General Insurance Industry Review 2017

With the top 10 emerging trends impacting the sector
The KPMG General Insurance Insights Dashboard which accompanies this report contains a range of interactive charts and graphs presenting the key industry metrics for the past 5 years. The interactive dashboard enables the data to be filtered to view the metrics for a particular year or insurer. It also enables comparison of metrics for an individual insurer to others in the market.

The dashboard can be accessed via our website at: www.kpmg.com/au/insurancereview
Foreword

KPMG’s General Insurance Industry Review 2017 includes the financial results up to 30 June 2017 of all Australian general insurers.

The format, content and presentation of the 2017 General Insurance Industry Review has been enhanced in the current year.

• Alongside this report we have published the KPMG General Insurance Insights Dashboard which contains a range of interactive charts and graphs presenting the key industry metrics for the past 5 years. The interactive dashboard enables the data to be filtered to view the metrics for a particular year or insurer. It also enables comparison of metrics for an individual insurer to others in the market.

• Instead of limiting the data analysis to the top 10 insurance companies by premium income as we have done in previous years, we have utilised Australian Prudential Regulation Authority (APRA) data, and are therefore able to provide data for all general insurers registered in Australia.

• We have worked with Google Australia to incorporate into our ‘Year in Review’ strategic insights and analysis obtained from the types and quantum of searches performed through the google search engine.

The report also includes what KPMG views as the top 10 emerging trends in the Australian general insurance industry. We reflect on the implications of these current and emerging themes, which may require Australia’s general insurers to significantly adapt the way they do business.

As always, we appreciate the insurer and author contributions to the report.

Scott Guse
Partner,
AS PAC Head of IFRS Insurance

David Kells
Partner,
National Sector Leader, Insurance
Overall a very positive year for the general insurers, and a year that we believe signifies the start of a long awaited upswing in the insurance cycle.

**2017 results snapshot**

- **Gross written premium**
  - $42,969m 2017
  - $40,898m 2016
  - GWP up 5% showing signs that the market is starting to harden.

- **Insurance profit**
  - $4,849m 2017
  - $3,889m 2016
  - Profit increased by $960m (24.7%) reflecting a combination of premium growth and reduced claims costs.

- **Loss ratio**
  - 63.5% 2017
  - 66.0% 2016
  - Loss ratio down by 2.5% with ongoing reserve releases reflecting the low inflation environment.

- **Expense ratio**
  - 24.8% 2017
  - 26.2% 2016
  - Expense ratio down 1.4% reflecting a move to more cost effective distribution channels.

- **Capital ratio**
  - x1.86 2017
  - x1.74 2016
  - Capital ratio at 1.86 times the prescribed capital amount compared to 1.74 as at 30 June 2016.
Top 10 emerging trends

New technology
1. Insurtech
   Momentum is growing
2. Digital
   Getting fit for digital
3. Blockchain
   A transparency bullet?
4. Artificial intelligence
   A robot invasion

New approaches/products
5. Cyber insurance
   Still more required
6. Data analytics
   An untapped opportunity
7. Customer focus
   Customer centric growth
8. Risk mitigation
   Investing in mitigation

Regulatory change
9. New accounting standard IFRS 17
   Greater comparability and transparency
10. Conduct and mis-selling
    Focus on the three C’s

+ Click on each trend to read our insights
Results and analysis

At a glance

<table>
<thead>
<tr>
<th></th>
<th>Total 2016/17 $m</th>
<th>Total 2015/16 $m</th>
</tr>
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<tbody>
<tr>
<td>Gross written premium</td>
<td>↑ 42,969</td>
<td>↑ 40,898</td>
</tr>
<tr>
<td>Net earned premium</td>
<td>↑ 30,138</td>
<td>↑ 28,534</td>
</tr>
<tr>
<td>Underwriting result</td>
<td>↑ 3,551</td>
<td>↑ 2,222</td>
</tr>
<tr>
<td>Insurance profit</td>
<td>↑ 4,849</td>
<td>↑ 3,889</td>
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<tr>
<td>Loss ratio</td>
<td>↓ 63.5%</td>
<td>↓ 66.0%</td>
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<tr>
<td>Expense ratio</td>
<td>↓ 24.8%</td>
<td>↓ 26.2%</td>
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<tr>
<td>Combined ratio</td>
<td>↓ 88.3%</td>
<td>↓ 92.2%</td>
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<tr>
<td>Insurance margin</td>
<td>↑ 16.1%</td>
<td>↑ 13.6%</td>
</tr>
<tr>
<td>Capital ratio</td>
<td>↑ 1.86</td>
<td>↑ 1.74</td>
</tr>
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Source: APRA Quarterly General Insurance Performance Statistics June 2017 (Direct Insurers only) and KPMG analysis.

Year in review

Insurance profit for the year ended 30 June 2017 was up 25 percent to $4,849 million. Gross written premiums (GWP) increased by 5 percent to $42,969 million. The growth in premiums was largely rate-driven – a clear sign that the market is starting to harden. In recent years, the competitive environment has put pressure on premiums with only marginal increases experienced, however this is the first year in quite some time that we have seen this sort of growth.

Net earned premiums increased by 6 percent reflecting the premium rate increase noted above. Reinsurance spend in 2016/17 remained flat with the higher base set in 2015/16.
The loss ratio (claims cost) has improved in 2016/17 to 63.5 percent (down 2.5 percent). Whilst total incurred gross claims were impacted by a higher frequency of natural catastrophes than in 2016, primarily driven by Cyclone Debbie, these claims were however largely offset by higher reinsurance recoveries and ongoing reserve releases from prior year claim provisions reflecting the low inflation environment.

The cost discipline of insurers is continuing with a further 1.4 percent decrease in the expense ratio to 24.8 percent. Whilst this improvement is in part due to the pricing increases pushed through by insurers, the move to more cost effective distribution channels has been a key driver in reducing this ratio.

The combined impact of all these factors contributed to an industry insurance result of $4,849 million and an insurance margin of 16.1 percent. The Key ratios graph shows the trend in the insurance margins over the past 5 years. As can be seen, the insurance margin has improved in recent years, trending back towards historic levels.

