Global insurance trends analysis 2018

June 2018

Pursuit of growth amid cautious optimism
Insurers have a unique opportunity to leverage multiple data sources to create deeper customer relationships and to become more efficient. If we help our clients in this effort, the sector will be well positioned to play a prime role in emerging ecosystems.

Shaun Crawford | EY Global Insurance Leader
Key highlights: global insurance landscape and key indicators

Key industry figures at a glance
Key sector highlights in 2017
Life insurance in 2017
Non-life insurance in 2017
Insurance outlook 2018-19
Long-term determinants of growth

2017 insurance trends: key influencers and impact
How technology is changing the sector
Other key influencers: regulations and M&As
Top 10 insurance markets and key emerging markets' regions
Key industry figures at a glance

Global insurance GWP\(^1\) in 2017
- \(~\text{US$4.8t}\)
- Estimated CAGR (2011-17): 1%

Global insured NatCat\(^2\) losses in 2017
- \(\text{US$135b}\)
- Largest losses ever; 3.9 times 30-year avg.

Global insurance penetration\(^3\) in 2016
- \(6.3\%\)
- vs. 6.2% in 2015 and 7.5% in 2007

Total InsurTech investments in 2017
- \(\text{US$2.3b}\)
- Estimated 5-year CAGR (2012-17): +45%

Commercial P&C\(^4\) pricing rebound after
- \(18\) quarters
- First rise since 2013

2017 insurance stock returns in A-Pac\(^5\)
- \(+35\%\)
- vs. cross-sector benchmark return of 22%

What lies ahead

Est.\(^6\) global insurance growth 2017-19
- \(+3\%-4\%\)
- Life insurance: \(-3\%\); P&C: \(-3.5\%\); Health: \(-5\%\)

Est. insurance net income growth 2018
- \(+23\%\)
- vs. 14% actual growth in 2017

Est. count of wearables sold in 2021
- \(500m+\)
- vs. 266m in 2016

Notes:
1) Gross Written Premium
2) Natural Catastrophe
3) penetration = GWP/GDP
4) Property and Casualty
5) Asia-Pacific
6) Estimated

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute: Global insurance review 2017 and outlook for 2018/19”; Munich Re; Marsh; CB Insights
Key sector highlights from 2017

Growth looked up in 2017 despite margin pressure
- Led by emerging markets, premium growth improved to ~3% in 2017.
- Profitability remained challenging due to interest rates staying low, despite recent improvements and record NatCat losses in 2017 expected to reverse weak pricing regime in place since 2013.

2017 the largest insured loss year ever
- Three category 4+ hurricanes along with Californian wildfires and Mexican earthquakes led to largest ever insured losses (US$135b+).
- With 93% of losses, impact was largely concentrated in North America.
- However, on a positive note, average global commercial insurance pricing increased for the first time after 18 quarters.

Technology-led disruption continued to unravel
- Technology continued to change nature of risk, open doors to new entrants, drive convergence of sectors and create new ecosystems.
- Greater maturity was seen across major technologies, particularly in blockchain where multiple platforms, proofs of concepts and even live products were launched across lines.

Regulatory pressure remained high
- 2017 saw insurers prepare for transition to new accounting and tax changes such as IFRS 17 and US tax regime change, implement data protection programs in light of regulations such as GDPR and refine qualitative disclosures as follow-up to major changes introduced in recent years such as Solvency II.

M&As: private equity (PE) deals renewed optimism in 2017
- Although 2017 recorded the lowest number of deals since 2010, total value of deals grew modestly, driven mainly by an increase in US$1b+ deals compared with 2016.
- 2017 saw a significant increase in PE led deals, with three of the top five deals involving PE investors.
Global life insurance premium growth improved slightly in 2017 vs. 2016, mainly led by savings products in emerging markets. Profitability remained challenging due to low interest rates, which stayed close to historic lows, though recent rate revival is creating opportunities along with challenges.

Europe - volume growth suffered despite some positives

- Premiums are estimated to have declined in 2017 as most major markets either declined or stayed flat mainly due to reduced attractiveness of insurance products in a low interest rate environment. This decline is despite growth in unit linked products in multiple markets (particularly France and Italy).
- Low yields remained a concern in most markets due to a large share of existing life insurance obligations with embedded guarantees.

North America - Department of Labor (DoL) fiduciary rules in US affect growth

- Premiums fell in 2017 due to a fall in individual annuities in the US, which was due to continued uncertainty around new DoL fiduciary rules.
- Life insurers continued to reduce dependence on guaranteed returns and have been increasingly shifting to protection products.
- Canada contributed positively to the regional growth as it saw growth in annuities.
- Profitability remained stable as underwriting fundamentals remained strong.

Advanced Asia-Pac - growth under stress from structural issues

- While growth remained slow in Japan and South Korea, strong growth was seen in 2017 in Taiwan and Hong Kong. Taiwan’s growth was supported by insurance continuing to attract a high share of domestic savings while Hong Kong was supported by demand from China (mainland).
- Overall profitability remained under pressure as near zero domestic yields made it tough for insurers in Japan, South Korea and Australia to meet obligations.

