tr>
<tr>
<td>08</td>
<td>$23.3</td>
</tr>
<tr>
<td>09</td>
<td>$36.8</td>
</tr>
<tr>
<td>10</td>
<td>$35.2</td>
</tr>
<tr>
<td>11</td>
<td>$36.8</td>
</tr>
<tr>
<td>12</td>
<td>$30.7</td>
</tr>
<tr>
<td>13</td>
<td>$35.2</td>
</tr>
<tr>
<td>14</td>
<td>$36.8</td>
</tr>
<tr>
<td>15</td>
<td>$35.2</td>
</tr>
<tr>
<td>16</td>
<td>$36.8</td>
</tr>
<tr>
<td>17</td>
<td>$91.4</td>
</tr>
</tbody>
</table>

### 2017 – Worst ever for U.S. insured catastrophe losses. Average insured loss per year for 1989 – 2017 is $22.4B.

- **U.S. insured losses** in the first half of 2018 topped **$17 billion**, below the same period in 2018 where losses hit **$25.5B**.
- **Hurricanes Harvey, Irma, Maria**

**Source:** "Quiet After the Storm," MunichRE, July 11, 2018

**Source:** Insurance Information Institute, July 2018
U.S. and Canada Climate Index charts

Source: Actuaries Climate Index, December 2018
Extreme weather events on the rise

Sweden has become the latest nation to confront a wave of wildfires as far north as the Arctic Circle.


Many parts of Asia are experiencing increased tsunamis, flooding and resulting landslides.

Deadly earthquakes have impacted many parts of Asia (e.g., Japan, Indonesia and China), as well as Central and South America.

The Fort McMurray wildfire in 2016 was the largest wildfire evacuation in Alberta’s history and had losses up to $3.8B.

Canada has experienced multiple mini natural catastrophes in 2017 and 2018, which include wildfires, wind and rain damage, and a surprise hurricane over Quebec in 2018.

Canada has very high exposure to earthquake losses in B.C. and Quebec. Also Anchorage Alaska, which is closer to Canada than the US, just had a 7.0 mag. earthquake.

Source: 2 “https://www.iii.org/fact-statistic/facts-statistics-global-catastrophes

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“The most imminent effects of disruption will be felt in the banking sector; however, the greatest impact of disruption is likely to be felt in the insurance sector.”

Source: (1) KPMG Analysis
CEOs are willing to lead radical change....

CEOs’ who agree with the following statements:

97% “We see technological *disruption as more of an opportunity than a threat*”

73% “I am personally prepared to lead my organization through a *radical transformation of its operating model to maintain competitiveness*”

42% “Rather than waiting to be disrupted by competitors, *my organization is actively disrupting* the sector in which we operate”

Banking CEOs are significantly more likely than insurance CEOs to agree that their organization is actively disrupting their sector.
But CEOs accept… leading radical change is not easy

CEOs’ who agree with the following statements:

65% “Lead times to achieve significant progress on transformation often seem overwhelming”

33% “My organization is struggling to keep pace with the rate of technological innovation in the sector”

27% “Not confident that existing leadership is fully-equipped to oversee the radical transformation we need to undergo”
The customer is changing

61% of US customers state 'poor service' as the reason why they switched provider.

53% of US

80% of the global population will own a smartphone in 2020.

By 2021, nearly one in six customer service interactions globally will be handled by AI.

Customers expect all experiences to meet the expectations set by their best experiences.

60%
Household income segments are increasing by 60%.

1bn
People aged over 60 globally.

2.5bn
Millennials Globally.

90%
Customers say buying decisions are influenced by online reviews.

The attention span of a human is now less than that of a goldfish.

The most successful enterprises will reinvent themselves to systematically understand and serve increasingly powerful customers.

Forrester

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Insurance business model transformation
Gone are the days of B2B or B2C …
the future is all about **C2B**. Customers demand scale, pace and personalized service.

The role that humans play in the future workforce revolves around innovation, creativity & companionship or empathy.
Several insurers are back at the drawing board to reimagine their business strategy under various future scenarios applying design thinking processes.