Investment income allocated to insurance funds was $1,320 million down from $1,688 million in 2015/16 on the back of a low interest rate environment and conservative investment portfolios. The 22 percent reduction largely reflects the market impact of unrealised gains and losses at 30 June 2017. With these low returns, diversification of investment portfolios to maximise future returns will continue to be a focus.

The industry’s capital coverage at 30 June 2017 for direct insurers was 1.86 times the APRA prescribed capital amount. This compares to 1.74 times at 30 June 2016.
The average GWP quarterly growth rate for 2016/17 was 1.2 percent as can be seen in the Gross Written Premiums (rolling 12 months YOY growth) graph. The growth in 2016/17 reflects the highest percentage growth we have seen in recent years and as this growth is largely rate-driven it demonstrates that the market has started to harden.

In our view this hardening is well overdue and has certainly been a key driver in delivering the positive industry results. That being said, whilst the results for the year are positive the underlying insurance margin (overall insurance profitability) of 16.1 percent is still below the results achieved by the industry in 2012, 13 and 14, so there is still a way to go. It is hoped that insurers maintain their pricing discipline and that their growth is not eroded through short term market share competitive forces.

Maintaining cost disciplines will likely see some insurers focus on greater automation onshore with Artificial Intelligence (AI) and robotics whilst others continue with ongoing offshoring and outsourcing efforts. We have seen expense ratios continuing to decline in recent years, but with the investment in new product offerings, technology and a focus on client experience, further cost reductions will be harder to secure in the short term.

An example of where AI has started to make a difference is evident from the work Google has done globally with AXA. Using AI through machine learning and data analysis (referred to as the TensorFlow machine learning framework), AXA has been able to predict with 78 percent accuracy, those motor vehicle policy holders that will be involved in a claim exceeding $10,000. This sort of technology will further enhance an insurer’s ability to appropriately price a specific insurance policy.
As mentioned earlier, the expense ratio for the industry improved during the year by 1.4 percent to 24.8 percent. The progressive move away from a call centre/branch distribution network for general insurance retail products (i.e. car, home and travel products) to a distribution platform that is mobile, digital or online based is a significant contributor to this cost reduction.

Insights provided by Google show the dramatic increase in ‘queries’ made through the Google search engine on mobile digital devices for the following insurance products over the past 12 months:

- **Car**
- **Home**
- **Travel**

<table>
<thead>
<tr>
<th>Product</th>
<th>% Growth YOY using all IT related devices*</th>
<th>% Growth YOY using mobile devices^</th>
</tr>
</thead>
<tbody>
<tr>
<td>Car</td>
<td>9%</td>
<td>26%</td>
</tr>
<tr>
<td>Home</td>
<td>3%</td>
<td>26%</td>
</tr>
<tr>
<td>Travel</td>
<td>2%</td>
<td>28%</td>
</tr>
</tbody>
</table>

* All IT related devices – includes mobile phone, laptop, desktop and tablet device
^ Mobile devices – relates to mobile phones only

The significant increase in ‘queries’ through mobile devices reflects the changing behaviour of the customer. Customers are becoming more comfortable researching and then purchasing their general insurance products on their mobile phones, while on the train or bus going to work or even while they are waiting for their daily coffee. Whilst this trend is producing more cost effective distribution platforms for insurers, it does however highlight the need for insurers to make sure their mobile websites are easy to use and tailored for a mobile device. In short, it signifies the growing importance of customer centricity.

Further insights gained from Google search engine data, show that it is predominately the retail general insurers that are afforded the luxury, at this stage, of capitalising on the cost effective ‘digital’ distribution platforms. The graphic below shows the distribution of all Google ‘queries’ across the various insurance product lines and highlights that over 65 percent of insurance searches relate to retail general insurance products.

Customers are becoming more comfortable researching and then purchasing their general insurance products on their mobile phones, while on the train or bus going to work or even while they are waiting for their daily coffee.
On the regulatory front, change and reform is ongoing. Reforms of CTP in NSW are expected to assist in minimising the surge in low severity claims experience and manage rising premiums. The reform may also assist in limiting the spread of claims farming practices seen for low severity claims to other states. Whilst the public are expected to be the beneficiaries of these reforms, it is also clear that (based on their current books) some insurers will be winners while others will be losers from these reforms. Further, the proposed changes to the NSW emergency services levy would have seen the levy no longer being funded by insurers/policyholders representing $941 million in premiums in 2016/17. The levy would instead be collected by landowners as part of council rates notices. The NSW government announced during the year that they would postpone this change until further notice.

We see a number of emerging trends that will impact the industry in both the short and long term. These trends are listed below and are discussed in more detail later on:

1. Insurtech
2. Digital
3. Blockchain
4. Artificial intelligence
5. Cyber insurance
6. Data analytics
7. Customer focus
8. Risk mitigation
9. New accounting standard IFRS 17
10. Conduct and mis-selling

Source: Data provided by Google, October 2017
The use of technology will continue to be critical for insurers; enhancing digital capabilities to improve product offerings and enhance the customer experience. The rise of the millennials and tech savvy customers is expected to challenge traditional delivery models and force change including the use of the New Payment Platform expected to be released in early 2018 allowing real time payment capability. It is therefore not surprising that four of our top ten insurance trends relate to technology.

Further, in an environment with greater connectivity, homes with connected devices may provide data which allows insurers to better understand their customers than ever before. Access to data may improve the pricing of risks specific to a customer’s individual needs or manage claims costs through prevention or mitigation. Likewise, the rise of the sharing economy is disrupting traditional product offerings.

**Share price performance**

The insurance companies share price performance graph depicts the share price performance of the four listed Australian general insurers – IAG, QBE, Suncorp (SUN) and Genworth (GMA) – and their performance against the Australian Stock Exchange (ASX) 200 Index for the period from July 2011 to September 2017.