Emerging markets - China’s (mainland) phenomenal growth lifts region

- As in 2016, emerging markets’ growth is expected to be in double digits in 2017 as China (mainland) maintained its growth momentum due to a rise in protection products despite sharp regulatory actions aimed at product and sales quality.
- Growth was also supported by strong performance by bancassurance in Indonesia and group business in India. However, growth in LatAm and Africa stayed weak.
- The region continued to see multiple measures by regulators to improve capital adequacy and risk management.

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute: Global insurance review 2017 and outlook for 2018/19”
In 2017, global non-life insurance premiums rose an estimated ~3%, almost in line with the 2016 growth as macroeconomic climate continued to improve. While underwriting conditions have stayed soft since 2013, large NatCat losses in 2017 may drive a potential sustained correction.

Europe - marginal growth; stable profitability

- Premiums in Europe grew due to stronger motor growth in the UK, Germany, France and Spain. This was despite continued weakness in Italy and overall commercial space - though price softening was less severe in 2017 vs. 2016.
- Profitability remained stable in most lines despite rising motor insurance claims as 2017 was a relatively benign catastrophe year for Europe (which was unlike the global NatCat scenario).

North America - hurt by NatCats; but outlook is favorable

- Cornering an unduly large share of global insured losses (~93%), North America was hurt the most in 2017 as all major NatCat events occurred in this region (three category 4+ Hurricanes, Californian wildfires, Mexican earthquakes).
- Even as several local insurers booked major losses, growth was robust and backed by improving motor prices, rebound in commodities and overall macroeconomic uplift. Also, profitability in 2018 is expected to be strong as rates can harden.

Advanced Asia-Pac - growth under stress from structural issues

- Growth is expected to be flat to low in the region, primarily due to Japan, which may continue to see shrinking volumes. South Korea is expected to have grown marginally due to strong growth in motor and casualty lines.
- Profitability improved across the region as local NatCat losses stayed low (except Australia) and premium rates improved across lines, mainly in motor. However, improving safety measures pose a threat to motor rates in some markets.

Emerging markets - highly promising; all-round performance missing

- Emerging markets remained the fastest growing region (expanded ~6% in 2017), mainly led by China (mainland) and India. However, the rate of growth is expected to be lower than in 2010-14, as growth in Africa and LatAm remained weak.
- Due to strong policy push on infrastructure, property line continued to grow across the region, primarily in markets with a high rate of economic growth.
- Profitability remained under pressure due to high price competition, limited differentiation, high claims inflation and high share of fraudulent claims.

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute: Global insurance review 2017 and outlook for 2018/19”
Sustained improvement in advanced markets along with a greater share of emerging markets is expected to raise global life insurance growth to ~4% by 2019. However, emerging markets’ growth is expected to moderate in the near term and converge toward the level of growth in advanced markets as several regions such as Africa and LatAm, despite revival, may not see strong rebound.

Emerging markets’ growth will be driven by the continued expansion of Chinese life insurance market. However, growth in China is expected to moderate in 2018-19 vs. the sharp increase seen in 2016 and 2017 – due to regulatory changes around restrictions on sale of short-term savings products and sales quality improvement initiatives.

Among emerging markets, potential rebound in LatAm, Central and Eastern Europe and Africa along with sustained growth in India will be the other driving forces.

Advanced markets are expected to be favorably impacted by a persistent but gradual improvement in interest rates potentially improving the yields, which life insurers can generate, and the returns, which can be offered to customers, reviving interest in insurance as a key savings instrument.

Key threats to growth and profitability:

- As inflationary pressures are building up globally, a sharp rise in inflation can have a negative effect on demand, and may lead to policy cancellations and increasing costs.
- Sharp reactions to any major regulatory changes in key markets (similar to those seen in the UK in 2015 (Pension Freedoms) and complete product overhaul in India in 2010) may hamper the above growth forecasts.

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute: Global insurance review 2017 and outlook for 2018/19”
The demand for non-life insurance is expected to pick up in 2018-19 as global economic scenario gradually improves with emerging markets continuing to be the main driver. Volumes can also expect to receive a strong boost on account of sharp improvements in commercial insurance rates after a record NatCat loss year along with a sustained rise in motor rates in developed markets.


- Real growth in the advanced markets is expected to remain stable at low single digits with inflation picking up amid slight improvements in underlying macro conditions.
- With 2017 being the largest NatCat insured loss year on record, the weak pricing environment, which has been in place since 2013, is already showing signs of reversal. Property and motor lines are to be the greatest beneficiaries, particularly in North America.
- Policy decisions in key emerging markets are expected to emerge as a key growth driver for non-life insurance. Promotion of mandatory auto insurance in GCC region and crop insurance in the Indian market in recent years are some key examples. Macroeconomic revival in LatAm and Africa are also expected to support overall emerging market growth.

