

sigma

Global economic and insurance outlook 2020

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Executive summary

The global economy will continue to grow above potential to 2020, but at a slowing pace.

The main downside risk for global growth is a global trade war scenario.

We forecast global insurance premiums will grow by around 3% annually in real terms over the next two years, a 1-percentage-point increase from 2018.

The world is less resilient to shock events than it was 10 years ago. The public sector and insurers are central actors in building greater resilience for all.

With the economic power shift from west to east, emerging Asia and China will remain the main engine of insurance sector growth in the year to come.

Expanding the boundaries of insurability for corporate intangible assets is another main growth area.

Global economic growth will remain above potential in the near term, although we expect slowdown in the major advanced markets. For the US, we forecast gross domestic product (GDP) growth to weaken from around 3% in 2018 to a below-consensus 2.2% in 2019 and 1.7% in 2020. We expect overall emerging market growth to strengthen moderately by around 4.9% annually over 2019 and 2020, after a 4.7%-gain this year. Emerging Asia continues to outperform, and we forecast growth of more than 6% in both China and India over the next two years.

Amid still-positive economic momentum globally, underlying inflation pressures are set to rise. We expect central banks in the advanced markets to continue towards monetary policy normalisation. We also expect tighter policy in the emerging markets with the exception of China, where we see accommodative monetary and fiscal actions to offset the drag on growth from rising trade tariffs. The main downside risk for the world economy is escalation of current US and China trade tensions into a global trade war scenario, which we estimate would reduce global GDP by 1.5%–2.5% over three years. Our baseline scenario is a 25% tariff on *all* US/China goods trades, the main drag on growth in the two countries themselves.

Insurance premium development will be supported by the above-potential economic growth environment. We forecast around 3% real growth in global premiums annually over 2019/20, up 1-percentage-point (ppt) from 2018, driven by the emerging markets. Any trade slowdown will impact marine and trade credit lines most. Pricing in non-life has improved this year, including in major motor markets, the largest line of business. We expect non-life prices and underwriting results to remain stable into 2019. Profitability in life has also improved, but low interest rates remain a challenge.

Ten years on from the global financial crisis, we pose the question: *Is the world more resilient?* In our view, the global economy remains ill-prepared for a recession with less capacity to absorb shocks given lower trend growth than 10 years ago, higher debt burdens, weaker financial market structures and a move to less openness. As rectifying measures, among others we encourage more private capital market solutions, with the public sector establishing financial market standards wherever possible (for example, for sustainable investment), state contingent debt instruments for sovereigns, and leveraging multilateral development banks' balance sheets more. Insurance is also key. With a more supportive policy environment, insurers will be better able to expand their risk-absorbing capacity and long-term investment activities in resilience-building projects such as infrastructure. Further, we newly estimate a current global mortality and property protection gap of USD 500 billion in premium-equivalent terms, which is about 70% of the respective insurance markets. The gap signals the high vulnerability of many households and businesses across the world, and the opportunity for insurers to improve resilience.

The emerging markets, particular China and emerging Asia, will drive global demand for insurance for many years. The growth gap between the advanced and emerging markets has narrowed since 2008, but this does not lessen the importance of emerging insurance markets, nor negate the trend of insurance growth shifting from west to east. Wealth in the emerging markets has grown significantly and a 1-ppt rise in GDP 2018 has much greater impact in premium volume terms than it would have been had a decade ago. In addition, many emerging markets have progressed to the steeper area of the insurance "S-curve" and consequently, the impact of income growth on insurance demand is much bigger.

Innovation in insurance will also be a key driver of system resilience. The corporate sector has transformed to being rich in intangible assets such as intellectual property, networks, data and client relationships. In parallel, increasingly businesses are seeking cover for previously uninsurable exposures like earnings and cash flow losses due to business interruption, cyber, product recall and weather and energy price risks. The evolution of double-trigger indemnity structures, and data and modelling advances is helping insurers develop ever-more innovative covers for such exposures.

Key takeaways



Macroeconomic outlook: global economy to grow above potential, but at slowing pace

- US GDP forecast to increase 2.2% in 2019 and 1.7% in 2020, after 2.9% in 2018; Euro area GDP up 1.5% (2019) and 1.4% (2020), after 1.9% in 2018; in Japan, GDP up 0.6% in 2019 after 1% growth in 2018.
- US Fed to raise rates twice in 2019. ECB to start but pause after one hike; will extend long-term financing.
- Main downside risks: overheating in the US, stagflation and destabilisation in the Euro area (medium term); a global trade war scenario (longer term).



Topic update: protectionism on the rise

- Baseline scenario (60% probability): a 25% tariff on all goods trade between US and China, with GDP down 0.2–0.5% in 2019 in both; global GDP down 0.1–0.2%.
- Worst-case: 10% tariff on global goods trade; global GDP down 1.5–2.5% over three years.



Insurance outlook: above-potential economic growth to support premium growth

- Non-life and life premiums to increase by around 3% annually over 2019/20, a 1-ppt increase from 2018, driven by the emerging markets.
- Marine and trade credit insurance lines will suffer most from higher trade tariffs.
- Non-life underwriting slightly more positive; premium rate hardening will not offset claims inflation.
- Life: emerging market premiums to accelerate, led by China. Low interest rates to weigh on profitability



Topic update: motor - select claims-driven pockets of growth

- Recent profitability improvements in US personal motor to continue driven by declines in loss frequency.
- Signs of profit strengthening in Australia and UK personal auto, based on moderation of claims trends.
- In China, motor premium rates to remain under pressure.



Ten years on from the global financial crisis: is the world more resilient?

- Lower trend growth, higher debt burdens, weaker financial market structure and a move to less openness, means the global economy is ill-prepared for a recession.
- The mortality and property insurance protection gap remains very large (estimated USD 500 billion).



Our wish list for greater resilience includes:

- more private capital market solutions to address government contingent liabilities (eg, capital market solutions helping to narrow global retirement savings gap or public healthcare expenditures);
- state-contingent debt instruments for sovereigns to improve ability to withstand shocks;
- policymakers to implement structural reform agendas;
- a strengthening of long-term investors' (including insurers) capacity to recycle funds into the real economy by lowering barriers for investments (eg, for sustainable and infrastructure financing, and promotion of more tradable asset classes).



Emerging markets power on: economic shift from west to east continues

- Emerging market GDP forecast to increase 4.9% in 2019 and 2020 annually, from 4.7% in 2018.
- China and emerging Asia to remain the engines of growth for the insurance industry for many years.
- Emerging market share of global premiums forecast to be 28% in 2028, up from 18.8% in 2017.
- China's share of global premiums will be 16% in 2028, up from 9.7% in 2017.



Expanding the scope of insurance: new covers for intangible assets

- The corporate sector has transformed towards intangible assets (estimates of up to 87% of value) such as intellectual property, networks, data and client relationships.
- Increasingly, businesses need cover for previously uninsurable risks like non-damage business interruption, cyber, product recall and energy price risks, which lead to earnings and cash flow losses.
- Using new data and advanced data analytics, new solutions available today include parametric and double trigger indemnity structures.

Macroeconomic environment and outlook

The near-term outlook for the global economy is positive but we expect growth to slow, and there are downside risks.

The global economy has in large part recovered from the financial crisis 10 years ago ...

... but the economy and financial system remain vulnerable to shocks with many imbalances having grown to beyond the levels existing at the onset of the global financial crisis.

Global growth remains strong, but the best is over.

Tighter external financing conditions will weigh on emerging market growth. Asia remains the bright spot.

We expect global economic growth to remain above potential next year, but at a slower pace and with downside risks prevailing. The path towards gradual monetary policy normalisation will continue. The recent increase in yields will benefit re/insurers in the form of higher investment returns, but with a lag. The major downside risk for the economy is the prospect of escalation of current US-China tensions into a global trade war scenario.

Economic and inflation outlook

The global economic expansion remains strong and we expect growth to remain above potential in the near term, albeit at a slowing pace. In many ways, the global economy has recovered from the financial crisis 10 years ago. Output gaps – a measure of how close an economy is to its production capacity – are closing; unemployment has declined sharply over recent years; and banks have increased their capital buffers. However, the pace of national structural reforms is modest.¹ The slowing reform momentum may in part be due to continued expansionary monetary policies, reducing pressure on governments.

Yet the global economy remains vulnerable to shocks as productivity growth has been sluggish since the financial crisis, and already elevated debt burdens have increased further. Global debt outside the financial sector has risen by 44% of GDP over the last decade, about two thirds of the increase coming from government and one third from corporate debt.² This raises questions about the resilience of the economy and financial system a decade after the crisis, in particular as the policy buffers to react to the next downturn have not been fully restored (see chapter *Ten years on, is the world more resilient?*). In the Euro area, monetary policy interest rates remain close to zero and political barriers to unconventional monetary policies and bail-outs have increased in a rising tide of populist politics. In the US, the current pro-cyclical expansion in the fiscal deficit will limit the scope for fiscal stimulus during the next downturn. More generally, increasing nationalistic tendencies and attacks on central bank independence cast doubt whether cooperation between global institutions during a next crisis would be as effective as during the last one.

Despite these vulnerabilities, we expect global growth to remain above potential in the near term. However, growth has peaked and the major advanced economies will slow over the next few years. We forecast the US economy to slow from 2.9% growth in 2018 to 2.2% in 2019 (consensus 2.6%) and 1.7% in 2020 (consensus 1.8%)³, as the Federal Reserve (Fed) becomes less supportive and fiscal stimulus fades. We expect that all trade in goods between the US and China will be subject to increased tariffs eventually, which will also weigh on economic activity. A sharp slowdown in US capital expenditures in the third quarter of 2018 may be a sign that the targeted tax cut-driven boost to business investment may have already run its course. Growth in the Euro area is expected to remain above potential, but likewise at a slowing pace. By contrast, we expect growth in the UK to remain subdued amid high uncertainty around the country's exit from the European Union on 29 March 2019. In Japan, GDP growth will slow due to waning external demand. In addition, domestic consumer spending is likely to take a hit if a VAT hike is implemented as scheduled in October 2019.

Overall growth in emerging markets will likely accelerate moderately over the next two years. Our projection is based on anticipation of gradual recovery of some economies currently mired in crisis (Argentina and Turkey) or experiencing sluggish growth (Brazil, South Africa). In many other emerging markets, tighter external financing conditions on the back of higher US interest rates and a stronger US dollar will lead to moderate slowdown. Emerging Asia continues to outperform other regions, with China and India set to remain above the 6% growth threshold in 2019

¹ See *Going for Growth 2018: An opportunity that governments should not miss*. OECD, 2018.

² According to the Institute of International Finance (IIF) *Global Debt Monitor* database.

³ *Consensus Forecasts*, Consensus Economics, 8 October 2018.

Macroeconomic environment and outlook

and 2020. We expect stepped-up fiscal stimulus and monetary easing in China to offset headwinds the economy will face from increased tariffs on exports to the US. In Central and Eastern Europe, growth in Russia should stabilise close to current levels, while the EU-member country economies will slow from this year's very strong growth rate levels.

Inflationary pressures are picking up.

Inflation has picked up after the recent increase in the price of oil, which so far in 2018 has been about a third above the 2017 average. Underlying inflationary pressures have been more moderate, but are increasing amid above-trend growth. Overheating risks are increasing in the US as the fiscal stimulus hits an economy operating at full capacity. In October, the US unemployment rate remained at a nearly five-decade low of 3.7%, and private sector average hourly earnings increased by 3.1% year-on-year, the biggest gain since April 2009. In the Euro area, core inflation (excluding energy prices) has remained steady at around 1% over the last few years, but we expect it to start increasing slowly in 2019. In emerging markets, risks to inflation are to the upside amid higher oil prices, weak currencies and increasing trade tariffs.

Monetary policy normalisation will continue in 2019, but only the Fed will likely have been able to increase policy rates significantly by 2020.

Interest rate outlook

Amid continued above-trend (albeit slowing) growth, central banks will continue to normalise monetary policies at a gradual pace. After a projected total of four rate hikes in 2018, we expect the US Fed to increase rates twice in 2019. We think the Fed will stop its tightening cycle once it becomes apparent that growth is slowing markedly. The European Central Bank (ECB) has said it will cease its asset purchases at the end of 2018, and we expect it to raise rates in the second half of 2019, starting with a deposit rate hike. However, it will proceed very carefully, not least to accommodate the reduction of still elevated government debt burdens in many Euro area countries. The ECB will also keep its role in intermediating cross-border financial flows between banks as the interbank market remains impaired.⁴ Should the Fed not raise rates as much as expected by the Fed dots⁵, adopting instead a "wait-and-see" approach on the development of weaker growth dynamics, the ECB will find it harder to kick-off its rate normalisation cycle beyond the deposit rate hike. This will be more so as inflation in the Euro area will likely remain below 2%. The Bank of England is expected to hike rates once in 2019, but this is contingent on our assumption that the UK will not exit the EU in disorderly manner.

Many emerging market central banks outside China are expected to hike interest rates.