All Australian listed insurers experienced an improvement in the share price on average to 30 June 2017 when compared to 30 June 2016. QBE was up 6.8 percent, IAG 11.6 percent, Suncorp by 12.1 percent and Genworth by 6.6 percent, compared to an increase in the ASX 200 index of 7.8 percent. IAG and Suncorp’s share price performance was above that of the ASX 200 index.

In the period from 30 June 2017 to 6 November 2017, the movement in the ASX 200 was marginal whilst QBE, IAG and Suncorp showed a decline for the same period.

**Insurance companies share price performance since July 2011**

Source: KPMG analysis.
In this section of our report, we identify 10 emerging trends occurring in the global general insurance sector and consider their implications and importance for Australian general insurers.

The list comprises a number of new trends but also incorporates a number of trends that emerged in previous years that are still prevalent today. The list continues to be dominated by technology and innovation which together are creating a new world of opportunity for individuals, businesses and society. The reality is that customers, investors and employees demand innovation. Indeed, they expect it, not only from technology providers and device manufacturers, but also from insurance organisations.

We believe it is only by recognising these opportunities and challenges, and responding quickly, that today’s insurers will continue to be competitive.

Insurers can no longer do ‘more of the same’ and expect to succeed.
New technology

Insurance is an industry ripe for disruption. Insurers around the world are struggling with a myriad of challenges: low levels of customer trust, high competition, a low interest rate environment, shrinking profitability, and legacy IT issues.

Over the next 2 years, the standout market force influencing the transformation of Australia’s insurance industry is disruptive innovation. In a highly competitive environment, insurtech companies are shaking up traditional ways of doing business. Insurers must innovate or risk being left behind.

While many insurtech companies are looking to compete with traditional insurers by providing more tailored responses to customer needs, others see a key opportunity in helping traditional insurers solve their problems and create more customer value. Some insurtech companies have behavioral analytics and advanced data analytics capabilities which allow for the development and creation of much more customised solutions or fast tracking of customer service.

Customers are driving the change by demanding more personalised and relevant services, similar to what they are getting in other industries such as retail banking. Insurers have traditionally struggled in this respect as they have so few touchpoints with their customers – typically only once a year at renewals or during the claims process.

In 2016, insurtech attracted investment of over US$1.7 billion. The global picture is one of increasing interest and small focused investment, though larger deals are expected as early-stage insurtech companies mature. After two moderate quarters, global venture capital investment into insurtech start-ups was strong in Q2’17, with US$745 million invested across 60 deals, according to KPMG’s Q2 2017 Pulse of Fintech report.

There is a rising trend for B2B insurtech. While early-stage insurtechs were focused on disintermediation, an increasing number of insurtech start-ups are building their business models around support or partnership with incumbent insurers and brokers. This approach provides traditional insurers with needed digital capabilities, while insurtechs get access to distribution systems and a wider customer base.

Significant traction is currently seen in front office transactions, such as the use of AI chatbots to provide an initial layer of customer interaction.

Insurtech innovation for back office functions is also on the rise. Key trends include automating the many hand-offs between legacy systems, claims transformation and adding API layers to connect emerging technologies and data.

Given the reality of a market the size of Australia, the need to partner is paramount; making Australian insurtech startups most likely to ally with incumbents. The big buzzword in insurtech right now is partnering.

Whilst the US is clearly leading the way in insurtech, Australia is increasingly seen as an attractive place to test customer focused technologies.
Australian startups need access to distribution channels in order to scale their businesses, so there is a strong symbiotic relationship between them and the larger market incumbents. Many startups don’t have the time, patience or money to get involved in the more tiresome, regulatory and capital intensive parts of insurance so they partner up with established insurers who have the capital and regulatory expertise.

Whilst the US is clearly leading the way in insurtech, with over 50 percent of VC backed deals, Australia is increasingly seen as an attractive place to test customer focused technologies. This presents a real opportunity to increase Australian involvement in insurtech and encourage insurtech companies to pilot in Australia. Being a testing ground for some of these prototypes will enable our local insurance industry to innovate much faster than if these technologies were piloted elsewhere then bought over.

Despite a flurry of global activity and high demand from Australian insurers looking for new technologies to improve customer service and transform operational models insurtech has largely been left behind in the fintech agenda in Australia. Whilst insurtech is attracting serious venture capital from investors overseas less than 5 percent of Fintech companies in Australia are insurtech. This is illustrated in KPMG’s Australian Fintech Landscape map which highlights that of the 579 fintech companies in Australia, only 15 are focused on insurtech. Key reasons cited include regulatory roadblocks, business complexity and the capital required.

Major Australian insurance companies such as IAG and Suncorp have already made investments and committed to partnerships with insurtech companies to explore new strategies, initiatives and technologies.

IAG’s Sydney-based insurtech incubator, called Firemark Labs, in-line with the successful Singapore hub, is focused on co-creating new insurance products and services. IAG also set up a $75 million new ventures fund to invest in and partner with start-ups and established businesses that have potential to disrupt the value chain.

Suncorp collaborated with Traity to develop a P2P micro-insurance platform using Traity’s chatbot ‘Kevin’. Suncorp also invested $5 million in Trov Protection and collaborated with Trov to develop a platform aimed at providing millennials with access to insurance for single valuables such as computers and cameras.

QBE announced in May 2017 its intention to partner with three-four insurtech companies and has a war chest of $50m to invest.

**$50 million**

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**KPMG Australian Fintech Landscape**

There has been a five-fold increase in the number of fintech start-up companies in Australia over the past five years and the subsectors covered have become more diverse.

KPMG have published a map of the Australian fintech landscape which demonstrates the scale and diversity of the rapidly evolving Australian fintech sector. The map highlights that there are over 575 fintech start-ups operating in Australia today, across 11 subsectors.

View the map at kpmg.com/au/fintechlandscape
The insurer of the future will look drastically different than today’s incumbent model. Technology has the potential to fundamentally change not only the way that consumers perceive and interact with their insurers, but also the role of insurance in everyday life. Instead of being a back end purchase in the wake of decisions surrounding home, health, travel and more, insurance could instead become a major part of the front end ecosystem. And we are already seeing the first steps of this change - but significant challenges bar the way forward. How should an organisation meaningfully pursue industry-changing digital innovation?