Key threats to growth and profitability:
- Greater adoption of dynamic pricing models (e.g., “Pay As You Live”, “Pay How You Drive”) and greater collaboration with other sectors will provide more opportunities of customer engagement and monetization. Simultaneously, these will disrupt players that do not make use of opportunities presented by evolving ecosystems. Motor and health insurance are expected to experience the greatest change.
- Potential political surprises in key markets and increased protectionism may hinder trade and in turn the overall economic activity impacting commercial insurance volumes.
Future of insurance will be determined by the net effect of multiple enablers and impediments

<table>
<thead>
<tr>
<th>Overall insurance sector</th>
<th>Enablers</th>
<th>Impediments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrated ecosystems to create new risk pools and monetization opportunities</td>
<td>Trade wars and growing protectionism may hit trade volumes and demand for insurance</td>
</tr>
<tr>
<td></td>
<td>Digital adoption to enhance access to data and raise process efficiency through RPA/AI</td>
<td>Greater market volatility to affect investment considerations and value propositions offered</td>
</tr>
<tr>
<td></td>
<td>Blockchain to cut down cycle times and improve reliability of processes and transactions</td>
<td>Talent constraints to limit the appetite for innovation and ability to manage change</td>
</tr>
<tr>
<td></td>
<td>Big data and analytics to make sense of the vast amount of data generated and consequently, create value</td>
<td>Rapidly shifting customer expectations to hinder plans for less agile insurers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Life insurance</th>
<th>Enablers</th>
<th>Impediments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New demand by emerging and empowered customers in emerging markets</td>
<td>Continued regulatory pressure to limit focus on growth</td>
</tr>
<tr>
<td></td>
<td>Rising life expectancy to spur demand for retirement, long-term care and longevity products</td>
<td>Competition from alternative products to affect demand for savings and wealth products</td>
</tr>
<tr>
<td></td>
<td>Reduced role of the state to generate demand for private insurance and wealth solutions</td>
<td>Maturing guaranteed back-book to hurt margins and capital</td>
</tr>
<tr>
<td></td>
<td>Secular bear bonds market to open up opportunities for insurers</td>
<td>Structural decline in key markets due to falling populations and stagnant income</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-life insurance</th>
<th>Enablers</th>
<th>Impediments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persistent economic recovery to lift demand especially in lines directly covering core economic activity</td>
<td>Rising inflation in developed markets to raise claim costs impacting investments in growth</td>
</tr>
<tr>
<td></td>
<td>Greater use of drones to improve not just claims management but also risk prevention and assessment</td>
<td>Ability to cover climate change risk to be affected by absence of reliable precedents related to covering evolving climate risks</td>
</tr>
<tr>
<td></td>
<td>Climate change creating new risks and assets to cover for non-life insurers</td>
<td>Loss of customer facetime in new ecosystems as role of insurers may change from owning relationships to just being a capital supplier</td>
</tr>
<tr>
<td></td>
<td>Cyber insurance to remain one of the fastest growing lines in an increasingly connected world</td>
<td>Limited information for cyber insurance modeling to limit long-term growth of cyber insurance</td>
</tr>
<tr>
<td></td>
<td>Self-driving cars to create new monetization opportunities</td>
<td></td>
</tr>
</tbody>
</table>
# 2017 insurance trends: key influencers and impact

- **Key highlights: global insurance landscape and key indicators**
  - 2017 insurance trends: key influencers and impact
    - Macroeconomic landscape
    - Year of record NatCat losses and impact on pricing
    - Insurance stock performance and analyst expectations
  - How technology is changing the sector
  - Other key influencers: regulations and M&As
  - Top 10 insurance markets and key emerging markets' regions
Global growth trended up, implying favorable outcomes for the insurance sector; protectionism to pose challenge

Global growth during 2017 continued to improve across markets driven by the US (>2% growth in the last three quarters), upside GDP surprises in Europe and Asia (particularly China) and recovery in commodity-exporting countries (Brazil and Russia). Unemployment levels also fell notably, especially in the Eurozone (9.1% in 2017 vs. 10.0% in 2016 - lowest in 10 years) and the US (4.4% in 2017 vs. 4.9% in 2016 - lowest in 17 years).

**GDP growth\(^1\): global growth gaining momentum**

<table>
<thead>
<tr>
<th></th>
<th>2017 actual</th>
<th>2018e</th>
<th>Forecast (avg. 2019-22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>3.0%</td>
<td>2.5%</td>
<td>2.3%</td>
</tr>
<tr>
<td>EU</td>
<td>3.2%</td>
<td>1.4%</td>
<td>1.8%</td>
</tr>
<tr>
<td>US</td>
<td>2.8%</td>
<td>2.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>1.7%</td>
<td>1.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Mainland China</td>
<td>6.9%</td>
<td>6.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>UK</td>
<td>1.7%</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

