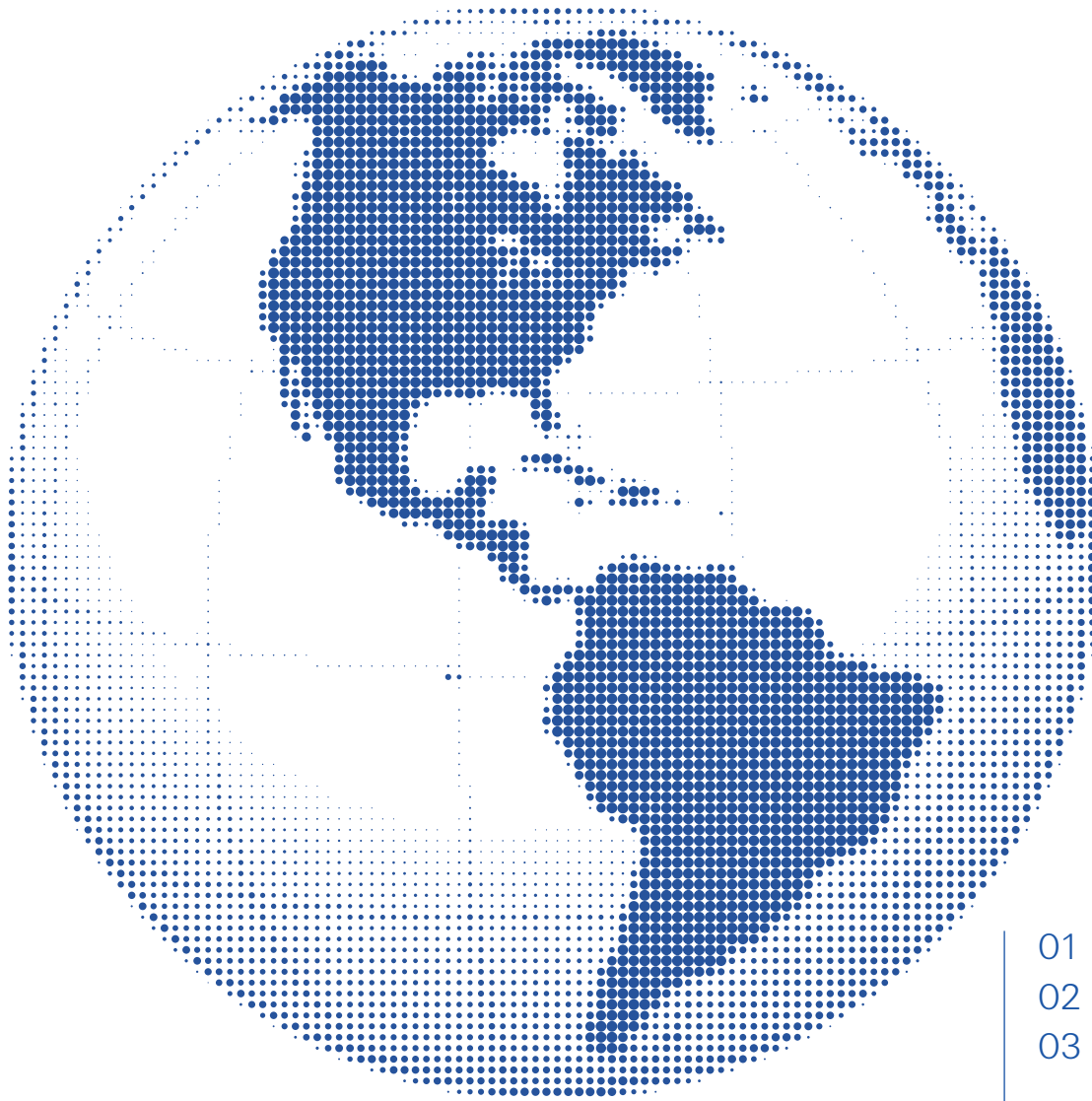


November 2017

# Global insurance review 2017 and outlook 2018/19



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# Executive summary

The improved global economic growth in 2017 will likely be sustained in 2018.

Global growth prospects continued to improve during 2017 and a recession next year is unlikely. Even so, only moderate growth is expected this year, with real gross domestic product (GDP) estimated to increase by slightly more than 2% in the US and Euro area, by about 1.5% in the UK, and by 6.8% in China.<sup>1</sup> For the most part, these growth rates will likely be sustained in 2018. Japan, however, is expected to grow by nearly 1.5% this year, and then slow to about 1% in 2018. Emerging markets are performing better, especially in Asia (6%+ growth), but growth in commodity-exporting regions is also accelerating as energy and metal prices rise. Inflation is currently fairly subdued globally, but with low unemployment rates in some countries (US, UK, Germany), the risk to casualty lines from inflation needs to be monitored. The US and UK central banks are forecast to raise policy rates over the next couple of years. As such, long-term government bond yields are projected to rise modestly, for example to 3.2% in the US by end of next year.

Global non-life insurance premiums have grown by about 3% this year. There are likely to be notable price rises in P&C re/insurance lines next year.

The multitude of large natural catastrophic (nat cat) events – Harvey, Irma, Maria, earthquakes in Mexico, wildfires in California – in the second half of the year have drained capital out of the re/insurance P&C sector. Price increases in loss-affected segments are already happening and could be substantial. The ultimate volume of losses is not yet known, but it will likely be large enough to cause price rises beyond the affected sectors/regions where profitability has already been under pressure due to low prices (such as in motor and some commercial lines). Given the amount of traditional and alternative capital losses, property reinsurance prices could rise significantly. Global primary non-life premium growth is forecast to remain steady at around 3% in 2018 and 2019 but could be stronger depending on price increases. Premium growth in emerging markets is expected to improve steadily from 6% in 2017 to around 7% in 2019. Assuming 2018 is an average cat loss year, profits will improve. Global reinsurers' premiums will grow slightly less than, and profits slightly more than those of primary non-life insurers, but follow the same pattern.

Strong sales of saving products in emerging Asia are supporting life premium growth. Global life reinsurance cessions will be held back by weakness in North America and Europe.

Global life premiums are estimated to have grown by about 3% in 2017 (up from 2% in 2016), supported by robust performance of savings products in emerging markets, particularly in Asia. Premiums are forecast to increase by close to 4% annually over the next two years. Profitability remains challenging given the global low interest rate environment, which is putting pressure on investment returns and existing long-duration books of business. Global life reinsurance cessions are expected to grow by just over 1% this year and in the following two years, dragged down by weakness in North America and Europe. Strength in advanced and emerging Asia will offset some of that weakness.

Emerging market growth prospects have improved in 2017.

Emerging markets continue to provide growth opportunities for insurers. Once again, emerging Asia has been the main driver of overall emerging market premium growth. However, prospects in Latin America and Africa have improved along with stronger oil and commodity prices. Non-life premiums are estimated to have risen by around 6% in 2017, but are forecast to improve slightly to 7% through 2019. Life premium growth in 2017 is estimated to be at 17% (19% in 2016), and 12% and 11% gains are forecast for 2018 and 2019, respectively. The reinsurance sector is likely to benefit from the adoption of risk-based regulatory regimes in many emerging markets. But protectionist moves in favour of local reinsurers, and/or additional collateral requirements for foreign reinsurers, could dampen both primary and reinsurance premium growth. Emerging market non-life cessions are forecast to grow by around 5% annually in 2018 and 2019, and life cessions by more than 10%.

Top 10 topics.

This report includes special-focus sections on 10 topics of most relevance to global re/insurance markets currently.

<sup>1</sup> Unless otherwise indicated, all estimates, forecasts and projections in this report are Swiss Re Institute views.

# Top 10 topics



## Protectionism on the rise?

After years of increasing globalisation, the political landscape/debate has become increasingly impacted by protectionism (US) and compartmentalisation (Brexit, Catalonia). Escalation to an outright trade war has the potential to harm global growth if the US stance becomes more aggressive. Fortunately, there is no uniform increase in protectionism globally. For example, in Latin America the trend is towards more liberal trade regimes (see more on p9).



## Monetary policy – risk of disruption from QE tapering?

In the US, the Federal Reserve Board has begun to gradually lower its balance sheet by reducing its replacement purchases of maturing assets. Meanwhile, the European Central Bank has reduced asset purchases by half. This could lead to market disruptions so must be monitored carefully. However, at this time no shocks are expected as central banks have adopted a gradual approach (see p11).



## Cyber risk

The cyber insurance market is expanding rapidly. An important factor influencing the pace and scope of future market development will be the capture and analysis of data needed to underwrite cyber risks accurately. Product and process innovation can help make cyber risk more manageable, but cooperation between companies, insurers and governments will be essential to increase resilience. Accumulation risk from cyber products is a major concern of insurers, dampening the growth of the market, and may need government assistance to improve the insurability of cyber risk (see p15).



## Motor insurance claims are on the rise

Behavioural changes and the economy have driven a surge in US motor claims. Underwriting results in US motor (personal and commercial), have deteriorated in recent years, and insurers have increased rates to catch up with rising claims costs. Both frequency and severity of losses are up. More miles driven, higher road density and speeds, and distracted driving due to use of handhelds while at the wheel have contributed to the spike in loss frequency (see p16).



## Brexit and the UK insurance sector

Passporting arrangements between the UK and the rest of the EU will no longer apply post Brexit, and insurers are making arrangements to prepare their organisations accordingly. With some form of transitional arrangement, UK insurance market premiums could fall by around 8%. In the event of a “cliff-edge” exit, the premium loss for the UK market could be almost double that (see p19).



## Innovating to expand the scope of insurability

Insurance solutions are increasingly being used to protect earnings and cash flow risks. Some previously uninsurable non-core business risks can now be insured – to some degree – due to the evolution of parametric triggers, indemnity structures, and data and modelling advances (see p22).



## Hurricane losses – an earnings and capital event for reinsurance

Three major hurricanes in the US in the second half of this year caused a significant underwriting loss to the US insurance and the global reinsurance industry for 2017. Both segments have been challenged recently by soft underwriting conditions and rising claims trends. Many lines will likely experience rate hardenings (see p24).



## Flood protection gap

Flood is the most wide-reaching and frequent hazard. Yet a significant share of flood exposures globally remain uninsured both in the emerging and in mature insurance markets. Today, risk assessment tools exist that allow insurers to fairly price flood risk. However, collaboration between government and the insurance industry is key to closing existing flood protection gaps (see p26).



## IFRS 17

The new international accounting standard IFRS 17 (to become effective in 2021) creates a standardised and more transparent approach to measure insurance liabilities. However, for life insurers with long-term liabilities and embedded policyholder guarantees, the reform will likely increase volatility in reported equity capital and profits. It will also likely require significant investment in new data capture, systems and processes (see p36).



## Insurtech in China

Insurers and Big Tech firms continue to explore the potential of InsurTech across the world. In the case of China, firms are leveraging data analytics to cover risks embedded in online ecosystems. More non-insurance players can be expected to join the market. The Chinese regulator is becoming more cautious about the potential risks posed by InsurTech, and is believed to be drafting rules to tighten monitoring of internet lending, payments and insurance systems. Overall, however, the regulatory environment remains supportive for further growth in this sector (see p41).

# The macroeconomic environment: cyclical upswing continues

## Global economic developments

### Growth prospects improved in 2017.

The cyclical upswing in the major economies continues. Global growth in 2016 turned out broadly in line with Swiss Re Institute expectations, and estimates for 2017 have improved. The biggest upward revisions apply to Europe and Japan. In particular, some of the economies in Central and Eastern Europe (CEE) outperformed strongly during the first half of 2017. By contrast, the recovery in Latin America has been weaker than previously expected. Global growth projections of moderate growth for 2018 and 2019 are broadly unchanged from last year. Risks remain, however (see below).

### Growth in the US and Euro area will be steady in 2018 and 2019, while the Chinese and Japanese economies will likely slow.

In the US, growth is expected to be steady at around 2.2% in 2017, 2018 and 2019. Hurricanes Harvey and Irma caused some disruptions to employment and growth in the third quarter, but the clean-up and reconstruction activities should boost GDP in the fourth quarter of 2017 and into 2018. Momentum in the Euro area has picked up and growth is likely to be close to 2% in 2017 and 2018, before slowing in 2019. Economic performance in the UK will likely be weaker than in the Euro area as Brexit-related uncertainty hampers business investment, and as elevated inflation erodes consumer purchasing power and thus spending. The Chinese economy grew robustly in the first half of 2017 and full-year growth is forecast at 6.8%, with a slowdown to 6.2% by 2019. The Japanese economy outperformed expectations in the first half, driven mainly by a recovery in exports. In 2019, a scheduled sales tax hike is expected to push up inflation, reducing real income and growth.

### Wage and price inflation remains moderate despite declining unemployment.

There has been a significant decline in unemployment in the major economies since 2009, but wage increases have been modest. This is particularly puzzling in those economies where slack in the labour market has disappeared, or where labour market conditions have become tight (see *What's happened to the Phillips curve?*) Inflation has also remained moderate in most countries and is expected to remain below 2% until 2020 in the Euro area, and beyond in Japan (stripping out the impact from the sales tax hike). However in the US, inflation is expected to move gradually higher and in the UK, it remains above target due to the depreciation of sterling following the Brexit vote in 2016.

### The Fed is expected to raise rates gradually and the BoE intermittently over the next two years, while the ECB and BoJ remain in accommodative mode.

In this benign inflation environment, interest rates are expected to remain very low. The European Central Bank (ECB) is expected to increase the repo rate in 2019 at the earliest, and the Bank of Japan (BoJ) will likely keep rates close to zero over the forecast horizon. The US Fed is expected to continue to raise rates gradually, three times in both 2018 and 2019. In November, the Bank of England (BoE) raised interest rates for the first time in over a decade, reversing the post-Brexit emergency cut. The BoE indicated that another two hikes over the next three years would be appropriate to return inflation to target but highlighted that any decision would evaluate the progress of the ongoing Brexit negotiations carefully. Meanwhile, central banks are scaling down their asset purchase programmes to varying degrees. In October, the ECB announced an extension of its monthly asset purchases until September 2018 or beyond, but cut the volume of monthly purchases from EUR 60 billion to EUR 30 billion. The Fed is a little further along the path towards policy normalisation: it halted its asset purchases in 2014 and has recently decided to stop reinvesting some of the maturing debt securities, which will lead to gradual reduction of its balance sheet. Markets performed well when central banks expanded their balance sheets, and there are concerns that QE unwinding could cause a reversal (see *Topic: Monetary policy - risk of disruption from QE tapering?*)

### Government bond yields are expected to increase moderately, but still be low.

In this macroeconomic environment, government bond yields are projected to rise moderately from their still low levels. With Fed tightening continuing, the yield on the US 10-year Treasury note is expected to rise to 3.2% by the end of 2018 and to 3.6% by end-2019 from 2.4% recently. The spread to German yields is likely to widen slightly as central bank interest rates continue to diverge. German 10-year yields are projected to reach 1% by the end of 2018 and 1.5% in 2019. Yields on Japan's 10-year government bond, on the other hand, will likely stay close to 0%, in line with the BoJ's target. Equities tend to retain or gain value when interest rates are low,

## The macroeconomic environment: cyclical upswing continues

especially if earnings perform well. Corporate bond yield spreads have narrowed in 2017 with arguably limited potential to narrow further and some risk of spread widening. Bond yields and equity valuations are currently very dependent on low interest rates.

**Table 1**

Real GDP growth, inflation and interest rates in select regions, 2016 to 2019F

		2016	2017E	2018F	2019F
Real GDP growth, annual avg., %	US	1.6	2.2	2.2	2.2
	UK	1.8	1.5	1.5	1.6
	Euro area	1.8	2.3	2.0	1.6
	Japan	1.0	1.4	0.9	0.5
	China	6.7	6.8	6.4	6.2
Inflation, all-items CPI, annual avg., % (monthly data refer to yoy growth)	US	1.3	2.2	2.5	2.5
	UK	0.6	2.7	2.6	2.5
	Euro area	0.2	1.5	1.3	1.7
	Japan	-0.1	0.6	0.8	2.1
	China	2.0	1.6	1.9	2.1
Policy rate, year-end, %	US	0.63	1.38	2.13	2.88
	UK	0.25	0.50	0.75	1.00
	Euro area	0.05	0.00	0.00	0.25
	Japan	0.04	0.00	0.00	0.00
Yield, 10-year govt bond, year-end, %	US	2.5	2.6	3.2	3.6
	UK	2.0	1.2	1.5	1.8
	Euro area	0.1	0.6	1.0	1.5
	Japan	0.8	0.1	0.1	0.2

E = estimates, F = forecasts.

Source: Swiss Re Institute.

Typically, inflation and wage growth pick up as unemployment declines, but that is not happening currently.

One reason wage growth has remained moderate may be that labour market slack remains higher than suggested by headline unemployment rates.

### What's happened to the Phillips Curve?

Historically, there has been a reasonably stable negative relationship between unemployment on the one hand, and wage growth on the other, referred to as the Phillips curve. However, the recent fall in unemployment has not been accompanied by much of a pick-up in wage growth, so inflation has not risen much either. Nominal wage growth (the key driver of underlying inflation) remains markedly lower than it was before the global financial crisis, even in countries where unemployment rates are at or below levels seen prior to the crisis. However, there has been some increase during this expansion. For example in the US, wage gains (average hourly earnings, total non-farm) bottomed at 1.7% in December of 2010, but were up to 2.9% by December 2016. Nevertheless, this year, wage gains decelerated to about 2.5% yoy, contrary to what one would expect from ongoing declines in unemployment. Similarly, wage growth in the UK slowed in 2017 compared to 2016, despite record low unemployment.

There are many potential causes of the weak inflation/wage puzzle. These can be categorised into shorter-term or cyclical factors, and more longer-term or structural ones. In the short term, wages tend to be determined by the amount of slack in the economy as well as expectations about future inflation. As the economy improves, companies seek to hire more workers to meet rising demand. Over time, the pool of available workers shrinks relative to vacancies, leading to increased bargaining power of workers and higher wages. Currently, however, there is evidence that actual labour market slack may be more significant than suggested by headline unemployment statistics. For example, the IMF found that involuntary part-time employment increased after the global financial crisis and remains above 2007 levels in most countries.<sup>2</sup> This could explain why wage growth has remained more moderate than the Phillips Curve would infer.

<sup>2</sup> *World Economic Outlook*, IMF, October 2017.

Lower trend productivity growth and lower bargaining power of workers may also have caused slower wage growth.

Wage growth is likely to pick up as slack in the economy diminishes further, but it is unlikely to reach the pre-crisis pace unless productivity growth recovers.

The key factor that drives wage growth beyond the short term is the trend in labour productivity growth. As productivity growth accelerates, firms can afford to pay higher salaries as the same workforce produces more output, and vice versa. Labour productivity growth has decelerated in many economies since the global financial crisis, providing another possible explanation for lower wage growth. On top, wage and labour productivity growth will only be in sync if workers are able to bargain for a stable share of the economy's value added. In advanced economies, labour income shares began trending down in the 1980s, reached their lows around 2007 and have not recovered materially since then.<sup>3</sup> There are many reasons why workers' bargaining power may have diminished, including globalisation, lower degrees of unionisation, a higher share of self-employment and an increasing role of temporary and flexible hours contracts.

According to an IMF study, the bulk of the wage slowdown after the global financial crisis can be explained by labour market slack (both headline unemployment and under-employment), inflation expectations and lower trend productivity growth.<sup>4</sup> There is evidence that the changing nature of the labour market (increasing part-time, temporary and self-employment) has also had a dampening impact on wage growth, although the size of the impact has probably been small.<sup>5</sup> These findings suggest that wage growth is likely to pick up as (hidden) labour market slack diminishes. But it is unlikely to reach pre-crisis level unless productivity growth also recovers.

## Emerging markets

### *Emerging Asia*

Growth in emerging Asia was stable at an estimated 6.5% in 2017. This was based largely on sustained vigorous expansion in China, with GDP up 6.8% despite increasing government efforts to de-risk the financial sector and reduce excess industrial capacity. The 19th Communist Party Congress reaffirmed China's ambitions to become a "moderately prosperous society" by 2020, which would require a doubling of GDP from 2010. To achieve this, China will need to maintain growth at around 6.3% annually to 2020. Elsewhere, growth in India slowed to an estimated 6.6% in 2017 from 7.1% in 2016, likely due to a one-off impact from the government's demonetisation programme initiated in November 2016. Growth is expected to improve to around 7% in the coming years as the government continues to implement economic reforms to energise the industrial and manufacturing sectors. Other regional emerging markets are also strengthening, in part due to a recovery in commodity prices and export demand. This contrasts with last year's assessment of a relatively bleak outlook for exports. Meanwhile, headline consumer price inflation (CPI) remains tame in most markets, allowing central banks to maintain loose monetary policy to support growth. Government fiscal support is also playing an increasing role in driving economic growth.

Emerging Asia will continue to outperform in 2018 and 2019.

<sup>3</sup> *World Economic Outlook*, IMF, April 2017.