Many emerging market central banks (including in Russia, India and Turkey) have started to tighten monetary policy, and we expect others (eg, in Brazil, South Africa) to follow suit by hiking rates amid rising inflationary pressures on the back of weaker currencies. By contrast, we expect the Chinese central bank to accommodate the adverse impact from higher tariffs via looser fiscal and monetary policies.

We project slowly increasing bond yields in Europe, and broadly flat yields in the US.

The recent increase in US 10-year government bond yields has been largely driven by higher real yields while inflation expectations have been very stable. We expect US yields to remain broadly flat over the next one to two years (see Table 1). Slowing growth will likely keep inflationary pressures in check and prevent long-term yields from rising further. The continued very low yields in Europe and Japan will further restrain US yield increases. German 10-year yields should increase moderately with ECB monetary tightening, but will remain very low. In Japan, yields will likely remain close to current levels over the next two years as we expect no fundamental change in the central bank's monetary policy stance. For re/insurers the recent yield increases in the US will provide some relief via higher investment returns, but the improvement will only be felt with a lag. In Europe and Japan, the projected yield increase will not meaningfully alter the challenge from the persistent low interest rate environment.

⁴ Specifically, we expect the ECB to renew its targeted long-term refinancing operations (TLTRO II) to avoid a sharp liquidity drop and risk of a credit crunch.

⁵ The "dot plot" is published after each Fed meeting. It shows the projections of the 16 members of the Federal Open Market Committee who set interest rates.

Table 1
Real GDP growth, inflation and interest rates in select regions 2017 to 2020



		2017	2018E	2019F	2020F
Real GDP growth, annual avg., %	US	2.2	2.9	2.2	1.7
	UK	1.7	1.3	1.6	1.8
	Euro area	2.5	1.9	1.5	1.4
	Japan	1.7	1.0	0.6	0.5
	China	6.9	6.5	6.3	6.2
Inflation, all-items CPI, annual avg., % (monthly data refer to yoy growth)	US	2.1	2.5	2.3	2.3
	UK	2.7	2.4	2.3	2.0
	Euro area	1.5	1.7	1.4	1.6
	Japan	0.5	0.8	1.2	1.6
	China	1.5	2.2	2.4	2.6
Policy rate, year-end, %	US	1.38	2.38	2.88	2.88
	UK	0.50	0.75	1.00	1.50
	Euro area	0.00	0.00	0.25	0.25
	Japan	-0.05	0.00	0.05	0.11
	Yield, 10-year govt bond, year-end, %	US	2.4	3.1	3.2
UK		1.2	1.6	1.8	2.2
Euro area		0.4	0.6	1.0	1.4
Japan		0.0	0.1	0.2	0.2

E = estimates, F = forecasts.
Source: Swiss Re Institute.

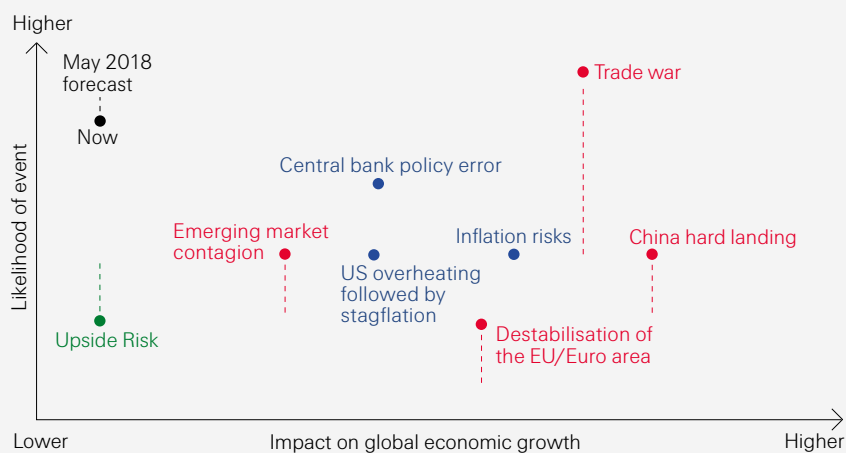
Key risks for 2019

Risks to the outlook	Probability and trend
Trade war	30% ↑
Central bank policy error	20% =
Inflation risks	15% ↑
Chinese hard landing	15% ↑

Risk considerations

Downside risks to global growth have increased over recent quarters, our main longer-term concern being the prospect of a global trade war. More medium term, we see higher risks for the US economy overheating, and risk of stagflation and destabilisation in the Euro area. The latter is due to Italy's confrontational stance with the European Commission over its non EU-rule compliant budget proposal. The scope of upside surprise has receded (see Figure 1). We see some upside potential from supportive fiscal policies (even outside the US) and a de-escalation of trade conflicts. Overall, however, both the likelihood and impact of any upside risks are smaller compared to our assessment of downside risks.

Figure 1
Global economic risk map



Source: Swiss Re Institute

Macroeconomic environment and outlook

A global trade war is a key risk to global growth...

The key longer term risk is escalation of current tensions into a global trade war. In our baseline scenario, we see further worsening of trade relations between the US and China, but expect this to have limited impact on global growth. Escalation to a global trade war, while less likely, would have much greater negative impact.

... and for the re/insurance industry.

Re/insurers need to look beyond tariffs and their economic growth impact because the industry can be affected by increased protectionism in other ways also. In the next chapter *Protectionism on the rise*, we take a closer look at trade-war scenarios, and at how measures such as increased local capital requirements and regulatory fragmentation put the benefits of diversification, a key consideration for global re/insurers, at risk.

US-China trade tensions have raised the spectre of a hard landing of the Chinese economy.

The US focus on higher trade tariffs on imports from China over recent months has increased the risk, once again, of a "hard landing" (ie, a sharp growth slowdown) for the Chinese economy. The spectre of a hard landing had been a main concern in 2017. Before the step-up of recent trade tensions, sustained economic growth, progress in reducing corporate debt and de-risking of wealth-management products had put the risk on a downward trend. Now back in the limelight, a hard landing in China could send shock-waves across the global economy and financial markets.

The longer above-potential growth continues, the higher the risk of US overheating.

In the US, there is a risk of inflation increasing more than we expect with the record low level of unemployment leading to higher wage gains. This would force the Fed to tighten monetary policy more aggressively and would send shock-waves across bond markets as investors realise that the Fed is behind the curve. A consequence could be a boom-and-bust cycle with a period of stronger growth and high inflation, followed by a sharp slowdown or even recession. Monetary policy errors elsewhere could also have severe economic and market impacts.

A spike in US yields due to over-heating could cause contagion across emerging markets.

US overheating risks could spread across the globe, with a spike in bond yields and a stronger US dollar as the catalyst for contagion. Should this occur, the spike in bond yields would likely impact the real economy negatively, leading yields to decline again. In Europe, many countries are not ready to cope with significantly higher interest rates due to elevated debt burdens. A contagious crisis could also affect emerging markets, with those highly indebted in US dollars most vulnerable.

The risk of a disorderly Brexit has increased recently.

Another downside risk, the prospect of which has increased recently, is a disorderly Brexit, given the fragmented political landscape in UK and no apparent majority for any position. The EU and the UK need to agree on a withdrawal agreement and a "political declaration" on the future relationship by 29 March 2019. That could take the form of a relatively vague political statement, but even this is proving difficult to achieve. Political brinkmanship has increased the odds of alternative scenarios, including a disorderly Brexit. Even if agreement can be reached, uncertainty around the long-term relationship between the UK and the EU will remain elevated for quite some time as this will only be negotiated during the transition period after March next year. A disorderly Brexit scenario would be very disruptive in the short term.

Separately, in a worst-case scenario, escalation of the Italian budget crisis could destabilise the Euro area.

More immediately, the risk of a budget crisis in Italy is increasing, with the EU Commission likely to launch an excessive deficit procedure. Italian sovereign risk spreads have widened significantly against the German benchmark, as Italy has submitted a budget in conflict with EU rules. We expect tensions to remain elevated, which increases the risk of the crisis spreading across the Euro area. Reassuringly, so far there has not been much sign of contagion, with only Spanish sovereign spreads widening marginally. In an extreme scenario though, Euro area break-up fears would lead to capital flight out of weaker economies such as those of Italy, Spain, Portugal or Greece, causing financial market turmoil and recession.



Topic update: protectionism on the rise⁶

Protectionism has been rising for some time, but tariffs now make trade tensions more overt.

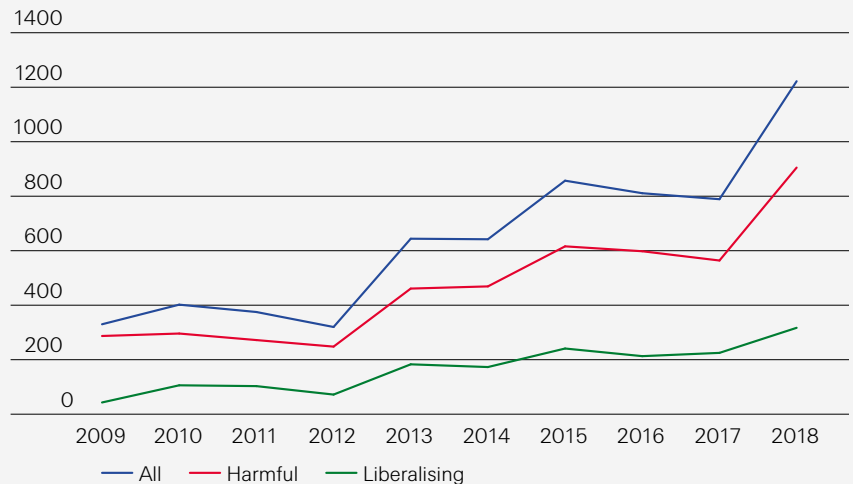
Protectionism globally has been increasing for some time, but the recent trend of tariffs on imports from specific countries is new. In our baseline scenario, we see an escalation of current tensions between the US and China, with imposition of a 25% tariff on all goods exports between the two, on both sides. The impact of such actions on global growth will be limited, with more severe drag effect in the US and China themselves. From the insurance perspective, as tariffs reduce global trade, over the longer term marine and trade credit lines of insurance would suffer most. Protectionism in the form of non-tariff barriers and regulatory nationalism also pose challenges for re/insurers. At the same time, however, the continuing convergence of regulatory standards in many emerging markets with international best practices bodes well for global re/insurance market development.

Tariffs, non-tariff barriers and economic nationalist policies have all been deployed in recent years.

Protectionism in different forms

Since the financial crisis of 2008–09 and subsequent global economic downturn, more protectionist measures, what the Global Trade Alert characterises as “harmful” interventions, have been adopted than liberal ones (see Figure 2).⁷ Some countries have responded to growing dissatisfaction about globalisation and rising income and wealth inequality by engaging in stealth protectionism, mostly through non-tariff barriers. More recently, protectionism has come in the form of explicit tariffs, mostly prominently on US goods imports from China, with reciprocal counter measures. Broader economic nationalism is also on the rise, as exemplified in platforms such as “America First” and the “Made in China 2025” (MIC) strategy.

Figure 2
Annual new interventions (number)



Source: Global Trade Alert

⁶ An update of the special focus topic feature in our *Global insurance review 2017 and outlook 2018/19*, November 2017, Swiss Re Institute.

⁷ See *Global Dynamics* data points from Global Trade Alert.

Made in China 2025 is an industrial strategy to nurture the development of cutting-edge technology at home...

...and will likely give rise to new sources of insurance demand.

We expect the Sino-US trade war to escalate further in the coming months...

... however, the economic impact remains benign, offset by the lingering effects of tax cuts in the US, and fiscal and monetary stimulus in China.

The “Made in China 2025” opportunity for insurers

Initiated in 2015, MIC is a multi-stage roadmap to upgrade and consolidate China's manufacturing industry for improvements in total factor productivity over a 10-year period. It is an ambitious blueprint to nurture Chinese corporations such that they become significant producers of technology within a decade. It is expected that during the process, an increasing share of intermediate products will be manufactured and supplied domestically. This should reduce concerns about the nationalist slant of the MIC strategy, as China increasingly generates intellectual property (IP) domestically rather than request for technology transfer.

For insurers, MIC represents a significant premium growth opportunity. The programme targets 10 priority sectors, which we expect will benefit from supportive government policy.⁸ The drive to upgrade China's manufacturing capability and value creation will lead to higher exposures and associated insurance demand from the priority sectors in particular. For example, insurance is an indispensable part of the overall risk management framework that will enable Chinese companies to migrate to higher value-added production. In addition, advancements in sector technologies, such as in pharmaceuticals and medical devices, will in turn impact pricing models in life insurance.

We acknowledge that the current trade confrontation between the US and China could also lead to a more positive eventual outcome of fairer trade in the longer term, although we attach a small likelihood to this benign scenario.⁹ For the more immediate term, our baseline scenario (see Table 2) sees further escalation of the tensions, as tariffs on Chinese imports rise from 10% currently to 25% in January 2019. We expect the tensions between the two nations to worsen because the current expansionary US fiscal policy will only cause the US trade deficit – a key focus for the US President – to widen further. Significant concessions from China with regards to IP rights could trigger a de-escalation, but are unlikely in our view.