**GDP growth surprise: 2017 actual vs. 2017 estimated\(^2\)**

<table>
<thead>
<tr>
<th></th>
<th>+0.06pp</th>
<th>+0.17pp</th>
<th>0.0pp</th>
<th>+0.11pp</th>
<th>+0.03pp</th>
<th>+0.20pp</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>2.8%</td>
<td>2.3%</td>
<td>2.9%</td>
<td>1.8%</td>
<td>0.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td>EU</td>
<td>2.5%</td>
<td>1.4%</td>
<td>1.8%</td>
<td>2.9%</td>
<td>0.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td>US</td>
<td>3.0%</td>
<td>2.3%</td>
<td>2.9%</td>
<td>1.8%</td>
<td>0.6%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Japan</td>
<td>1.7%</td>
<td>1.6%</td>
<td>0.6%</td>
<td>1.8%</td>
<td>1.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Mainland China</td>
<td>6.9%</td>
<td>6.4%</td>
<td>5.6%</td>
<td>6.4%</td>
<td>6.0%</td>
<td>6.1%</td>
</tr>
<tr>
<td>UK</td>
<td>1.7%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Source: Oxford Economics

- US' GDP growth was driven by robust growth in consumer spending, higher investments and increased government spending including post-hurricane reconstruction activities.
- Growth in Asia was led by China as its 2017 annual GDP growth exceeded forecasts, driven by strong exports, domestic consumption and services demand while Japan also outperformed expectations driven by recovery in exports.
- European growth exceeded forecasts by recording its best growth rate in a decade, driven by revival of growth in Germany and Central and Eastern Europe (CEE) economies.

**What lies ahead:** Improved economic activity will raise the demand for non-life insurance, improve income and spending, which will increase investment appetite and create greater demand for protection and saving needs, which in turn will boost the sale of life insurance.

However, while recent US tax rate revision is expected to support global economic activity, the potential rise of right-wing politics and uncertainty around Brexit remain key challenges for the EU. Growth prospects may be adversely impacted by increasing chances of a trade war.

- Recent tariff hikes announcements by the US and China point to this direction. Affected markets may announce countermeasures possibly impacting global growth.
- A potential trade war may reduce GDP growth of affected markets, including the US, by up to 2% during 2018-20. This may adversely impact commercial insurance lines.

Note: 1) US$ basis, constant prices 2) FY17 GDP estimates during 3Q17
Higher inflation in developed markets accompanied with rising bond yields increase challenges for insurers

Driven by rising inflationary expectations, most central banks have or are expected to cautiously reverse expansionary monetary policy stance after bond yields and interest rates reached record lows in 2016, adversely affecting insurers’ yields and capacity to service guarantees.

Inflation increasing progressively in most advanced economies

![Inflation Increasing Chart]

<table>
<thead>
<tr>
<th>Duration (years)</th>
<th>World</th>
<th>Advanced economies</th>
<th>Emerging markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. 2013-17</td>
<td>3.1%</td>
<td>0.5%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Forecast (avg. 2018-22)</td>
<td>3.1%</td>
<td>1.9%</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

Bond yields inching up as ultra-low interest rate era nears its end

![Bond Yields Chart]

Source: Oxford Economics

- Rally in commodity prices (crude oil is up more than 100% since January 2016) along with improved employment levels and rising wages are expected to fuel inflation further in the coming years, particularly in most large developed economies (except the UK).
- Consequently, the US has seen four interest rate hikes since December 2016, with three more hikes planned in 2018. The Bank of England is also expected to raise rates in 2H18, while the European Central Bank may stop its bond buying program by 2018-end.
- While revival in bond yields is expected to benefit insurers on assured return products, rising inflation is expected to adversely impact asset valuations, reduce attractiveness of existing savings products, inflate claims costs and increase future insurance liabilities.

What lies ahead: To hedge against inflation risks and boost yields, insurers are increasingly looking at diversifying their investment portfolios by moving funds from traditional asset classes (e.g., Government securities) to alternative assets such as commodities, real estate, private equity and inflation-indexed bonds. Moreover, they are also looking at modifying insurance contracts by linking premiums, limits and deductibles to inflation-related indices.

However, currently inflation and bond yields are not expected to rise significantly due to persistent weakness in several markets and central banks looking to avoid an unwarranted tightening in financial markets.
Led by Atlantic hurricanes, Californian wildfires and Mexican earthquake, 2017 was the largest loss year ever

Global natural catastrophe insured loss estimates (US$b)

2017 – largest insured loss year ever: Hurricanes Harvey, Irma and Maria along with other natural catastrophes (Californian wildfires, Mexican earthquakes), cost the sector a record US$135b+.

- At US$330b+, overall losses (including uninsured losses) was second only to 2011 (US$354b – inflation adjusted) and was almost double the 10-year, inflation-adjusted average of US$170b.
- Consequently, most large global insurers posted large losses (e.g., Lloyd’s of London – first loss in six years; Berkshire Hathaway – first underwriting loss in 15 years).

Insured losses as a share of total economic losses rose to 41% due to a higher proportion of losses from the US, which saw an insurance recovery ratio of 47%, which was less than the average since 2000 as several home and small business owners hadn’t purchased flood insurance (hit by hurricane Harvey). Penetration in most emerging markets remained very low (less than 10%).

Direct local insurers affected while reinsurers remained resilient: US P&C direct insurance industry posted a net underwriting loss of more than US$20b, mainly due to high insured NatCat losses (up 110% vs. 2016) leading to a notable rise in combined ratio (worst in five years).