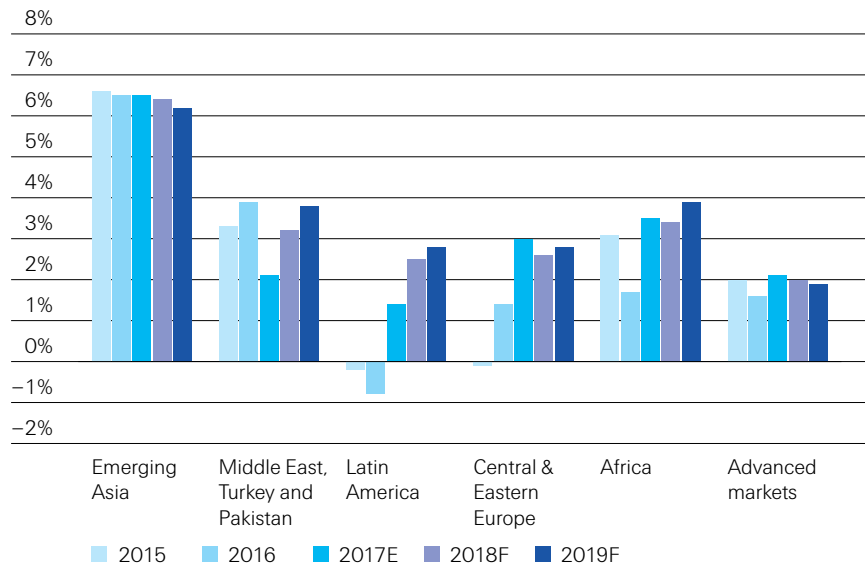
<sup>4</sup> *World Economic Outlook*, IMF, October 2017.

<sup>5</sup> Speech by A. Haldane, *Work, Wages and Monetary Policy*, Bank of England, 20 June 2017, <http://www.bankofengland.co.uk/publications/Pages/speeches/2017/984.aspx>



## The macroeconomic environment: cyclical upswing continues

**Figure 1**  
Real GDP growth in select regions,  
2015 to 2019F



Source: Swiss Re Institute.

Key risks are the lingering debt problem in China and rising geopolitical tensions.

The major risks to the region's near-term outlook stem from: (1) lingering credit risks in China; and (2) rising geopolitical tensions. China stepped up efforts to deleverage corporate debt in 2017, partly by raising the real cost of borrowing to discourage debt accumulation. This has helped contain, but not resolve, the problem. With respect to geopolitical developments, tensions in the Korean peninsula have heated up. Efforts to resolve the crisis without resort to military conflict, for example through possible China-Japan-Korea trilateral talks, could ease tensions but a long-term solution is still missing.

CEE growth improved to 3% in 2017, with EU-member countries performing well ...

### *Central and Eastern Europe*

Growth in CEE accelerated significantly in 2017 to an estimated 3%, driven primarily by CEE EU-member countries, although the Russian economy also expanded after having contracted in the previous two years. Growth in EU-member countries like Poland and the Czech Republic was based on solid domestic consumption, given notable growth in employment and wages. Fiscal policy has also been supportive, while stronger economic growth in Western Europe boosted exports and led to more inward investment into CEE countries. EU structural fund inflows are also accelerating. On a cautionary note, the strong growth has resulted in skill shortages in some sectors and although inflation is still subdued, in many countries there is a risk that it will accelerate.

... and Russia returning to positive growth.

Stable-to-improving energy prices have helped the Commonwealth of Independent States (CIS) economies since mid-2016. In Russia, growth is estimated to recover to 1.7% in 2017, after contracting by 0.3% in 2016. The Russian central bank has reduced interest rates gradually and with inflation at a record low of 3.0% yoy in September, it should be able to reduce rates further in the coming quarters. Consumer spending and credit expansion will receive a boost from the looser financial conditions.

Brexit is a key risk to CEE EU-member countries.

Growth in CEE EU-member countries is expected to remain healthy but slow slightly in 2018 as some government stimuli are phased out and rising inflation reduces real income growth. Other downside risks could hamper growth in CEE. The first is Brexit. EU-CEE countries are disproportionately exposed to the UK via direct trade, and are net receivers of EU funds (the UK being a net contributor) and remittances. There are also idiosyncratic political risks, such as Poland's dispute with the EU regarding the reforms of its judiciary, but these will likely be resolved over time. Finally, the Russian economy still faces obstacles to growth. International sanctions



are in place with US extraterritorial sanctions having recently been imposed, and investment into Russia is only returning very slowly, while oil prices are not expected to rise significantly in the coming years.

Growth in the METP nations remains low.

#### *Middle East, Turkey and Pakistan*

Growth in the Middle East, Turkey and Pakistan (METP) overall slowed in 2017. In real terms, GDP expanded by an estimated 2.7% in 2017, down from 3.9% in 2016, mainly driven by a contraction in Saudi Arabia and a slowdown in UAE and Iran. Stronger-than-expected growth in Turkey partly offset declines elsewhere. Still low oil prices coupled with cuts in output by the OPEC countries have put the external and fiscal balances of oil-exporting countries under significant pressure. With respect to inflation, conflicting forces are at work. On one hand, inflation pressures are being contained by low energy prices and slowing economic activity. On the other hand, the removal of fuel subsidies in the Gulf countries and currency depreciation, for those not pegged to the USD, are exerting upward pressure on prices.

Growth of SSA non-resource-intensive countries remains robust, but resource-intensive economies are still suffering.

#### *Africa*

Real GDP growth in Africa is expected to improve to above 3% in 2017 from a two-decade low of 1.7% last year. However, regional growth disparities remain. Among the commodity-intensive countries in sub-Saharan Africa (SSA), South Africa emerged from a technical recession in the second quarter of 2017 as the agriculture sector rebounded with the end of a severe drought, and the mining sector benefitted from the recovery in commodity prices. The outlook is not inspiring due to corruption and government inefficiency amid political uncertainty, weighing on consumer and investor confidence. Without economic reforms, the rising government debt and liabilities of state-owned enterprises make a downgrade of local sovereign debt to junk rating likely.

Oil exporters are struggling to recover from recession, but other resource-intensive countries are faring better.

Other resource-intensive countries in SSA are faring better as growth improves alongside stronger commodity prices. That said, oil-exporting countries such as Nigeria and Angola have been hit hard. These two largest oil exporters in Africa are expected to come out of recession this year, but the recovery will likely be weak as they struggle to adjust macroeconomic policy and fiscal spending to the still low oil price environment. Non-commodity intensive markets such as Ethiopia, Kenya and Côte d'Ivoire continue to deliver solid-to-strong growth based on infrastructure investments. In Kenya, however, the tense post-election environment could have a negative effect on economic activity. Rising government debt levels due to rapidly growing infrastructure investments in these countries need to be monitored very closely (see emerging markets chapter for more on SSA's longer-term potential and challenges).

Growth expectations for North Africa are positive.

Overall growth in North Africa remains favourable, with distinct variations. In Algeria, an oil-dependent economy, cuts in fiscal spending have reduced growth. Growth in the non-resource-intensive countries is expected to improve, benefitting from improving tourist arrivals, trade and foreign direct investment. The situation in Libya remains very unstable.

## The macroeconomic environment: cyclical upswing continues

The Latin American region has returned to positive growth but is expected to remain below potential until mid-2019.

The recovery in commodity prices brought financial stability and should support stronger currencies.

Business-friendly policies and administrations should help long-run growth prospects.

High corporate debt remains a key risk in China and to the global economy.

Financial market liberalisation could increase China's external vulnerability.

### *Latin America*

Latin America's aggregate real GDP growth is expected to be a modest 1.4% in 2017, with economic recoveries in Brazil (2017: 0.6%; 2016: -3.6%) and Argentina (2017: 2.5%; 2016: -2.2%) offset by recession in Venezuela (2017: -7.3%; 2016: -9.3%). The region is expected to return to its growth potential by mid-2019, helped by upswing in the major economies and reforms in certain countries, but subject to delayed FDI due to NAFTA negotiations and political impasse (in Venezuela, Brazil).

The stabilisation of commodity prices has helped tame macroeconomic volatility. As currencies regain some of their lost ground, inflation is moving closer to target, providing scope for monetary policy easing (eg, in Brazil). Lower interest rates and higher purchasing power should stimulate private consumption and support recovery. Mexico, where the central bank has been tightening monetary policy aggressively in an effort to shore up the peso, is the exception.

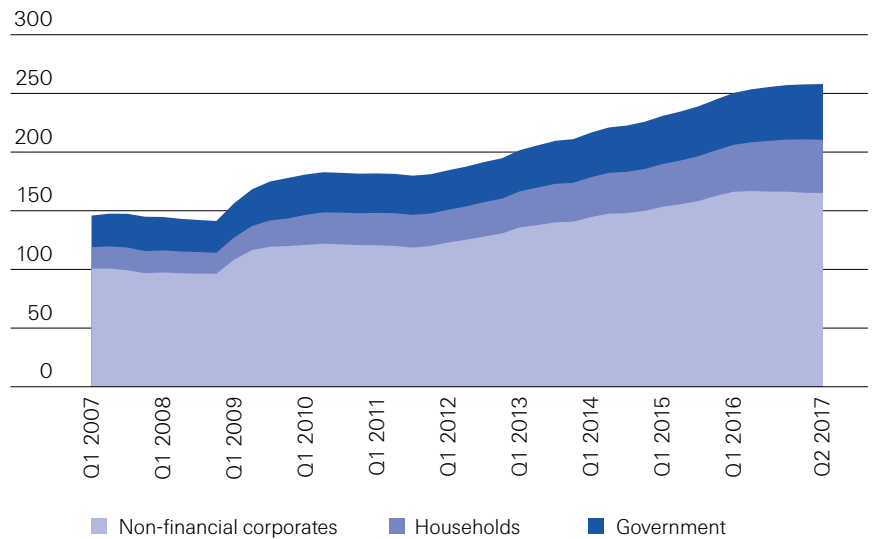
Many Latin American countries have become more positive on free trade, seeking to promote bi- and multi-lateral trade agreements. This more liberal approach mirrors the recent shift-to-the-right in the region, with business-friendly candidates now succeeding left-leaning administrations. With several presidential and legislative elections due in 2018, robust support for recent reform policies (eg, fiscal reform in Colombia, structural reform in Mexico, economic liberalization in Argentina) bodes well for the long-run. The outcome of the North-American Free Trade Agreement (NAFTA) renegotiations, the political impasse in Brazil and the unfolding of the Venezuelan crisis remain key risks.

### **Risks**

Our baseline scenario for the global economy assumes continuation of the recent cyclical upswing. However, a number of risks could derail this outlook. For instance, a hard-landing in China, the risk of which remains at about 20%, would significantly impact global growth. A key concern here is elevated corporate debt levels. There has been some recent success in containing further debt build-up in China. Overall debt (excluding the financial sector) as a percent of GDP continues to increase, but the rise since early 2016 has been slower than in previous years. The ratio of corporate debt to GDP has stabilised, helped by government efforts to reduce corporate leverage, but it nevertheless remains high at 165%. The build-up of household debt, meanwhile, has accelerated recently (see Figure 2) although at 45% of GDP, it remains relatively low by international standards. This sectoral shift in debt dynamics may be evidence of China's transition from an investment-driven towards a more consumer-based economy.

In addition to the risks from elevated corporate debt, China's financial market liberalisation efforts could increase its vulnerability to external shocks. For example, should the Fed accelerate monetary tightening, there could be capital outflows which would pressure the renminbi. This is currently considered a low-probability risk.

**Figure 2**  
Non-financial sector debt in China,  
% GDP, 1Q07–2Q17



Source: IIF, Swiss Re Institute.

The spectre of protectionism is rising.

Under the current US administration, the risk of protectionism has increased. During the first half of 2017, the US policy mix has already become more discriminatory towards G20 countries than in previous years, according to Global Trade Alert.<sup>6</sup> Market sentiment could weaken if there is an actual trade war. The Peterson Institute, for example, estimates that a trade war involving or initiated by the US would cut US GDP growth by 1–1.5% over the first four years, while global growth would take a more moderate hit.<sup>7</sup> Fortunately, protectionism is not on the rise everywhere in the world. In Latin America, for example, there have been increasing efforts to benefit more from global trade (see *Topic: Protectionism on the rise?*). The risk of a global trade war is currently estimated to be around 10%, but this could increase.

Increasing protectionism from the US is being countered by a move to more liberalisation elsewhere.

The outcome of the NAFTA renegotiations will give an indication of what can be expected from the US protectionist stance.



**Topic: Protectionism on the rise?**

Since the election of Donald Trump, the US has become more vocally protectionist. What is often overlooked, though, is that the trend is unclear or going in the opposite direction in other parts of the world. For example, the Brexit campaign focused on the negative aspects of the free movement of people within the EU, and the UK will be leaving the largest single market in the world. However, at the same time Brexit proponents want liberal trade regimes with the EU27 countries and others. Meanwhile in Latin America the trend is towards more liberal trade regimes, and China is likely to increase its influence in global trade at the expense of the US.

In the US, protectionism is clearly on the rise. The US has not only cancelled its participation in the Trans Pacific Partnership (TPP), but has also threatened to increase tariffs on imports from China and Canada, including on steel, aluminium, aircraft, lumber and dairy products. It has also forced the renegotiation of the North-American Free Trade Agreement (NAFTA). It was proceeding slowly with some moderate adjustments until the fourth round at which the US negotiators formally demanded that a new deal with Canada and Mexico favour American manufacturing and would end after five years unless renewed by all countries. The US Chamber of Commerce called those measures “poison pills”, while participants in the talks called them “non-starters”.<sup>8</sup> However, despite all the threats, no tariffs have actually been

<sup>6</sup> S. Evenett, J. Fritz, *Will awe Trump the Rules?*, Global Trade Report, 3 July 2017, [www.globaltradealert.org/reports](http://www.globaltradealert.org/reports)

<sup>7</sup> *Assessing Trade Agendas in the US Presidential Campaign*, Peterson Institute, September 2016.

<sup>8</sup> According to CNBC, 17 October 2017.

## The macroeconomic environment: cyclical upswing continues

implemented yet, and it is unclear if the onerous US NAFTA proposals are a negotiating tactic or a move to break up the trade agreement. If NAFTA does end, the US would stand to lose 0.1% to 0.5% of GDP over 5 years. That would be a modest hit to output overall, but a significant one for the auto sector which would likely absorb most of the shock.<sup>9</sup> The greater concern is that other negotiations are initiated with other trading partners or unilaterally. NAFTA serves as a proxy of US (anti-) globalisation sentiment for the rest of the world. An overly aggressive US approach in talks could spark a trade war, which would likely result in a severe global slowdown.

Latin America has become pro-active in seeking free trade agreements.

In contrast to the US, Latin America has become more pro-trade as it realises the benefits of demand for its commodities from the US, the EU, China and other Asian economies. Trade has also brought foreign direct investment, technological know-how and labour mobility. Following the US exit from TPP and the ongoing NAFTA renegotiation talks, many countries in Latin America have turned proactive on free trade. Soon after the US withdrawal from TPP, Chile hosted representatives from the remaining countries<sup>10</sup> – plus China and South Korea – in an effort to revive the agreement and support greater global economic integration. The TPP members aim for a broad agreement in the near future.

Latin America regional trade blocks are promoting stronger ties with Canada and the EU.

Free trade efforts are also being pushed via regional blocs, with the Alliance<sup>11</sup> and Mercosur<sup>12</sup> countries seeking liberal trade terms with Canada and the EU, respectively. Mexico, which has plenty to lose from a potential dissolution of NAFTA (more than 80% of Mexican exports go to the US), is also trying to gain leverage with the US by expanding its free trade agreement (FTA) with the EU. Meanwhile, China views the current situation as an opportunity to increase its influence, and has initiated trade discussions with Colombia and Uruguay. It already has bilateral agreements with Peru, Chile and Costa Rica.

Geopolitical risks are significant but hard to quantify.

Geopolitical risks are also elevated, but their impact on economic activity is difficult to quantify. Rising tensions on the Korean peninsula have the potential to disrupt the region's economies with likely global repercussions due to South Korea's important role in international supply chains. In addition, financial market reaction to an escalation of tensions could be drastic, especially if nuclear conflict is a possible outcome (a tail risk).

Political risks in Europe have diminished, but not disappeared.

Political risks in Europe have receded relative to 2016 when the victory of Marine Le Pen in the French presidential elections was a significant threat. Her election would have led to market turbulence over concerns that France could leave the Euro area. Nevertheless, political instability risk remains. The turbulence in Catalonia is a serious threat to social cohesion both within Catalonia and across Spain, but is unlikely to have a material impact on the European economy.

Arguably, the likelihood of a disorderly Brexit scenario has increased over the last few months.

In contrast, a scenario of a disorderly Brexit has the potential to harm both the UK and the remaining EU countries. With limited progress in the Brexit negotiations so far, this scenario has become more likely. Unless the EU27 countries agree unanimously to prolong the two-year exit period, the UK will cease to be an EU member by the end of March 2019. Our baseline scenario is for some form of transition agreement to be reached, albeit possibly only at a very late stage. However, if there is no agreement, business will face increased transaction costs and uncertainties. For example, customs handling for goods under World Trade Organisation (WTO) rules could lead to queues in Dover and Calais. UK and EU27 airlines would no longer be certified to operate in each other's airspace and could be

<sup>9</sup> *US Daily: Thoughts on the Potential US Withdrawal from NAFTA*, Goldman Sachs, 19 October 2017.

<sup>10</sup> Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam

<sup>11</sup> The trade bloc that includes Colombia, Mexico, Chile and Peru.

<sup>12</sup> The trade bloc that includes Argentina, Brazil, Paraguay, Uruguay and Venezuela, although Venezuela has been suspended as of late 2016.

barred from flying. The UK would also be out of the European internal energy market, leading to price volatility and disruption of supply in the gas and electricity markets. Additionally, no EU27 country would be able to supply or buy nuclear fuel rods from the UK, as the latter would be out of Euratom, the institution that regulates and inspects UK nuclear facilities. In this scenario, the UK could run out of nuclear power (which accounts for 20% of UK electricity) at some point. The passporting of services between the UK and the EU27 would also cease, with negative implications for the UK given the size of the financial services sector and its importance to the UK economy.

Provisions taken by businesses and authorities should mitigate some of the impacts of a “cliff edge” scenario.

Such a disorderly Brexit scenario is referred to as a “cliff edge” due to the unprepared and sudden nature of the change. However, firms are making provisions to cope with such an outcome. For example, financial institutions are establishing subsidiaries in the UK and the EU27 to secure respective market access after March 2019, while manufacturers could include clauses stipulating how contracts will be fulfilled and enforced under WTO rules. In addition, regulators and supervisory authorities may adopt pragmatic approaches such as granting temporary extensions of licences to avoid disruptions. Nevertheless, a “no deal” scenario would still cause significant disruptions both in the UK and the EU27 countries. The scale of impact is hard to quantify but will very likely be disproportional: that is, large for the UK and small(er) for the EU27 countries.

Markets could start to reassess Euro area public debt sustainability as the ECB reduces government bond purchases.

Although lower than at the beginning of 2017, there remains a risk of the Euro area sovereign debt crisis flaring up again. Most Euro area countries have improved their public debt/GDP ratios since the global financial crisis, but in many debt levels remain elevated. For example, public debt was 150% of GDP in Italy as of the second quarter of 2017 and about 140% in Portugal. Both governments have large refinancing needs, which makes them vulnerable to shifts in market sentiment. Banking sector fragility and its link to the public sector (and vice versa) adds to the vulnerability. There is a risk that with QE tapering by the ECB, private sector investors will start to reassess public sector debt sustainability.



### Topic: Monetary policy - risk of disruption from QE tapering?

There are concerns the unwinding of central banks’ balance sheets will cause market disruption.

Since the time of the global financial crisis, central banks have bought large amounts of government bonds (and, to a lesser extent, private securities), thereby greatly expanding the size of their balance sheets. The US Fed’s balance sheet was almost USD 4.5 trillion by 2015, about five times its size before the crisis. The ECB’s balance sheet has tripled and continues to expand. Markets have performed well during the period of balance-sheet expansion, and there are concerns that the Fed’s shrinking of its balance sheet over the next year and a reduction of bond purchases by the ECB will cause a reversal.

The Fed’s exit from balance sheet expansion has run smoothly so far.

Most likely, QE unwinding will happen smoothly. Central banks have been very diligent in communicating their plans and have adopted a gradual approach. The Fed has already halted its asset purchases, and that has not sparked market turbulence (contrary to 2013 when a potential reduction of asset purchases was first communicated by the Fed and resulted in a surge in US yields).

However, the ECB’s government debt purchases are much larger relative to issuance, increasing the potential for disruption when they come to an end.