The trade conflict will drag on global growth, even if there is a lag before the impact shows up in economic data. The impact will be greatest in the US and China themselves. Our baseline scenario projects that growth in both will be around 20 basis points lower in 2019 than otherwise would be on account of already in-place tariffs. That said, we do not change our already below consensus growth forecasts for next year. In the US, we expect the drag from trade to be offset by lingering support from tax cuts. In China, we expect the government to step up fiscal stimulus equivalent to around 0.5% of GDP, deployed largely in infrastructure, and also anticipate monetary loosening to soften the blow on growth from slower trade.

⁸ The 10 priority sectors are next generation information technology; high-end numerical control machinery and robotics; aerospace and aviation equipment; maritime engineering equipment and high-tech maritime vessel manufacturing; advanced rail equipment; energy-saving and new energy vehicles; electrical equipment; new materials; biomedicine and high-performance medical devices; and agricultural machinery and equipment.

⁹ M. A. El-Erian “A “Reagan Moment” for International Trade?” *Project Syndicate*, 9 July 2018.

Table 2

Protectionist measures (top), economic impact (middle) and likelihood (bottom) in our baseline and alternative scenarios

Baseline	Plausible escalation - baseline plus	Worst case - global trade war scenario
<ul style="list-style-type: none"> ■ Already implemented US tariffs on steel, aluminum etc. and retaliatory measures from China ■ 25% tariff on <i>all</i> US imports from China to be implemented in 2019 ■ China retaliates 	<ul style="list-style-type: none"> ■ 25% US tariff on auto/auto parts imports (eg, from Mexico, Canada), and proportionate retaliation ■ China allows more CNY weakening ■ US 25% tariff on other Asian countries to prevent China from transshipping through them 	<ul style="list-style-type: none"> ■ 10% tariff on all goods trade globally
Impact in 2019 <ul style="list-style-type: none"> ■ Global GDP down 0.1%–0.2% ■ US and China GDP down 0.2%–0.5% ■ In Europe, marginal impact ■ Probability: 60% 	Impact over three years: <ul style="list-style-type: none"> ■ Global GDP down 1% ■ US and China: GDP down 1.5% ■ Euro area: GDP down about 1% ■ Cumulative probability of downside scenarios: 30% 	Impact over three years: <ul style="list-style-type: none"> ■ Global GDP down 1.5%–2.5% ■ US: GDP down 2%–5% ■ China: GDP down 1.5%–3%

Note: We assign a 10% probability to the cumulative probability of upside scenarios.

Source: Swiss Re Institute

A plausible escalation of our base case would have a more severe economic impact, but faces political hurdles as it would damage relations with US allies.

Our worst case scenario could lead to a 1.5–2.5% decline in global GDP.

We note that our scenarios do not account for all the uncertainties that can arise in trade conflict situations.

We expect global premium growth will be affected by higher tariffs over time, especially marine and trade credit lines.

We assign a 30% probability to other global trade outcomes with more severe economic consequences. A plausible escalation of our baseline involves US import tariffs on auto/auto part from other countries such as Mexico and Canada, and tariffs on imports from other Asian countries that China uses as conduits. In this scenario, we forecast that global GDP will be up to 1% lower over three years than otherwise would be, with growth in the US and China down 1.5%. The Euro area economy would slow by about 1%. We think this scenario is less likely than our baseline because any actions taken by the US as described would hit its allies in Europe, and also in Asia (Japan and South Korea).

Our worst case scenario is where all global goods trade is effected by a 10% tariff. In this situation, which we think is unlikely to materialise, we estimate that global growth could fall by 1.5%–2.5% over three years. Growth in the US would be down 2%–5%, and in China it would fall by 1.5%–3%.

In the medium to long-term, note that all our scenarios may actually underestimate the impact of slower trade on growth, because they do not account for the increased uncertainty that trade tensions create. As much as trade tensions are an economic issue, they also have strong geopolitical overtures which are difficult to forecast and which add to the overall uncertainty, leading to weaker investment spending. Financial conditions usually also tighten in times of heightened uncertainty. The economic damage of greater protectionism reduces the benefits of global trade and decreases global potential growth by disrupting the operations of global companies, lessening economic dynamism and innovation due to reduced competition.

Protectionism and insurance

Trade tariffs matter for insurers. To date the impact of the higher tariffs on global premium growth has been negligible. Over time, however, we expect that global premium growth will be hit, particularly in marine and trade credit lines. According to *sigma* data, a 1% decrease in world trade reduces marine cargo premium growth by 0.89%, and for marine hull premiums by 0.80%. For trade credit, a 1% drop in trade reduces premiums by 0.67%.¹⁰

¹⁰ *sigma* 3/2016: World insurance in 2015: steady growth amid regional disparities, Swiss Re.

Macroeconomic environment and outlook

But re/insurance companies are much more concerned about non-tariff barriers than tariffs on goods traded.

Another concern is the rise of bilateral trade agreements as they fragment regulation, which makes cross-border re/insurance transactions more costly.

There are also examples of regulation nationalism in reinsurance.

Protectionist measures pose longer-term challenges for local re/insurers.

On the flipside, some emerging markets are implementing international best practices and liberalising their markets.

Equally important for re/insurers as service providers is the rise of protectionism through non-tariff barriers. In the US, the implications of the tax reform for P&C businesses are significant and will have a long-lasting impact on the re/insurance market. We believe the reforms will alter the long-term competitive climate, M&A dynamics, and capital and investment allocations. The lower US corporate tax rate, combined with the effective elimination of the ability to undertake tax advantaged quota-share agreements with affiliated entities, puts US primary insurers at par with foreign-owned insurers.

The rise of bilateral rather than multilateral trade agreements is another concern.¹¹ Bilateral trade agreements fragment regulation internationally, which makes cross-border re/insurance transactions more costly and detracts from the benefits of diversification. So too is the emergence of pockets of nationalist regulation in some emerging markets. Regulators have raised barriers to entry for foreign companies, for instance by limiting the extent of foreign ownership in a local insurer or imposing more stringent rules for foreign insurers to operate in local markets. Indonesia, for example, has restricted foreign ownership of an insurance company to 80%, and institutes a single-presence policy whereby a single shareholder is allowed to control one insurer only. In Malaysia, the central bank has set a foreign insurer share holding cap of 70%.

There are also examples of preferential treatment for local reinsurance. India has proposed priority cessions to domestic reinsurers, and the authorities in Indonesia stipulate the placement of certain "simple risk" lines of business with domestic reinsurers. Meanwhile in Russia, the national reinsurer has been aggressively expanding its market share, crowding out private players under the 10% share rule of compulsory cessions. In Africa, many regulators have introduced or have planned measures to localise more risks at home.

In our view, such measures are retrograde in the long run. They stifle local competition, raise re/insurers' capital requirements and the cost of doing business, and thus ultimately make re/insurance covers more expensive for consumers. In the CIMA region,¹² the issues raised by localisation measures have already triggered discussions around whether the actions are appropriate. Many local reinsurers are not sufficiently diversified, have limited skills to manage complex risks, and insufficient capital base. As such, they need to rely heavily on global retrocession capacity, especially for big-ticket risks such as energy, mining and infrastructure.

It's not all bad news. Regulations in some emerging markets are converging with global standards and best practices, and others are implementing further liberalisation and deregulation measures. For instance China, Brazil and Argentina continue to embrace more open markets and fairer competition by removing investment restrictions. And in Central and Eastern Europe (CEE), insurers are debating about internal liberalisation and reducing the burden following Solvency II regulation. And, what some may perceive as nationalist regulation can often start from good intentions. For example, regulation preventing capital outflows, though restrictive, stems the outflow of hot money during a financial crisis.

¹¹ See *Regional Trade Agreements Information System*, World Trade Organization, 1 November 2018.

¹² CIMA, Conférence Interafricaine des Marchés d' Assurances, refers to a group of 15 countries in West Africa with a common regulatory framework.

Insurance market outlook 2019/20

Emerging markets remain the engine of growth for the global insurance market.

We expect the positive, but slowing economic momentum, to support modest global insurance premium growth of around 3% annually in real terms over the next two years, a 1 ppt improvement from 2018. In both non-life and life, the emerging markets remain the main driver, in particular China. Premium rates in non-life have improved moderately this year, and we expect broadly stable rates into 2019. This will support profitability but in an environment of claims inflation, the onus for earnings improvement is strengthening underwriting performance.¹³ Overall profitability in life insurance has improved this year, with outperformance in the US. The ongoing low interest rate environment, however, will remain a challenge.

Table 3
Insurance market dashboard with key indicators

			World			Advanced markets									Emerging markets		
			North America			EMEA			Asia-Pacific								
			Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook
Non-life, direct																	
Premium growth (real)	CAGR		3.1%	3.3%	3%	2.2%	2.8%	2%	1.1%	1.4%	2%	3.0%	1.2%	3%	8.1%	7.8%	8%
Premium growth (USD)	Diff		48	152	119	25	49	42	-5	45	20	1	10	13	26	47	44
Profitability	ROE	Average	7.4%	6.5%	7%	7.7%	6.7%	8%	6.1%	5.7%	6%	9.4%	7.1%	6%			
Underwriting results*	Average		0.8%	0.6%	1%	0.0%	-0.6%	0%	1.6%	1.4%	1%	4.1%	6.2%	5%			
Investment results*	Average		10.7%	9.7%	10%	11.9%	10.6%	11%	8.8%	8.4%	9%	8.3%	7.3%	7%			
Life, direct																	
Premium growth (real)	CAGR		2.3%	1.6%	3%	-1.0%	1.7%	1%	2.6%	0.8%	1%	-0.7%	3.0%	2%	10%	1.3%	9%
Premium growth (USD)	Diff		21	120	123	-1	26	19	3	36	20	-25	35	23	43	23	60
Total Profitability ROE	Average		10.2%	8.9%		10.4%	9.8%		8.2%	6.7%		10.9%	9.3%				
Total (stock market indicators)																	
Price to book	Insurance sector	Average	1.2	1.3		1.2	1.4		1.1	1.2		1.4	1.3				
	Total market	Average	2.1	2.3		3.0	3.8		1.7	1.8		1.6	1.6				
Stock prices	Insurance sector	CAGR	11%	3%		14%	5%		6%	-2%		10%	5%				
	Total market	CAGR	8.4%	5.4%		16.8%	2.6%		0.9%	-1.9%		5.3%	-5.4%				

* as a % of net premiums earned

Remarks: past trend (2013–2017); current (2018); outlook (2019–2020); ROE = return on equity; CAGR = compound average growth rate. Colouring based on deviation from long-term trend for each region. Regional stock market indicators contain advanced and emerging countries in each of the regions.

Deviation from long-term trend	Colour
< -1.5%	Red
-1.5% – -0.5%	Orange
-0.5% – 0.5%	Yellow
0.5% – 1.5%	Light Green
> 1.5%	Dark Green

Source: Swiss Re Institute

Greater adoption of new technologies will support insurer profitability ...

A main enabler of future profitability in insurance and overall industry growth will be technology and data. Information, once digitalised, is being used to improve processes across the insurance value chain, including underwriting and pricing decisions, and outreach to customers. Policy and claims management is becoming more efficient as machine learning and pattern recognition are used to analyse handwritten and unstructured documents to expedite and detect false claims. Areas of application of Artificial Intelligence and smart analytics include algorithms to automatically process applicants' data like personal medical history, to accelerate underwriting assessment, especially for more complex lines like life insurance.¹⁴ The integration of cognitive computing systems with voice recognition and text reading algorithms will eventually make it possible to extract meaningful information from all sources of data, including unstructured medical reports.

¹³ We estimate that underwriting margins need to improve by at least 6 to 9 percentage points in the major western markets, by 5 points in Japan, and by 1 point in Australia and China if insurers are to deliver a structured target ROE of 10%. See *sigma* 4/2018: Profitability in non-life insurance: mind the gap, Swiss Re Institute.

¹⁴ *Technology and insurance: themes and challenges*, Swiss Re Institute, June 2017.

... and by facilitating access to new risk pools, will also improve resilience.

So far, insurers' investments in technology have led to some efficiency gains and compressed margins for the distribution system in commoditised lines. Technology such as telematics and advanced analytics can also be used to reduce claims frequency and severity, reduce fraud and lower claims costs. In our view, the scope for digital disruption is much further reaching. Crucially, technology can facilitate access to new risk pools. In the long run, this will help close existing protection gaps and improve economic and social resilience.

We forecast that global non-life premium growth will trend at about 3% over 2019/20.