**Understanding the potential depth of change**

Customer needs are changing, with digital products and purchase options becoming more critical for the modern consumer. Yet the range of technologies used to enable digital service have varying business impacts. When we look at the potential of digital innovation, we can classify innovations into three levels: basic, transformative, and disruptive.

**Basic innovation** can be defined as using digital means to replace or simplify existing processes. Examples seen today include process automation, chatbots, cloud computing, and AI triaging high-volume low-value claims. These areas represent incremental improvements that can deliver benefits in the short term. This is where most insurers are focusing much of their time and attention today.

In contrast, **transformative innovation** has the potential to change the way that insurers interact with their customers. Key to this transformation is a shift from a product-centric to a customer-centric approach to insurance, in which AI, big data and analytics are used to understand customers and provide data to allow decision makers to act quickly. This approach not only helps insurers understand how to better reach potential markets and through what channels, but also provides the ability to design products for customers based on their needs. Using technology to support a mindset shift from protection to prevention is one key example of this and on-demand coverage is an important first step on this journey.

**Disruptive innovation** is both the most meaningful and most challenging to achieve. Instead of looking at specific technologies, disruptive innovation is about creating a vision for a new insurance business model, supported by technology. Today’s business models will not survive in tomorrow’s digital landscape - insurers must evolve to survive. To achieve the vision of an insurer being at the front end of a customer’s daily transactions, such as new purchases, travel or trips to the doctor, the way that an insurer operates needs to be reconsidered from the ground up. Use of technology thus becomes the means to achieving that clear and specific vision for the business rather than a goal in and of itself.
How should an insurer move forward?

Insurers are understandably mired in immediate issues. Challenges surrounding legacy IT systems, changing regulations, rising competition and low consumer trust, all loom large in the traditional insurer’s windshield. As a result, many incumbents fail to create a clear digital vision to guide activities, or to make day-to-day decisions to move the organisation meaningfully toward the achievement of that vision. Creation of such a vision, as well as a roadmap of the way forward, is a critical first step.

Next, insurers need to address four key components of their business.

1. Shift product mindset. Today, most insurers think in terms of specific product lines instead of the needs of the customer buying the product. Insurers should shift their focus to consumer needs and anticipate how changing behaviors will create opportunities for new products.

2. Seek technology partnerships. Building or buying technology solutions may no longer be the best options. Instead of developing an in-house solution, companies should look to partner with insurtech and fintech companies who can provide immediate digital capabilities.

3. Address backend processes. Legacy processes can be a stumbling block to change. While more insurers are offering digital products, few have reengineered their backend to match, creating inefficiencies and increasing the risk for error. Insurers need to address these gaps and take advantage of the opportunities of improving digital processes.

4. Create a culture of innovation. There is nothing that an insurer does today that cannot be innovated upon, transformed or entirely rethought using enabling technology. Yet to seek and embrace this innovation requires organisation-wide cultural change. From the C-suite to the mail clerk, insurers need to ask their employees to seek opportunities for innovation, with KPIs to measure performance and incentives to spur activity. Such a culture will also help insurers make considerable strides in attracting and retaining digital talent.

There is no direct path

As part of an inherently risk-adverse industry, many insurers have been approaching digital innovation with caution, even hesitance. Yet the basic, step-by-step approach to innovation embodied in pilot programs and discrete innovation groups will achieve one result: being left behind.

Disruptive change is already occurring within the industry, driven by new and developing technologies. Digital insurers, fintechs and insurtechs unencumbered by legacy systems, processes and people are already pushing the boundaries and are at the forefront of the industry. This change will only accelerate. Embracing disruptive innovation at a cultural level is a significant challenge – but it is better than the inevitable alternative.
Distributed Ledger Technology, more commonly called blockchain has been in the news almost on a daily basis in 2017. It has captured the attention of almost every facet of traditional industries.

Corporations joined a myriad of consortia, a variety of patents were filed and regulators across jurisdictions became heavily engaged. We have seen an increase in VC and institutional investor money flowing in to back insurtech, blockchain and other emerging tech initiatives.

Despite significant hype and early promises, implementation challenges remain, ranging from lack of collective standardisation and legal and regulatory frameworks (cross-jurisdictional) to privacy and confidentiality considerations, system integration and scalability issues.

The insurance industry was equally active in the blockchain experiments and prototype development space, with several industry leaders commenting that the entire insurance value chain is ripe for automation.

One of the most followed developments in the insurance industry was the 2016 launch of the B3i initiative, a blockchain insurance industry initiative where Swiss Re together with Aegon, Allianz, Munich Re and Zurich have joined forces to evaluate whether the technology can help make the insurance industry more efficient (a similar consortia was established earlier by R3, involving large, multi-national banks).

The objective of the B3i initiative is to explore the potential of distributed ledger technologies. Shortly after, another 10 insurers and re-insurers from Asia, Europe and the Americas decided to join, giving the initiative a truly international mandate.
The consortium completed their first pilot project for retrocession of large insurance contracts between the participating organisations. The ethos of the experiment was ‘minimum disruption, maximum impact’, referring to the fact that insurance companies (like many other mature businesses) are reliant on legacy infrastructure that is either complicated or cost prohibitive to replace or change. Blockchain offers a new, complementary environment that can co-exist with existing systems and infrastructure (minimum impact), however can deliver significant benefits in automation, connectivity and collaboration with other products or services (maximum impact).

The use case for blockchain for the insurance industry is to help drive a wider transformational agenda within the context of the ‘data-driven fourth industrial revolution’. The opportunities go beyond one particular organisation and include:

1. improved business and operational processes
2. enhanced, real time pricing and risk management
3. enhanced customer trust and experience through a superior claim management process
4. new or enhanced products and services at lower unit cost
5. improved data quality integral to every automated decision making
6. increased process and event auditability.

While blockchain and distributed ledgers are emerging capabilities that hold significant potential, we do not believe that the key to successful application of this technology is its technological sophistication. We believe that the true measure of success will be the ability of industry participants to foster buy-in, and that buy-in is driven by four factors.