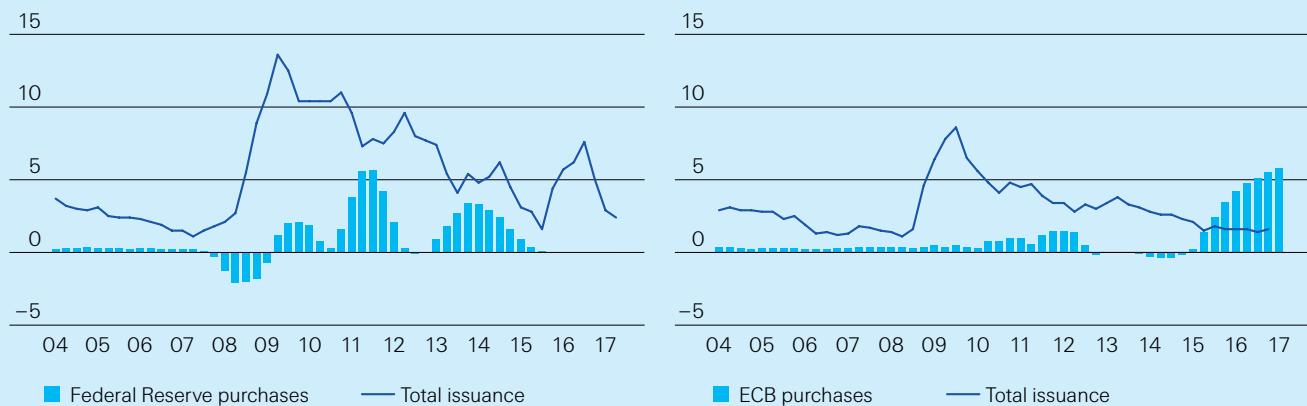
The ECB’s exit from QE may not proceed as smoothly. While the Fed’s purchases of government debt were large in absolute terms, they were relatively modest compared to (high) net issuance of government debt (see Figure 3), and resulted in modest portfolio shifts only. For example, during QE1 in 2009, other domestic and foreign buyers including banks and pension funds continued to purchase US government debt alongside the Fed. In contrast, the ECB’s recent government bond purchases have been 3–4 times bigger than net issuance, and there has been significant reduction in the level of government bonds held by other investors. As such, when the ECB steps back as the dominant buyer, concerns about public debt

## The macroeconomic environment: cyclical upswing continues

sustainability may reduce private market appetite to purchase government bonds, leading to a sharp increase in sovereign yields. All said, the probability of such a scenario is considered fairly low. And in any case, the ECB would most likely resume its bond purchases in the event of financial market turbulence, mitigating any adverse impact.

**Figure 3**

Issuance and purchases of US/Euro area government bonds, 4-quarter sums in % GDP



Source: IIF, US Fed, Swiss Re Institute.

There is upside risk from US fiscal policy but much higher growth as a result is considered a tail risk.

One key upside risk comes from US fiscal policy. The US Congress is currently reviewing tax policy proposals, notably significant cuts in corporate and personal tax, offset by some reductions in tax breaks and subsidies. Morgan Stanley<sup>13</sup> proposes a scenario in which the US deficit is increased by about 3% through tax cuts without any offsetting cuts in subsidies or tax increases. This could achieve about 3.5% real GDP growth in 2018 and 2019, cut unemployment to 3% or below, and cause wage inflation to spike up to 4% or higher. With inflation at 4%, well above the 2% target, the Fed would very likely raise the Fed funds rate rapidly to more than 4% also, curtailing growth in 2020. Yields on the 10-year Treasury note would likely go over 6% under such a scenario. We think the likelihood of the above happening is low (about 1%).

Moderate tax cuts could nevertheless still yield notably higher growth.

However, a more moderate scenario in which the deficit increases by 1% or so (with tax cuts not fully offset by reduced spending cuts, reduced subsidies or tax increases) could easily lift US GDP growth to 2.5–3% in 2018 and 2019. This has a probability of about 15%. The baseline forecast, with 2.2% growth in 2018 and 2019, assumes just modest (if any) tax cuts, mostly offset by reduced subsidies, and the growth stimulus offset by higher interest rates. Corporate tax cuts tend to be passed along to shareholders via dividends and share buybacks, which are then often saved. The personal income tax cuts proposed are biased towards high-income earners, who are likely to save most of the additional disposable income. The economic impact of increased savings is low and takes time to be recycled via investment to affect GDP.

Other upside risks come from Europe and China.

Other upside risks include stronger-than-expected performance in the Euro area and the UK. The Euro area continues to improve and the cyclical upswing could prove to be more robust than forecast, perhaps supported by looser fiscal policies. And Brexit could be less damaging to the UK economy than currently expected. Elsewhere, China could maintain growth of near 7% rather than slow gradually, benefiting Asia overall and global commodity exporters in particular.

<sup>13</sup> *Tax Reform & Deficits: Moderate? Or Raise the Stakes?*, Morgan Stanley, 16 October 2017.

In the downside scenario, bond yields and equities would fall, and credit spreads would widen.

The upside scenario would be beneficial for re/insurers.

In the downside scenarios, yields on government bonds would decline further from current lows and stay depressed for a few more years, a challenge for life insurers in particular. Equity markets would decline and credit spreads would widen, although the extent of spread widening is unclear because central banks would likely resume or increase their private and public asset purchases as a reaction to the downturn. Insurers would be under pressure from lower asset valuations and premium growth.

The upside scenarios would be beneficial for the re/insurance industry. Investment yields would improve, albeit only slowly, and premium volumes would rise along with economic activity. However, should inflation remain elevated over several years, there could be a notable impact on re/insurance claims, especially in casualty lines.



# Non-life: cat losses cause earnings and capital event in reinsurance

## Non-life insurance: premium growth recovers moderately; catastrophe (cat) losses and challenges to profitability

Global non-life premium growth has improved moderately. The large nat cat losses in 2017 will likely impact prices.

There has been positive premium momentum in the advanced markets...

... and the emerging markets are slightly stronger also, but still below average.

In the US, underwriting results deteriorated in the first half of 2017 and continued to do so in the third and fourth quarters.

Premiums have risen moderately in almost all countries/regions in 2017 due to stronger economic growth. Global non-life premiums have are up an estimated 3% in real terms, after a 2.3% gain in 2016. Underwriting conditions have remained soft, particularly in commercial insurance, setting the stage for a price correction. A string of large nat cat events in the second half of 2017 – hurricanes Harvey, Irma, Maria, earthquakes in Mexico, and wildfires in California – have resulted in significant losses in P&C re/insurance. The three hurricanes and the earthquakes in Mexico resulted in estimated insured losses of around USD 95 billion, and non-life re/insurers' full-year underwriting results will be severely impacted. The large losses are expected to lead to notable rate hardening in affected portfolios.

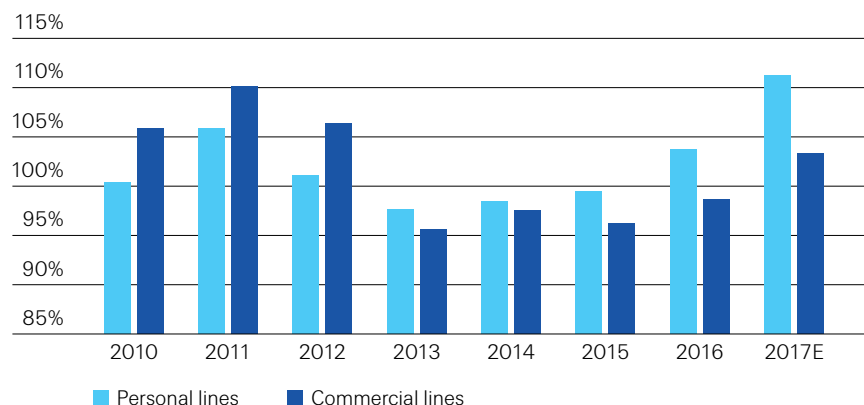
In the advanced economies, real premiums have grown by about 2% in 2017, up slightly from 1.5% in 2016. The 2017 figure may underestimate the momentum to some extent since inflation rates have picked up in most mature economies. In nominal USD terms, premiums are up 4.0% this year compared to 1.7%. The US market expanded by 4.7%, fuelled by strong growth in motor premiums. In Western Europe, stronger motor business in Germany, France, Spain and the UK supported premium region growth. Growth was weak again in Italy due to continued softening in motor, albeit at a more moderate pace than in previous years.

Non-life premiums in the emerging markets have grown by an estimated 6% in 2017, up slightly from 2016 and 2015, but slower than the 8% annual average growth between 2010 and 2014. The deceleration has been due to continued economic sluggishness and slow (although positive after contraction in 2016), premium growth in Latin America and Africa. Premiums in emerging Asia, meanwhile, are up almost 10%, driven by double-digit growth in the largest markets, China and India. In CEE, premiums have grown by less than 5% this year due to contraction in Russia.

### Underwriting profitability has deteriorated in the US and remained stable in Europe

The US P&C industry's combined ratio deteriorated by 0.8 percentage points (ppt) to 100.8% in the first half of 2017 (1H17), impacted by above-average nat cat losses. The personal lines' combined ratio deteriorated by 0.9 ppt to 103.8%. The combined ratio for commercial lines, however, improved 0.4 ppt to 96.4%. The industry's net underwriting loss increased to USD 3.5 billion from USD 0.9 billion in 1H16. Excluding the impact of reserve releases, the accident-year combined ratio for the US P&C industry increased to 103.5% in the first half, up from 102.7% a year earlier. Rate increases contributed to strong premium growth in personal lines and commercial auto, while rate softening contributed to premium declines in other commercial lines. Losses from hurricanes Harvey, Irma and Maria are likely to add to an above-average cat loss burden for 2017. We expect a full-year 2017 combined ratio of around 109% for the US P&C industry, and a significant underwriting loss.

**Figure 4**  
US combined ratios, 2010 to 2017E



Source: A.M. Best, Swiss Re Institute.



## Topic: Cyber risk

The cyber insurance market is growing rapidly.

Despite an influx of capacity, strong demand and a lack of policy standardisation continues to underpin premium rates.

Insurers remain wary of potentially large accumulation losses, and that is crimping their risk appetite.

Product and process innovation can help expand the availability of cyber insurance.

The cyber insurance market is expanding rapidly. Against a background of a growing catalogue of cyber incidents (the attack on US credit report agency Equifax in the summer being the latest high-profile example), demand for cyber insurance solutions continues to grow. Estimates vary, but global cyber insurance premiums were probably somewhere in the range of USD 2.5 billion to USD 3.5 billion in 2016, and are set to climb further in 2017 as both the take-up of cover and premium rates increase.<sup>14</sup> Increasingly, cyber policies are being sold on a stand-alone basis rather than as part of a broader insurance package.<sup>15</sup> Some industry observers expect the recent rapid pace of growth of around 30% per annum to continue with premiums possibly reaching USD 14 billion by 2022.<sup>16</sup>

The influx of risk-absorbing capacity from new entrants and incumbent insurers is having an impact on pricing in some pockets of the market. In particular, US cyber liability rates reportedly weakened slightly in 2017 after years of strong increases.<sup>17</sup> More generally, however, robust demand for cyber insurance combined with a continued lack of standardisation in policies is providing some support for premium rates, especially outside of the US. The EU's General Data Protection Regulation (GDPR) is reportedly catalysing improvements in cyber risk management, including the purchase of insurance. With just a few months remaining until GDPR enforcement begins, less than 10% of firms believe they are fully compliant.<sup>18</sup>

Firms are increasingly seeking insurance against possible losses well beyond the direct cost of data breaches and third-party liability, including cover for business interruption, reputational harm and sometimes physical damage. But without full understanding of how much risk they are taking on, and wary of the possibility of extreme risk accumulation, many insurers set low limits and various exclusions in order to cap their potential losses. Gaps in available cover also continue to persist. For example, relatively few insurers offer insurance against intellectual property theft or damage to physical assets from a cyber incident.<sup>19</sup>

An important factor influencing the pace and scope of future market development will be the capture and analysis of data needed to underwrite cyber risks accurately. Product and process innovation, including developing sophisticated tools to detect and evaluate cyber threats, can help make cyber risk more manageable and foster further expansion of associated insurance solutions. But cooperation between companies, insurers and governments to share information will be essential. Government backstop financing may ultimately become necessary for accumulating cyber scenarios that are too great to be absorbed by the private re/insurance market, and/or events with a terrorism- and war-like character. Such a backstop reduces uncertainty and allows re/insurers to go closer to the edge of their risk appetite and hence assume and retain more risk.

<sup>14</sup> The penetration of cyber insurance is estimated at less than 30% in the US (where almost 90% of premiums are currently being underwritten), which is much less than in other commercial lines.

<sup>15</sup> *Cyber Line Expected to be One of the Leading P/C Growth Areas*, A.M. Best, June 2017.

<sup>16</sup> See for example, "Cyber Insurance Market to Top \$14 Billion by 2022: Report", *www.securityweek.com*, 9 December 2016, <http://www.securityweek.com/cyber-insurance-market-top-14-billion-2022-report>

<sup>17</sup> *Commercial Insurance Rates Continue Decline in Light of Global Market Forces*, Marsh, 25 August 2017, <https://my.marshclearsight.com/article/commercial-insurance-rates-continue-decline-in-light-of-global-market-forces>

<sup>18</sup> *GDPR Preparedness: An Indicator of Cyber Risk Management, Global Risk Perception Report*, Marsh, October 2017.

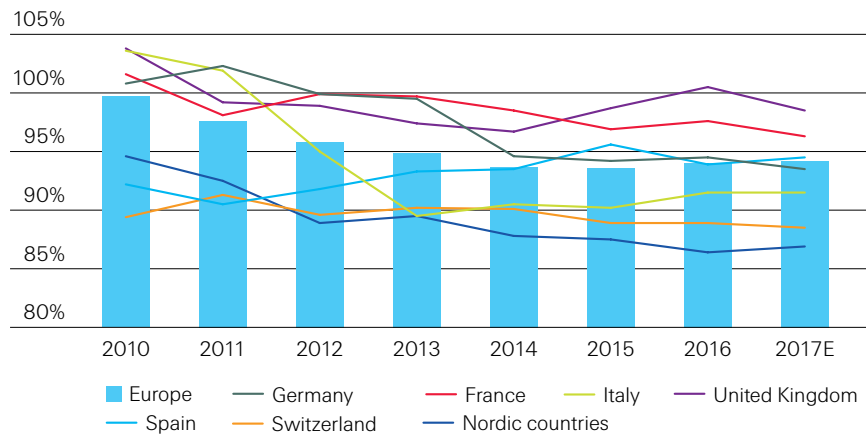
<sup>19</sup> *Cyber Risk Landscape Report*, RMS, 2017.

**Non-life: cat losses cause earnings and capital event in reinsurance**

Non-life underwriting profitability in Europe has been stable in 2017.

Underwriting profitability in Europe<sup>20</sup> was more or less stable in the first two quarters of 2017 compared to the full-year 2016. Generally, the markets profited from low nat cat losses, which helped property lines. Claims costs in motor insurance continued to trend upwards in the most important markets (see *Topic: Motor insurance claims are on the rise*). In the UK, the downward revision of the so-called Ogden tables in February 2017 forced insurers to significantly add to claims reserves for long-tail compensation (see *Ogden rate change prompts reserves additions*), which was mostly retrospectively booked to 2016. In Germany, underwriting profitability fell by 1 ppt in 1H17 due to increased claims in virtually all lines of business. In Italy, the Nordics and Switzerland, underwriting profits have remained stable.

**Figure 5**  
Combined ratios in Europe, 2010–2017E



Source: Swiss Re Institute.

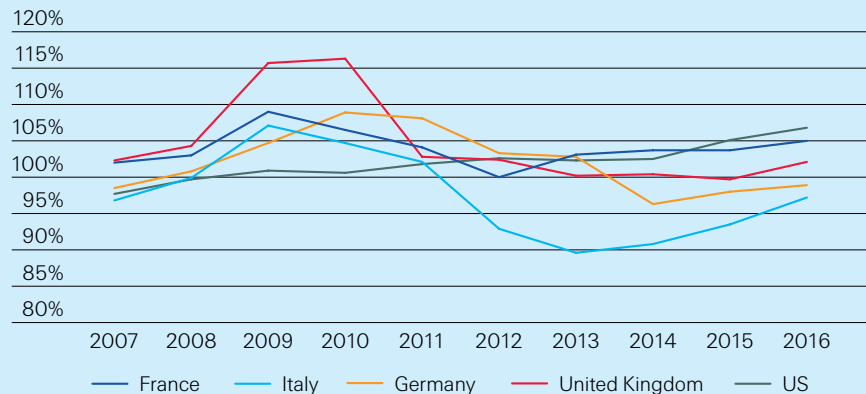
In developed Asia-Pacific, underwriting profitability has improved.

Non-life insurers' profitability in Australia has improved in 2017, despite higher nat cat losses. This reflects higher premium rates, reserve releases and higher reinsurance protection for peril claims. In Japan, domestic non-life insurers are estimated to have had stable underwriting profits in 2017, driven mainly by benign nat cat losses. Compulsory motor premiums declined in 2017 due to premium rate cuts. In 2018, further rate cuts are expected, as the General Insurance Rating Organisation will set lower reference rates given declining accident frequency helped by widespread use of safety technologies such as automatic brakes.



**Topic: Motor insurance claims are on the rise**

**Figure 6**  
Motor insurance combined ratios in select markets, 2007–2016



Source: Swiss Re Institute, based on national insurance statistics.

<sup>20</sup> The information is based on an aggregated sample of large European insurers active in Germany, France, the UK, Italy, Spain, Switzerland and the Nordic countries.

US motor claims frequency and severity was trending up sharply.

Underwriting results in US motor, in both the personal and commercial segments, have deteriorated in the last couple of years, and insurers have increased rates to catch up with rising claims costs. The surge in loss costs has been due to higher frequency and severity of accidents. Between 2014 and 2016, after decades of decline US traffic fatalities surged by 14%.<sup>21</sup> With stronger employment growth and low gas prices, people have been driving more.<sup>22</sup> There has also been an uptick in speeding and drinking, but these factors alone do not explain the surge in road deaths. Arguably, a main contributing factor is distracted driving, given a substantial increase in smartphone use by US drivers while at wheel. In a study of 3 million people, Zendrive, a San Francisco start-up which analyses smartphone data, found drivers use their mobile phone during 88% of trips.<sup>23</sup> The negative impact gets compounded by changes in the use of phones on the road. Texting, Twitter, Facebook and Instagram – all activities that require additional attention away from the road – are replacing voice calls.

There has been a surge in truck accidents in particular.

There has been a notable increase in loss frequency for trucking accidents in the US, which is related to a shortage of experienced drivers. The return of economic growth after recession created demand for drivers, which has been satisfied by the hiring of drivers with less experience. Heavier trucks, higher road density, higher speeds and distracted driving has contributed to the spike in loss severity. Further, victims in truck accidents are often injured much more severely than in car accidents, and this is leading to increasingly larger jury verdicts in bodily injury cases.

Rates in commercial auto in the US declined between 2006 and 2015, while claims costs trended up.

Since 2012, adverse loss development in US commercial auto liability has contributed to elevated combined ratios. Commercial business was under-priced in the years immediately following the financial crisis. According to data from Conning, the estimated average claim size rose by 39% between 2006 and 2015, while commercial auto rates fell by 18%. Claims severity (ie, average claims costs) for personal auto lines has also surged. Strong auto sales have seen many older vehicles replaced with newer ones that are more expensive to repair. The increasing complexity of newer vehicles – including the proliferation of safety technology – is adding to the cost of car repairs.

Since 2015, pricing in US motor has increased, but more is needed to close a still large profitability gap.

US personal and commercial auto pricing has been increasing since 2015. It averaged around 7% in 2017 for personal auto based on CPI, and around 6% for commercial auto (based on the Council of Insurance Agents & Brokers (CIAB) survey), with no signs of moderation. Profitability should be improving at this pace but there is still a long way to go before lost ground is made up.

In Europe, the past trend of improving claims frequencies in motor has come to a halt.

In Europe, underwriting profitability in motor has also developed negatively over the last few years due to increasing severity, not frequency. Unlike in the US, claims frequency in Germany, the UK, France and Italy has remained – with little deviations up or down – mostly stable. This contrasts to the decade before when claims frequency rates declined steadily in all of the analysed markets. A similar picture is drawn by the European transport safety council. After years of around 5% annual decline, the number of road fatalities has stabilised at around 26 000 since 2013. “For every death on Europe’s roads there are an estimated 4 permanently disabling injuries such as damage to the brain or spinal cord, 8 serious injuries and 50 minor injuries”.<sup>24</sup>

Claims severity is trending up for bodily injury and vehicle repair claims.

Claims severity in Europe continues to increase, based on rising healthcare and car repair costs. Increasing penetration of advanced driving assistance systems is expected to reduce claims frequencies over time. However, expensive sensor technology increases repair costs for minor collision accidents, driving up claims severity.

<sup>21</sup> US Department of Transportation, National Highway Traffic Safety Administration.

<sup>22</sup> US Department of Transportation, Federal Highway Administration.

<sup>23</sup> *Largest Distracted Driving Behavior Study*, Zendrive, 17 April 2017, <http://blog.zendrive.com/distracted-driving/>

<sup>24</sup> Road deaths in the European Union – latest data, European Transport Safety Council, <http://etsc.eu/euroadsafetydata>

This year the UK government reduced the (Ogden) discount rate that insurers can apply to potential lump sum payouts.

This has led to a significant increase in claims reserves, particularly for motor insurance.

Following industry outcry, the Ogden rate is set to be revised upwards.

The softening of rates in US commercial insurance is moderating.

Globally, rate reductions in commercial insurance have slowed since end of 2015. In the Pacific, rates hardened in the second quarter of 2017.