Non-life insurance

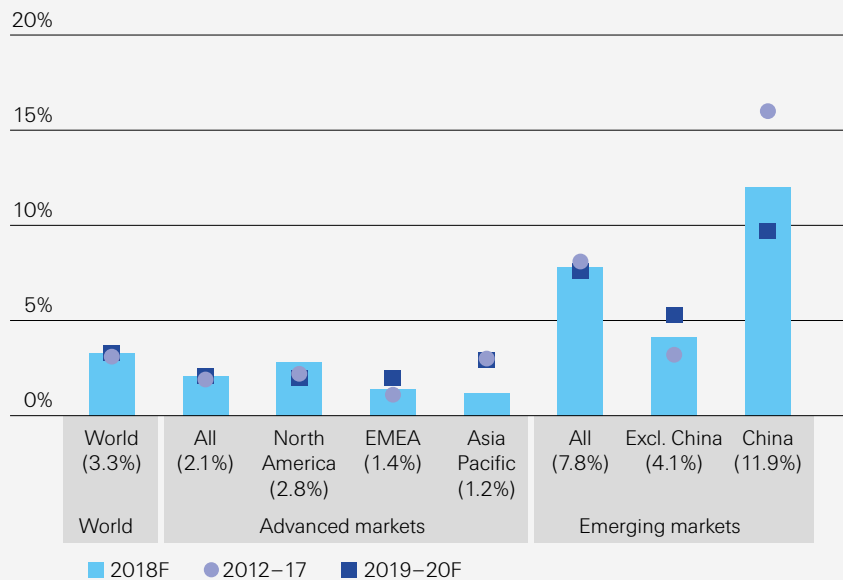
Global premium moderate growth recovery to continue

Global non-life premiums will grow by around 3% on an inflation-adjusted basis in 2018, and we forecast similar growth over the coming two years. The global aggregate is being driven by the emerging markets, where we estimate 8% premium growth this year, and around the same over 2019 and 2020. Non-life business in China and India has been particularly strong, with combined premiums up 12% in real terms this year. Agriculture insurance has been a main growth driver in both countries. Alongside economic recovery, non-life sector growth dynamics in Latin America and Africa are improving, but we expect current premium increases there to remain below respective long-term trend levels over the next two years.

Advanced market premium growth has been stable, with offsetting positives and negatives.

Advanced market premiums have grown by about 2% this year on the back of strong economic momentum, in particular in North America, and also others. In regions hit by the record natural catastrophe losses in 2017, harder rates in property lines have supported the premiums increase. Notable negatives for the advanced market aggregate this year has been declining premium income in motor in Japan and the UK, due to large rate cuts in those markets. In Japan, the cuts resulted from benign claims trends and in the UK, as some insurers start to pass on expected cost benefits from the government's planned reforms to personal injury compensation, including an upward revision to the Ogden discount rate.¹⁵

Figure 3
Global non-life insurance premium growth in real terms, actual and forecasts (2018 values showing in brackets)



Source: Swiss Re Institute

¹⁵ In February 2017, the UK government announced a significant lowering of the discount rate for personal injury compensation awards, the so-called Ogden rates. Lower discount rates increase claims cost for insurers and in response, premium rates were lifted to offset the negative impact. In September last year, the government indicated a potential partial reversal of the lower discount rate. Anticipation of this change has led to reduced pricing pressures this year.

Regions where premium growth will strengthen include Asia Pacific and the emerging markets (excluding China).

Global prices have strengthened moderately in 2018, driven by US property and harder commercial rates in Australia.

Non-life premium development will be stable across the global, advanced and emerging markets aggregates over the next two years. One level down, we expect premiums in the Asia Pacific region to grow at a faster rate than this year, on the back of stronger prices. We also expect premium growth in the emerging markets excluding China to be stronger than in 2018, on recovery of economies where growth has been sluggish or very weak in recent years. In the major US and China markets, we anticipate slight sector slowdown from this year's comparably high levels, against a backdrop of cooling economies and less dynamic motor business.

Pricing has stabilised

There has been moderate improvement in non-life insurance pricing this year, and we expect rates to remain stable at current levels into 2019. Marsh's global insurance market index ticked up moderately in the second quarter this year, the third increase in succession. Even so, stabilisation of the soft market trend of the last years has not been sufficient to significantly narrow the profitability gap that still besets the non-life insurance sector. This is in part because of inconsistency in premium rate gains. The moderate improvements have mainly been in US property, after the record high natural catastrophe losses of 2017, which have slightly outweighed slow but still weakening rates in casualty business. An outlier this year has been very strong prices in commercial insurance in Australia, up on average by 14%. A strong increase in financial lines there has been driven by a sharp increase in rate for Directors and Officers covers, driven by capacity constraints in an environment of rising litigation. Rates in Financial and Professional Liability lines in the US, UK and Latin America have also hardened, but to a lesser degree.

Table 4
Global commercial insurance rate index, second quarter 2018

Rate changes in percent	Global	US	UK	Europe	Latin America	Asia	Pacific
Property	2.3 ↑	3.0 ↑	-1.4 ↑	-1.3 ↗	-0.6 ↗	-0.4 ↗	12.5 ↑
Casualty	-1.4 ↘	-2.4 ↘	-2.2 ↘	-1.4 ↗	1.6 ↓	-0.5 ↑	5.7 ↗
FinPro	3.3 ↑	0.9 ↗	5.0 ↑	-2.2 ↘	3.2 ↑	-0.5 ↗	23.3 ↑
Composite	1.2 ↑	0.0 ↗	0.8 ↑	-1.5 ↗	0.3 ↗	-0.4 ↗	13.7 ↑

Note: the arrows indicate the trend change in rate direction since the second quarter of 2017.
Source: Marsh Global Insurance Market Index and Swiss Re Institute

Rates in commercial insurance in the US have risen by about 2% this year.

The modest improvement in rates this year has supported non-life insurance sector profitability ...

Rates in US commercial insurance also turned more positive in the first two quarters 2018. As reported by the Council of Insurance Agents and Brokers (CIAB), aggregate commercial rate increases accelerated to an average of 1.6% in the first half of 2018 from 0.3% in the fourth quarter of 2017. Commercial auto rates continued to harden at a significant pace (for more see *Topic update: Motor - claims-driven pockets of growth*). In commercial property, price growth accelerated moderately the first quarter, but appears to have slowed again in the second. There were modest improvements across most other lines in the first half of 2018 with the exception of workers compensation, but pricing still lags claims development.

Underwriting results: improving, but to different degrees

The modest improvement in rates has supported improved profitability in the global non-life insurance sector this year. There have also been signs of stronger underwriting results, but to different degrees. In the US, Property & Casualty (P&C) performed much stronger in the first half of 2018 than a year earlier. Premium growth accelerated, supported by strong underlying exposure growth and the modest rate improvements, and outpaced both loss and expense ratio growth.
¹⁶Catastrophe losses added 4.2 points to the combined ratio, compared to a

¹⁶ Based on *sigma* data.

... but it has been a mixed picture across different regions.

There have been large losses in Japan due to Typhoon Jebi and other catastrophes.

The year started benign, but the insured losses from disaster events globally in 2018 are mounting.

We expect underwriting results to be slightly more positive in 2018, and remain so in the coming years.

Moderate rate hardening will support sector profitability, but will not offset rising claims costs.

6.8-point burden in 2017.¹⁷ Reserve releases remained positive, and the overall combined ratio was 96.7% in the first half, down more than 4 points from a year earlier. The US P&C sector underwriting profit overall was some USD 6 billion, which combined with stronger investment results, resulted in sector ROE of 8.8%.

Elsewhere, underwriting results in Canada deteriorated in the first half, driven by weather-related losses.¹⁸ The negative impact was mostly concentrated in property lines. Underwriting profitability in Europe¹⁹ was stable in the first two quarters of 2018 compared to the full-year 2017. Catastrophe losses pushed the combined ratio up in Germany, while the Nordics saw higher fire and accident losses. Italy, Spain and the UK saw further improvements due to better results in motor. The UK exhibited a return to normal in anticipation of partial reversal of the low Ogden rates.²⁰

In Australia, underwriting results improved significantly in the first half of 2018 after the positive premium rate adjustment and benign natural catastrophe losses. Personal lines remain the key profit contributor. Insurers' profits have also been supported by significant reserve releases in long-tail classes benefiting from a low wage inflation backdrop. In Japan, insured losses of at least USD 13 billion from a number of large catastrophes over the summer (Typhoons Jebi and Trami, heavy rains in July, and earthquakes in Osaka and Hokkaido) hit the balance sheets of non-life insurers and their international reinsurers.

After last year's record global insured natural catastrophe losses of USD 144 billion,²¹ disaster-related losses in 2018 are expected to be less severe. However, claims are mounting up and are nearing the USD-60-billion mark.²² The largest natural catastrophe losses year-to-date are from hurricanes making landfall in the US (Michael, Florence) and from the above-mentioned typhoons and floods in Japan.

Outlook: For 2018, we expect a positive underwriting result for the global non-life sector of around 1% of premiums. This will be mostly driven by a lower loss burden from natural catastrophes compared to 2017. In the next years, in the absence of clear direction on rates, we expect underwriting results to remain stable at current levels. The recent improvement of property rates has been mainly felt in regions that suffered a high natural catastrophe burden last year, and is expected to fade.

For commercial lines globally, we expect just moderate improvement in pricing, with variations across markets and segments. There has been a sharp acceleration in claims in the motor market in recent years, particularly in the US. In response, US personal and commercial auto pricing has been increasing since 2015, with no signs of moderation. Profitability should be improving, but there is still a long way to go to catch up with the surge in claims trends. Claims are expected to pick up given positive economic momentum and higher general and claims inflation outlooks. More than general inflation trends, wage and healthcare inflation are of particular importance to non-life insurers more broadly as they drive components of claims payments such as healthcare, loss of income compensation, repair and building costs. In the case of wages, they also impact the administration expenses of insurers.

¹⁷ According to A.M. Best. See "First Look – First Half 2018 Property/Casualty Financial Results," *Best's Special Report*, A.M. Best, 23 August 2018.

¹⁸ *Ibid.*

¹⁹ 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.

²⁰ Before indication of partial reversal last year, some insurers had booked the negative impact of the lower Ogden rates on claims reserves to 2016 annual accounts, and some to their 2017 accounts.

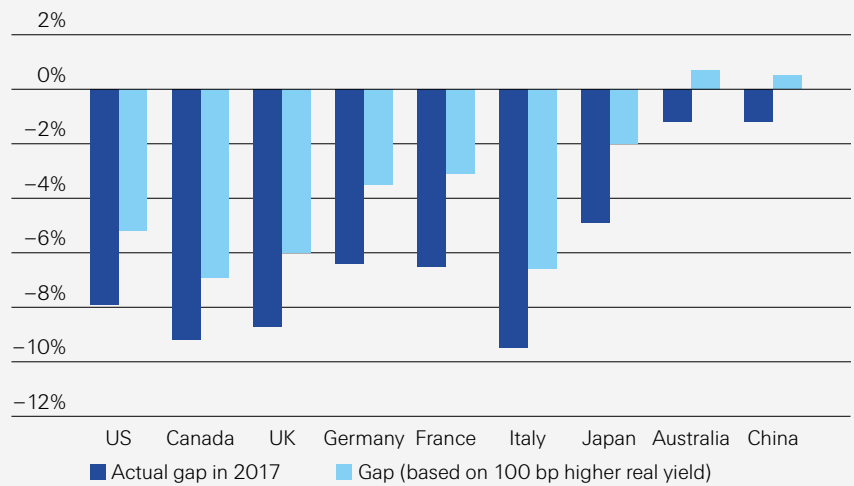
²¹ See *sigma* 1/2018: Natural catastrophe and made losses in 2017: a year of record-breaking losses, Swiss Re Institute.

²² According to latest information on the *sigma* database.

Higher interest rates will bring stronger investment returns, but the onus remains on improving underwriting performance.

Rising interest rates in the US, and more moderately so in Europe, have led to slightly higher investment returns from newly-invested funds. In the years to come, we expect investment returns will improve modestly alongside interest rate developments. This will support profitability in non-life insurance but in an environment of claims-inflation driven insurance losses, the onus will be to strengthen underwriting performance notably if there is to be sustainable improvement in sector earnings. For example, even a 100-basis-point gain in real investment yields would not be sufficient to close the current non-life performance gap in most markets.²³

Figure 4
Sensitivity analysis of underwriting profitability gaps



Source: Swiss Re Institute

²³ *sigma* 4/2018, op. cit.



Topic update: motor – select claims-driven pockets of growth²⁴

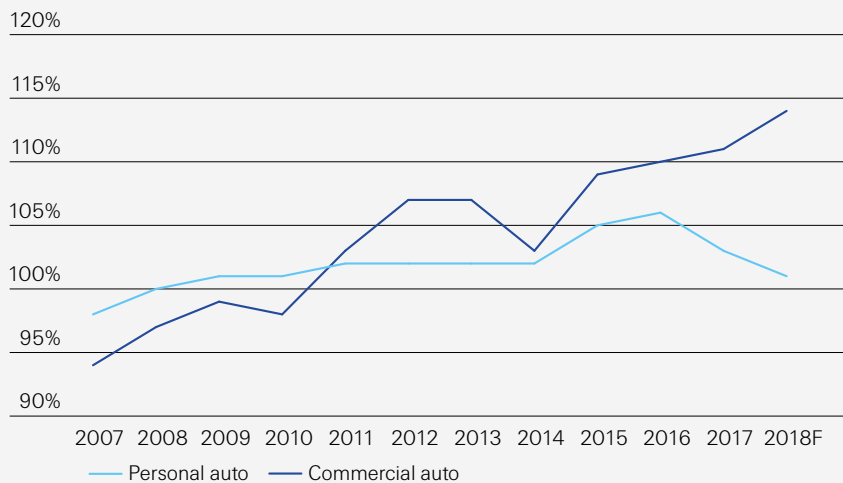
We anticipate mixed profit outcomes in the world's major motor insurance markets ...