1. The trust built by all stakeholders through management of the initial phases of an industry collaboration (like the B3i).
2. Transparent and effective governance to ensure that solutions that are built are done so for the industry and by the industry.
3. Management of risk for all parties given the different stages of maturity regarding emerging technology adoption and capability at which various stakeholders might be.
4. The practical, day-to-day operation of a collaboration environment (also known as the ‘Platform’), where a carefully appointed and independent operating entity can codify, distribute and manage the rules, standards and functions of the platform.
Another aspect is the multi-disciplinary approach organisations should consider when modernising their businesses through technology. We have observed several organisations that would approach a blockchain/distributed ledger opportunity as a technology implementation one, focusing on the traditional ‘design, build, and test’ capabilities. However, our belief is that most blockchain/distributed ledger initiatives must consider:

- **Digital maturity** of all the processes surrounding the new business processes. In other words, can the front, middle - and back-office keep up with the new platform?
- An **outside-in view** that puts the customers of the platform in the future - not only the existing stakeholders like insurers or banks but also data providers, certifiers, logistics and supply chain companies, business owners – at the centre of the approach.
- A robust **change management** approach both for the platform stakeholders, and for the broader market participants. In other words, are we all ready to start working in the new way?

Such an approach would enable collaboration of (sometimes competing) stakeholders to develop new products and services that currently are not possible or are cost prohibitive. These opportunities will shorten process cycles and settlement times, reduce costs and operational risks, provide better transparency for contracting parties (risk) and improve cash management practices. The inclusion of additional stakeholders (like certified data providers) would enable opportunities in ‘real time insurance’, where insurers could access a new set of data points that will enable them to calculate their risk exposure in real time and adjust premiums accordingly.

Developing a fully inclusive blockchain platform is a complex initiative and starting with a well-defined initial scope is ideal to discover early limitations, scalability options and the most ideal way to on-board a broad set of participants.
Robots are invading the insurance industry. And CEOs are welcoming them in the door.

According to KPMG’s CEO Survey more than 1/4 of insurance CEOs see automation as the answer to managing their current skills gaps.

Robots are invading the insurance industry. And CEOs are welcoming them in the door. But as insurers become more sophisticated in their use of robotics and start to hand over ever more control to robots, deeper concerns are starting to emerge.

Over the past few years, businesses of all types have rushed towards robotics. The greatest focus has been around Robotic Process Automation (or RPA), particularly in functions like finance where processes are highly repeatable, regular and routine. But software robots ("bots") are also hard at work across the wider insurance enterprise – supporting management decisions, facilitating transactions and even managing aspects of office security.

Expect more robots to enter the workforce soon. According to a recent survey of more than 100 insurance CEOs conducted by KPMG International, more than a quarter of CEOs see automation – a key step towards robotics – as the answer to managing their current skills gaps. Almost everyone recognises the efficiencies that automation delivers by driving out inconsistency in decision-making, improving compliance and eliminating errors in processes. Many are starting to realise that wider use of software robotics could deliver significant additional value.

**What is...?**

- **Automation**
  
  Any simple control system that makes a decision based on set data and options.

- **Software robotics**
  
  A software application that essentially replicates a repetitive human action.

- **Robotic process automation**
  
  The application of software robotics to clerical process.

- **Cognitive computing**
  
  An advanced technology that mimics the human brain to solve complex problems.

- **Cognitive robotics**
  
  Applying cognitive computing to software robotics in order to automate sophisticated decisions.
### AI: Artificial intelligence or automated insurance?

Whilst RPA has been the initial focus for many insurers, an even more sophisticated type of robotics is starting to enter the workplace, enabled by cognitive computing, machine learning and, increasingly, by artificial intelligence (AI). Not satisfied with run-of-the-mill rules-based processing tasks, these intelligent bots are starting to make decisions that—until today—were considered far too complicated for a machine to make.

Already, some of the more innovative insurers are testing the ability of cognitive bots to make routine business decisions in areas such as finance and claims management. Other financial services sectors are using these technologies to manage much higher-risk functions such as trading and reserving.

Insurance CEOs are certainly interested in cognitive computing, machine learning and AI. In our survey, 15 percent said they planned to put ‘significant’ investment towards these technologies over the next 3 years. But it also deeply concerns them. In fact, 91 percent of insurance CEOs admitted to being worried about the challenge of integrating automation, AI and cognitive robotics into their existing business and operating models.

CEOs have good reason to worry. There have been some highly-public bot failures over the past year. In March 2016, an online ‘chatbot’ that was supposed to use AI technology to connect with teens over twitter rapidly devolved into the worst of the internet. The ‘flash-crash’ of the pound sterling in October was likely due to an overzealous trading algorithm that dropped the currency by almost 10 percent before correcting.

### How are insurers applying robotics?

Some firms are adopting robotics into their claims management process to help predict the eventual outcome of the claims process and suggest the most appropriate strategy based on that prediction.

In Australia, Suncorp has recently announced that they are using an IBM Watson powered accident liability determination system within their motor claims process. The system has ingested 15,000 anonymised claim files, which it uses as the basis to determine who is at fault in car accidents.

Others are exploring how robotics could help identify potential mismatches between the policy terms set internally and those submitted by brokers. This is helping insurers to identify—at policy inception—policies that may lead to subsequent losses.

According to KPMG’s CEO Survey 15% of insurance CEOs planned ‘significant’ investment in cognitive computing, machine learning and AI over the next 3 years.

Suncorp has recently announced that they are using an IBM Watson powered accident liability determination system within their motor claims process.
Creating the right environment for robots to thrive

There are some specific challenges that insurance CEOs will need to overcome before they can confidently implement more sophisticated types of robotics. Much like other new technologies, business users are starting to create bots within their own functions. As these bots start to interact and one starts to depend on the output of another, important governance questions will arise. How, for example, will two sets of bots created by the actuarial function and the finance function interplay? What controls are in place to ensure that their methodologies, calculations and algorithms are consistent?