### Ogden rate change prompts reserves additions

When assessing lump-sum awards for personal injury claimants, courts take into account the net rate of return (discount) that the claimant might expect to receive from a reasonably prudent investment of lump sum compensation. The lower the interest rate, the higher the lump sum will be. Since 2001, this rate has been 2.5%. But early in 2017 the UK government announced that the discount rate would be reduced by 3.25 points to  $-0.75\%$  with effect from 20 March 2017. This rate change is to be applied retrospectively to all current claims, therefore prompting insurers to increase reserves and reducing reported profits in 2016 and early 2017.

The impact of the Ogden rate change varies across insurers. However, in aggregate the cost of the change to insurers and reinsurers is estimated to range from GBP 3.5 billion to GBP 5.8 billion across all lines of business, which is equivalent to 10–15% of UK net domestic premiums.<sup>25</sup> Companies specialised in motor insurance have been hit particularly hard, but other liability classes exposed to bodily injury claims have also been affected.

Some relief is in the pipeline, however. In response to industry lobbying, the UK government has been persuaded to revise the way in which compensation for accident victims is to be calculated. This could see the appropriate discount rate on future liabilities increase to somewhere between 0–1%. When implemented, the proposed new methodology will allow insurers to release some of the recently added reserves, as outstanding claims may be settled under the new regime. This should provide a welcome boost for insurers' full-year earnings in 2017.

### The softening of commercial insurance rates eased in 2017

The deterioration of rates in US commercial insurance has slowed in 2017. According to a quarterly CIAB survey, average commercial rates fell by 2.8% in 2Q17 compared to a decline of 3.9% in 2Q16.<sup>26</sup> Rates showed a mixed trend among commercial lines. While rates in commercial auto continued to harden rapidly by 6.3%, they were up just slightly for employment practices liability insurance (EPLI), general liability and terrorism cover in 2Q17. All other commercial lines continued to soften, with the biggest declines in commercial property, followed by business interruption. Rates are, however, expected to react to recent cat losses, especially in property lines.

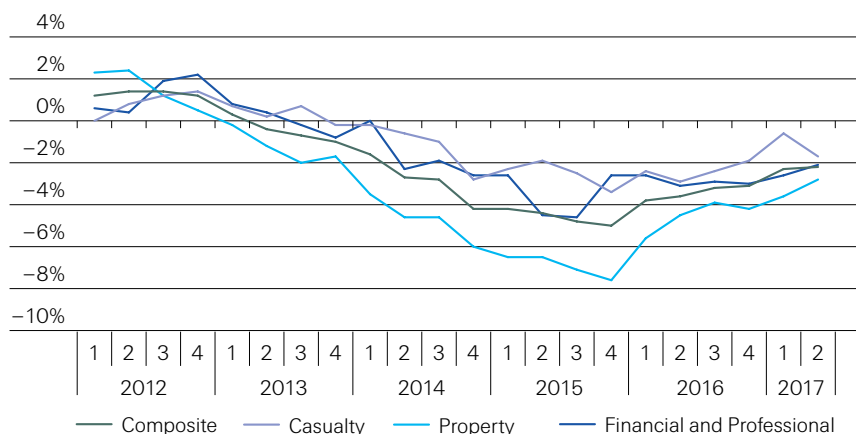
Globally, Marsh reported ongoing rate declines in commercial insurance across regions and lines of business.<sup>27</sup> In the second quarter of 2017, rates fell for the 17th consecutive quarter ( $-2.2\%$ ), driven mostly by abundant capacity and an absence of large nat cat losses. Property rates continued to show the biggest decrease ( $-2.8\%$ ), but moderated along with the other lines of business. In the Pacific region, commercial insurance rates hardened overall, driven by increases in all of the considered lines, (Property: 7.5%, Casualty 2.7%, FinPro 6.7%). In other regions, rates were still falling.

<sup>25</sup> See *Motor insurance market suffers significant underwriting losses in 2016 following Ogden impact*, EY, 15 June 2017, <http://www.ey.com/uk/en/newsroom/news-releases/17-06-15-motor-insurance-market-suffers-significant-underwriting-losses-in-2016-following-ogden-impact> and *Comment on the UK Government's decision to change the discount rate for personal injury damages*, Willis Towers Watson, 27 February 2017, <https://www.willistowerswatson.com/en/press/2017/02/Comment-on-the-UK-Governments-decision-to-change-the-discount-rate-for-personal-injury-damages>

<sup>26</sup> *Premium pricing continues to decline in Q2 2017, according to CIAB survey*, CIAB, 16 August 2017, <https://www.ciab.com/download/6967/>

<sup>27</sup> *Global Insurance Market Index, Second Quarter 2017*, Marsh, 2017, <https://www.marsh.com/content/dam/marsh/Documents/PDF/eu/en/Global%20Insurance%20Market%20Index%20-%20Q2%202017.pdf>

**Figure 7**  
Global renewal rate changes by line of business, 1Q 2012 to 2Q 2017



Source: Marsh, Global insurance market index, Q2 2017, Marsh.

Overall profitability in 2017 is down sharply from prior years due to soft underwriting conditions, low investment yields and high nat cat losses in the US.

*Overall profits are down, driven by cat losses in the US*

Global non-life industry profitability has declined in 2017, with return on equity (ROE) down to 3% from 6% in 2016, and well below 10% in 2013 and 2014.<sup>28</sup> This year's results have been driven by three main factors: soft underwriting conditions, low investment yields and large nat cat losses in the US. Investment returns for non-life insurers remain under pressure. Average yields have stalled and operating cash flows are weak given slowing premium growth and weak underwriting results. The contribution of investment returns to profitability has declined further to around 9% of net premiums earned in 2017.



**Topic: Brexit and the UK insurance sector**

Passporting arrangements between the UK and the rest of the EU will no longer apply post Brexit and insurers are making plans to adjust their organisations.

The course and ultimate outcome of the Brexit negotiations is difficult to predict, but it seems increasingly likely that reciprocal passporting rights within the EU single market, on which insurance groups' European business models depend, will be lost. Insurers therefore, need to have new structures in place for whenever a transitional arrangement, if any expires – or as soon as March 2019 in the event of "cliff edge" Brexit in which no transitional period is agreed. A number of UK-based re/insurers have already announced plans to set up subsidiaries in other EU27 countries, in order to maintain passporting rights with other parts of the bloc. The re-organisations that accompany the fallout from Brexit will likely add to insurers' costs, at least in the near term.<sup>29</sup>

Not all cross-border EU business will be affected; some specialty lines and reinsurance might still be legitimately written under WTO rules.

Importantly, not all cross-border business need be hit by Brexit. London market insurers may still insure European risks where local law does not mandate need for a local licence (known as non-admitted business). The General Agreement on Trading Services, which is annexed to the WTO rules, covers marine, aviation and transport (MAT) insurance written in this way, while reinsurance may be written on a non-admitted basis under Solvency II rules, provided the UK attains regulatory equivalence. As a result, UK insurers may be able to continue to access risks freely across the EU for MAT insurance and reinsurance, even if passporting rights are lost.

<sup>28</sup> The calculation of the industry average profitability is based on data for the following eight leading non-life insurance markets: Australia, Canada, France, Germany, Italy, Japan, the UK and the US.

<sup>29</sup> Uncertainty about transitional arrangements means the timing for reorganisations will become increasingly tight as the March 2019 deadline approaches. Authorisation as an insurer in an EEA state, portfolio transfers, and other relevant processes (eg SE conversions and redomiciliations) typically take 12 months or longer.

## Non-life: cat losses cause earnings and capital event in reinsurance

However, even that business could be impacted if the EU Commission does not grant regulatory equivalence to the UK.

The effects on UK insurers depend on the nature of any post-Brexit deal.

With some form of transitional arrangement, UK insurance market premiums could still fall by around 8%.

However, in the event of a cliff edge Brexit, the hit to the UK market could be close to double that in terms of lost premiums.

Recent indications are, however, that some EU member states are looking to tighten regulation of non-admitted business. In July 2015, the EU Commission expressed the view that “a third-country insurance undertaking may only insure risks located in a Member State through a branch authorised by the competent supervisory authority of that Member State”.<sup>30</sup> If the Commission’s view is widely adopted by EEA states, it will affect UK insurers’ ability post-Brexit to write new business in EEA states on a non-admitted basis (ie, without establishing a branch). Moreover, to the extent that global reinsurers are not allowed to service and write new contracts in the UK under existing arrangements, this could lead to significant increased reinsurance costs for UK insurers.

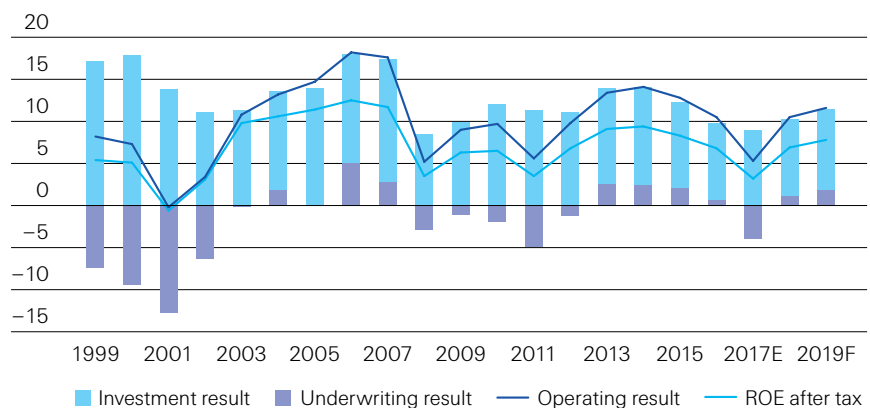
Estimating the exact impact of Brexit on UK insurers is nigh impossible. However, rough estimates of the potential effects on the overall UK insurance market can be provided under two alternative scenarios:

**Base case:** Leaving the EU single market and customs union leads to a permanent reduction in UK national income which in turn reduces UK domestic insurance premiums by a little under 4% by 2023, according to Swiss Re Institute estimates. Additionally, the prospective loss of passporting rights means that some home-foreign business (ie, cross-border business where the underlying risk is located overseas) will no longer be written from the UK. This is estimated to amount to around a further 4% of premiums.

**Downside scenario:** In addition to the loss of passported business with other EU countries, should the UK not be granted regulatory equivalence, cross-border MAT and reinsurance premiums will also disappear. Such a cliff edge outcome would likely be part of a disorderly Brexit which would hit UK economic growth and reduce domestic premiums further. Combined domestic and home-foreign premiums could be reduced by close to 15% by 2023.

**Figure 8**

Composition of profits as a % of net premiums earned and ROE, aggregate of eight major markets, 1999–2019F



Source: Swiss Re Institute.

The negative profit trend is due to deteriorating underwriting conditions.

Non-life industry underwriting profitability is under pressure from different factors:

- **Softening premium rates:** In commercial lines in particular, insurance rates have softened significantly over the past few years. As above, according to Marsh they have declined over 17 consecutive quarters (see Figure 7) in all lines of business and – with the exception of the Pacific region (Australia) – in all major regions.

<sup>30</sup> This is the Commission’s view of the effect of Article 162, Solvency II.



- Deteriorating claims trends: In particular, claims costs have risen notably in casualty lines. The biggest gains have been in US motor, where frequency and severity of claims have been picking up, adding to elevated claims trends. The European motor markets have seen higher claims costs, but to a lesser degree.
- Reserving may soon prove insufficient in key markets like the US. Reserves from the redundant hard-market years are waning and the reserve adequacy of more recent loss years is unclear. Reserve releases will eventually morph into a need to strengthen reserves, but it is difficult to forecast when that will happen.
- High nat cat losses have added to the negative profitability development of primary insurers in 2017. The biggest loss events this year were the series of devastating hurricanes which hit the Caribbean islands and the US. But also, the number of events which cause insured losses of USD 1 billion or more is increasing, another contributing factor to higher insurance claims overall.

*Premium growth and underwriting profitability expected to improve*

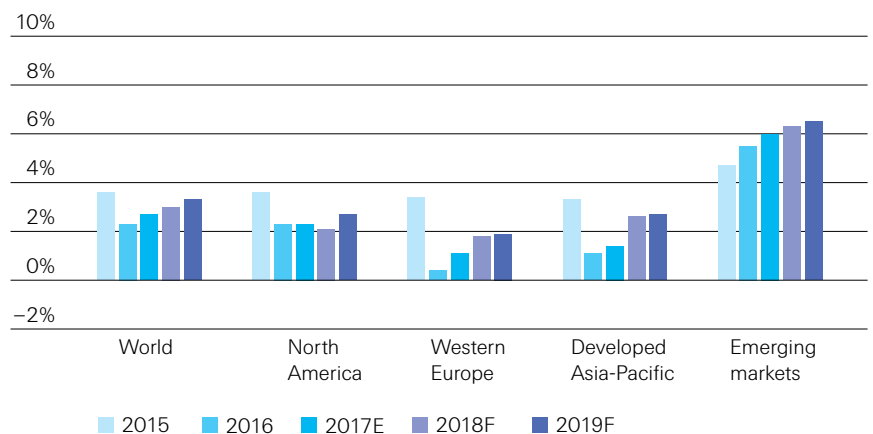
The global economic outlook for 2018 and 2019 is more positive and demand for non-life insurance is expected to increase. Emerging markets will be the main driver of growth with premiums forecast to rise by 6% to 7% in real terms in 2018 and 2019. Real growth in the advanced markets is expected to slow as macro conditions improve only modestly and inflation accelerates. Premium growth momentum is expected to accelerate slightly in nominal terms, supported by economic activity and moderate price increases.

Global non-life premiums will grow in 2018 and 2019, driven by the emerging markets.

Positive rate dynamics and demand for new types of cover will likely support premium growth in the coming years.

Rates are expected to react to the recent nat cat losses in the US and Latin America, especially in property lines. US motor premiums rates are hardening in response to the surging claims costs. Assuming average nat cat losses, overall underwriting profitability globally is therefore likely to improve in 2018. Positive rate dynamics and demand for new types of cover will likely support premium growth in the coming years. Global non-life premiums are forecast to increase by at least 3% in 2018 and 2019. The premium growth could be stronger, depending on the strength of the expected price increases. In the longer term, growth will likely be further supported by demand for cover for new and evolving risk exposures such as cyber (see *Topic update: Cyber risk*), non-physical business interruption, product recall and reputational risk insurance, especially in mature economies (see *Topic: Innovating to expand the scope of commercial insurance*).

**Figure 9**  
Real growth of direct premiums written in non-life insurance, 2015–2019F



Source: Swiss Re Institute.

## Non-life: cat losses cause earnings and capital event in reinsurance

Underwriting profitability is set to improve, but non-life sector ROE is likely remain at 7-8% given still low interest rates and weak investment returns.

Insurers' investment income has been weak for a long while running given the ultra-low interest rate environment of recent years, and will not recover soon. As interest rates gradually rise, investment income will grow only slowly, and with a lag to rising rates. As such, while profitability in non-life insurance is expected to strengthen in 2018 and 2019, the improvement will be modest with industry ROE remaining at around 7–8%.



### Topic: Innovating to expand the scope of commercial insurance<sup>31</sup>

The corporate sector has changed. Firm value is today predominantly derived from intangible assets.

Product development and innovation around data and data analytics expand the scope of insurance solutions to a wider range of threats and perils. Structural changes resulting from technological, economic, demographic, societal and geopolitical trends are driving deep transformations in the business environment. The corporate sector has evolved from being dominated by physical assets to deriving more value from intangible assets, such as intellectual property, networks, platforms, data and customer relationships.

Innovative solutions can improve the efficiency of risk transfer.

New risk transfer solutions provide protection against new types of risk borne out of these structural changes. For example, holistic covers combine multiple risks and/or interdependent triggers, and allow better alignment to the specific risk transfer needs of an insurance buyer. Holistic solutions offer efficient risk transfer by focusing on the joint distribution of all risks. Parametric solutions, which are based on indices rather than actual losses, also offer efficiency benefits. Their main advantage is clarity and neutrality: an insurance pay-out is triggered if pre-set conditions are met, providing a quick, pre-agreed pay-out without a lengthy claims investigation. For this reason, parametric solutions are particularly useful in managing earnings volatility or for business interruption type coverage, with or without physical damage to property.

New insurance solutions can reduce earnings and cash flow volatility.

Insurance solutions are also increasingly being used to protect earnings and cash flow risks. Some previously uninsurable non-core business risks can now be insured – to some degree – due to the evolution of triggers, indemnity structures, and data and modelling advances. Examples of perils that can be covered in more innovative ways include non-physical damage business interruption, cyber and product recall insurance, and protection for weather and energy price risks. Another area of expanding utilisation of risk transfer are novel solutions that enable the operation of new types of business models such as sharing economy start-ups, and where firms use risk transfer for marketing support and product differentiation.

New risk covers will continue to develop, improving insurability and expanding the scope of insurance in risk management.

Corporate risk management is becoming more sophisticated as a necessary response to disruptions in the business environment. Firms are transferring risk through insurance and financial instruments in order to reduce costs associated with financial distress, and to safeguard cash flow and thereby investment projects. They also use risk transfer to create value by lowering the cost of capital and to reduce earnings volatility. New covers will expand the scope of protection products by enlarging the boundaries of insurability and also the role of insurance in corporate risk management.

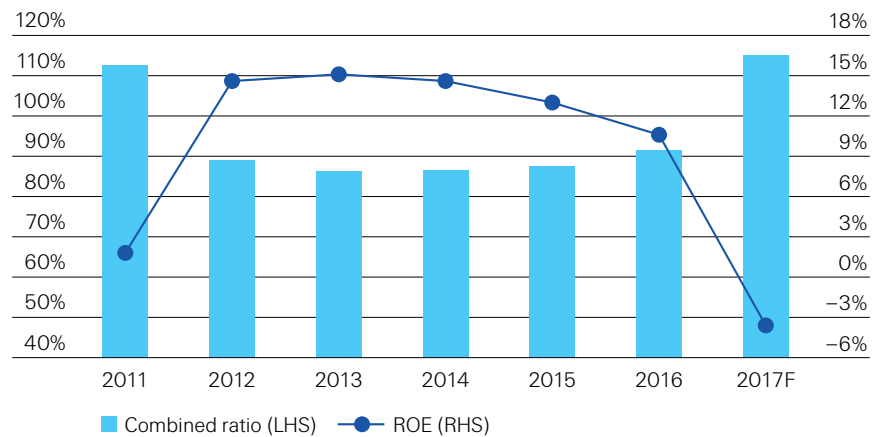
<sup>31</sup> See *sigma* 5/2017, Commercial Insurance: Innovating to expand the scope of insurability, Swiss Re Institute.

The severe hurricanes of 2017 are expected to hit full-year underwriting results in non-life reinsurance.

**Figure 10**  
Reinsurance combined ratio and ROE, 2011–2017F

**Non-life reinsurance: Nat cat losses to trigger a turnaround in underwriting conditions**

After five quiet years with low nat cat losses, the global non-life reinsurance industry is facing heavy losses from the hurricane season in the Caribbean and the US in 2017. The season’s three major storms – Harvey, Irma and Maria – alone are estimated to have caused significant insured losses (see *Topic: Hurricanes and the impact on the re/insurance market*).



Source: Swiss Re Institute.

Sector ROE will be negative in 2017...

Assuming no further large nat cat events for the rest of the year, the combined ratio for 2017 is estimated to be around 115%, with most of the increase due to the hurricane losses, and also a number of other nat cat events including cyclone Debbie in Australia, earthquakes in Mexico, and wild fires in California and Southern Europe. Accordingly, overall global industry profitability (ROE) for the full-year is forecast to come in at around -4%.

... with the still low interest rates and soft underwriting conditions also weighing down profits.

Apart from the unusually high burden from nat cat, the reinsurance industry has also continued to suffer from headwinds arising from the ongoing low interest rate environment and the recent overall softening of underwriting conditions. As a consequence, the industry ROE declined from around 15% between 2012 and 2014 to 11% in 2016. For the first six months of this year, the industry ROE further dropped to 9%, based on a combined ratio of 93% and an investment yield of 2.5%.

*Capital development: The excess capacity that has fuelled the soft market during recent years has largely evaporated*

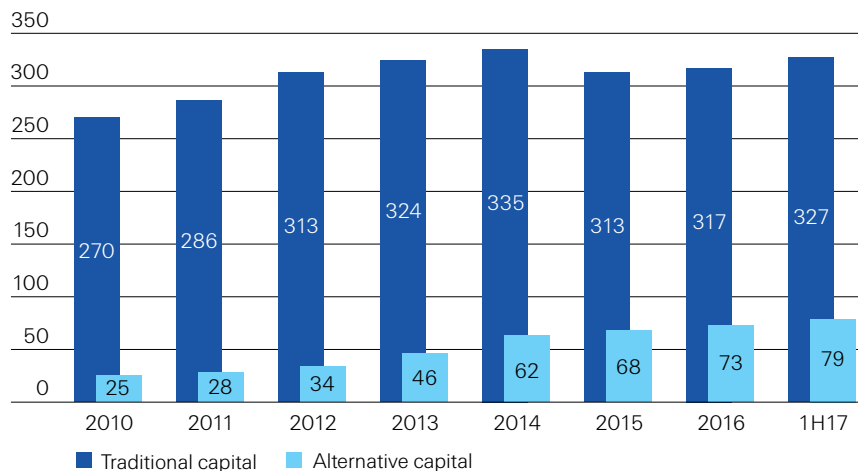
A significant amount of AC capacity has been absorbed by the cat losses.