... with continued profitability in US personal line motor.

Motor claims have not developed as expected in the last few years, especially in the US, with deviations of claims and premium trends from the broader non-life cycle. With an estimated USD 730 billion in premiums globally in 2017, motor is the largest non-life risk pool, accounting for one third of all non-life premiums. Given its sheer size, trend deviations in motor make assessment of current and future drivers key to better understanding of dynamics in the non-life sector as a whole.

In the US, we expect declines in loss frequency to support continued profitability improvement in personal motor. Since 2014, underwriting results had deteriorated sharply, and worsened further still in commercial auto in 2017 (see Figure 5), driven by higher claims severity and frequency.²⁵

Figure 5
US motor combined ratios, 2007–2018



Source: A.M. Best, forecasts from Conning, Swiss Re Institute

The market has responded by increasing premium rates.

More recently, frequency trends appear to be levelling off or even declining somewhat.

Insurers responded to the uptick in claims frequency and severity by increasing premium rates to catch up with rising claims costs. US personal and commercial auto pricing has been strengthening strongly since 2015. In personal auto, rate increases averaged around 8% in the first three quarters of 2018 (based on the motor vehicle insurance sub-component of the Consumer Price Index), but seem to have peaked in the first quarter and have moderated since. In commercial motor, price increases averaged around 9% in the first half of this year (based on CIAB surveys), and show no signs of moderation.

The recent moderation in personal auto prices is likely a consequence of frequency trends. Preliminary estimates indicate that traffic fatalities may be levelling off, with the number of motor vehicle deaths in the first half of this year and also 2017 roughly flat compared to the same period in 2016.²⁶ We expect profitability to improve further as rates are still ahead of loss costs, but now the improvement is being driven more by declining loss frequency than strong rate increases. In commercial auto, even with current rate increase trends, profitability still has a long way to go to recapture lost ground.

²⁴ An update of the special focus topic feature in our *Global insurance review 2017 and outlook 2018/19*, November 2017, Swiss Re Institute.

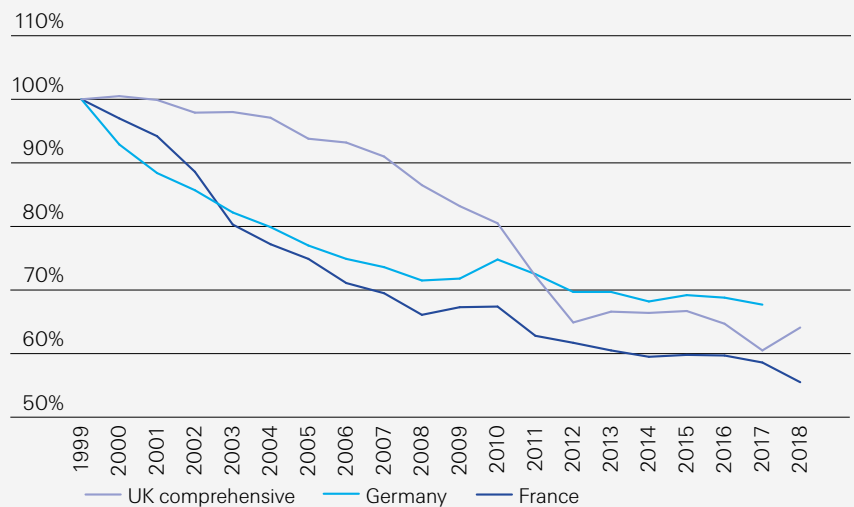
²⁵ Ibid, for reasons behind higher claims severity and frequency

²⁶ *Preliminary Estimates*, National Safety Council, 2018.

There has been improvement in the combined ratio in Europe ...

In Europe, road accident statistics show that the frequency of fatal accidents has been levelling off, and the same can be seen for the frequency of injuries. The trend of declining accident frequency is also mirrored by insurers' claims frequency data from national insurance associations (see Figure 6). Claims severity, however, is on an upward trend, driven by more expensive repair and healthcare costs. In the UK, motor claims severity remains high. Claims for whiplash injury and high repair costs for complex vehicles have driven high pay-outs. Insurers have been able to pass through part of the costs to customers, and overall underwriting performance has improved. The segment's combined ratio was 96.8% in 2017, after 109.4% in 2016.²⁷

Figure 6
Motor claims frequency in the UK, Germany and France, 1999–2018 (1999= 100)



Note: Up to 2012, the UK data includes claims settled at zero cost. Therefore, the level from 2013 onwards is not directly comparable with the previous period.

Source: Association of British Insurers, German Insurance Association, French Insurance Association

... but profitability improvement in UK motor may prove short-lived.

In the UK, after a period of sustained premium rate increases, however, prices are falling again as some insurers start to pass on expected cost benefits from the government's planned reforms to personal injury compensation, including revisions to the Ogden discount rate. Survey data from the Association of British Insurers indicate that average motor premiums fell by 2.5% in the first half of this year, bringing the annual rate down to 1% from an average of over 9% in 2017. This suggests the recent improvement in UK motor insurer profitability will be short-lived.

We anticipate premium rates will remain under pressure in China and Japan.

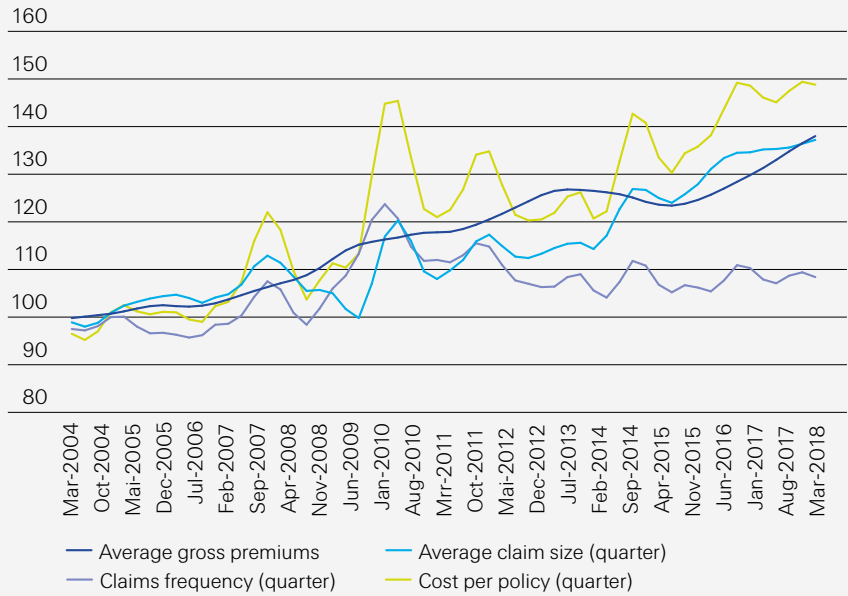
In Australia, more expensive imported parts and advanced driver assistance systems are driving up repair costs. Recent premium rate increases have come in response to claims inflation. In China, premium rates remain under pressure following motor rate liberalisation in July 2016.²⁸ Moreover, motor claims experience has improved after insurers imposed stricter rules on specifications of less expensive repair parts and caps on labour hours. In Japan, rates are expected to weaken. Road accident statistics shows the frequency of fatal accidents has been declining, and the severity of accidents has also declined.²⁹

²⁷ According to EY, see *UK motor insurance NCR rose 96.8% in 2017, the second best result since records began in 1985*, EY, 28 June 2018.

²⁸ *Commercial Vehicles Reform Press Conference*, China Insurance Regulatory Commission, June 2017, (in Chinese only).

²⁹ *Announcement on the revision of the Reference Loss Cost Rates for voluntary automobile*, 9 June 2017, General Insurance Rating Organisation of Japan.

Figure 7
 Motor claims frequency in Australia
 2004–2018, (March 2004=100)



Note: original data has been indexed to the March quarter 2004 and trended using a 7-term Henderson moving average. The data does not include State or Commonwealth Government taxes and charges.

Source: Insurance Council of Australia; Underlying data from Insurance Statistics Australia.

Life insurance

We estimate that global life premiums will grow by 1.6% in 2018.

Early indicators suggest that life premiums in China will contract this year due to tighter regulation on wealth management products.

However, there will be a rebound in China in 2019/20 as the one-off effect of the shock fades.

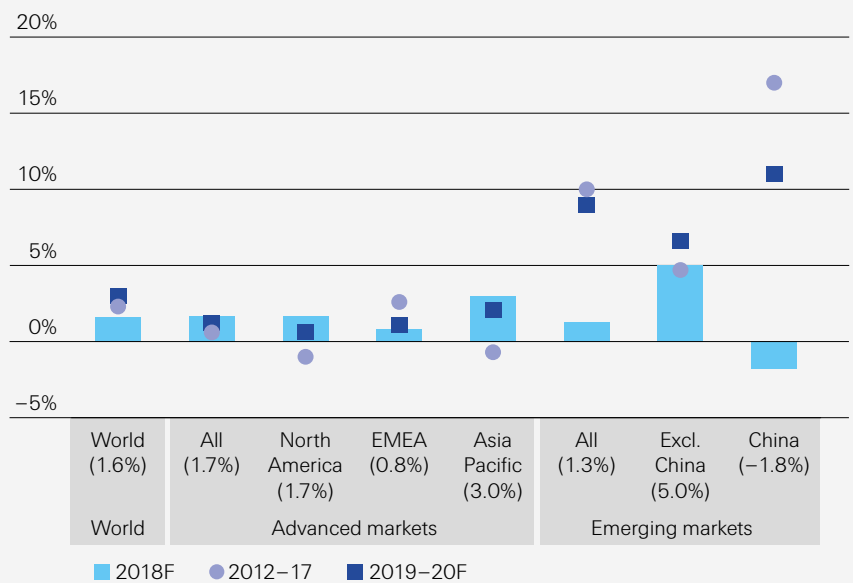
Emerging markets premium growth to return to trend in 2019/20

We estimate that global life insurance premiums will grow by 1.6% in real terms this year, slightly slower than the average annual growth rate of the last five years (see Figure 8). Premiums in the advanced markets will grow by 1.7%, while emerging market premium growth will likely be much slower than usual (our forecast +1.3%).

In recent years, emerging markets have accounted for most of the acceleration in global life premium income, but their contribution will be much lower in 2018. The reason is China, which remains the engine of growth for the life industry. What happens there has large impact on the emerging market aggregate. Part-year data indicates that there will be a substantial contraction (-1.8%) in life premiums in China in 2018, due mostly to tighter regulation of wealth-management-product (WMP) types since beginning of the year. Excluding China, we forecast emerging market life premiums to increase by 5% this year.

For the next two years, the outlook for different regions is mixed. Emerging market premiums will accelerate again to around 9%. There will be a rebound in China, where the economic backdrop remains strong and as the one-off effect of this year's WMP shock fades. Advanced market premiums are expected to remain stable.

Figure 8
Global life insurance premium growth in real terms, actual and forecast (2018 values in brackets)



Source: Swiss Re Institute

Overall profitability is recovering ...

Rising interest rates support investment income, with a lag

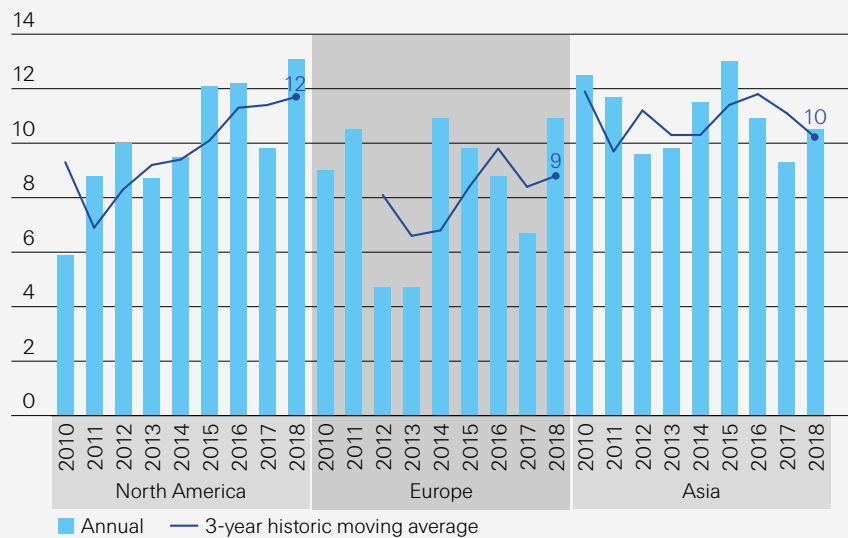
In the low interest rate environment, overall profitability in the life insurance sector – as measured by ROE – remains low. According to part-year data, the trend in the US is upwards, slowly (see Figure 9). With an estimated ROE of 12%, North American life insurers have performed solidly this year and outperformed peers in Europe and Asia, for which 2018 ROE is estimated at 9% and 10%, respectively.³⁰

³⁰ 2018 ROE numbers are indicative, being based on a relatively small number of insurers.