Data will also create a challenge. Cognitive computing and machine learning relies on building a repository of reliable historical information from which the bots can learn. A bot trained on auto mortality statistics from the 1980s, for example, will likely not be coming to conclusions that are appropriate in today’s environment.

Winning the robot race

Based on our experience, here are four quick tips to help insurance CEOs start building their robotics strategy.

1. Take a strategic view
   - Don’t let the robots proliferate out of control. Start with a strategic view of how robotics will enable the future operating model and ensure that all investments support the achievement of that goal. Goals should be focused on targeted outcomes, not outputs.

2. Be realistic about your capabilities
   - Understand your current capabilities and infrastructure limitations. Focus on building capabilities in steps as skills and infrastructure is improved and expanded.

3. Aim for agility
   - Create a more agile development environment – both within IT and across the business – and encourage the creation of a ‘test and learn’ mindset within the organisation.

4. Create smart governance
   - Governance is critical to not only the management of data, but also the management of the underlying infrastructure. Flexibility will be key as the technology evolves and new use cases emerge.
New approaches/products

Cyber insurance
Still more required

Cyber-attacks continue to adversely affect governments, private firms, and consumers. It has been estimated that cyber-attacks cost firms $400 billion annually. In a recent ASX 100 Cyber Security Health Check report, that surveyed senior executives in industries such as banking, insurance, energy, retail, pharmaceuticals, healthcare, and automotive, it was found that 96 percent reported that their companies experienced cyber-attacks.

Cyber-attacks can result not only in direct financial losses and/or the loss of data, but also in an organisation’s highly valued asset - its reputation.

World-wide spending on cybersecurity was approximately US$75 billion in 2015, with the expectation that, by 2020, companies around the globe will be spending around US$170 billion annually. The total cyber-insurance business currently amounts to US$2 billion, whereas the total cost of security breaches to the global economy amounts to a whopping US$445 billion.

This leads insurers to continually grow their cyber insurance offerings, but organisations (and insurers) still face challenges assessing and managing cyber risk. Policies remain complex, contain exclusion clauses, and while costs can sometimes be transferred to insurers – the risk and implications of a cyber-attack remain firmly the organisation’s responsibility.

While the number of cyber insurance providing organisations grows, awareness of the risks, knowledge and experience keeps small-to-medium or niche players out of the market.

Last year we highlighted the forces driving the growth of cyber insurance, including:

- high profile data security hacks, causing significant reputational impacts, business impacts and subsequent litigation;
- companies implementing better cyber risk management practices resulting in a transfer of their cyber risk;
- regulatory pressures and ‘notification’ legislation that require all companies to notify individuals if their personal data is breached; and
- matters of national security.

These factors remain material to Australian organisations today.

The continued problem is that insurance organisations do not have a clear understanding of what ‘good’ cyber security looks like for their customers. They are unable to assess whether their customers are taking the right precautions to properly manage their risk. This roadblock creates the inability of the cyber-insurers to make strictly positive profit at all times, also due to the high degree of non-transparency of risk information between the insurer and the insured in a networked setting.

It has been estimated that cyber-attacks cost firms $400 billion annually.

96% of senior executives in industries such as banking, insurance, energy, retail, pharmaceuticals, healthcare, and automotive reported that their companies experienced cyber-attacks.

Source: ASX 100 Cyber Security Health Check report
Additionally, organisations that use security products (e.g. antivirus software - one of the main sources of protection for internet users to prevent their communication devices from being hacked) do not take advantage of the full power of the product, either due to the ignorance of using the product effectively, or being wilfully careless (for example, not configuring the product to its full capability).

If the Australian cyber-insurance market is to properly mature and effectively transfer risk, insurers (and any eventual re-insurers) will need to become much more sophisticated in their approach to assessing, quantifying and managing cyber risk – and organisations will have to do the same.

It has been said many times before that insurers have unrivalled access to a great deal of information about their customers – from their age and salary to the time of day they like to drive their car. Harnessing this data is key to competing in the market and exploiting the opportunities new technology brings.

Insurtech startups for example are creating compelling new uses and applications for data across the sector. Artificial intelligence, Peer2Peer insurance and on-demand insurance are some relatively recent innovations which have disrupted the market and begun to shape a new ‘normal’.

Larger and more traditional insurers are in a privileged position to compete if the tools at their disposal are utilised appropriately. On-demand insurance might be convenient and appealing at the point of use, but premium rates will need to be higher – particularly for users with higher risk profiles. Similarly, ‘traditional’ insurance companies do not have to market themselves to create a core customer base – it already exists. As does the data that came with them.

We are already seeing insurers take advantage of this existing information. We have seen actuaries use data effectively for years to predict behaviours and link those behaviours to policy risk. We also see data analytics utilised across the insurance value chain - in financial reporting, claims management and pricing.

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**Data analytics**

An untapped opportunity

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US$445 billion

The total cyber-insurance business currently amounts to US$2 billion, whereas the total cost of security breaches to the global economy amounts to a whopping US$445 billion.
In order to keep pace with the competition and continue moving forward, insurers should consider the following:

**Invest in people with the right skills.**
Most insurers already have the raw material to become innovators. However, harnessing this requires the right people with the right attitudes and the right skills. Insurers should create a culture that encourages those who challenge the status quo and suggest new ways of doing things.

**Keep your data safe.**
With the opportunities provided by data comes threats that could be damaging to both customers and reputation. Invest in cyber security and bring awareness of those risks to the Board.

**Partner with others.**
Don’t be afraid to seek help from new joiners to the market or innovators that might contribute to your strategy. Consider the skills you are lacking and whether a strategic partnership might benefit your company.

In order to make these possible we expect to see continued investment in updating legacy systems and staff training. Both will help to lay solid foundations for building on in the future. Across our client base we already see management creating specialist teams able to digest and manipulate large amounts of data for risk assessments and forecasting.

Big data and data analytics are already changing the way businesses are run and as a result are disrupting business as usual. Insurers will need to continue to invest in innovation and expertise in this field in order to keep up.

Across our client base we already see management creating specialist teams able to digest and manipulate large amounts of data for risk assessments and forecasting.
Insurers are continuing to focus on becoming more customer-centric as a way to drive growth and increase value.