The soft underwriting conditions of recent years partly reflected benign claims developments, but were mostly a direct consequence of excess capital in the market. Reinsurance capacity was abundant due to the considerable influx of alternative capacity (AC). Since 2010, the size of AC more than tripled and was estimated to be at around USD 79 billion in the first half of 2017. A significant amount of AC has been absorbed by the third-quarter hurricane losses, especially collateralised capacity in the retrocession market, and therefore will not be available as active capacity in the upcoming renewals season. Some of this capacity, however, will be re-loaded through the injection of new capital from investors.

Capital management had slowed the growth of traditional capital.

The capital position of global reinsurers, the traditional source of capital, grew by 3% in 1H17, after a 1% increase in 2016. The increase was almost entirely due to unrealized gains on investments, mainly associated with declines in interest rates. Over recent years, capital growth has been managed increasingly via dividend payments and share buy-back programmes, hence returning almost all of the industry’s net income to the shareholders. Nevertheless, there was still some excess capital in traditional reinsurance in 1H17 (see Figure 11), and this has been significantly reduced by hurricanes Harvey, Irma and Maria.

**Figure 11**  
Global reinsurance capital, traditional and alternative (USD billion), 2010 to 1H17



Source: Swiss Re Institute.



**Topic: Hurricanes and the impact on the re/insurance market**

Three major hurricanes made landfall in the US in 2017.

Harvey unleashed historic flooding in Houston. Soon after, Irma and Maria hit the Caribbean.

Preliminary estimates put combined insured losses from the three events at USD 93 billion...

... similar in scale to the losses resulting from hurricanes Katrina, Rita and Wilma in 2005.

After 12 years without a major hurricane (Cat 3 and above) making landfall in the US, in 2017 a record three category 4+ hurricanes came ashore and caused significant economic and insured losses. On 25 August, Harvey made landfall over the southern Texas coast as a Category 4 hurricane, the first major hurricane to make US landfall since Wilma in 2005. While the winds weakened considerably after landfall, Harvey stalled along the Texas coast, unleashing extreme precipitation and inland flooding to Houston and surrounding areas that displaced 30 000 people and damaged or destroyed 200 000 homes and businesses.

Harvey was only the first of a series of major hurricanes still to come. Just a few days later, Category 4 hurricane Irma devastated the Caribbean, while compound flooding from the combination of storm surges and extreme precipitation hit parts of Florida and South Carolina. Next, on 20 September, another Category 4 hurricane, Maria, brought massive destruction to Puerto Rico and Dominica.

Insured losses from the three hurricanes and two earthquakes in Mexico are currently estimated to be around USD 95 billion, resulting from wind, storm surge and precipitation-driven flood damages to residential and commercial properties. Given the vast geographic footprint of the three major catastrophes, affecting multiple locations in quick succession and impacting multiple classes of business, a full assessment of the losses is still pending. Preliminary estimates are thus subject to a high degree of uncertainty. The economic losses from the three events will likely be much higher given the significant flood damage – mostly uninsured – component from Hurricane Harvey in Houston, a high-population city, extended power outage in Puerto Rico due to Maria, and post-event loss amplification.<sup>32</sup>

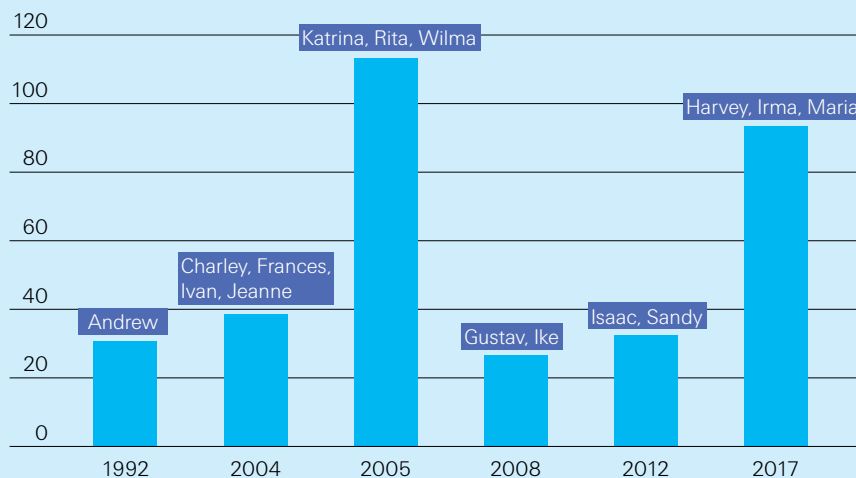
*Impact on the re/insurance industry: an earnings and capital event*

The impact of the 2017 hurricanes on the re/insurance industry will be considerable, but not unprecedented. In 2005, the Caribbean and the US were also hit by a series of powerful hurricanes, each causing insured losses in double-digit billions. Katrina, Rita and Wilma combined caused insured losses of USD 90 billion (or USD 113 billion at current prices). The hurricane seasons of 1992, 2004, 2008, and 2012 also caused major insured and economic damages.

<sup>32</sup> Price increases following a major catastrophe, caused by a (local) scarcity of resources and increased demand for reconstruction.

**Figure 12**

Losses from select North American hurricane seasons, at 2017 prices, USD billion



Source: Swiss Re Institute.

Around 50% of the insured loss will be borne by US primary insurers.

Company disclosures and assessments by financial analysts suggest there was about an equal split between primary insurance and reinsurance of the loss burden from the 2017 hurricanes. Based on this, the US primary insurance industry is expected to be liable for around USD 45 billion (ie, adding around 9 ppt to its combined ratio), or 8% of the US industry capital of around 580 billion.<sup>33</sup>

Traditional reinsurance capacity and AC have been hit hard by the 2017 losses.

The 2017 hurricane season has also had major impact on the balance sheets of the global reinsurers. According to company disclosures, the hurricanes caused losses of between 7% and 14% of global reinsurers' capital, and are expected to absorb the industry's net income for the year. Unlike previous larger catastrophe loss events, alternative capital (AC) vehicles have also been substantially affected by the 2017 hurricanes, given their high exposure to Florida-related risks and the retrocession market. Significant amounts of collateral in affected contracts are either paid out or "trapped" after putting up loss reserves. These amounts will therefore not be available for in upcoming renewals season.

Significant hardening in affected portfolios is expected.

*Improved underwriting conditions will support growth and profitability in reinsurance*

The three major hurricane events of 2017 are expected to lead to rate hardening for loss-affected accounts. Capital abundance in traditional reinsurance has been massively reduced, and AC will require additional funds from investors to operate at the same level as before the hurricane season. Given the amount of traditional and alternative capital losses, property reinsurance prices could rise significantly.

Advanced market reinsurance premium growth will likely slow in 2017, before recovering in 2018.

Global premiums in non-life reinsurance are estimated to have grown by 3% in 2017 in real terms, based on rapidly increasing cessions from emerging markets. Advanced market cessions are forecast to moderate this year. This is due to a base effect from several large transactions in the US that drove approximately 10% market growth in 2016 and are not likely to be renewed at the same volumes. In 2018, advanced markets non-life reinsurance premium growth will reflect a hardening of rates and slightly stronger nominal growth in the primary market. Demand will also be supported by new solvency regulations: non-life reinsurance has become more attractive for European insurers under Solvency II, since it better reflects the risk mitigating effect of reinsurance.

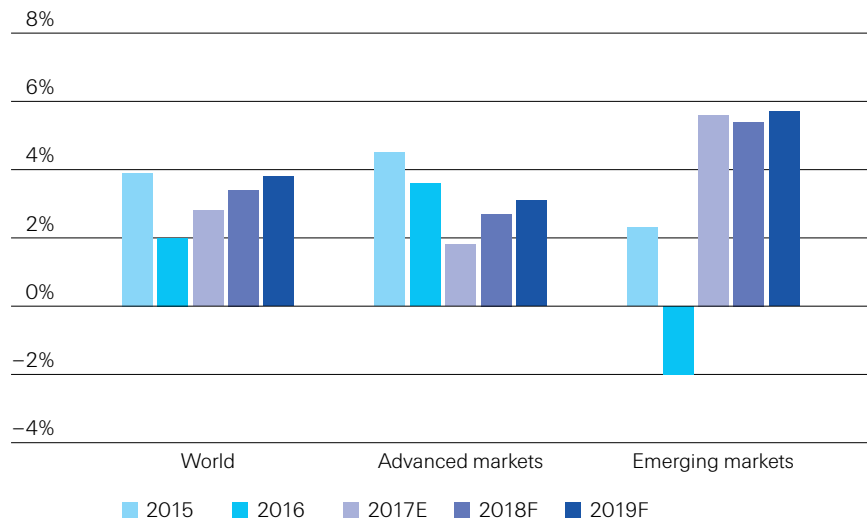
<sup>33</sup> Statutory capital by end of 2016, excluding reinsurers. Source A.M. Best.

## Non-life: cat losses cause earnings and capital event in reinsurance

Emerging market non-life reinsurance premiums are forecast to recover this year after contracting in 2016.

**Figure 13**  
Real growth of non-life reinsurance premiums, 2015–2019F

In the emerging markets, reinsurance premium growth is forecast to improve in 2017 after contracting in 2016, on the back of macroeconomic recovery (particularly in Latin America) and rising cessions in China. Several Latin American and Asian countries are strengthening their solvency regulations. The addition of risk-based charges is likely to lead to higher overall capital requirements. The growth trend in emerging market reinsurance premiums is expected to stabilise in 2018 and 2019, driven by stronger sales of primary insurance in all regions.



Source: Swiss Re Institute.



### Topic: Flood protection gap

There is a rising trend of more frequent and severe flood events.

The major hurricanes and flooding in Houston in 2017, as well as other major floods around the world, have heightened awareness of the increasing losses from extreme flooding events. Rising temperatures load the atmosphere with more water vapour, leading to more frequent extreme rainfall events during hurricanes and in severe convective storms. In aggregate, inland flood events tend to result in highest water-damage related losses, due to their high frequency. However, the losses from individual storm surge events, which occur less frequently, can be much larger.

The severity has been affected by increased urbanisation in flood-prone areas, resulting in mounting losses.

In addition, population and urbanisation are also extending into flood-prone areas. The ever-expanding area of paved surfaces in urban areas causes more rainwater to run along the surface rather than be absorbed into the ground. This is leading to more extreme and costly flooding when heavy rains fall. For example, the Houston metropolitan area has expanded rapidly in the past 15 years, with the suburban sprawl extending onto flood plains that are prone to flash floods when precipitation is extreme, such as during Hurricane Harvey. Previous heavy rain events in Houston in 2015 and 2016 (neither connected to a hurricane), and also in Mumbai in 2017, 2015 and 2005, show that inland flooding in urban areas is becoming a huge driver of losses.

Insurance penetration varies significantly from country to country, but flood risk remains mostly uninsured.

Yet, despite being the most wide-reaching and frequent hazard, a significant share of flood exposures globally remain uninsured. China has the biggest flood protection gap, but a number of flood risks in mature markets such as the US, Canada, Germany, Italy and the Netherlands are uninsured also. In the US, it is estimated that two-thirds of annual expected losses from flood events are uninsured. The Federal Emergency Management Agency provides flood coverage to homeowners through the National Flood Insurance Program (NFIP), while private flood insurance policies are only very

Collaboration between government and the insurance industry is key to closing existing flood protection gaps around the world.

The Australian experience post 2010 and 2011 is a positive example of how to increase flood insurance penetration.

niche and not widely available. To date most US households remain heavily exposed to flood risk, in total up to about USD 10 billion annually (the NFIP insures only up to USD 5 billion in total). In the rest of the world, the uninsured share of the loss potential is even higher, thus placing a heavy burden on households and societies/economies.

Adverse selection is a main explanation for the lack of private flood protection cover availability from insurers. Homeowners more exposed to flood risks are the also more likely to buy flood insurance. However, today there are risk assessment tools that allow insurers to fairly price flood risk by using location-specific risk based premiums, thus widening the insurability of flood risk. This, combined with increased risk awareness among the exposed populations, can help close the protection gap. To this end, collaboration between government (with responsibility to promote risk awareness, management and mitigation) and the insurance industry (with expertise in building innovative risk protection solutions), is crucial, as seen in the case of the risk pooling mechanism of Flood Re in the UK. Flood Re was the direct result of such collaboration to ensure that even properties at the highest risk of flood can access affordable coverage while still allowing insurers to price the hazard appropriately and at the same time discourage building in risky areas.

Government/industry collaboration was also the main driver behind the rapid increase in flood insurance penetration in Australia following devastating floods in Queensland in 2010 and 2011. The losses from those floods served as a wake-up call: they drew attention to the fact that many insureds had only partial coverage and that not all flood losses were included. The example of the Australian experience could be used elsewhere to help grow the market for flood insurance.



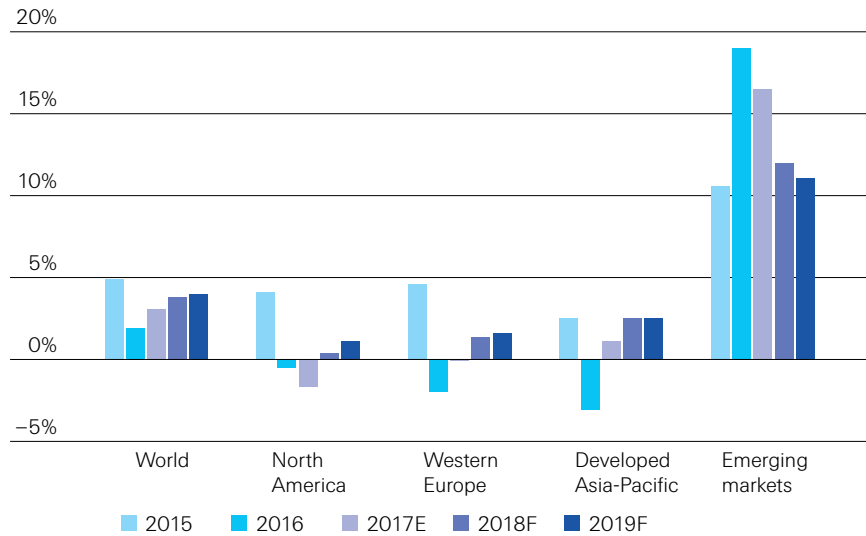
# Life re/insurance: accepting the challenge

Global life insurance premiums are estimated to have risen by 3% in 2017 in real terms, up from 2% in 2016.

**Figure 14**  
Real premium income growth for traditional life insurance

## The traditional primary life insurance market

Global primary life insurance premiums are estimated to have risen by about 3% in 2017 in real terms, up from 2% in 2016 (see Figure 14). The current year's growth rate is more than double the compound annual growth rate (CAGR) of 1.3% of the previous five years. Emerging markets, in particular China, account for most of the recent acceleration. Life premiums in advanced markets remain sluggish, down an estimated 0.2% this year, which is at least an improvement from the 2% decline in 2016.



Note: Figure provides real growth rates for life business alone (ie, excluding medical expense insurance).

Source: Swiss Re Institute.

Premium performance across the advanced markets has been mixed.

Performance in the different regions has been mixed this year, reflecting underlying country drivers:

- In North America, premiums are estimated to have declined by 2%, driven mainly by lower premium income in the US particularly of individual annuity premiums due to uncertainty around the finalisation and implementation of new Department of Labor fiduciary rules.<sup>34</sup> In Canada, on the other hand, premium development has contributed positively to regional performance.
- For Western Europe, estimates indicate that after adjusting for inflation, life premium income stagnated in 2017. Based on partial-year data, real premiums are estimated to have remained flat in the UK and declined in France. In Germany, premiums fell slightly, due largely to weaker sales of single-premium business.
- In developed Asia-Pacific, life premium income is estimated to have risen modestly in 2017 (+1%), driven by a sharp pick-up in Japan following a decline in 2016, and strong growth in Hong Kong, Singapore and Taiwan. In Hong Kong, individual life policies, especially non-linked whole life and non-linked endowment products, remain popular with mainland China residents.

<sup>34</sup> The most delicate and costly part of the rule is supposed to be implemented in January 2018 but doubts on the final version remain.

Lower investment income due to low interest rates remains a significant headwind for insurers.

In this business environment, industry profitability remains under pressure.

Stock price indicators suggest some improvement in the outlook but profitability challenges persist.

### Profitability remains under pressure

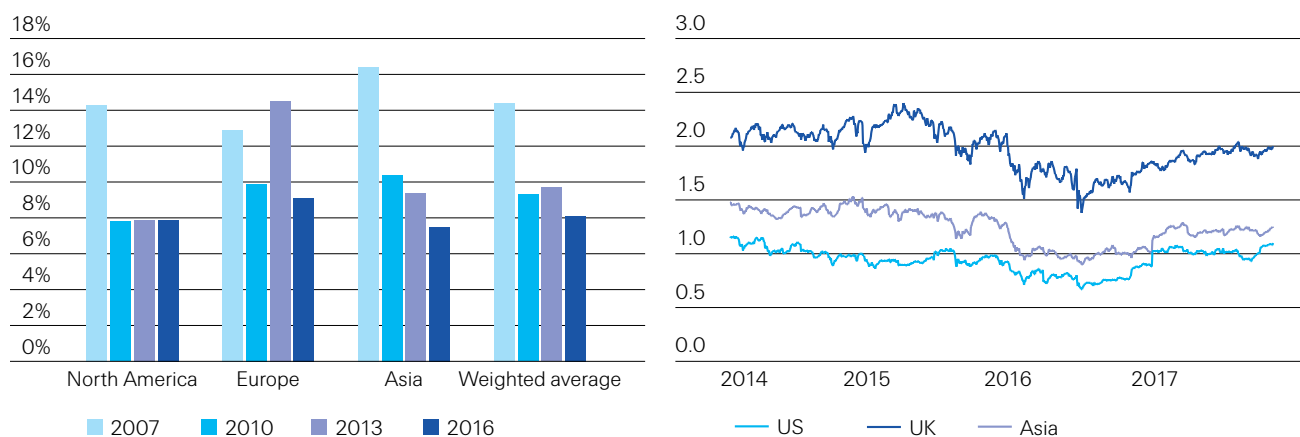
In the ongoing low interest rate environment, low government bond yields remain a significant headwind for life insurers. The challenge is particularly pronounced in Europe and Asia, where over 40% of surveyed insurers cite low yields as their top investment portfolio concern.<sup>35</sup> This reflects the legacy of existing life insurance obligations with embedded guarantees, and the restricted ability to offer sufficiently attractive returns on new business to compete with alternative retail savings products. According to surveys by Standard Life<sup>36</sup>, many insurers in Europe, Japan, South Korea and Australia are barely generating sufficient investment returns to meet their obligations to policyholders (see left panel of Figure 16).

In this business environment, life insurers' overall profitability – as measured by ROE – remains under pressure. For the life industry as a whole, ROE was 8.1% at the end of 2016, down from 10.8% in the previous year and well below the pre-crisis level of 14.4% in 2007. Such strains on rates of returns are apparent across all regions. In North America, ROE was 7.9%, in Europe 9.1% and in Asia 7.5% in 2016.

Recent developments in life insurers' equity prices – a more forward-looking indicator of profitability – suggest investors see some improvement in the outlook. Price-to-book ratios for life insurers have generally drifted higher in 2017 having weakened in 2016 (see right panel of Figure 15). However, excluding the US, the ratios have yet to return to levels of 2014–2015, indicating the persistence of challenges to profitability.

**Figure 15**

Life insurers' return on equity (left), and price-to-book ratios (right)



Left-hand panel: Based on IFRS/local GAAP data. North America: Aflac, CNO, Great West Lifeco, Lincoln National, Manulife, MetLife, Principal Financial, Prudential, Sun Life, Unum; Europe: Anadolu Hayat Emeklilik, Aviva, Legal & General, Old Mutual, Prudential PLC, St. James's Place, Standard Life, Swiss Life; Asia: Cathay FHC, China Life 'A', China Pacific 'A', Dai-ichi Life, Great Eastern, Max India, Panin Financial, Shin Kong FHC, Sony Financial, T&D Holdings.

Right-hand panel: North America: Dow Jones US Life Insurance Index, UK: FTSE 350 Life Insurance Index; Asia: BI Asia Pacific Life Insurance Valuation.

Source: Bloomberg, Swiss Re Institute.

<sup>35</sup> GSAM Insurance Survey 2017, Goldman Sachs Asset Management, April 2017.

<sup>36</sup> European Insurance Survey 2015 and Asia Pacific Insurance Survey 2017, Standard Life.