- While capital impact for several US insurers reached up to one-third of 2016-end shareholders’ equity, global reinsurance industry stayed resilient (less than 10% capital impact), due to huge capital reserves accrued in last five relatively benign loss years when reinsurance capital increased to US$600b in September 2017 vs. US$455b in December 2011).

What lies ahead: While 2017 recorded 710 NatCat events, it was only the fifth time that a count of 600 was breached – all in the last six years. This growing impact of climate change is also showcased by the increase in average insured loss per year to US$49b in the last 10 years (excluding 2017) vs. ~US$28b for the preceding two decades (all values inflation adjusted), and is expected to deteriorate further. Insurers, therefore, must adapt by building capabilities and capacities to offer products better suited to client needs without straining books significantly and shift from risk management to incentivizing risk prevention among customers.

Source: Munich Re; Aon
Led by NatCat losses, commercial P&C pricing improved for the first time since 2013, particularly in property

Average global commercial insurance pricing increased in 4Q17 for the first time since 1Q13, driven largely by global property insurance pricing, which was impacted by 3Q17 NatCat losses. While property prices rose, casualty lines remained weak, though the rate of decline moderated.

*Global insurance composite pricing change (YoY)*

- **Global property**
  - 1Q17: -3.6%
  - 2Q17: -2.8%
  - 3Q17: -2.4%
  - 4Q17: 3.2%

- **Global casualty**
  - 1Q17: -0.6%
  - 2Q17: -1.7%
  - 3Q17: -1.7%
  - 4Q17: -1.5%

*Regional renewal rates*

<table>
<thead>
<tr>
<th>Region</th>
<th>1Q17</th>
<th>4Q17</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>-2%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>UK</td>
<td>-5%</td>
<td>-1.1%</td>
</tr>
<tr>
<td>Europe</td>
<td>-3%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Asia</td>
<td>-4%</td>
<td>-1.1%</td>
</tr>
</tbody>
</table>

Source: Marsh

- With record losses, US property lines pricing rose for the first time in four years.
- US commercial auto also maintained pricing growth. However, US casualty lines pricing fell for the third consecutive quarter driven by declines in workers' compensation and general liability.
- Pricing in LatAm and the UK also increased for the first time in more than four years, with Australia observing its fourth straight quarter of positive price increases.
- While Continental Europe and Asia continued to disappoint, registering a QoQ fall of ~1% each, the rate of decline was significantly less than in 1Q17.

**What lies ahead:** Although it is still too early to announce a reversal of the soft pricing cycle, the market for commercial property insurance seems to have bottomed out (at least temporarily). A definitive answer can only be provided in 2H18, post the 2018 hurricane season.

To make up for the losses in affected lines of businesses, insurers may seek pricing correction in other lines. At the same time, a strong influx of alternative capital will continue to exert downward pressure on insurance/reinsurance pricing.
Chinese stocks and sustained equity market bull run lifted insurance stocks, though threats emerge

Global insurance stocks performed favorably in 2017 led by one of the strongest bull runs in the history of equity markets (since 2009), improved economic climate across regions, particularly in Asia and signs of revival in rates in the commercial insurance space. Performance was also supported by favorable regulatory developments in several markets and analyst upgrades as insurance emerges as a strong investor bet in a relatively uncertain investment landscape.

Asia performed the best, led mainly by listed Chinese insurers (life – up 82%; non-life – up 51%) which benefited from massive rally in local technology and financial stocks, along with regulatory curbs on major unlisted life insurers (which improved sales for listed players).

In the US, both P&C and life underperformed 1-year benchmark as record-high insured losses hurt P&C profits and sharp annuity decline affected life insurance profits and volumes.

European insurers fared well due to improved economic performance and large-scale analyst rating upgrades - which remain bullish despite moderation since January 2018.

**What lies ahead:** Over a long-term, insurance stocks are expected to do well due to improved global growth forecasts. Also, equity markets may receive support from a sustained revival in the Eurozone and rising commodity prices, which will support emerging markets’ growth. Hence, analyst estimates for FY18 turned bullish, as upward revisions were made to both revenue (FY18e: 8%; FY17a: 6%) and net income (FY18e: 23%; FY17a: 14%) forecasts.

- European insurers saw their ratings and earnings upgraded in 2018 due to improvements in insurance pricing and favorable regulatory developments.
- Large listed Chinese life insurers such as Ping An benefited from market liberalization and a decline of major unlisted competitors due to drastic regulatory changes.

Key risks remain in the form of potentially adverse trade wars, rising inflation, reversal of bull run (insurance stocks are already down in 2018) and continued political uncertainty.
How technology is changing the sector

Key highlights: global insurance landscape and key indicators 03
2017 insurance trends: key influencers and impact 06
How technology is changing the sector 18
Other key influencers: regulations and M&As 24
Top 10 insurance markets and key emerging markets' regions 27
Technology-led disruption is set to continue for the insurance sector over both the short-term and long-term

The pace of digital acceleration is set to continue in the insurance industry in the near future. As a result, the sector is set for a fundamental transformation.