In Australia, we have seen an increased focus on this recently with more Australian insurers moving in this direction. In August 2017, Allianz announced the appointment of one of Australia’s leading direct marketers as their Chief Market Manager in order to help the organisation better centre its business around their customers. In July 2017, QBE appointed a Chief Customer Officer in an effort to make the company more customer-focused. IAG was one of the first to make this move in Australia appointing a Chief Customer Officer back in December 2015. Suncorp followed shortly after in March 2016 appointing a Chief Customer Experience Officer.

It is clear that insurers in Australia are refocusing their strategy around customer experience and in many respects are following their global peers in becoming more product orientated and providing an integrated offers to customers.

We have seen a number of examples of this globally where insurers are offering customers a range of value-added services related to areas such as property management and health. These services are allowing insurers to build their relationship with the customer outside of the traditional insurance model in order to improve the customer experience. As an example, in Germany, Allianz has partnered with Panasonic to provide a Smart Home service. The service connects Panasonic’s Smart Home monitoring and control system with home protection services, provided by Allianz Global Assistance. The Panasonic Smart Home system consists of window, door, water leakage and glass break sensors as well as a siren. These are connected to a central hub located in the home. The hub is securely linked to the Allianz Global Assistance customer hotline.

In the event of an incident, such as motion detection, glass breakage or water leakage, a sensor alert is sent to the customer’s smartphone and the service centre is notified. The service centre will notify the customer and organise certain actions to limit the damage in the customer’s home, for example by sending a tradesperson to the property to replace a broken window or repair a leaking pipe, or alerting security in the event of a burglary alarm activation.

Value-added services such as these improve the customer experience and lead to better retention, and can also reduce claims costs.

Many customer experience initiatives tend to be linked to digital offerings. As a result, insurers will need to ensure they have updated technology available. Policy and claims administration systems may need to be upgraded to support new offerings. These system upgrades are obviously time consuming and expensive but need to be considered if insurers want to continue to compete in the current market.
We have seen examples of digital offerings being used for self-service claims in order to improve the customer experience. As an example, there are apps available that allow customers to make motor claims by providing details of the accident and submitting photos via the app. Some apps take this technology further with liability being determined (via artificial intelligence) and car repairers being booked. Initiatives such as these both improve the customer experience and result in efficiency savings.

With the nature of customer behaviour changing to a preference for online services, insurers will need to continue to make this an area of focus in order to result in positive customer experiences and promote further growth.

Whether we can put the blame on global warming or simply the make up of Australia, the statistics show that catastrophic weather events have cost the Australian insurance industry tens of billions of dollars in recent years. In some areas of Northern Queensland, research by the Australian Government Actuary has shown that insurers are paying $1.40 in claims for every $1 of premium collected.¹

These facts, and the insurers’ response to weather events, have highlighted to Australians the important role played by the industry, and also the need for individuals and communities to act and to protect themselves through investing in mitigation. If this doesn’t happen, then for some, insurance will become increasingly unaffordable.

In response to this need, some insurers have also started to invest in developing programs to support initiatives to make insurance more affordable.

For example, Suncorp’s Cyclone Resilience Benefit provides a 20 percent discount on premiums for home owners in Northern Australia who upgrade their property to protect against cyclone damage through measures such as roofing support, cyclone shutters and reinforcing garage doors. In areas vulnerable to tropical cyclones, insurers may not typically be able to offer affordable premiums, and so incentives such as this provide a real opportunity to not only save the policyholder in premiums but also to improve the resilience of the communities.

Meanwhile, IAG and Munich Re (Australia) are members of the Australian Business Roundtable for Disaster Resilience and Safer Communities, whose vision it is to both work collaboratively with governments to effect change in public policy and increase investment aimed at building safer and more resilient communities; and actively improve the capacity of people and businesses to better withstand future natural disasters.

But this isn’t a job for a few. For communities to become safer, and more resilient to extreme weather, collaboration between government, industry and communities will be required.


In some areas of Northern Queensland, research by the Australian Government Actuary has shown that insurers are paying $1.40 in claims for every $1 of premium collected.
Recognising the importance of risk mitigation to the sustainability of communities and the insurance sector on a global front we have seen the development of the (Global) Insurance Development Forum. This is a ground-breaking new industry-led multi-stakeholder partnership whose overall objective is optimising and extending the use of insurance-related capabilities to create resilient platforms for growth. Chaired by Stephen Catlin (Chair of XL Catlin and the International Insurance Society) and co-Chaired by Helen Clark (UNDP Administrator) and Joaquim Levy (World Bank Group CFO), there is no doubt that it has secured the leadership and early participation of the key stakeholders most able to deliver on its big vision. It plans to scale and support existing initiatives, institutions and targets, wherever possible; drive coherence and coordination; and develop underlying and shared facilities that many of them will need for success such as risk modelling, technical advice, and regulatory support. The stakes are too high to fail.

IFRS 17 is an opportunity to gain new insights from data analysis and reporting, and to improve process efficiency.

Suncorp’s Cyclone Resilience Benefit provides a 20 percent discount on premiums for home owners in Northern Australia who upgrade their property to protect against cyclone damage.

Regulatory change

New accounting standard IFRS 17
Greater comparability and transparency

After over 15 years of discussion, exposure drafts and debate, in May the International Accounting Standards Board (IASB) issued its comprehensive new accounting model in IFRS 17 Insurance Contracts.

The new standard is effective from financial years commencing 1 January 2021 and will give users of financial information a whole new perspective on insurers’ financial statements.

While the standard brings greater comparability and transparency to the profitability of new and in-force business – and gives users more insight into insurers’ financial health than ever before – it is the most significant accounting change since Margin on Services was introduced in 1995 for life insurance. The amount of time and capital insurers will need to invest in their systems, processes and controls in order to prepare and implement the new standard will reflect this.

Co-ordination between functions such as Finance, Actuarial and IT will be essential – and it will be important to educate business users and investors on what to expect. However IFRS 17 is also an opportunity to gain new insights from data analysis and reporting, and to improve process efficiency.