## Life re/insurance: accepting the challenge

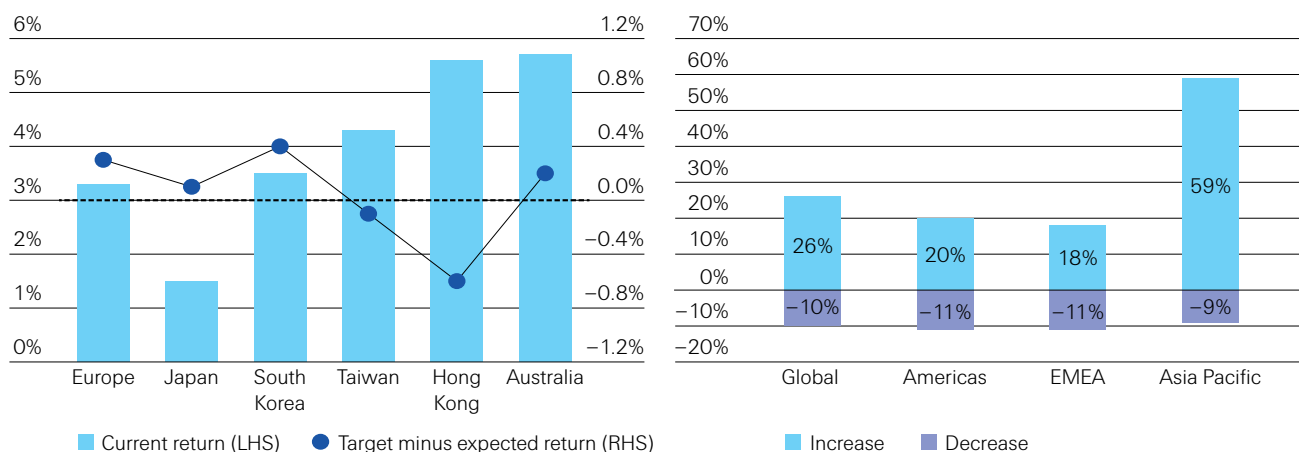
Insurers continue to reconfigure their investment portfolios in search of higher yields.

### Reallocation of investments towards riskier assets

In response to the challenging interest rate environment, insurers have continued to reconfigure their investment portfolios in search of increased returns, as demonstrated by an increased appetite for riskier and less liquid asset classes. Insurers in Asia-Pacific lead the move towards more risky assets, with close to 60% indicating that they intend to increase overall investment risk compared with 26% globally (see right panel of Figure 16). Many anticipate increased allocations to higher yielding assets such as middle market corporate loans, infrastructure debt and collateralised loan obligations.

**Figure 16**

Current and expected investment returns (left panel) and share of insurers intending to increase/decrease investment risk (right panel)



Right panel: Share of respondents that said they planned to increase, decrease, or maintain the overall risk in their investment portfolios in the following 12 months.

Source: *European Insurance Survey 2015* and *Asia Pacific Insurance Survey 2017*, Standard Life (left panel), *GSAM Insurance Survey 2017*, Goldman Sachs Asset Management (right panel)

The introduction of risk-based solvency regimes has impacted insurers' investment and risk management decisions.

However, the shift to risk-based capital standards around the world means that insurers must balance increased risk appetite with potentially increased regulatory oversight. In particular, in Europe the Solvency II (SII) directive which came into force in January 2016 has introduced more stringent capital adequacy requirements for assets and also specific measurement and disclosure/reporting requirements. The adoption of SII regulations has reportedly become an influential investment and risk management consideration, as noted by nearly 70% of European-based insurers.<sup>37</sup>

<sup>37</sup> *A Reversal in Expectations*, GSAM Insurance Asset Management Survey, April 2017.

So far, European insurers have adapted well to Solvency II.

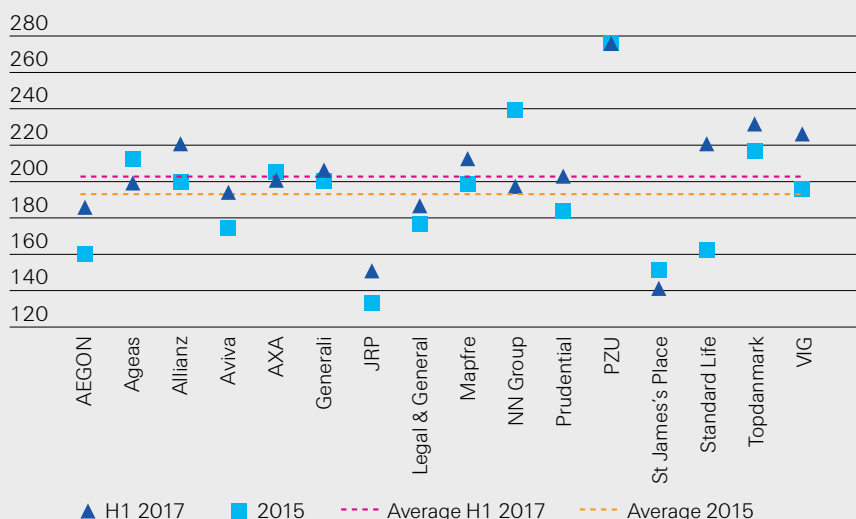
Nonetheless, transitional arrangements designed to ensure smooth adjustment continue to provide important support.

### European life insurers and Solvency II

Large insurers have generally coped well with the newly introduced SII regime. Beyond the enhanced compliance requirements, insurance companies have sought to mitigate the impact of credit and government spread volatility on their solvency ratios through asset reallocation, asset/liability management actions and a new design for their asset management mandates. Most of the major European insurance groups have increased their solvency positions compared with their reported capital positions at the end of 2015 (see Figure 17). More generally, close to two thirds of insurers believe that their industry peer group is adequately capitalised.<sup>38</sup>

At the same time, transitional regulatory measures adopted to limit pro-cyclicality and to enable a smooth transition to the new SII framework continue to provide important support. According to Moody's, long-term guarantee measures such as the volatility adjustment and the matching adjustment, have underpinned the reported solvency ratios of many UK, Dutch, German, French and Belgian life insurers.<sup>39</sup> The European Insurance and Occupational Pensions Authority (EIOPA) will review these measures before 2021. In the face of such scrutiny, life insurers will therefore need to continue to adjust their asset and insurance portfolios to ensure the full economic costs, including the costs of capital to support the business, are adequately reflected in their business models.

**Figure 17**  
Group solvency ratios for selected European life/composite insurers



Source: Company accounts, Solvency II Wire, J.P. Morgan, Swiss Re Institute.

Current market conditions have led some life insurers, especially in the US, to change their business strategy.

### Increased focus on refining product offerings and enhanced in-force management

As well as shifts in their asset allocation, several life insurers have sought to restructure their insurance portfolios to focus on more profitable and/or less capital intensive business lines. For instance in the US, some major life insurers have either divested business units or moved them to other entities. One insurer has cited the increased regulatory capital requirements following its designation as a Systemically Important Financial Institution (SIFI) as a key reason for this action.<sup>40</sup>

<sup>38</sup> Ibid.

<sup>39</sup> *European Insurance: Solvency II Disclosures Shed Light On Areas of Future Regulatory Scrutiny*, Moodys, September 2017.

<sup>40</sup> There are three notable examples. The first is MetLife, which in 2016 announced that it would divest a large part of its US retail business to focus on group life and employee benefits business. The second is AIG, which moved its individual life business to an offshore captive of Hannover Re. The third is AXA, which plans an IPO of its US life insurance and asset management business next year.

## Life re/insurance: accepting the challenge

Long-term profitability will depend on how well in-force books are managed and customer experience is improved.

Global life insurance premiums are forecast to rise by around 4% in real terms in each of the next two years.

Global real medex insurance premiums are estimated to have grown by 4% in 2017, down from 5% in 2016.

**Figure 18**  
Real premium income growth for medical expense insurance

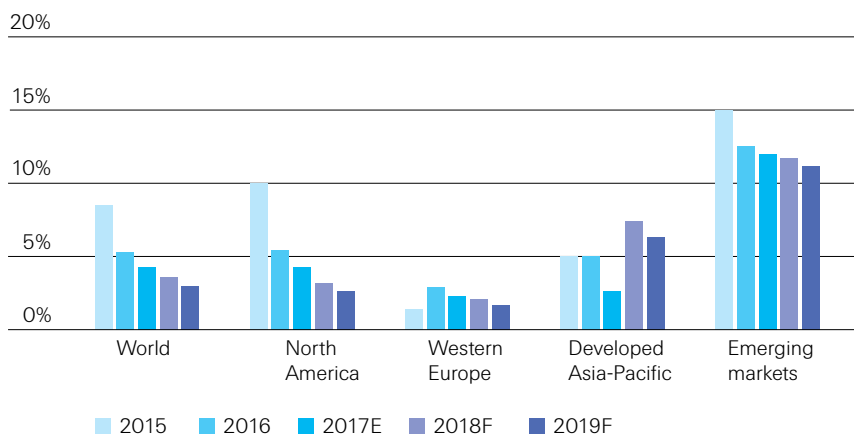
In-force management is also increasingly recognised as an effective tool to improve profitability. For example, persistency programmes to decelerate lapse rates can be more cost-effective than attempts to attract new customers. However, effective in-force management requires a holistic view of the business and ideally includes all functional areas (asset, liability, capital and product management). In this context, life insurers are showing renewed interest in closed life book disposals as a means to optimise capital.<sup>41</sup>

### Outlook 2018/19: global growth driven by Asian markets

Global life insurance premiums in real terms are forecast to rise by around 4% annually over the next two years (see Figure 14). The major driver will remain the emerging markets, where stable, robust economic growth; expanding populations; urbanisation; and, a rising middle class underpin the positive outlook. Life premium growth in the emerging markets is expected to be around 10% in 2018 and 2019. Premiums in the advanced markets are expected to grow by a more modest 1–2% after adjusting for inflation. In developed Asia-Pacific, premiums are forecast to grow by 2–3% in 2018 and 2019.

### The medical expense insurance market

Global medical expense (medex) insurance premiums adjusted for inflation are estimated to have grown by 4% in 2017, down from 5% last year (see Figure 18). The slowdown reflects weaker results in the US after a period of strong growth linked to the introduction of the Affordable Care Act (ACA). However, under the new Administration and Congress, the future of ACA has become highly uncertain (see *The Affordable Care Act under the current US Administration*). In Western Europe, premiums are estimated to have risen by around 2% in 2017 (2016: +3%). Medex premiums in developed Asia-Pacific grew by around 3% this year.



Source: Swiss Re Institute.

So far, attempts to repeal the ACA have failed.

### The Affordable Care Act under the current US Administration

Reforming the Affordable Care Act (ACA) has been a major political issue for the current US Administration. So far, attempts to pass an associated law have failed.<sup>42</sup> This is largely because of the inability of lawmakers to find a middle-ground between repealing some major elements of the ACA, like the individual mandate or the expansion of Medicaid, and preventing a major loss in insurance coverage for the population.

<sup>41</sup> See forthcoming Swiss Re Institute, *sigma* 6/2017 on managing life in-force business.

<sup>42</sup> Three of them leading to a vote.

In response, President Trump has announced that CSR subsidy payments to insurers will stop...

... which is expected to result in a rise in premiums.

Insurers have already factored in rate increases in their filings for the 2018 ACA enrolment period. Even so, their 4Q17 earnings may be weaker.

Congress is drafting a law to restore CSR payments, but adoption is uncertain

Faced with this failure of Congress to act, last month the US Administration announced that it was ceasing payments of “cost-sharing reduction” subsidies (CSR) to insurers, effective immediately. In addition, it has relaxed ACA rules to allow the sale of some health plans with pared-down benefit levels. The decision to stop CSR payments was highly contested. Under the ACA, insurers are required to offer low-deductible plans to low-income enrollees and in exchange receive payments from federal government in the form of a cost-sharing subsidy.<sup>43</sup> It is estimated that 58% of ACA enrollees benefit from CSR subsidies.<sup>44</sup>

Stopping federal subsidy payments will imply a rise in premiums for the specific plans concerned (“silver-level” plans) which insurers still need to offer.<sup>45</sup> The Congressional Budget Office (CBO), which is an independent agency in charge of evaluating proposed law changes, estimated that ending the CSR payments would increase premium rates for silver plans by 20% in 2018.<sup>46</sup> This rise would not affect low-income enrollees since the premium subsidies they receive would also rise in order to cap premium payments, but higher-income enrollees who do not receive subsidies will face higher premiums.

According to insurers’ preliminary filings to state regulators for the 2018 ACA enrolment period, much of those premium rate increases have already been factored in as insurers had anticipated the cessation of CSR payments. The rate increases range from 2% to 23% depending on the state.<sup>47</sup> Without the Administration’s decision to stop CSR payments, it is estimated that premium increases in 2018 on ACA marketplaces would have been smaller (mid-to-high single digit increases according to a Brookings study<sup>48</sup>) since insurers’ profitability had been improving in 2017 based on rate adjustments for 2016. Profitability is now expected to deteriorate in the last quarter of 2017 due to the loss of revenue from CSR reimbursements.<sup>49</sup>

This destabilising policy change comes at a time when there have been concerns about the viability of the ACA regime, with some major insurers exiting the exchange market and leaving some counties without an insurer in their marketplace. In response, there have been attempts in Congress to restore the reimbursements. Two Senators recently announced that they had reached a bipartisan deal that would guarantee the payment of the CSR subsidies, restore the previously-cut outreach funding offering guidance for sign-ups on the exchanges, and allow states to more easily experiment with new ways of subsidizing health insurance. Although it has bipartisan support in the Senate, the deal’s prospects are uncertain in the House and it still needs to be voted on.

<sup>43</sup> In practice, “silver” plans generally have an actuarial value of 70% implying that insurers expect to pay 70% of the covered medical expenses on average. The ACA however requires insurers to increase the actuarial value of those plans for low-income enrollees, which is done by creating variants with lower cost-sharing (deductibles, out-of-pocket limits, etc.), ie, higher-quality plans. Insurers are then periodically reimbursed for their additional claims expenses.

<sup>44</sup> See *What’s the Near-Term Outlook for the Affordable Care Act?*, The Henry J. Kaiser Family Foundation, 4 August 2017, [www.kff.org/health-reform/issue-brief/whats-the-near-term-outlook-for-the-affordable-care-act/](http://www.kff.org/health-reform/issue-brief/whats-the-near-term-outlook-for-the-affordable-care-act/)

<sup>45</sup> 18 states and the District of Columbia filed a lawsuit against the Trump Administration to defend the CSR subsidies, but their motion was rejected on 25 October 2017 by a federal court ruling.

<sup>46</sup> *The Effects of Terminating Payments for Cost-Sharing Reductions*, Congressional Budget Office, 15 August 2017, [www.cbo.gov/publication/53009](http://www.cbo.gov/publication/53009)

<sup>47</sup> See *An Early Look at 2018 Premium Changes and Insurer Participation on ACA Exchanges*, The Henry J. Kaiser Family Foundation, 10 August 2017, [www.kff.org/health-reform/issue-brief/an-early-look-at-2018-premium-changes-and-insurer-participation-on-aca-exchanges/](http://www.kff.org/health-reform/issue-brief/an-early-look-at-2018-premium-changes-and-insurer-participation-on-aca-exchanges/)

<sup>48</sup> *Taking Stock of Insurer Financial Performance in the Individual Health Insurance Market Through 2017*, USC-Brookings Schaeffer Initiative for Health Policy, October 2017 [www.brookings.edu/wp-content/uploads/2017/10/individualmarketprofitability.pdf](http://www.brookings.edu/wp-content/uploads/2017/10/individualmarketprofitability.pdf)

<sup>49</sup> “Cost-sharing subsidy payments cancelled two weeks prior to open enrolment – What’s next for insurers”, *Best’s Briefing*, October 2017.

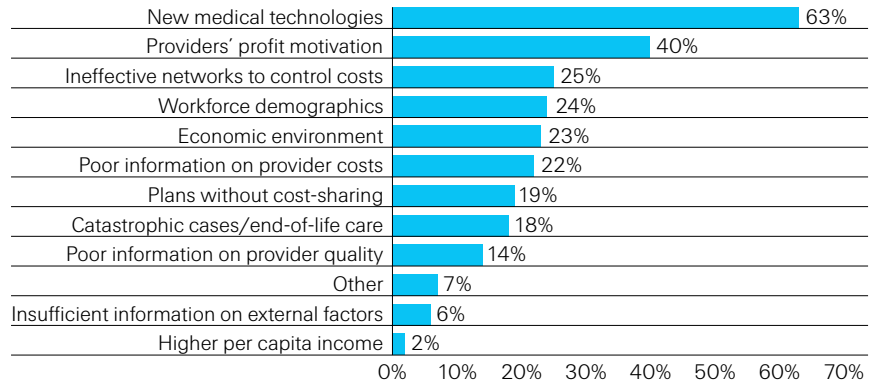
## Life re/insurance: accepting the challenge

Rising medical costs strain governments, employers and households worldwide.

Rising medical costs stretch health care budgets of governments, employers and households worldwide. According to a recent survey, medical cost have increased by 5% globally (net of general inflation) in 2017.<sup>50</sup> In North America, medical costs were reported to have increased by 6–7%, in Europe by 3% and in Asia Pacific by 7%. The survey responses indicate that health insurers see new medical technologies and misaligned incentives of providers as the two most significant factors behind the surge in healthcare costs (see Figure 19). Against this background, Swiss Re Institute forecasts global medex premiums to grow by around 3.5% in 2018 and 3% in 2019.

**Figure 19**

Factors driving medical expenditure per capita (survey responses, choice of the three most significant drivers)



Notes: Based on a survey conducted in October/November 2016 with responses from 231 medical expense insurers from 79 countries and a market share of at least 10% in the group business.

Source: 2017 Global Medical Trends Survey Report, Willis Towers Watson, 2017.

### The life reinsurance market

Despite a sharp pick up in 2016, underlying growth in global reinsurance premiums remains modest.

Global cessions picked up sharply in 2016, but this was due largely to a one-off reinsurance transaction involving a US life insurer<sup>51</sup> (see Table 2). Underlying reinsurance premium growth has remained relatively subdued this year. After adjusting for inflation, worldwide reinsurance premiums are estimated to have grown on average by less than 0.5% during 2015 to 2017. This compares with average real growth of around 2% between 2007 and 2014.

**Table 2**

Real premium income growth for traditional reinsurance

Country	2015	2016	2017E	2018F	2019F
World	-9.3%	7.9%	1.1%	1.2%	1.2%
Advanced markets	-0.4%	7.2%	-1.0%	-0.4%	-0.6%
North America	0.2%	7.0%	-2.4%	-2.4%	-2.2%
Western Europe	1.5%	1.7%	1.0%	1.0%	0.6%
Developed Asia-Pacific	-6.1%	18.1%	2.3%	6.1%	4.6%
Emerging markets	-43.9%	12.2%	15.7%	10.8%	10.1%

Notes: Table provides real growth rates for life business alone (ie, excluding medex).

E=estimates, F=forecasts.

Source: Swiss Re Institute.

Large, one-off transactions are an important source of revenue for life reinsurers.

Against this background, life reinsurers have sought to increase revenues through large, individual risk transfer transactions that help primary insurers stabilise income and/or bolster their balance sheets. The introduction of risk-based capital regimes has provided fertile ground. In Europe, for example, SII has underpinned interest in

<sup>50</sup> See 2017 Global Medical Trends Survey Report, Towers Willis Watson, 2017.

<sup>51</sup> The deal included AIG and Hannover Re.



reinsurance to boost available capital, reduce required regulatory capital or to economise on reserves.

Longevity risk transfer is another growth area.

#### *Growth opportunities through longevity risk transfers*

Another area of growth for reinsurers has been longevity risk transfer. The availability of longevity reinsurance has become key to the pricing of annuity transactions, as insurers offering bulk annuity, pension buy-in or buy-out transactions typically look to simultaneously access reinsurance capacity to hedge at least part of the associated longevity risk inherent in these lines.<sup>52</sup> Such “back-to-back” reinsurance arrangements enable primary insurers to monetise their expertise in sourcing, analysing and pricing risk, without having to commit full balance sheet capacity to hold the business for its full duration.<sup>53</sup>

After slowing in 2016, longevity risk transfer transactions picked up again in the first half of 2017.

After slowing in 2016, longevity risk transfer transactions – both in the form of reinsurance and swaps – picked up again in the first half of 2017, with the pipeline for the rest of the year reportedly remaining strong.<sup>54</sup> In aggregate, transactions amounted to a little over USD 11 billion in the first half of this year, nearly double the corresponding figure for 1H16, including continued demand from some pension schemes to carry out repeat buy-in transactions.<sup>55</sup> The swaps market is also progressively opening up for modest-sized transactions, making longevity swaps more accessible to smaller pension schemes.<sup>56</sup>

**Table 3**

Longevity swaps and longevity risk transfer transactions in 2017

Date	Fund/Sponsor	Provider(s)	Solution	Transaction size
January	Unnamed defined benefit pension scheme	Zurich/SCOR	Longevity swap & reinsurance	USD 371 million
March	Rothsay Life	Prudential Financial	Longevity reinsurance	USD 1200 million
June	Skanska pension fund	Zurich/SCOR	Longevity swap & reinsurance	USD 384 million
July	Pension Insurance Corporation plc	SCOR	Longevity swap & reinsurance	USD 1299 million
August	British Airways Pension Scheme	Partner Re, Canada Life Re	Longevity swap & reinsurance	USD 2073 million
August	SSE plc pensions	Pension Insurance Corporation plc, Legal & General	Buy-ins, longevity insurance & reinsurance	USD 1555 million
September	MMC UK Pension Fund	Canada Life Reinsurance, The Prudential Insurance Company of America (PICA)	Longevity swap & reinsurance	USD 4338 million

Source: Artemis, [www.artemis.bm/library/longevity\\_swaps\\_risk\\_transfers.html](http://www.artemis.bm/library/longevity_swaps_risk_transfers.html)

<sup>52</sup> A buy-out is where a pension scheme pays a premium to an insurer and in return the insurer takes on all responsibility for paying the pensions for the scheme’s insured members. This transfers all investment, inflation and longevity risks associated with the insured benefits to the insurer. A buy-in is a similar arrangement to a buy-out; but rather than the insurer taking on responsibility for paying the members’ pensions, the insurer instead makes these payments to the scheme which, in turn, pays the members.