... but the long-running low interest rates remain a major concern for life insurers' profitability.

Some central banks have taken their foot off the monetary policy accelerator and interest rates are rising slowly, but are still very low. This means savings-type business will remain stressed given the associated inability of life insurers to provide attractive returns, fund guarantees, future claims and benefits, while at the same time offer attractive prices. Many business lines are of longer duration than available assets, and insurers still need to reinvest in lower-yielding assets and/or take more asset risk, exposing their balance sheets to more financial risk.

Figure 9
Return on equity of a sample of life insurers, by region



Note: 2018 ROE numbers are indicative, being based on a relatively small number of insurers.
Source: Thomson Reuters, Swiss Re Institute

Life insurers are concerned about maintaining adequate returns and protecting investments from exposure to market downturn.

We expect interest rates to remain stable at current levels, with only marginal increases. Alongside high equity valuations, insurers are searching for better returns and also protecting their investment portfolios from exposure to market downturn. According to a recent survey more insurers have been reconfiguring their portfolios to increase their exposure across a wide range of assets and diversifying into new asset classes.³¹ Life insurers also need to keep abreast of regulatory developments in order to maintain optimal returns. Regulatory changes can necessitate realignment of asset allocation.

³¹ *Global Insurance Report*, BlackRock, 2018.

Life sector themes

Is the slowing in mortality improvements here to stay?

There are signs that longevity improvement has slowed recently, but it is unclear if this reflects a permanent shift.

Excluding periods of war, global life expectancy has improved steadily for well over a century. But there are signs that the rate of improvement is slowing, at least in some advanced markets. For instance since around 2011, age-standardised mortality rates in the US, UK and Germany, while still declining, have done so at a slower pace than previously. However, it is not yet clear if this change is temporary or permanent.

Pension funds and insurers that offer annuities have started to reassess their longevity assumptions.

Distinguishing shifts in the underlying trend in mortality from more regular variability is crucial because the former is an aggregate risk that cannot be diversified away. Therefore, providers of financial support to pensioners, including pension funds and insurers that offer annuities have started to realign their longevity assumptions in line with the revised trend in mortality improvement. This can have implications on reserving: if the slowdown in mortality rate trend turns out to be temporary, pension funds and insurers which have released reserves early may face balance sheet constraints from higher-than-expected payouts.

Biometric risks in the books may also change due to an increased availability and affordability of genetic testing.

What do advances in genetic testing mean for life insurers?

Insurers' claims experience will also be influenced by advances in genetic testing, the availability and affordability of which has increased over the last decade.³² Medical testing, for instance, provides valuable insights to prevent, diagnose and treat diseases improving health and longevity. But the use of medical genetic testing also poses a risk for insurers. If consumers take a test and are not obliged to share the results with their insurer, the information asymmetry leads to anti-selection (ie, only higher risks buy protection). This can erode the solidarity principle of insurance and significantly increase prices for those seeking protection.

Innovations will have positive effect on health outcomes, and up- and downside impacts on medical expense insurance claims costs.

Technology to drive health insurance claims costs

Advances in medicine and technology are also changing the business environment for medical expense insurers. New technologies allow insurers to collect more and/or new data and make use of improved data-analytics capabilities. These, for example, can assist in early detection of worsening health conditions of policyholders, facilitating timely response for improved health outcomes while also reducing avoidable claims costs. On the downside, medical innovations (eg, biodegradable cardiac stents, new pharmaceuticals and biologics) are often very expensive, driving up claims costs and adding strain to the healthcare budgets of households and governments.³³

³² Due to declining costs and improved computing power.

³³ *Health: 2018 Medical Trends Around the World*, Mercer, 2018.

Ten years on, is the world more resilient?

The global economy is ill-prepared for another crisis, in our view.

Together, the public sector and insurers can continue to build resilience.

Economic resilience is the capacity of a system to regenerate after a shock event.

Overall, we do not think the global economy has become more resilient. On the contrary: 10 years after the 2008–09 global financial crisis, the world economy remains ill-prepared for the possibility of a repeat event. The major economies are now less well-equipped to rebound from unexpected shocks than they were before the crisis. To this end, we encourage policy makers to focus on increasing competitiveness on a national level and cooperation at the global level, as outlined by the G20 Eminent Persons Group report on Global Financial Governance.³⁴

With respect to the contribution of insurance to resilience, large protection gaps across mortality and property lines of business indicate a still-elevated vulnerability to adverse events for many households and businesses globally. We newly estimate a combined global mortality and property protection gap of USD 500 billion in premium equivalent terms. This signals the existing high level of unprotected risks and significant growth potential for insurers. By working to further narrow protection gaps, and by being able to expand their risk absorbing capacity and long-term investment activities, insurers will continue to play a main role in strengthening system resilience. Based on latest figures from different sources, we estimate that the global re/insurance sector has total assets under management of about USD 30 trillion. The large asset base of the re/insurance industry should be fully mobilised as risk absorber.

Economic resilience has not improved

We define economic resilience as the capacity of a system to regenerate after a significant shock event. The larger the capacity, the smaller the resilience “gap” or, in other words, the more resilient the system. Shock-buffer capacity is a blend of quantitative and qualitative factors, as outlined in the non-exhaustive Table 5.

Table 5
Non-exhaustive list of factors that influence economic resilience



Quantitative	Qualitative
Economic trend growth	Ease of doing business
Domestic and external imbalances	Institutional stability
Public and private debt stocks	Labour and product market flexibility
Scope for additional monetary policy/fiscal stimulus	Efficiency of insolvency regimes
Financial market structure	
Contingent liabilities, such as pension and healthcare costs	

Source: Swiss Re Institute

In our view, economic resilience has decreased over the past 10 years given lower trend growth, high debt burdens, a weakened financial market structure and a move to less openness.

The capacity of several key global resilience factors, or shock buffers, has weakened over the last 10 years:

- Lower growth paths: Global economic trend growth has declined significantly. According to some estimates, the growth trend has decreased from around 5% in 2006 to just over 3% in 2018.³⁵
- Higher debt: total debt ratios are much higher than 10 years ago, standing at 318% (or USD 247 trillion in absolute terms) in the first quarter of this year, compared with 282% in the first quarter of 2008.³⁶ As Figure 10 shows, the higher debt stock has been mostly driven by increases in government and non-financial corporate debt. What's happened is that the risks have migrated from banks to non-financial corporate and government balance sheets.

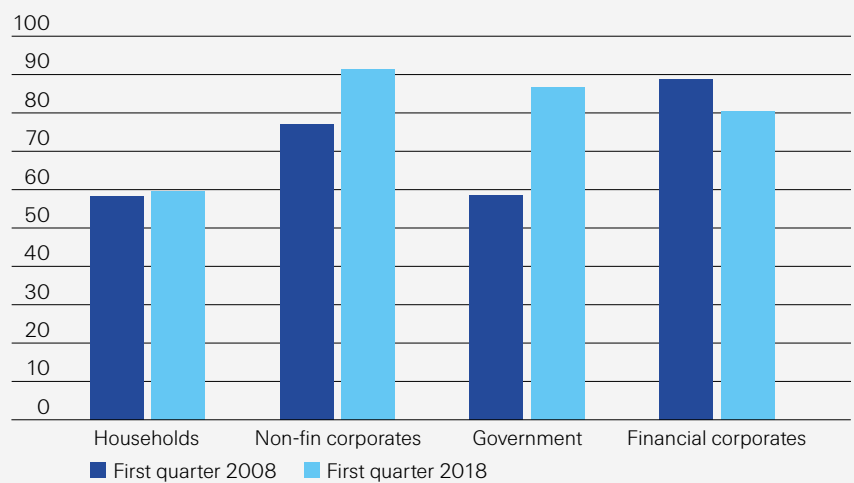
³⁴ *Making the Global Financial System Work for All*, G20 Eminent Persons Group on Global Financial Governance, October 2018.

³⁵ See P. Alexander, *Assessing Global Potential Output Growth*, Bank of Canada Staff Analytical, 2017.

³⁶ According to the *Global Debt Monitor* database of the IIF.

- Financial market structure: central banks have become major actors in financial markets. We estimate that the Fed, ECB, Bank of England and Bank of Japan all own between 20–45% of their domestic government bond markets. Bond prices have thus lost their price/risk signalling function. The low-yield environment has contributed to a large mismatch between guaranteed returns to policy holders (liabilities) and available investment yields (assets) for life insurers.³⁷
- Less-open economies: Some advanced economies have exhibited a tendency towards less open systems in the past years, for example by restricting trade and migration.³⁸ Openness increases exposure to crisis via contagion but arguably, openness also allows stricken nations to bounce back more quickly.

Figure 10
Global debt-to-GDP ratios (%)



Source: Global Debt Monitor Database, Institute of International Finance

Europe appears to be the least resilient...

Region wise, Europe appears to be the least economically-resilient, for a number of reasons. First, public and private debt levels are very high, at roughly 390% of GDP in the Euro area, which is about a 50 ppt increase from 10 years ago. Also, in contrast to other countries with elevated debt levels such as Japan, the Euro area member countries are bound by their single currency regime. Hence, a country's debt burden can more quickly become an economic challenge than elsewhere as the exchange rate cannot act as an adjustment valve.³⁹ That said, in the case of Italy, almost two thirds of its sovereign debt is owned by domestic investors. To some extent this mitigates some of the risk arising from external financing needs.⁴⁰ Second, the ECB has largely exhausted its policy arsenal and has to manage strong political constraints.⁴¹ Third, product and labour markets in many Euro area nations are not sufficiently flexible to ensure increased competitiveness, and progress on structural reforms to increase flexibility in these areas have been slow in key countries, such as in France and Italy.

³⁷ *Global Financial Stability Report*, IMF, October 2017.

³⁸ Think "America first". For further discussion, see *Topic update: protectionism on the rise*

³⁹ This is also confirmed by the latest Article IV consultation of the IMF, see *Euro Area Policies*, IMF Country Report, July 2018.

⁴⁰ According to the sovereign bond holding data set of Bruegel.

⁴¹ Although the ECB's Quantitative Easing limits (asset class, country, issue and issuer limits) are self-imposed and could be expanded, further steps towards monetary financing would most likely face strong political backlash as it is legally prohibited.

Ten years on, is the world more resilient?

... while the US ranks as one of the most robust nations.

The public and private sectors have a shared interest in resilient economies, many factors need to be considered.

Meanwhile, the US is one of the most resilient countries. Despite increases in public debt to just over 100% to GDP, the private sector debt burden is well contained.⁴² In addition, with the US dollar being the global reserve currency, the Fed is one of the central banks among advanced nations with most policy buffer. Further, the ease of doing business in the US affords the country a dynamic response to economic shocks.

The public and the private sectors have a shared interest in a solid macroeconomic backdrop and resilient economies. To strengthen and improve global resilience, policy makers should focus on multiple dimensions. The table below shows some of the key areas where we see significant room for improvement.

Table 6
Our “wish list”
to strengthen economic
resilience



Topic	Description
Encourage private capital market solutions	With a more conducive policy setting, the private sector could play a bigger role in alleviating societal challenges and government contingent liabilities, for example by providing private capital market solutions to address the global retirement savings gap or public healthcare expenditures.
State-contingent financing instruments for sovereigns	Given the global debt overhang, decrease the tax advantage of debt over equity as a corporate and government financing instrument. Encourage state-contingent instruments such as GDP-linked sovereign bonds that act as counter-cyclical stabilisers, as the size of coupon payments are dependent on the economic cycle. Address implicit public-sector contingent liabilities.
More regulatory sandboxes and investment in data and research	Foster regulatory sandboxes to allow firms a safe space for innovation. Invest in data and research to support evidence-based impact studies of public policies. Invest in new technologies, such as Blockchain to facilitate more technologically driven, deep and open domestic capital markets.
Leverage multilateral development banks' balance sheets	Pool individual infrastructure projects and free up the risk across the development finance system of multilateral development banks (MDBs). This can be done through first-loss guarantees, co-investments with the private sector and encouragement of more securitisation techniques.
Encourage sustainable investing	Further progress towards a common taxonomy on sustainable finance. Establish a risk-based market consistent regulatory framework for Environmental, Social and Governance (ESG) investments. Increase importance of ESG in financial analysis.
Introduce a tradable infrastructure asset class	Address the large infrastructure financing gap and relieve the burden on government budgets by mobilising the significant asset base of long-term investors. For this, hurdles need to be lowered; standardisation of project disclosure and related documentation is key to promote more tradeable asset classes.
More Public Private Partnerships (PPP)	PPPs lead to efficiency gains, more effective risk-sharing and reduce pressures on government budgets. Harmonised dispute resolution mechanisms with clear arbitration rules are needed.
Structural reform agenda	Reform agendas are country-specific. These include upskilling the long-term unemployed labour force or reforming unemployment insurance. In the Euro zone, completing the Capital Markets Union is crucial.

Source: Swiss Re Institute

Insurance makes well-recognised contributions to increased system resilience ...