The “strategic rethink” can be broadly categorized into four interdependent objectives:

1. **Transforming the business model**
   - Rethinking “where to play”

2. **Modernizing the operating model**
   - Rethinking “how to win”

3. **Enhancing customer engagement**
   - Rethinking “the connected ecosystem”

4. **Accelerating scalable Innovation**
   - Rethinking “investment, acquisition, and partnering strategies”

Alignment of strategy, innovation and M&A initiatives is critical for the success of the “strategic rethink” process.
M&A activity expectations: MODERATE to HIGH

More than 3/4th of the CEOs expect MODERATE to HIGH organizational interest in M&A over the next 3 years…

- 30% of CEOs say their organization has a HIGH M&A appetite over the next 3 years
- 48% say their organization’s appetite for M&A is MODERATE
- 21% describe a LOW M&A appetite in their organization

M&A is seen as a catalyst to achieve strategic growth objectives
M&A direction in the next 3 years

Over the next 3 years, which types of M&A transactions do you expect your company to undertake?

- Cross-border partnerships and alliances: 39%
- Cross-border mergers and acquisitions: 27%
- Domestic mergers and acquisitions: 26%
- Domestic partnerships and alliances: 6%
- Cross-border divestitures: 2%

Source: “Accelerated Evolution: M&A, transformation, and innovation in the insurance industry,” KPMG, 2018
Partnerships to accelerate innovation

Priority #1 to make products and services available via an online platform provider

Priority #2 to set up an accelerator or incubator for start-up firms

Priority #3 to partner with third-party data providers

58% agree that the only way for their organization to achieve agility is to increase its use of third-party partnerships
Beagle Street

— Online life insurance company targeting people who have experienced a major life moment (e.g., buying a house, getting married, having a baby, etc.) to get insurance quickly
— Part of BGL Group which is one of UK’s largest consumer insurance groups
— It started trading in 2012 and is in its 6th year as an online life insurer
— It has grown rapidly and tells customers they can get coverage in 10 minutes
— Beagle Street started trading after Managing Director Matthew Gledhill went through a six-week ordeal trying to get life insurance and thought there must be a simpler, quicker way

Source: Insurance Asia News September 13, 2018
When life gives you lemons…

— Began in 2015
— Injects technology and transparency into insurance
— Sold $10 million in renters and homeowners insurance in 2017.
— Drew tech-oriented investor SoftBank Group Corp. ($120M).
— Only 41% of renters have insurance
— Has the unique feature of Giveback that donates leftover money to causes policyholders care about

InsurTech companies have already changed the way some insurance products are sold, but “you ain’t seen nothing yet.”

Start-up insurers using digital technology and artificial intelligence are gathering vast amounts of data that will revolutionize the way risks are assessed and priced.

Source: Insurance Asia News September 13, 2018
Zhong An

— Jointly backed by Alibaba, Tencent, and Chinese insurer Ping An in 2013
— China’s first and largest online-only insurer
— First offering: Policies to cover return postage on e-commerce items
— Then offered quirky policies: e.g., – During the 2014 World Cup, it offered a “watching football, drinking too much” plan, (cost $1); covered medical expenses for self-inflicted injuries incurred due to “midmatch stupidity”¹
— Moving into health and auto
— The company has sold more than 7.5 billion policies to around 535 million customers.²
— Premiums in 2017, U.S.$943M³
— Wayne Wu, Zhang An’s COO, previously worked as a product manager at Google

Innovation and Talent
Why are so few insurers focusing on intelligent automation?

KPMG perspective:

There are four broad challenges related to innovation that haven’t been adequately overcome by insurers as they work on across-the-board, holistic transformation:

1. Managing the extraordinary pace of change
2. Understanding and choosing among hundreds of technology options
3. Implementing effective data and analytics processes
4. Prioritizing automation, and understanding the impact on their future workforce

Innovation at scale remains an aspiration for insurers today, but that will change in the future.
It isn’t necessary to try to perform every step in the value chain
InsurTech

- Automotive (165 companies)
- Employee Benefits Platform (90 companies)
- Enterprise / Commercial (159 companies)
- Health / Travel (162 companies)
- Insurance Data / Intelligence (126 companies)
- Consumer Management Platforms (106 companies)
- Insurance Education / Resources (38 companies)
- Insurance User Acquisition (121 companies)
- Life, Home, P&C (155 companies)
- P2P Insurance (35 companies)
- Product (46 companies)
- Reinsurance (90 companies)

**INSURANCE TECHNOLOGY**

The Venture Scanner research platform currently tracks 1475 Insurance Technology startups with $22B in funding

Note: Information as of March 2018
Insurers are focused on removing friction points in the underwriting process

Insurers can leverage data and analytics to improve antiquated underwriting processes.