Autonomous vehicles, wearables, IoT are just a few of the major changes that insurers will need to navigate and adapt to in the next decade or so. Inevitably, not all will be successful and it is more than likely that at least one major insurer will fall victim to disruption as it has already happened in many other sectors.

The pace of disruption is fast and is already unraveling

<table>
<thead>
<tr>
<th>2019</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomous highway driving by first driverless cars</td>
<td>First major insurer becomes casualty to disruption</td>
</tr>
<tr>
<td>“Digital” integral to strategy; no longer a separate focus area</td>
<td>IoT unlocks US$11t per year in value to the global economy</td>
</tr>
<tr>
<td>Wearables market will be worth US$25b</td>
<td>10% of global car sales are for autonomous vehicles</td>
</tr>
<tr>
<td>Smartphones replaced by augmented reality headsets</td>
<td></td>
</tr>
</tbody>
</table>

Key external challenges faced

- New tech disrupting norms
- New entrants from other sectors
- New models for emerging ecosystems

Source: EY estimates

What it means for the sector:

Technology is changing the nature of risk and is enabling new products, services and channels. It is already opening and will continue to open doors for new entrants that will compete and behave in ways very different from the incumbents. To succeed in this environment insurers will need to fully engage – and sometimes be the driving force behind the creation of ecosystems that span from health to motor to marine. Finding the right role and the way to add value in this new environment will be critical.
A major way disruption will and is unfolding is the convergence of sectors and emergence of ecosystems

A key outcome of the combination of disruption and digital adoption is that cross-sector convergence is becoming increasingly important and this is leading to a fundamental redesign of traditional value chains as well as the need to enter in new types of partnerships. For insurers, participating in digitally connected ecosystem “partnerships” is not natural and requires very different behaviors and commercial approaches versus the prevailing norms.

Incumbents are increasingly forced to consider cross-sector strategies

Greater digital maturity is combining systems, businesses and services to create new value propositions for customers, which will have insurance as a key service.

Incumbents from other sectors are actively looking to enter and disrupt insurance by leveraging their leadership in access to customer data and analytics capabilities.

Several FinTech firms are aiming to blur sector lines – particularly within financial services – and aim to offer a complete portfolio of services.

What it means for the sector: In this environment, insurers need to respond quickly by:

- Shifting from short-term contractual relationships to long-term collaborative relationships.
- Defining their role in future ecosystems by assessing role of emerging technologies such as blockchain, identify their strengths and consequently, acquire/partner with firms that can help create an integrated digital experience for customers.
- Strengthening analytics and exploring data monetization. To play a core role in emerging ecosystems, insurers must improve their advanced analytics and predictive capabilities, which can enable dynamic pricing, risk mitigation and product innovation.
- Identifying new sources of non-insurance revenue. To redefine customer relationships and create value in any ecosystem, insurers must look to offer allied services besides insurance.
Major technology shifts: blockchain gained maturity in 2017 with multiple real world implementations

While blockchain had been attracting a lot of hype in the last two to three years, it was only in 2017 when we saw the launch of platforms across lines of businesses along with working prototypes of smart contracts. Along with that, there were multiple examples of new products that have deployed blockchain as the base of their design.

Along with EY, which took a lead in this space, multiple companies made some prominent launches, including:

- EY and Guardtime launched a marine insurance blockchain platform in association with Maersk, MS Amlin, ACORD, Willis Towers Watson, Microsoft and XL Catlin.
- EY also launched Tesseract, a mobility focused blockchain platform that can shape the future of motor insurance.
- In order to reduce health claim costs, improve reliability and reduce turnarounds, health-focused blockchain platforms were launched by MedChain and CareX.
- Online aggregator CarFix launched a motor insurance blockchain to integrate all market participants.
- A major Asian insurer launched a bancassurance blockchain platform to enhance customer experiences and efficiency.

- Industry consortium B3i - now B3i Services AG - introduced a blockchain prototype for property catastrophe reinsurance and expects to kick-off the first live trades by 2018-end.
- Two of the top five largest insurers launched blockchain based flight delay insurance products which offer direct, automatic compensation to policyholders whose flights are delayed.
- A trio of leading insurance, banking and technology firms successfully piloted one of the first multinational, “smart contract” based insurance policy.
- A leading global insurer teamed up with EY to successfully pilot blockchain for a global “captive” insurance program.
- Munich Re entered into a long-term partnership with blockchain-based real-time home insurer buzzvault.

What lies ahead: While 2016 had seen conversations around adopting blockchain, the discussions in 2017 shifted to which new blockchain product or platform is being piloted or launched. The advantages of blockchain technology in terms of improving efficiency and reliability will imply that adoption across the sector will happen at a rapid pace. It won’t be a surprise, if within a few years, blockchain becomes the insurance sector’s default technology, powering the entire information infrastructure rather than being an exception.
Major technology shifts: IoT and RPA/AI to improve access to data and enhance operational efficiency

Greater proliferation of sensor-based technology, increased automation and AI are allowing insurers to develop a much stronger understanding of the overall insurable landscape.