The insurance protection gap: further to go

Insurance is another central component of system resilience. Insurance is an automatic stabiliser to smooth financial volatility for households and businesses. In this function, it makes economies more resilient to shocks, based on the three key functions. Ex-ante risk management enables entrepreneurship, more efficient resource allocation, trade and investment, and encourages risk mitigation and prevention. Second, through ex-post financial protection, insurance helps societies recover more quickly from a shock event. And third, insurers act as an intermediary to funnel savings into productive long-term investments that support resilience. They

⁴² The total public and private debt burden was 318% of GDP in the first quarter of 2018, according to the IIF.

account for roughly 40% of the global long-term investor asset base which, according to latest numbers, stands at about USD 80 trillion, as much as global GDP. The regulatory and public policy environment can be made more supportive to enable long-term investors, including insurers, to more effectively absorb market risk and provide more capital for projects that generate sustainable economic growth, such as in infrastructure.

... in particular as a mechanism to close still large protection gaps.

In spite of these well-acknowledged advantages, there are still large "insurance protection gaps" across all levels of society. We define this gap as the uninsured portion of losses from an adverse event. Understanding protection gaps, and the barriers on the demand and supply side that prevent more insurance uptake, is key to improving system resilience.

The current estimated global protection gap for mortality and property risks ...

Swiss Re has analysed protection gaps across multiple lines of insurance business since the early 2000s. We present here the most recent results for those three lines where the methodologies are best understood and studied at a global level. The calculation methods and interpretation are different for each segment.

- For mortality risk, the protection gap is based on a modelled income replacement factor, which estimates the amount of income needed to support dependents to adulthood in the case of death of the household breadwinner. The calculation uses data on incomes, demographics and household dependency ratios, as well as coverage estimates.⁴³ The method for calculating mortality protection gaps measures the degree of underinsurance rather than the full loss.⁴⁴ The estimate is therefore lower than what the gap would be when derived from full replacement of the total loss of all future income streams of the deceased.
- For property catastrophe (cat) risk, the protection gap calculation uses both total exposure estimates and coverage estimates. Total exposure is modelled with natural catastrophe simulations and compared to the estimated property insurance take-up rate by region to determine the amount of underlying risk that is not covered.⁴⁵ This modelled gap is typically larger than the protection gap measured by uninsured losses from historic catastrophe data.
- For non-catastrophe (non-cat) property risks, for which exposure estimates are not available, the uninsured market is benchmarked based on an econometric model. The potential spending on insurance is calculated according to the strong historical relationships between income per capita and insurance penetration (ie, the "S-curve"). For casualty lines of business, currently known methodologies are not suitable to derive meaningful results.⁴⁶

... stands at around USD 500 billion, the largest exposures coming from mortality risk.

Figure 11 is an overview of the sizes of the protection gaps by regions and lines of business. The numbers are expressed as (risk) premium equivalents in order to make them comparable across the different perils.⁴⁷ We estimate that the gap for global mortality and property (cat & non-cat) risk currently stands close to USD 500 billion, or 70% of the size of the current respective insurance markets (or 0.6% of global GDP). The largest business potential is in mortality, where the protection gap of close to USD 270 billion accounts for almost 90% of the current size of the respective market premium.

⁴³ *Life underinsurance in the US: bridging the USD 25 trillion mortality protection gap*, Swiss Re Institute, 2018.

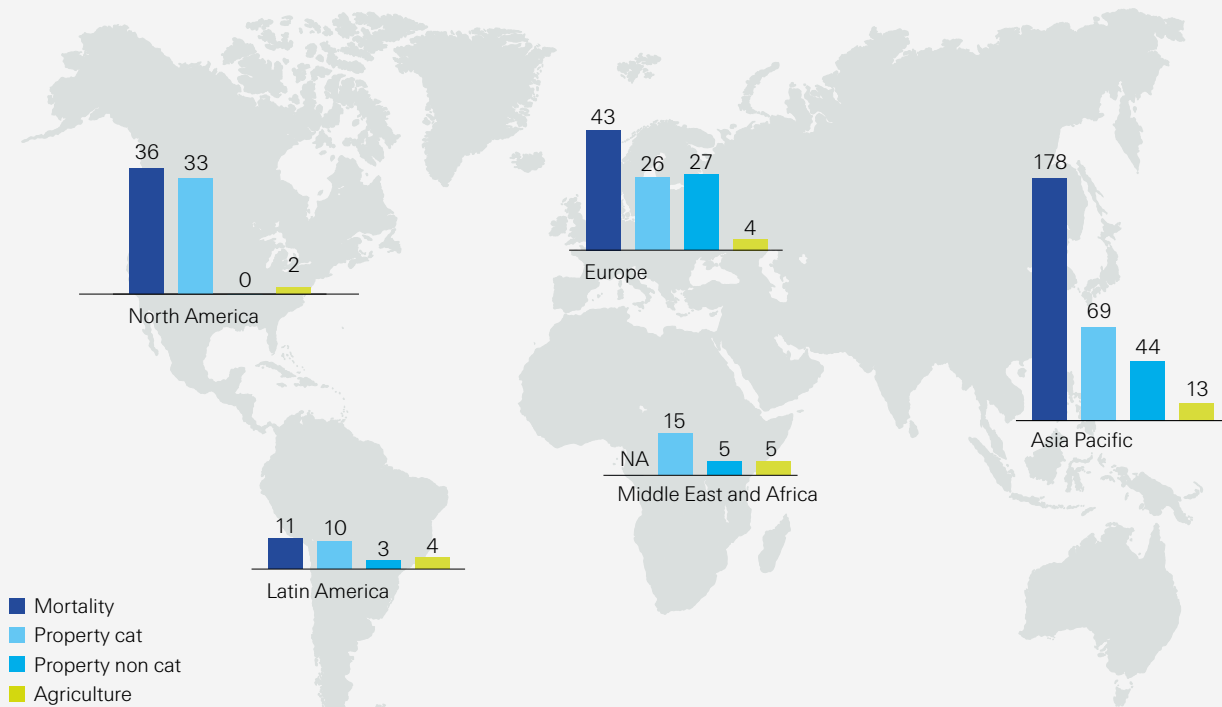
⁴⁴ Underinsurance is the difference between the amount of insurance that is economically beneficial – which may include some purposely chosen self-insurance – and the amount actually purchased.

⁴⁵ *sigma* 4/2015, Underinsurance of property risks: closing the gap, Swiss Re.

⁴⁶ The estimates for the health protection gap are not included, as Swiss Re Institute currently only has estimates for Asia.

⁴⁷ Mortality protection gaps are often expressed as total sums assured, on which basis the gap is estimated to USD 113 trillion, or 1.4 times global GDP.

Figure 11
Protection gaps by lines of business
measured in terms of (risk) premium
equivalents (USD billions)



Remarks: The figure provides a summary of the result of several protection gap studies. Basis years: Generally 2016; property 2014, agriculture 2015, Europe mortality 2010, extrapolated to 2016 using GDP as a measure. Estimates are for a sample of countries, the size of which varies for the perils studied. Property and agriculture grossed up from studied sample to the world total using GDP as a measure. NA = not available.
Source: Swiss Re and Swiss Re Institute

The mortality protection gap has widened in the US and the Asia Pacific region since the early 2000s, both in absolute and relative terms.

To measure the evolvement of resilience, it is more meaningful to show the trend development of insurance protection gaps in relative terms (ie protection gap/total losses). For the US and Asia Pacific, we have figures showing how the gaps have developed over the past decade. In the US, the mortality protection gap has narrowed since 2010 in both real absolute terms and relative terms (protection gap/replacement income), but is still larger than before the financial crisis. In all countries in Asia Pacific except Japan, since 2005 the mortality protection gap has widened in absolute terms, mostly so in China and India. In relative terms, the insurance industry has made significant progress in narrowing the gap in many countries in the region. Nevertheless, more needs to be done: based on current trends, we project that the gaps in both the US and in Asia are expected to grow.

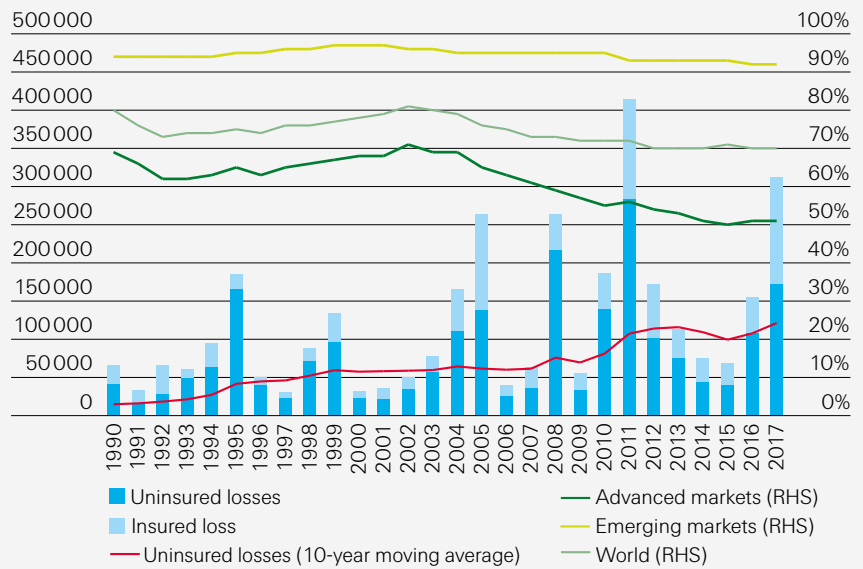
In real absolute terms, the natural catastrophe protection gap has increased over the past decades.

For natural catastrophe risk, historic trend figures are strongly influenced by individual large catastrophes with low return periods, which is why the data can serve as an indication only. In this analysis, only a subset of data for which total losses are known is considered. The red line in Figure 12 reveals an upward trend in uninsured losses in absolute terms (10-year moving average, inflation adjusted). In other words, the global natural catastrophe protection gap has increased in US dollar terms over the last decade. The 10-year moving average over 2017 and the previous 10 years has been at more than USD 140 billion.

In relative terms, that gap has declined among advanced markets, but it remains very high among the emerging markets.

On the other hand the ratio of uninsured to total losses (the relative protection gap), has been fairly stable at a global level. This is due to diverging trends between emerging and advanced markets. Among advanced markets, there has been a decline since the early 2000s; among emerging markets, the relative protection gap has remained high at more than 90%.

Figure 12
Insured and uninsured losses from natural catastrophes since 1980



* Includes only events where total losses are known.
Source: Swiss Re Institute

Protection gaps remain a key growth area for insurers and opportunity for improved resilience.

The absolute level of insurance protection gap in major lines of business are very large, and we expect these to grow further as the economies expand. This presents growth opportunities for the insurance sector. In relative terms, the insurance industry has made inroads to reduce protection gaps in certain regions and lines of business, but more is needed. Building risk awareness and encouraging consumers to take up insurance coverage is a key area of action in both the advanced and emerging markets. Insurers can gain insights from behavioural economics to better understand consumer buying behaviour. Digital technology can help streamline the sales process, and reduce distribution and administrative costs. This makes insurance more affordable and also accessible to lower income groups.

Technology can be harnessed to expand the boundaries of insurability.

Over the longer run, developments in technology and data analytics will contribute to resilience beyond making cover more affordable. Crucially, technology is expanding the boundaries of insurability and in doing so, facilitating access to new risk pools. For example, some peak natural catastrophe, terrorism, cyber or contingent business interruption risks, can challenge the bounds of insurability. Product innovations such as parametric insurance products help expand insurability and, by broadening the reach and take up of covers, reduce the protection gap. For instance, using its proprietary natural catastrophe modelling tool, last year Swiss Re launched "The Typhoon Index" for the coastal provinces of China. The low insurance penetration rate means that there is a large protection gap after every typhoon event, which occur in the provinces. The solution helps small and medium-sized enterprises (SMEs) and individual families in the area to protect themselves against the financial impact in a lean, efficient and customised way.⁴⁸

⁴⁸ Typhoon Parametric Insurance in China, Swiss Re, 7 November 2017.

Ten years on, is the world more resilient?

Public-private partnership is key in areas where the extents of insurability and financing are limited.

A conducive regulatory environment to enable private market solutions will be key. In property and natural catastrophe-related lines a strong regulatory environment is needed to set and enforce building standards, and promote risk mitigation measures. To this end, in areas of limited insurability, public-private partnership is key to closing protection gaps. The partnership work both ways. For example to close the mortality protection gap, establishing incentives to increase take-up of life insurance covers and to encourage savings for retirements, is very important for sustainable (and under stress) public and private finances.

Emerging markets power on

The economic power shift from west to east continues. The emerging markets will remain the main driver of insurance industry growth.

We expect growth in the emerging market economies to strengthen moderately in the coming two years. We also expect insurance to remain a growth industry in the emerging markets for many years and thus central to building global resilience. The shift in economic power from the west to the east continues and China and the rest of emerging Asia remain the key engines of insurance sector growth. Insurers can benefit from the stabilising factors that have come as certain markets have matured. Further, understanding of the idiosyncratic forces that generate diverging premium growth rates across the emerging markets can be used to competitive advantage.

Macroeconomic trends in the emerging markets

Emerging market economic growth has slowed over the last decade.