<sup>53</sup> See “Reinsurance availability increasingly important in longevity risk transfer”, [www.artemis.bm](http://www.artemis.bm), 21 September 2017, [www.artemis.bm/blog/2017/09/21/reinsurance-availability-increasingly-important-in-longevity-risk-transfer/](http://www.artemis.bm/blog/2017/09/21/reinsurance-availability-increasingly-important-in-longevity-risk-transfer/)

<sup>54</sup> According to consultants Lane Clark Peacock, 2017 is well on track to exceed GBP 10 billion of buy-ins/ buyouts for a fourth year running, and could potentially exceed the record GBP 13.2 billion of 2014.

<sup>55</sup> *Bulk Annuity Report*, Barnett & Waddington, 2017.

<sup>56</sup> Some market commentators also speculate that innovative alternative risk transfer instruments will develop to attract capital market investors to underwrite longevity risks. In particular, new types of ‘sidecars’ – vehicles that allow investors to take on the risk and benefit from the return of specific books of insurance business – may allow investors to co-invest with the re/insurers and boost capacity in the pension and longevity risk transfer market. See “Sidecars to let investors access pension & longevity risk: Kessler, Prudential”, [www.artemis.bm](http://www.artemis.bm), 30 September 2016 [www.artemis.bm/blog/2016/09/30/sidecars-to-let-investors-access-pension-longevity-risk-kessler-prudential/](http://www.artemis.bm/blog/2016/09/30/sidecars-to-let-investors-access-pension-longevity-risk-kessler-prudential/)

## Life re/insurance: accepting the challenge

Global life reinsurance premiums are forecast to grow only marginally over the next two years.

New risk-based regulatory frameworks and insurance accounting reforms could support demand for reinsurance.

### *Life reinsurance outlook 2018/19: marginal growth expected*

Continued recovery in primary insurance should support growth in life reinsurance revenues, including a recovery in traditional renewable (ie, flow) business. Premium growth will nonetheless likely remain modest, especially in the large advanced markets. In real terms, global life reinsurance premiums are forecast to increase by just over 1% in 2018. Premiums in the advanced markets are projected to decline after adjusting for inflation, driven by developments in the US where cession rates continue their long-term down trend and growth in the primary market remains weak. In Western European, where cession rates are usually lower, reinsurance premiums are forecast to grow by about 1%. The strongest contribution to real growth in the advanced markets will likely come from developed Asia.

Bespoke transactions will continue to be an important source of income for life reinsurers as their cedents adjust to new regulatory solvency regimes and various transitional arrangements are phased out. The introduction of the new accounting standard (see *Topic: IFRS 17*) could also stimulate demand for reinsurance. This may be in the form of regular reinsurance products to hedge underwriting risks, or tailor-made reinsurance structures that provide targeted asset-liability mismatch cover, both of which can help to reduce volatility in insurers' financial results.<sup>57</sup>



### Topic: IFRS17

A new international accounting standard for insurance contracts (IFRS 17) will come into force in 2021.

This will value insurance liabilities based on the risk-adjusted cash flows plus a margin for as-yet unearned profit.

Recognised revenues will no longer include investment components of insurance contracts.

The reforms will likely lead to increased volatility in insurers' reported equity and profits.

In May 2017, the International Accounting Standards Board (IASB) finished its long-standing project to develop a new international accounting standard for insurance contracts. The new standard, IFRS 17, replaces IFRS 4, which permits a wide variety of accounting practices in different jurisdictions.<sup>58</sup> IFRS 17 will become effective from 1 January 2021, with prior-year comparative reporting required, although some countries have chosen not to adopt it. Most notably, the US Financial Accounting Standards Board will instead make targeted improvements to its existing US GAAP.

The key features of IFRS17 are broadly as set out in earlier consultation drafts. In particular, the framework involves measuring insurance liabilities based on expected cash flows adjusted for the compensation an insurer requires for bearing uncertainty about the amount and timing of these cash flows as it fulfils the contract. In addition, any insurance liability includes a contractual service margin (CSM), which represents the unearned profit on the policy. Liabilities are re-measured in each reporting period and valuation changes are reflected in published financial statements.

In a departure from the draft proposals, however, premiums written will no longer drive the top line: investment elements of insurance contracts will not be considered revenue. Amounts that the policyholder will always receive regardless of whether an insured event happens will not feature in the income statement but instead be recognised as liabilities directly in the balance sheet. This aligns the presentation of insurers' revenue with firms in other industries: income is allocated to periods in proportion to the value of expected coverage and other services provided in that period, and claims are presented when incurred.

IFRS 17 is a major departure from current accounting practice. While it is principles-based and allows discretion in how to calibrate and allocate valuation changes, the reform will likely increase volatility in reported equity capital and

<sup>57</sup> For further discussion of possible reinsurance solutions that could address the likely increased volatility in insurers' income statements and/or balance sheets see *sigma* 6/2012: Insurance accounting reform: a glass half empty or half full? Swiss Re.

<sup>58</sup> IFRS 17 applies to insurance contracts issued, to all reinsurance contracts, and to investment contracts with discretionary participating features if an entity also issues insurance contracts.

profits.<sup>59</sup> Economic mismatches between assets and liabilities will become more visible. For example, movements in long-term insurance liabilities will reflect not only current market interest rates but also the impact of embedded policyholder guarantees, obligations which may not be adequately matched by corresponding assets.

As well as absorbing the costs of implementation, insurers will need improved communication to explain more volatile financial results.

Implementing IFRS 17 will create challenges for many insurers. From an operational perspective, it will likely require significant investment in new data capture, systems and processes. For international insurers with overseas subsidiaries, the added complexity of having to prepare financial statements under various valuation frameworks – GAAP, Solvency II, IFRS etc. – will only add to the operational challenges.<sup>60</sup> According to a recent global survey, over 60% of insurers plan to invest in both new accounting and actuarial systems to meet the demands of the new framework, although only 15% have actually started implementation projects.<sup>61</sup> The increased volatility in their financial results will put increased emphasis on insurers to better communicate their underlying business performance including the sources of income and balance sheet volatility. This will help ensure that insurers' costs of capital are not unduly driven higher by investors who misinterpret period-to-period swings in reported financial results.

M&A activity may also provide opportunities for reinsurers, although new US principles-based reserving could crimp demand for reinsurance.

In addition, ongoing pockets of M&A activity in the insurance sector may present opportunities for life reinsurers as firms involved in a deal restructure their balance sheets either pre- or post-acquisition. In contrast, the move to principle-based reserving (PBR) in the US will likely limit the use of reinsurance as a vehicle to reduce redundant reserves and/or provide a source of capital relief.

PBR is intended to move to an approach that better reflects the true risks and obligations of an insurer.

#### Principle-based reserving (PBR) in the US

After years of discussion, PBR was finally adopted by 46 US states in January 2017. The new regulation is intended to move from the previous formulaic approach, which resulted in redundant reserves for many products, to a more principle-based one to reflect better an insurer's true risks and obligations. Insurance companies have three years to transition to PBR (ie, up to January 2020), when all new policies for term, universal life, whole life and variable life will have to follow the new reserving rule.

This may lead to lower reserves for some products, although high implementation costs will hit insurers' profits.

The impact on the primary industry is difficult to evaluate not least because of the heterogeneity of current reserve financing practices. For some products like term life, PBR is expected to be favourable via lower reserving needs. Consequently, some commentators expect premiums to be lowered as a result.<sup>62</sup> At the same time, the high cost of implementation, even if spread over time, may be challenging to absorb, especially for smaller insurers.<sup>63</sup>

PBR may reduce demand for excess reserve financing from reinsurers.

Reinsurance companies with significant involvement in life insurer excess reserve financing may face a decrease in demand for this type of business due to PBR. However, in-force transactions will still be attractive since they are not affected by the new approach.

<sup>59</sup> Under IFRS 17, entities can choose to recognise the impact of changes in discount rates and other assumptions that relate to financial risks either in profit or loss or in other comprehensive income (OCI). The OCI option for insurance liabilities reduces volatility in profit or loss for insurers where financial assets are measured at amortized cost or fair value through OCI under IFRS 9.

<sup>60</sup> To address some of these challenges, Swiss Re in partnerships with Deloitte, KPMG and IFB has recently developed the Baseline Delta Approach which facilitates parallel construction of financial statements under multiple valuation methods in a simple, effective way.

<sup>61</sup> *IFRS 17 preparedness: 2017 survey feedback*, Milliman, June 2017.

<sup>62</sup> "New rules could mean lower life insurance rates", *CBS News*, 16 March 2017, [www.cbsnews.com/news/new-rules-could-mean-lower-life-insurance-rates/](http://www.cbsnews.com/news/new-rules-could-mean-lower-life-insurance-rates/)

<sup>63</sup> Under certain conditions, smaller insurers may apply for an exemption. See R: Mazyck, *CIPC Newsletter: The Future of Life Insurance Regulation – Principle-Based Reserves*, National Association of Insurance Commissioners and the Center for Insurance Policy and Research, January 2013, [www.naic.org/cipr\\_newsletter\\_archive/vol6\\_life\\_insurance\\_future\\_pbr.pdf](http://www.naic.org/cipr_newsletter_archive/vol6_life_insurance_future_pbr.pdf)

# Emerging markets: stable non-life and strong life business

Non-life markets in emerging Asia have continued to outperform in 2017.

## Non-life in 2017: stabilising premium growth

Emerging market non-life premiums are estimated to have risen by 6% in 2017, slightly faster than the 5.5% increase of 2016 (see Figure 9). Premium growth accelerated in emerging Asia, remained stable in CEE, and returned to positive territory (after contracting in 2016) in Latin America and sub-Saharan Africa. Emerging Asia outperformed again, with non-life premiums estimated to have grown by close to 10% in 2017, up from 8.7% a year earlier. Premiums in China and India have grown particularly rapidly, underpinned by policy support for some business lines (agro and liability in China, and crop insurance in India). In Southeast Asia, motor was the main growth driver, except in Malaysia where weak car sales have pressured motor and overall non-life insurance. Region-wide, sustained robust investment in infrastructure has supported solid growth in property insurance. And, although underwriting margins in emerging Asia remain under pressure, overall sector profitability has benefited from stronger investment results in 2017.

There has been a return to positive premium growth in Latin America.

In Latin America, non-life premiums have grown by 1% in 2017, after contracting by 1.8% in 2016. Motor has been the key growth driver. In Brazil, the decline in non-life premiums has slowed this year while in Argentina, there has been a rebound across all major lines of business (in 2016, non-life premiums were down 3% as the economy slipped into recession). A lifting of investment restrictions in Argentina, so that insurers now only have to invest 3% rather than 18% in government-approved projects, bodes well for industry profitability. In Mexico, motor premiums continue to grow rapidly given record vehicle sales and higher premium rates. However, full-year non-life sector profitability (particularly in property) will likely be hit by the two major earthquakes (Mw 7.1 in Chiapas and Mw 8.1 in Puebla) that struck in the third quarter of this year.

Premium growth in CEE eased slightly, due to the contraction in Russia.

Non-life premium growth in CEE has eased slightly to below 5% in 2017 from 5.7% in 2016. Strong growth in Poland (+21%) and Hungary (+9%) has been more than offset by the drag from weakness in Russia (premiums down 5%), the largest non-life market in the region. The double-digit growth in Poland has been driven by a 12.5% increase in tariffs for mandatory third-party liability (MTPL) cover, which has also led to improved profitability in motor. Property lines have also recorded better underwriting results. In contrast, in Russia MTPL insurance has remained heavily loss-making. In the Czech Republic, non-life premium growth has been stable, while in Ukraine premium growth has accelerated driven by vigorous demand in aviation and health business.

Weakness in the Turkish and Saudi Arabian markets has dragged on overall non-life performance in the Middle East.

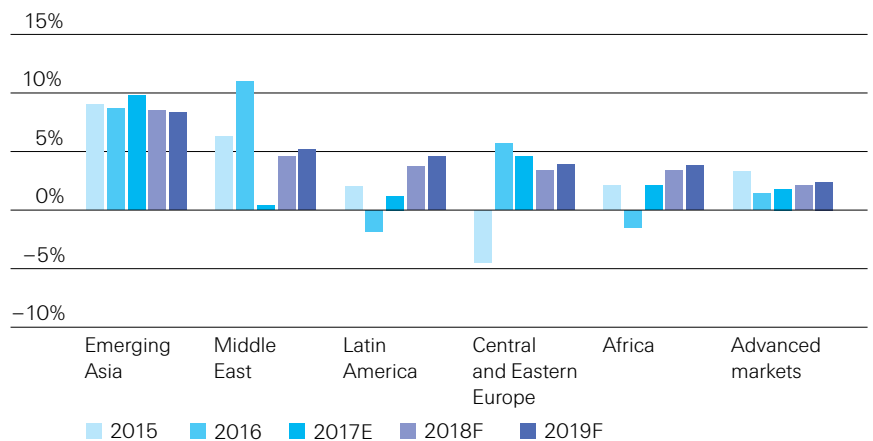
In the Middle East, non-life business has registered little growth in 2017 after a healthy 11% increase in premiums in 2016. This year's outcome has been mainly due to sluggish markets in Turkey and Saudi Arabia. In Turkey, premiums are estimated to have contracted by 4% as a result of a sharp decline in motor following implementation of a premium ceiling in April 2017. In Saudi Arabia, non-life premiums are estimated to have declined by 3% in 2017, with growth in the health sector offset by weakness in motor due to slow car sales and the impact of no-claims discount commencing 1 April 2017. Nevertheless, motor profitability improved on lower loss ratios. In UAE, non-life premium growth has remained strong at around 7%, bolstered by regulatory initiatives that include the introduction of higher unified motor premium rates in January 2017 and compulsory medical insurance. Nevertheless, underwriting results in UAE remain under pressure due to stiff price competition and limited product differentiation.

Non-life business in Africa has improved as economic conditions have stabilised.

In Africa, non-life insurance business has improved in 2017, but remains weak in many markets due to the economic downturn that began in 2016. Markets in oil exporting countries have been most affected due to declines in prices and demand for energy-related insurance, as well as the recession, which has reduced demand across all business lines. Nonetheless, region-wide in 2017 non-life premiums are estimated to have grown by around 2%, after having contracted by 2% in 2016, as economic conditions, particularly in Nigeria and Angola, have gradually improved and as confidence in these economies strengthens. In South Africa, non-life

premiums have barely grown in 2017, as weak economic performance and high interest rates restrain discretionary spending and insurance demand. Underwriting profits have been hit by severe storms in the Western and Southern Cape in early June 2017, and losses from several man-made events. Market intelligence suggests that underwriting results in many markets in sub-Saharan Africa (SSA) have weakened (but remain positive) because cost inflation and currency depreciation have pushed up claims and expenses. For instance in Kenya, worsening profitability in personal motor because of higher repair and claims costs (due to (1) currency depreciation-driven price increases for imported spare parts; and (2) policyholder fraud), are the main reasons for weaker non-life underwriting results overall.

**Figure 20**  
Non-life real premium growth by region, 2015 to 2019F



Source: Swiss Re Institute.

### Life and health insurance: sustained strong increase in emerging Asia

Emerging market life premium growth remained robust in 2017.

Life and health premiums in the emerging markets are estimated to have risen by around 17% in 2017, after a 19% gain in 2016 (see Figure 14). Performance has varied across regions. Sustained robust growth in emerging Asia has been the most important driver, supplemented by a healthy recovery in CEE markets. On the other hand, growth has remained weak in Africa, and has decelerated sharply in Latin America and the Middle East.

Once again, most of the growth has come from emerging Asia.

Premiums in emerging Asia are estimated to have continued strong growth above 20% in 2017, but slower than the near-25% growth in 2016. The region accounts for around three-quarters (76%) of emerging market life premiums, and China alone for 58%. Premiums in China are estimated to have increased by 23% in 2017 (2016: 34%), supported by vigorous sales of ordinary life products (which received a boost from regulatory promotion of protection-type solutions). In Indonesia, bancassurance sales contributed to a strong performance in life, while in India group business has benefited from government initiatives to promote life cover and pensions. Elsewhere, life premiums remained stable in Thailand and Malaysia, while a growth recovery in the Philippines has been attributed to rapid sales of variable unit-linked products.

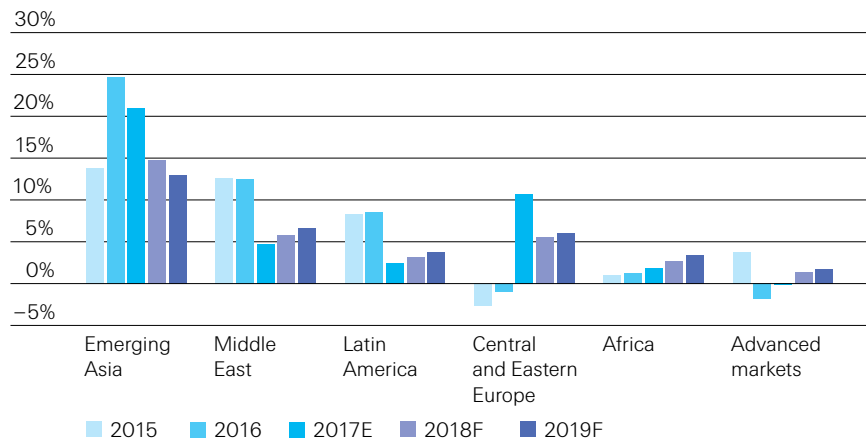
Premium growth has slowed to 2.4% in Latin America, reflecting weaker growth in key markets.

Premium growth in Latin America has declined sharply to a projected 2% in 2017 from 8.5% in 2016, reflecting weak economic performance in key markets. In Brazil, the biggest market, premium growth has fallen to 2% from 6.7% in 2016 due to sharp deceleration in sales of VGBL (Vida Gerador de Benefícios Livres), the dominant unit-linked product. In Mexico, life premiums were affected by the high base effect in 2016 due to accounting changes alongside implementation of a new Solvency II-type regime. Meanwhile, life premium growth in Argentina has improved this year on the back of a recovering economy.

## Emerging markets: stable non-life and strong life business

**Figure 21**

L&H real premium growth by emerging region, 2015 to 2019F



Source: Swiss Re Institute

Premiums in CEE have rebounded ...

Life premium growth in CEE has rebounded formidably in 2017 after contracting for four years in a row. Business in Russia has remained robust in 2017 driven by continued healthy sales of investment savings products. At the same time, the life markets in Poland, Hungary and Slovakia have stabilised. For instance, the revival in Poland of unit-linked products with added life risk content has supported overall sector growth, even as premiums in all other lines declined. In the Czech Republic, however, premiums have contracted again this year – by an estimated 11% – as the repercussions of tax changes introduced in 2016 continue to affect the attractiveness of life products.

... while sector growth has slowed notably in the Middle East

Premium growth in the Middle East is estimated to have eased to 5% in 2017 from 13% in 2016. Premium growth in Turkey remains at double digit levels (11% vs 24.5% in 2016), buttressed by solid growth in credit-linked business. But in Saudi Arabia, life business has been relatively sluggish due to slowing economic growth and disposable income gains after the government cut subsidies on utilities and gasoline. Growth in the life market in UAE has also slowed sharply, from 13.3% in 2016 to 3% in 2017. This has been due to the falling demand from a key client segment: expatriates. In recent years, the government has been driving an increase in the quota of local employment.

Premium growth in Africa remains weak.

In Africa, life premium growth is estimated to have increased by 2% in 2017 from a mere 1% in 2016. This is mainly because the market in South Africa, which accounts for close to 90% of the region's life premiums, has been showing signs of strengthening. Outside South Africa, life business has generally been less affected by the economic downturn of the past few years than non-life. The life market is solid in Kenya, but remains sluggish in Nigeria, where the economy is still struggling.

### Favourable outlook for 2018–2019

The outlook for insurance in emerging markets remains favourable.

The outlook in emerging markets is favourable, with total insurance premiums projected to expand by more than 10% each year in 2018 and 2019. Of that, non-life premium growth is forecast to be steady at about 6–7%, while life premiums are projected to increase by double-digit rates.

Non-life premium growth will be supported by economic conditions, urbanisation and rising home and car sales.

The overall emerging market non-life premium growth reflects the stabilising economic conditions in most regions. In addition, non-life business will continue to benefit from urbanisation, and rising home and car ownership. Concerns about environmental protection, food safety and underinsurance in property are also expected to start to filter through to sturdier demand for associated liability and property covers.