The impact of IFRS 17 will vary significantly from company to company, depending on previous accounting policies and practices. There is also some indication that the new standard will not be adopted, at least in its current form, across all global jurisdictions. In Australia, the Australia Accounting Standards Board (AASB) adopted the standard relatively unchanged but this will present challenges for Australian insurers with global operations.
Key changes introduced by the new standard.

• **Valuation approach** – the standard introduces three new methods for valuing insurance contracts.
  
  – **Building Block Approach (BBA)** - this is also known as the ‘General Model’ and is comprised of the following ‘building blocks’.
  
  – **Premium Allocation Approach (PAA)** – a simplified version of the General Model that may be used to value contracts meeting certain criteria.
  
  – **Variable Fee Approach (VFA)** – used for valuing ‘direct participating contracts’.

• **Aggregation** – the definition of portfolio, ‘contracts subject to similar risks and managed together’, is similar to the current grouping for both life and general insurance.

However portfolios will be further sub-divided by profitability and year of inception, refer to the image below.

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### Future Cash Flows

‘Expected cash flows from premiums, claims and expenses’.

### Discounting

‘An adjustment that converts cash flows into current amounts’.

### Risk Adjustment

‘To adjust for the uncertainty about the amount and timing of future cash flows’.

### Contractual Service Margin (CSM)

‘To release profit over the contract coverage period. Profit cannot be released at inception, but onerous contracts must have losses recognised immediately’.

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The new standard is the most significant accounting change since Margin on Services was introduced in 1995 for life insurance.
We expect some of the ambiguity that remains over how certain provisions in the standard will be interpreted to be solved by standard setters but the rest will likely depend on precedent and market decisions.

- **Expenses** – the acquisition costs that can be effectively deferred and maintenance costs that need to be projected will be lower than current levels.
- **Reinsurance** – the treatment of reinsurance contracts will differ from gross contracts in a number of ways, particularly if they do not have the same coverage period.
- **Asset valuation** – as IFRS 17 does not prescribe how assets supporting policy liabilities should be valued, insurers will have the option to value those assets using alternative approaches under IFRS 9.
- **Disclosures and presentation** – the disclosures required by the new standard will be more extensive, involve increased granularity and bring Australian disclosures more in line with those of overseas insurers.

There remains some ambiguity over how certain provisions in the standard will be interpreted - as well as how these changes will impact regulatory and taxation requirements. We expect some of that ambiguity to be solved by standard setters but the rest will likely depend on precedent and market decisions.

Insurers have an opportunity now to model and debate the options available to them under IFRS 17. They should also consider which strategic decisions need to be made in the coming months and years to put them in good stead to weather the IFRS 17 transition period.

### Key issues for insurers to consider as they implement IFRS 17

1. What impact will IFRS 17 have on the way business is managed and measured, including KPIs and company performance?
2. How does IFRS 17 interact with other standards – including IFRS 9 Financial Instruments?
3. How will the market, including external stakeholders and competitors, react to increased disclosures and accounting policy decisions?
4. How extensive should the implementation be and who should be involved?
5. What are the resource and project management requirements of the implementation?
6. What communications are required for internal and external stakeholders?
7. Which transition options can be taken and what will be the financial and operation impact of those?
8. How can the business adapt and change in response to the IFRS 17 reporting requirements? Is there room to re-think relationships with customers, reinsurers or any other stakeholders?
Conduct and mis-selling

Focus on the three C’s

Conduct risk continues to be a huge headache in the insurance and banking sectors both in Australia and globally. Australian insurers have seen themselves making front page news through issues of claims handling, mis-selling and providing products to customers that provide little or no benefits.

Yet conduct risk is seldom the sole cause of problems. Poor culture within an organisation and a strategic failure to put the customer at the heart of the business have a comparable capacity to undermine.

Conduct, culture and customer experience should be thought of as the three legs of a tripod. They are of equal importance and interdependent. Remove or weaken one and there is no longer a stable base for sustainable business.

Many organisations have developed strategies to improve conduct, culture and customer experience. But all too often, they address the three ‘C’s in isolation – overlooking the opportunity to combine them for competitive advantage.

This is far less of an issue for the challenger companies, which typically don’t tend to be hampered by a silo mentality. Customer experience is regarded as paramount and a clearly defined culture helps manage this conduct risk.

Hindrance, not help

By contrast, many established players are so focused on managing conduct risk that it proves a struggle to fix issues relating to culture or customer experience. For instance, tight controls on process may hinder frontline staff from delivering the level of service customers desire.

Taking a strategic, holistic approach to the three ‘C’s brings significant advantages. Streamlining governance helps insurers prune back excessive, over-prescriptive compliance and in so doing increases operational efficiency by avoiding duplication of effort.

There are also major returns to be made from boosting business performance by placing greater emphasis on a customer-centric agenda.
Starters orders

The starting point for this journey varies from insurer to insurer, or bank to bank, and depends on management style, whether any pressing concerns require immediate attention and agreed business objectives.

Here are three potential options:

**Culture as a lens for conduct and customer**

Using sophisticated analytics tools to measure, interpret and understand culture, including employee sentiment and behaviour. And applying this insight to establishing a customer-focused culture that drives good conduct and enhances customer experience.

**Integrated software**

The Cs merge. Beneficial for organisations with a clear vision of how the three ‘C’s interact. This is a technically complex approach that makes use of real-time information and predictive analytics. Once fully implemented, it helps decision-makers develop fully-informed strategies for driving enterprise-wide improvements.

**Tactical interventions**

The three ‘C’s model can be used to target worrying hotspots, such as problems within certain channels, customer journeys or specific employee groups. Tackling hotspots may also highlight broader issues across the organisation. Making improvements is easier if an independent taskforce is established that understands the links between the three ‘C’s.

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**Conduct**

**Culture**

**Customer experience**

A weak or wonky tripod won’t suffice. Organisations must keep conduct, culture and customer experience in balance to satisfy regulators; delight, retain and nurture customers; and keep challengers at bay.
Contributors

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