Current (old) model
- Blood test
- Medical exam
- G.P. Records

Future models
- Clinical data
- Connected device data
- Mobile activity
- Social networks
- Transaction activity

Source: Company websites
Cyber sophistication

The number and types of cyber attacks continue to grow

Attacks are characterized by sophisticated malware and ransomware, such as WannaCry and NotPetya

The threat to all business sectors is increasing

Example: Equifax Inc. said a few months ago that it's costs related to its 2017 data breach hit $275 million this year. Reuters reported that the incident at the credit reporting bureau could turn out to be the most costly hack in corporate history.*

Human error is one of the most significant factors in the majority of cyber claims

Artificial intelligence is expected to eliminate some jobs but create others. By one projection, jobs created will outpace jobs lost globally by 2020.

Evolve or dissolve

Humans are still going to be a vital part of the business. Due to the advancement of the AI technology, some people will fall behind and leave the industry. But for those willing to learn, there will be great opportunities to use AI-based approaches to obtain better analytics and recommendations.

Source: Gartner
# The future insurance organization

## The Insurance Organization needs to **disrupt** itself

<table>
<thead>
<tr>
<th>Extreme automation</th>
<th>Insights and analysis</th>
<th>Organizational simplification</th>
<th>Skills and talent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrating and combining</td>
<td>New insights through</td>
<td>Changing way of work</td>
<td>Changing requirements</td>
</tr>
<tr>
<td>— Cloud ecosystems</td>
<td>— Descriptive and Diagnostic Analytics</td>
<td>— Less people</td>
<td>— Both subject matter and strategy skills</td>
</tr>
<tr>
<td>— Robotics</td>
<td>— Predictive and Prescriptive Analytics</td>
<td>— Less hierarchy</td>
<td>— Process and Control leaders</td>
</tr>
<tr>
<td>— Artificial Intelligence</td>
<td>— Integrated Business Plans</td>
<td>— Fewer locations</td>
<td>— Relationship and collaboration</td>
</tr>
<tr>
<td>— Blockchain</td>
<td>— Decision Support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>— Mobile</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Fundamental economics behind disruption
- Approaching disruption at the organizational level
- Maintaining an innovation portfolio
- Disciplined innovation process and structure

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What does it all mean?
Pillars of the 21st century enterprise

Given the scope of change occurring across industries and functions, it is important to understand and respond to four key pillars of the enterprise. These pillars and list of enablers were developed in interviews and lab sessions with our extended team.

**Core enablers**
- Blockchain
- The API economy
- Mobile economy
- Internet of things
- 3D printing
- Cloud
- Drones
- Data and analytics
- AI/cognitive automation
- Augmented and virtual reality
- Platform business model
- Cyber
- Consumerization of B2B and Enterprise technology

**Pillars of the 21st century enterprise**

- **Customer Engagement**
  - Personalization, customization, co-creation and collaboration

- **Changing Nature and Value of Assets**
  - Data-as-an-asset, intellectual property, shared assets, networks and alliances

- **Everything as a Service**
  - Services vs products, subscribing to what you need, process-as-a-service

- **Workforce of the Future**
  - Automation and augmentation, talent gaps, contingent workforces, collaboration
How to survive and thrive working through this “Strategic Rethink” of the insurance industry

— **Be curious** – get outside of silo’ed thinking

— **Foster your creativity** – focus on creative thinking as much as technical skills

— **Have a heart** – nurture emotional intelligence

— **Question the rules** – think independently (because this fosters the thinking that robots can’t master)

— **Teach yourself** – in order to keep up with the rapidly changing world you need to be committed to self-learning

— **Focus on the big picture** – it will help you see how the robots can help you and where you need to shift
Malala Yousafzi, Pakistani activist for female education and the youngest Nobel Prize Laureate

“Each of you has a choice … You can lead the change, you can fear the change, but you cannot avoid the change”

Malala Yousafzi, Pakistani activist for female education and the youngest Nobel Prize Laureate

“Each of you has a choice … You can lead the change, you can fear the change, but you cannot avoid the change”