Non-life premium growth will remain robust in emerging Asia, and improve in most other regions.

In emerging Asia, regulatory initiatives including the promotion of agro and liability insurance in China, the launch of New Crop Insurance Scheme in India and the acceleration of infrastructure investment in Southeast Asia, will likely support robust growth in non-life premiums. In Latin America, non-life premiums will continue to recover, buttressed in particular by strong commercial demand in Brazil. Stable insurance demand is expected in CEE while premium growth in the Middle East is projected to rebound to around 5% on the back of growth in compulsory lines, and large infrastructure and construction projects. In comparison, growth in Africa is likely to remain weak, as political uncertainty, elevated consumer debt, high unemployment and structural bottlenecks cap near-term demand, notably in South Africa. However, the situation is more positive elsewhere in SSA, particularly in the non-resource-intensive countries, and the region overall does hold growth potential for insurers (see section on re/insurance in sub-Saharan Africa).

In life insurance, China will continue to dominate.

After the healthy gains in 2016 and 2017, life premium growth in the emerging markets is expected to ease back to its trend rate of around 10% over the next two years. China will continue to dominate, supported by a favourable policy environment. The Chinese government has set a target to grow total insurance (life and non-life) penetration to 5% by 2020 from around 3% in 2014. Supportive government policies to boost demand include tax rebates, and a drive to promote protection, health and pension products, which could result in a changing portfolio mix for insurers. Chinese insurers are also making increasing use of digital technology to improve efficiency and customer experience (see *Topic: Insurtech in China*). In the rest of emerging Asia, life premium growth is expected to be steady as economic conditions stabilise. Noteworthy is that insurers in the region are promoting protection products more, given the still low interest rates.



### Topic: Insurtech in China

There has been a proliferation of insurtech activity in China ...

The Chinese insurance market has grown rapidly over the past decade and now ranks as the third largest globally. The adoption of Insurtech along the whole insurance value chain is poised to further grow and transform the industry. This is exemplified by the rising investment in insurance technology by Chinese investors. In 2016, there were 173 such investment in tech start-ups, up 44% from 2015.<sup>64</sup> At the same time, ZhongAn Insurance, the first internet-only insurer in China, had a successful IPO in Hong Kong in September 2017. It raised USD 1.5 billion, making it the world's largest Insurtech insurance company.<sup>65</sup>

... with new developments making use of AI, IoT, UAV and cloud computing.

Insurtech refers to the application of digital technology in insurance business, including making use of Big Data, artificial intelligence (AI), the Internet of things (IoT), blockchain, telematics, unmanned aerial vehicles (UAV), and cloud computing. There has been a surge of new players, services and products in this field, which can sometimes be disruptive to the traditional insurance model. For instance, one of ZhongAn's main initial founders was Ant Financial, an affiliate of Alibaba, which operates the world's largest digital payment platform. Its strength in technology and client resources supported ZhongAn's successful product development of an e-commerce shipping return insurance.

The first stage of Insurtech development in China focused on distribution.

Insurtech has gone through two stages of development in China. The first, begun in 2001, focused on online distribution (ie, selling traditional insurance products through online portals or mobile channels) by major traditional insurers like CPIC, Taikang, and PICC. This trend accelerated after 2011 when the regulator published

<sup>64</sup> *China InsurTech Development Report 2017*, Insurance Association of China, and Fudan University, 25 May 2017.

<sup>65</sup> Premium volumes reached CNY 1.2 billion in 2016, from CNY 1.1 billion in 2015, <http://www.hkexnews.hk/listedco/listconews/SEHK/2017/0918/LTN20170918023.pdf>



## Emerging markets: stable non-life and strong life business

The second stage emphasises upgrading and customising products.

Regulatory scrutiny is increasing, but overall the authorities remain supportive of further growth in China Insurtech.

Life premium growth is expected to be moderate in Latin America, CEE and the Middle East, but remain slow in SSA.

Many emerging market regulators are taking steps to enhance or implement risk-based solvency regimes.

regulations governing the insurance activities of online intermediaries.<sup>66</sup> This resulted in the share of online premiums of intermediaries rising to 7.6% in 2016 from 0.2% in 2011.<sup>67</sup> Competition in this segment is mainly focused on digital distribution between large traditional players such as PingAn and CPIC, and third-party platforms run by big tech companies like Alibaba and JD.com.

The second stage focused on upgrading and customizing products based on technology, particularly using Big Data analytics. Examples include telematics and usage-based insurance products launched by PingAn and PICC, and critical illness products based on wearable devices offered by ZhongAn. Alongside this development, the China Insurance Regulatory Commission (CIRC) has taken an active role through approving online-only insurance licenses, and expediting filing of new products.

Insurers and big tech firms continue to explore the potential of Insurtech in China, in particular to leverage data analytics to cover risks embedded in online ecosystems. More non-insurance players can be expected to join the market. Though the regulator is believed to be drafting rules to tighten monitoring of internet lending, payments and insurance systems, it is still viewed as supportive of further growth in this sector.

Life premiums in Latin America are expected to increase by 3–4% per annum in 2018 and 2019, helped by a modest economic recovery in Brazil. Growth in Colombia, Chile and Peru will remain solid. In Mexico, recent changes in income tax laws provide greater tax benefits on long-term savings products, which should boost demand. In CEE, lower growth of around 5–6% is expected in the coming two years, reflecting the large share of Russia. Elsewhere in the region, life business should rebound assuming steady economic growth. In the Middle East, low penetration rates and increasing awareness should continue to boost demand, particularly in UAE and Saudi Arabia. In SSA, life premium growth is forecast to stay low at around 2–3% given the weak economic recovery in South Africa, as low consumer confidence affects willingness to lock into long-term life insurance saving products. Elsewhere in Africa, particularly in the East and West where life penetration levels remain very low, the outlook for the sector is brighter.

Insurance regulations in emerging markets continue to become more closely aligned with international best practices. Many markets are taking steps to enhance or implement risk-sensitive and economic-based solvency regulation regimes. For instance, the China Insurance Regulatory Commission (CIRC) started a comprehensive review of C-ROSS (also known as C-ROSS Phase 2) in April 2017.<sup>68</sup> In Brazil, local media has reported that the regulator SUSEP is expected to implement Own Risk and Solvency Assessment (ORSA) requirements by 2019. In Mexico, the new insurance and surety institution law mandates insurers to adopt standards in line with Solvency II for capital and reserves, corporate governance and financial disclosures in 2017. In South Africa, a risk-based capital (RBC) framework is due to become effective in 2018, and a number of other countries like Kenya or Nigeria are also planning to move to RBC solvency frameworks. In UAE, insurers must comply with new risk-based solvency requirements by 28 January 2018, and local media reports say that Saudi Arabia is working on a new regulatory framework to strengthen capital requirements. The Russian central bank is pushing ahead with its roadmap to introduce a Solvency II-like risk-based model of insurance supervision, possibly by the end of the decade. In the past, eg for C-ROSS, these types of new

<sup>66</sup> To regulate the online insurance services provided by insurance agents and brokerage companies, the China Insurance Regulatory Commission (CIRC) promulgated the Supervisory Measures for Online Insurance Services of Insurance Agents and Brokerage Companies (Trial) (hereinafter referred to as the Measures) on 27 September 2011. The measures became effective on 1 January 2012.

<sup>67</sup> *Chinese Digital Insurance Industry Report*, WARP Speed Capital and InsurView, 2017.

<sup>68</sup> CIRC announces planning for C-ROSS Phase II in April 2018, <http://www.circ.gov.cn/web/site65/tab6528/info4082951.htm>

regulations resulted in more stringent capital requirements, which tends to increase demand for reinsurance as a capital management tool.

Recent regulatory changes are more favourable to life protection products.

Moreover, regulators in many emerging markets have stepped up efforts to close life insurance protection gaps. For example in China, Malaysia and India, recent regulatory changes have made protection products more attractive or saving products less so. In China, CIRC has restricted marketing of short-term investment products and lowered the maximum guaranteed interest rate on universal life policies from 3.5% to 3%. In Malaysia, since July 2017 life insurers and family takaful operators have offered commission-free pure protection products in accordance with the new guidelines issued by Bank Negara Malaysia.<sup>69</sup>

Consumer protection remains a top item on regulators' agendas.

Policyholder/consumer protection is another theme topping the regulatory agenda in many markets. For instance in April 2017, the Indian regulator IRDAI revised rules to bring greater transparency in the sale processes of web aggregators.<sup>70</sup> And in June, it released more stringent rules on time lines for investigation and settlement of claims. Meanwhile in Saudi Arabia, the regulator is getting stricter, especially in cases of non-settlement of claims. This year it has banned a number of insurers from issuing, renewing or selling motor policies because of serious violations in procedures related to the selling of compulsory motor insurance.<sup>71</sup>

There has been a rise in the incidence of chronic diseases in India.

#### **Understanding consumer preference for critical illness products in India**

The incidence of chronic diseases – such as cardiovascular disease (CVD), cancer, and diabetes – in India is rising. In 2005, CVDs, cancer and other chronic diseases caused 53% of total deaths, and this is forecast to rise to 67% by 2030.<sup>72</sup> These diseases and other critical illnesses (CI) can put a great financial burden on victims and their families. The vast majority of the Indian population cannot afford the healthcare costs of severe illnesses, nor do they have sufficient insurance to mitigate the financial burden.

A sample of 4650 consumers between 25-60 years old were interviewed.

To better understand this protection gap, Swiss Re Institute conducted a study to examine consumer preferences – what consumers really need and want – by using the discrete choice experiment methodology.<sup>73</sup> This study investigates the preferences in terms of willingness to pay (WTP) of 4650 middle- and upper-income class consumers, in different age groups, living in 16 different cities across India. Using nine product features, 300 CI product designs were tested in the choice experiment.

On average, consumers are willing to pay more for (ie, they prefer) comprehensive CI product offerings.

The study reveals that consumers prefer products that provide the most comprehensive coverage. They are willing to pay significantly higher premiums for a product that covers “14 main CIs” compared to a product that covers only the “main six CIs”. They also prefer the “main six CIs” product to disease-specific covers (see first four bars in Figure 22).

<sup>69</sup> *Direct Distribution Channels for Pure Protection Products*, Bank Negara Malaysia, 23 June 2017, <http://www.bnm.gov.my/index.php?ch=57&pg=140&ac=610&bb=file>

<sup>70</sup> For listing of all Indian insurance regulation rule changes, see [https://www.irdai.gov.in/ADMINCMS/cms/frmwhtas\\_List.aspx](https://www.irdai.gov.in/ADMINCMS/cms/frmwhtas_List.aspx)

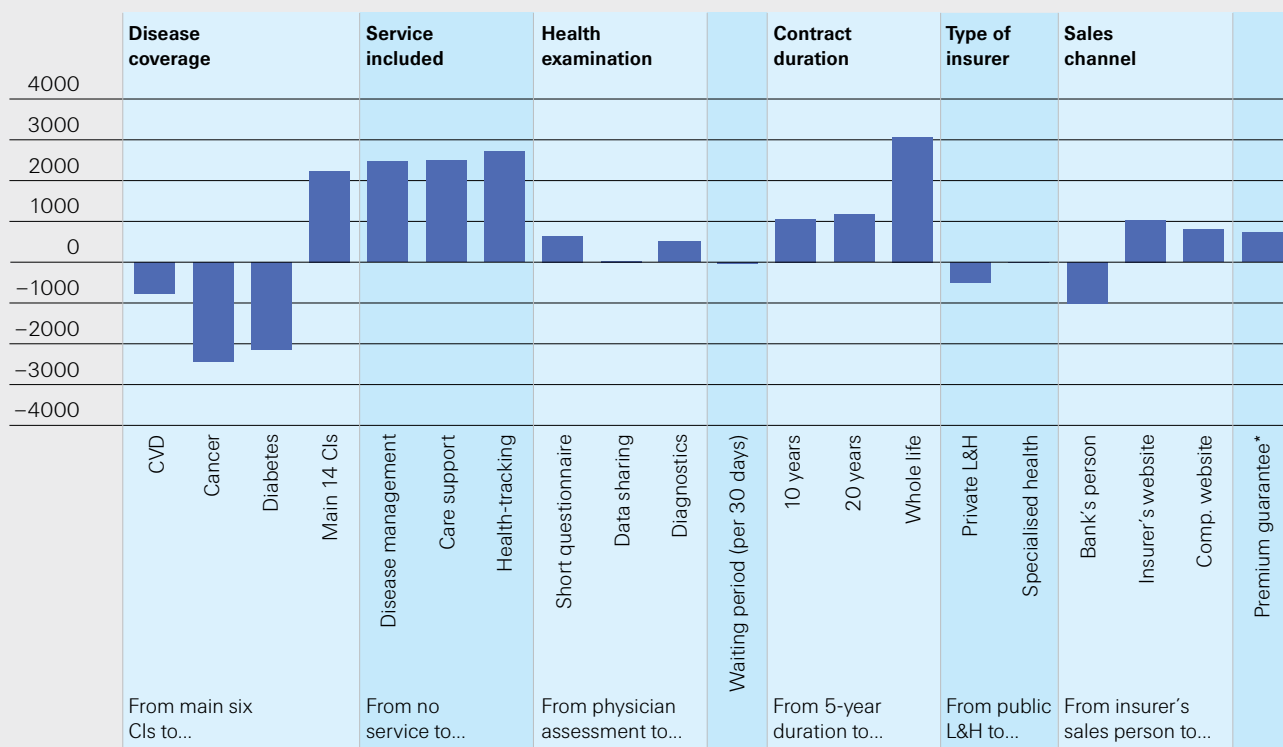
<sup>71</sup> Seven insurers in Saudi Arabia are reportedly banned from mandatory auto insurance. Source: <http://www3.asiainsurancereview.com/News/View-NewsLetter-Article?id=40114&Type=MiddleEast#>

<sup>72</sup> K. Srinath Reddy and S. Mohan, “Chronic diseases in India: Burden and implications,” *Health Risk Factors India, Risk Dialogue Series*, Swiss Re Centre for Global Dialogue, 2015.

<sup>73</sup> See *The Health Insurance Frontier in India*, Swiss Re Institute, 31 October 2017, [http://institute.swissre.com/research/library/The\\_health\\_insurance\\_frontier\\_in\\_India.html](http://institute.swissre.com/research/library/The_health_insurance_frontier_in_India.html)

**Figure 22**

Respondents' WTP for changes in CI product features away from reference options specified (means, in INR/year)



**Reading example:** On average, respondents are willing to pay an additional INR 2240 per year to move from “main six CIs” coverage to a “main 14 CIs” insurance product. Conversely, premiums have to be cut by INR 2150 to persuade consumers to move from “main six CIs” cover to a diabetes-only product.  
 Source: The health insurance frontier in India: understanding consumer preferences for critical illness cover, Swiss Re Institute, October 2017.

Consumers most prefer underwriting based on a short questionnaire.

In terms of the underwriting options, consumers preferred options that included a short questionnaire. Among the options tested, respondents were not keen to share data but were willing to undergo comprehensive diagnostic testing. However, these results varied significantly across the different age groups.

There was a high WTP for services, underlining the important role of add-on services in consumer product choices.

The study also tested whether consumers are willing to pay for additional services (three services as shown in Figure 22) as part of their CI coverage. Interestingly, all three types of services were found to have a strong impact on product choices: respondents are willing to pay a much higher premium if these services are included.

Whole life policies are the most preferred. Insurer brand and the premium guarantee option are also important in buying decisions.

Among the other product features tested, a whole life policy was the clear winner over other policy duration types. In terms of the insurer’s brand, public sector L&H insurers are preferred over private L&H insurers, but respondents showed to be indifferent between public-sector L&H and insurers selling health insurance only. Further, at the aggregate level, the results revealed that consumers most prefer online sales channels (insurers’ and price-comparison websites), and sales via bank personnel least. Finally, respondents liked the guarantee option that keeps premiums fixed for the whole duration of the contract rather than the first three years only. However, the results showed they do not consider the option of “waiting period before making a claim” to be an important product feature in their decision making.

## Re/insurance in sub-Saharan Africa

SSA is going through challenging times

The region is characterised by a few large, and many small, re/insurance markets, and a fragmented company landscape.

After strong growth in the years to 2013, SSA insurance markets have stagnated in real terms.

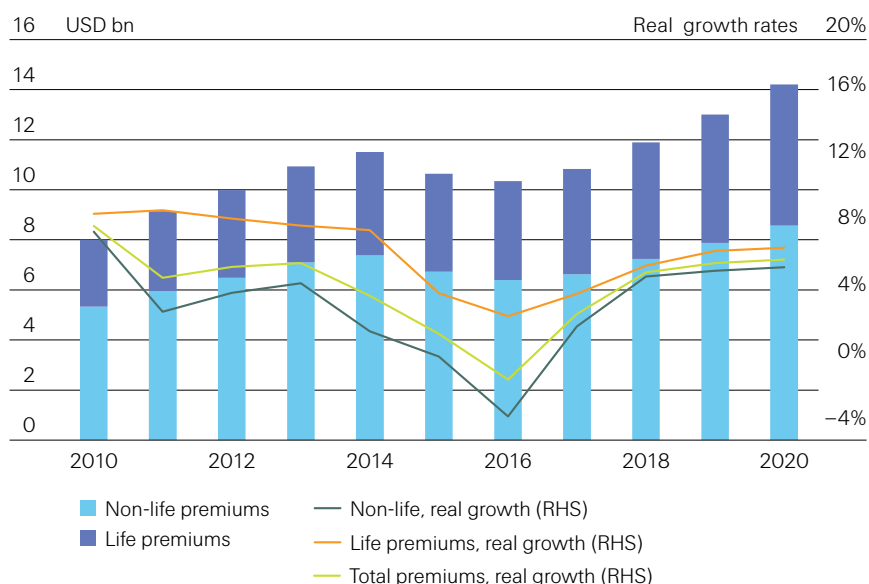
SSA<sup>74</sup> has weathered economically difficult times after the commodity price collapse, with real GDP growth reaching a multi-year low in 2016. The economic environment has improved this year but the recovery remains sluggish, particularly among the resource-intensive countries. Re/insurance market growth has slowed due to the economic downturn, currency collapses and competition.<sup>75</sup>

Insurance premiums written in the 47 countries in SSA were estimated at USD 10 billion in 2016, just a little over 0.2% of the global total. Non-life counted for 62% of the region's total premiums. Kenya and Nigeria are the only markets with premium volumes of more than 1 billion annually. At the other end of the spectrum, in more than half of the markets premiums are less than USD 100 million. On a company level, insurance markets are likewise fragmented, with many small companies with a limited capital bases. The reinsurance market is also fragmented and served by more than 20 regional and national reinsurers, which benefit from preferred access and compulsory cessions in many countries.

Real insurance premium<sup>76</sup> growth in SSA is estimated to have come to a halt in 2016, a continuation of the slowing growth trend of previous years (see Figure 23/23). Between 2010 and 2016, real premiums in SSA were up 4% in compound annual growth rate (CAGR) terms. Although robust, that was slightly less than the economic growth (4.5%) average of the same years, and significantly below the 7% CAGR in premiums from 2000 to 2010. However, in USD terms, premium volumes have contracted in many markets since 2014 due to exchange rate movements. As a result, the overall premium volumes in 2016 in USD terms are at the same level as in 2012.

**Figure 23**

Real premium growth and premiums volumes in SSA, 2000–2016



Source: Swiss Re Institute.

<sup>74</sup> In this box, SSA refers to all countries south of the Saharan desert, excluding South Africa.

<sup>75</sup> See *Insurance in sub-Saharan Africa: growth stutters, but fundamentals are strong*, Swiss Re Institute, October 2017.

<sup>76</sup> All premium growth figures quoted in this study are in real terms (ie, adjusted for local inflation), unless otherwise stated.

## Emerging markets: stable non-life and strong life business

Key challenges remain, but the longer term outlook for insurance in SSA is positive.

Insurance market growth in SSA is expected to pick up again over the next few years, but key challenges remain. Foremost are shortage of skilled labour, lack of insurance awareness and trust, a high share of unpaid premium payments and sometimes cultural norms, such as traditional and religious beliefs. Nevertheless, the outlook remains favourable on the expectation of a recovery in economic activity and the resumption of the trend of decreasing poverty. Longer-term economic growth and wealth creation should be raised by the region's very young population, with 40% of the population below the age of 15. The lower dependency ratios in the future will yield a demographic dividend.

Access to reinsurance markets is becoming more restricted. This has negative implications for local reinsurance capabilities, and may make reinsurance in the region more costly.

With respect to reinsurance, some regulators in Africa (eg in the CIMA countries and in Kenya) have introduced or are planning measures to keep more business at home, in order to develop local reinsurance capabilities and to prevent capital outflows. However, these restrictions curb the supply of reinsurance capacity and may ultimately make reinsurance more costly. Many local reinsurers are under-diversified, have limited skills to manage complex risks, and just small capital base. As such, they need to rely heavily on global retrocession capacity, meaning that the aim of limiting capital outflows is only partly achieved.







Published by

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The editorial deadline for this study was 16 November 2017.

The internet version may contain slightly updated information.

Graphic design and production:  
Corporate Real Estate & Logistics / Media Production, Zurich

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Order no: 271\_0917\_EN

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