IoT space is heading toward greater maturity, with the strongest examples coming from connected cars

During 2017, IoT’s implementations within insurance continued to get a strong boost across major categories, with telematics witnessing strong signs of maturity. Within telematics:

- “Pay As You Drive” and “Pay How You Drive” models are now attracting focus from several insurers even in traditionally conservative markets such as Japan and Russia.
- With original equipment manufacturers (OEMs) using embedded telematics devices in recent years, insurers dependency on OEMs and solution providers has grown. Hence, insurers are also now preferring to partner with OEMs and solution providers rather than going on their own.
- Strong focus is seen on improving data quality as several leading insurers, auto players and technology start-ups already have a wealth of data at their disposal.

Among other categories, connected health is witnessing a major interest with major technology, pharma and retail players announcing plans to enter this space in a big way, while several insurers are also investing heavily.

Automation (AI/RPA) is streamlining both customer interactions and internal processes

- While most leading global insurers have already availed chatbots to manage a notable share of customer interactions, some proactive insurers are aiming for ways to monetize capabilities in this area by offering AI-based services.
- A key element of insurance value chain that has continued to see considerable automation is claims management. For example Pay-per-mile auto insurer Metromile launched a claims system powered by its new AI smart claims assistant.
- Robotics Process Automation (RPA) continues to be pursued actively as seen by the recent implementations at key insurers.

What lies ahead: IoT and automation are no longer being considered as an innovation but have now emerged as the core components of an insurer’s survival and growth toolkit. While insurers have been investing in these technologies in recent years, wider on-ground implementations have now started happening and the impact of results achieved will decide which insurers lead the market in the future.
To achieve technology shifts, fueled by incumbents, investments in InsurTech firms continued to rise in 2017

InsurTech continues to be a hot area within the overall FinTech investment space having seen deal values rise 32% YoY and 45% CAGR since 2012. What is interesting to note is that the majority of investments (61%) were aimed at “enabling the insurance value chain” rather than “disrupt” (9%) or “disintermediate” (30%) with large insurers emerging as the leading investors in InsurTech firms.

InsurTech deal volume and value (US$b): more than US$8b invested since 2012

Value which incumbents aim to derive from InsurTech investments

- **Enhancing customer experience and connect**: Several InsurTech firms are easing customers’ access to insurance products and services and also helping insurers reduce costs involved in customer engagement by using greater automation. For example, Munich Re partnered with Simplesurance, which offers point-of-sale insurance policies for e-commerce customers.

- **Powering effective decision-making by improving access to data** related to customers and risks faced. For example, one of the world’s largest insurers partnered with a specialist InsurTech firm to launch UK’s first pay-as-you-fly drone insurance. This will let the insurer make intelligent choices for the future drone insurance market.

- **Incubating innovation via InsurTech partnerships**: Insurers get a greater flexibility to test new concepts on a limited risk pool while keeping legacy business undisturbed. E.g., AXA has invested in ~20 start-ups to drive experimentation around connected health, AI and big data.

**What lies ahead**: InsurTech will continue to attract attention from incumbents and new entrants alike, as the industry continues to remain ripe for innovation and disruption. While the US still dominates, emergence of China as an InsurTech hub will challenge its dominance. InsurTech innovation will continue to be devoted to incremental technologies (instead of disruptive or radical ones) in the short to medium term although in the longer term, the entry of the top five technology giants has the potential to radically change the way the business of insurance is conducted.
Other key influencers: regulations and M&As

- Key highlights: global insurance landscape and key indicators (04)
- 2017 insurance trends: key influencers and impact (12)
- How technology is changing the sector (18)
- Other key influencers: regulations and M&As (24)
- Top 10 insurance markets and key emerging markets' regions (27)
Regulatory landscape: key themes included accounting changes, improved disclosures and data protection

2017 saw insurers prepare for transition to new accounting changes such as IFRS 17, implement data protection program in light of regulations such as GDPR and refine qualitative disclosures as follow-up to major changes introduced in recent years such as Solvency II.

1 A wave of accounting changes for insurers

Insurers are implementing standards IFRS 9 Financial Instruments – effective 2018 and IFRS 17 Insurance Contracts – effective 2021 (a recent change allows conditional deferment of IFRS 9 until 2021).

► Additionally, insurers will need to adapt to several other changes over the next five years, including IFRS 15 Revenue from Contracts with Customers and IFRS 16 Leases (effective January 2018 and January 2019, respectively).

What it means for insurers: Besides technical implementation issues, these accounting changes pose new challenges and opportunities for asset allocation, asset-liability management, performance measurement and business management. Insurers will also need to educate internal and external stakeholders on the impact of the new standards and how profits emerge.

2 Preparing for a data-intensive and connected world

Proliferation of technology and a holistic approach to risk management have encouraged insurers and regulators to dedicate increasing attention to developing effective risk management practices for cyber and data security.

► While EU General Data Protection Regulation (GDPR) came into effect in May 2018, other key markets (e.g., NAIC’s Insurance Data Security Model Law, adopted in October 2017) are also striving to enforce data privacy and protection norms.

What it means for insurers: To address data privacy and protection, insurers must carefully map the data usage throughout the organization along with client-centric customer journeys to carefully draft and position privacy notices to stakeholders and establish the right information infrastructure to support these norms.

3 Enhanced capital and risk disclosures

Due to enhanced risk management practices introduced globally by new capital/supervisory regimes, besides quantitative disclosures, insurers have started disclosing qualitative information around business performance, governance, risk profile, solvency, valuation methodology and capital management.

► 2017 saw the first Solvency II Pillar 3 disclosure in the EU and further refinements of enterprise risk management and governance requirements in several geographies.

What it means for insurers: Insurers will have to implement strategies to optimize capital by effective asset matching, hedging and counterparty risk management and, consequently, achieve diversification to improve corporate risk profile.
M&As: Renewed optimism in 2017; 2018 may see multiple megadeals as sector convergence looms large

Although 2017 recorded the lowest number of deals since 2010, total value of deals grew modestly, driven mainly by an increase in US$1b+ deals compared with 2016.

2017 saw a significant increase in Private Equity (PE) led deals, with three of the top five deals involving PE investors.

Global insurance M&A deal volume and deal value (US$b)

The largest deal in 2017, KKR¹ and a major Canadian PE player’s joint acquisition of US insurance brokerage and consulting firm USI Insurance, was also the largest PE-led transaction in the sector since 2013.

2017 also saw a fall in inter-regional capital flows, with a notable drop in outbound activity by Asian acquirers into Europe or the US. This was mainly due to regulatory restrictions in China on outbound M&As and increased scrutiny on non-core acquisitions.

What lies ahead: While M&As remained subdued for the insurance sector in 2017, deal activity is expected to pickup strongly in 2018 as the sector may see deals aimed at achieving cross-sector convergence in a bid to cater to new ecosystems. Some key announcements that may materialize in 2018 can include:

► CVS Pharmacy’s acquisition of Aetna for ~US$60b.
► Humana’s potential acquisition by one of the world’s largest retailers.

Besides the above, multiple factors point to a favorable environment for dealmaking in 2018:

► Insurers’ continue to focus on profitability through inorganic growth and expense synergies. AXA’s proposed acquisition of a major Bermuda based insurer which has a strong US presence for ~US$15b is a key example in this direction.
► Record levels of “dry powder” from PE acquirers could also fuel increased activity.
► US tax reforms will make US more attractive for investments and consequently M&As.

Note: ¹) Kohlberg Kravis Roberts

Source: EY analysis
## Top 10 insurance markets and key emerging markets' regions

| Key highlights: global insurance landscape and key indicators | 04 |
| 2017 insurance trends: key influencers and impact | 12 |
| How technology is changing the sector | 18 |
| Other key influencers: regulations and M&As | 24 |
| Top 10 insurance markets and key emerging markets' regions | 27 |
Sustained weakness in most developed markets pulled global insurance penetration levels lower

Long-term decline in insurance penetration continued despite a slight uptick in 2016 vs. 2015. Six out of top seven markets declined in penetration due to weak economic growth and subdued interest rates. UK’s sharp decline was led by sustained pricing weakness in motor and property lines and a shift toward fee-based business. However, some markets – particularly Italy and Taiwan – saw sharp improvements backed by reduced role of state and low bank deposit rates, respectively.

**2017 view:** With ~3% growth in both life and non-life insurance in 2017, along with a similar real global economic growth, global penetration levels are expected to remain similar to 2016.

<table>
<thead>
<tr>
<th>Global rank basis total GWP²</th>
<th>Penetration GWP as a % of GDP</th>
<th>Density GWP per capita in US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>USA</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Japan</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>China (mainland)</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>UK</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>France</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>South Korea</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Canada</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>Taiwan</td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: 1) Actual premium and penetration figures for 2017 are not yet available; 2) Gross written premium

Global gross written life and non-life insurance premiums - 2016 (US$b)

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute, sigma No 3/2008”
Life insurance: emerging markets remain under-penetrated with China (mainland) being the brightest spot

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute, sigma No 3/2012”

* LatAm includes Latin America and Caribbean
^ Middle East includes Middle East and Central Asia
# Emerging Asia excludes China (mainland); includes India, Thailand, Philippines, Indonesia, Vietnam and other developing South, South-East and East Asian economies
Non-life insurance: US remains the dominant market; no major change in global non-life penetration

Growth led by robust rise in vehicle sales and persistent economic expansion

Mandatory motor insurance and government infrastructure spending key drivers of growth

Decline due to weak economic growth and declining motor prices (because of high telematics adoption, regulatory curbs)

Decline due to weak commodity markets and adverse currency translation

Real growth at low single digits; decline mainly due to currency translation effect

Share of US in global non-life market has improved in recent years due to improved performance of domestic economy & strengthening of dollar vs. currencies in emerging markets

Source: “Swiss Re Institute, sigma No 3/2017”; “Swiss Re Institute, sigma No 3/2012"