Slowing growth

Emerging market economic growth has eased steadily since peaking at around 8% in 2007, driven by a confluence of factors including the global financial crisis, slowing demand in advanced markets, and falling commodity prices. We forecast emerging market aggregate GDP to increase by around 4.7% in 2018. Growth in emerging markets was also affected by increasing structural impediments such as ageing and slowing productivity growth. Even excluding still-strong growth in China, the trajectory of aggregate slower growth across the emerging markets is still evident.

Cyclical tailwinds are dissipating and structural impediments suggest the slowing trajectory is set to continue.

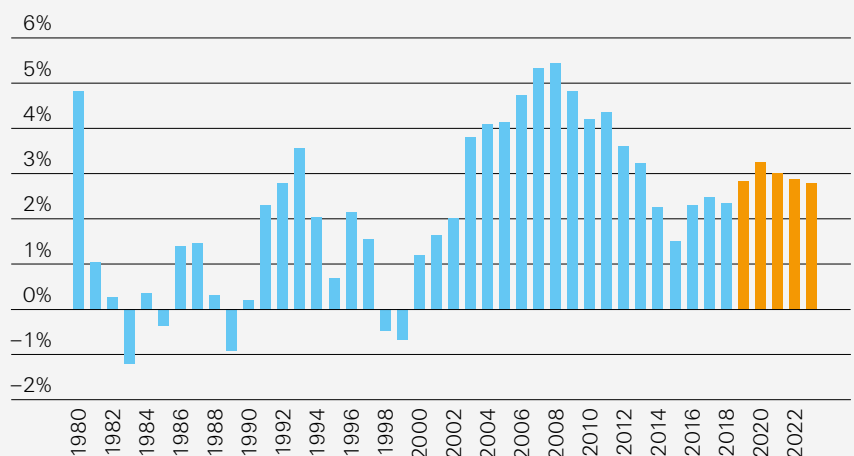
Cyclical tailwinds in the form of strong US economic growth could be dissipating and overtaken by concerns over rising trade frictions. Further, the pressure from widening interest rate differentials with the US is leading to capital and portfolio outflows from emerging markets. Coupled with ongoing structural challenges, the balance of indicators points to a continuation of the slowing trend of emerging market growth, although at still faster pace than advanced market levels. We forecast aggregate emerging market growth to strengthen moderately to around 4.9% over 2019 and 2020 based on gradual recovery of some economies currently mired in crisis (Argentina and Turkey) or experiencing sluggish growth (Brazil, South Africa).

The growth gap vis-a-vis advanced markets has narrowed, but emerging markets will continue to grow faster in the foreseeable future.

A narrowing growth gap with advanced markets

The widening "growth gap" between emerging and advanced economies that has been observed since the early 2000s has narrowed since 2008 (see Figure 13), but it is not yet clear if the "emerging market super cycle" has come to an end. The growth gap has settled at around 2% recently, close to the historical average of 2.2%, and the near-term outlook remains sanguine. This could be due to the recovery of some recession-bound markets rather than improvement in the performance of emerging markets as a whole.

Figure 13
GDP growth gap between emerging and advanced market



Source: Swiss Re Institute

As emerging markets become more mature, the volatility in growth has steadily declined.

In our view, market unease about emerging market volatility has been overstated.

Emerging market fundamentals have improved, with bigger buffers to weather shocks.

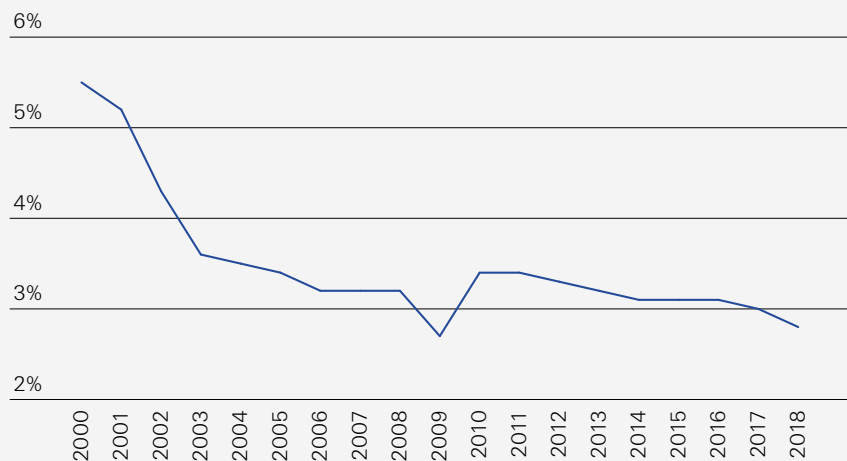
Reduced volatility, increased growth divergence

Volatility in GDP growth and inflation in emerging markets has been declining since the 1990s, with this trend continuing into the 2010s (see Figure 14). This is particularly true in the emerging Asia markets, where Indonesia continues to be the most stable key emerging market in terms of GDP growth.⁴⁹ Across emerging markets, the use of more sophisticated monetary policy frameworks has contributed to greater stability. This has been facilitated by forward-looking guidance, in the form of a significant body of research highlighting the contribution of macroeconomic stability to higher growth and lower inflation,⁵⁰ which has helped policymakers to better optimise policies to support economic growth while keeping a lid on inflation.

Currency depreciation, a shift in monetary policy towards tightening bias and the evolving China-US trade war has heightened market concerns about the outlook of emerging markets, and the risk of a sharp fall in growth. In our view, market unease about emerging market volatility has been overstated and distorted by: 1) countries that have suffered from sharp slowdowns or recessions (eg, Argentina and Turkey), where increased reliance on foreign lending created a sovereign debt balloon as the US dollar strengthened; and 2) financial market volatility.

Financial market volatility does not necessarily translate into a real impact on growth, as seen in Mexico. Notwithstanding the financially turbulent 2014–2018 period as a result of low oil prices, Fed tightening and uncertainty about the North America Free Trade Agreement, our calculations show that Mexico's real GDP growth remained resilient at an average of 2.7% and inflation a manageable 4.0%. Furthermore, the fundamentals of emerging markets as a group have improved, with bigger buffers⁵¹ to weather external shocks and more pro-active government policies to pre-empt financial instability. While growth has slowed, it has also become steadier as many key emerging markets are transitioning to become mature markets.

Figure 14
Emerging market average
10-year rolling GDP growth volatility



Source: Swiss Re Institute

⁴⁹ Based on the standard deviation of annual GDP from 2000 onwards.

⁵⁰ For example, see M. Friedman, Nobel Lecture: Inflation and Unemployment. *The Journal of Political Economy*, 1977; L. Ball, "Why does High Inflation Raise Inflation Uncertainty?" *Journal of Monetary Economics*, 1992; K. Grier and G. Tullock, "An Empirical Analysis of Cross-National Economic Growth, 1951–1980", *Journal of Monetary Economics*, vol 24, 1989, pp 259–276, and O. Bello and O. Gámez, "Inflación e Incertidumbre Inflacionaria en Nicaragua: Una Aplicación Utilizando un Modelo EGARCH", Documentos de Trabajo del Banco Central de Nicaragua, 2006.

⁵¹ According to the *Global Financial Stability Report* from the IMF, October 2018, emerging markets as a whole have shown tangible improvements in lowering the ratio of external debt to exports, improving current account balance and building up reserves (as a percent of the Assessment of Reserve Adequacy metric) over the last decade. However, private sector external debt has increased alongside the ultra-loose global monetary condition and thus remains a point of heightened vulnerability. See Figure 1.16.

That said, divergence in growth rates among emerging markets is increasing.

One of the most dominant trends remains the shift of economic power to the East.

The macro-economic trends are largely reflected in insurance terms.

Our analysis suggest that emerging market growth has become less synchronised and increasingly driven by idiosyncratic risks in more recent years. Excluding the impact of the global financial crisis of 2008–09, growth in the emerging markets was more synchronised in the 2000s and early 2010s. However, since 2013 there has been greater divergence, in part due to recessions in some key markets. There are signs that divergence has increased in the last five years and also that growth is increasingly being driven by idiosyncratic factors. We think both factors could increase in the coming years, leading to increase growth rate divergence, particularly if the following trends continue: (1) more unwinding of the global supply chain; (2) increasing nationalistic trade/investment policies; and (3) rising geopolitical risks.

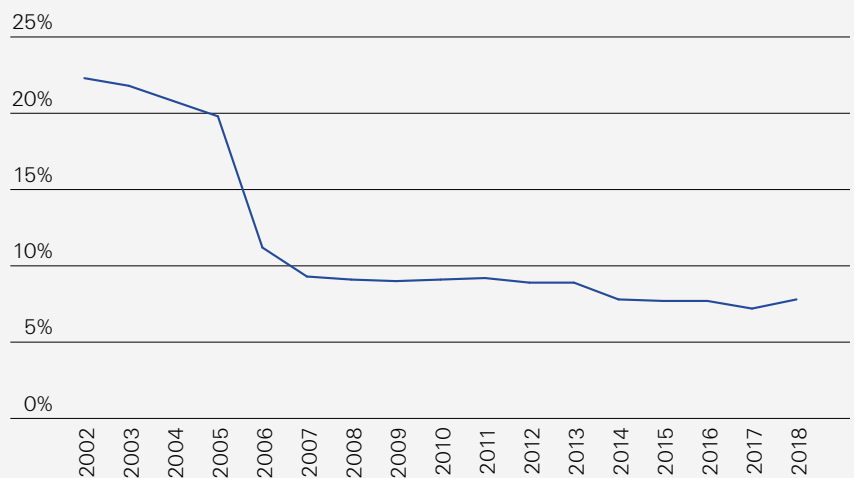
Economic power shift from west to east

Against the background of slowing emerging market growth, reduced volatility but recently increasing divergence in growth rates, the shift of economic power eastwards continues unabated. According to *sigma* data, Emerging Asia accounted for 5% of global GDP in 1990 and for 22% in 2017. This shift reflects the structural resurgence of China, but also the improving economic resilience of many Southeast and South Asian emerging markets like Indonesia, Thailand and India. The outlook remains sanguine, despite the challenge of the ongoing US-China trade tensions. China is now the second largest economy in the world on actual market exchange rates, and the Southeast Asian economies will strengthen given improving fundamentals and the consensus projection that the region will benefit most from a protracted trade war between the US and China, with a relocation of production from China to the region. Over the longer-term, however, Southeast Asian nations will need to tackle their demographic challenges (eg, ageing populations) and slowing productivity growth.

Insurance implications

The history of insurance premium development in the emerging markets runs parallel to macroeconomic trends. Emerging market premium growth has slowed from an average of 20% in the 1980s, to 9.5% in the 2000s and to 6.8% in 2010–17. Our analysis shows that the volatility of premium growth dropped significantly in the 2000s and has remained at these lower levels to date (see Figure 15). The dip in volatility has been evident in both life and non-life insurance business, although volatility remains much higher in life. The evidence is less clear, but our statistical analysis also signals growing divergence in premium development since 2014.

Figure 15
Emerging market average 10-year rolling (real) total premium growth volatility



Source: Swiss Re Institute

Emerging markets power on

The outlook for insurance in emerging market remains promising. We advise global insurers to be cognizant of the underlying factors that...

In our view, insurance will remain a growth industry in the emerging markets for a long time to come. The shift of economic power from west to east also means that Asia in particular, will remain an important insurance market growth hub. According to our forecasts database, emerging markets accounted for 5.6% of global premiums in 2000, and an estimated 18.8% in 2017. China and emerging Asia are major contributors. In particular, China's share of global premiums increased from 0.8% in 2000 to 9.7% in 2017. Despite expected modest economic slowdown in the emerging markets, we forecast their contribution to global premiums will increase to 28% by 2028, with China alone counting for 16%.

In other words:

... continue to support emerging market outperformance ...

- The closing of the growth gap between emerging and advance markets will not necessarily reduce the attractiveness of emerging insurance markets. Emerging market wealth has grown significantly and a 1-ppt increase in GDP in 2018 has much greater impact on premiums than it would have a decade ago. In addition, many emerging markets have progressed to the steeper area of the insurance S-curve, which means the impact of income growth on insurance demand will be much bigger. For example, we estimate that a 1% increase in emerging market GDP would bring in USD 168 billion in additional GDP in 2007, and USD 323 billion in additional GDP in 2017. If we assume constant income elasticity, the additional insurance premiums from a 1% increase in GDP in 2017 would also be larger than 10 years earlier.

... reduce volatility of premium growth ...

- The more stable (in-country) premium growth of emerging markets to a certain extent reflects the maturity of insurance market regulations, product development and consumer awareness. These stabilising trend will likely continue and enable insurers to implement long-term strategic plans.

... and lead to more premium growth divergence across markets.

- Recent signs of increasing divergence in economic growth across emerging markets is something insurers can benefit from. Greater awareness and understanding of the idiosyncratic risk factors that can drive divergence in premium growth can be harnessed as a competitive advantage. Convergence trends in areas such as supervision, regulation and consumer protection are also positive for insurance market development.

Insuring intangible assets

Increasingly, intangible exposures are what modern businesses most need risk protection solutions for.

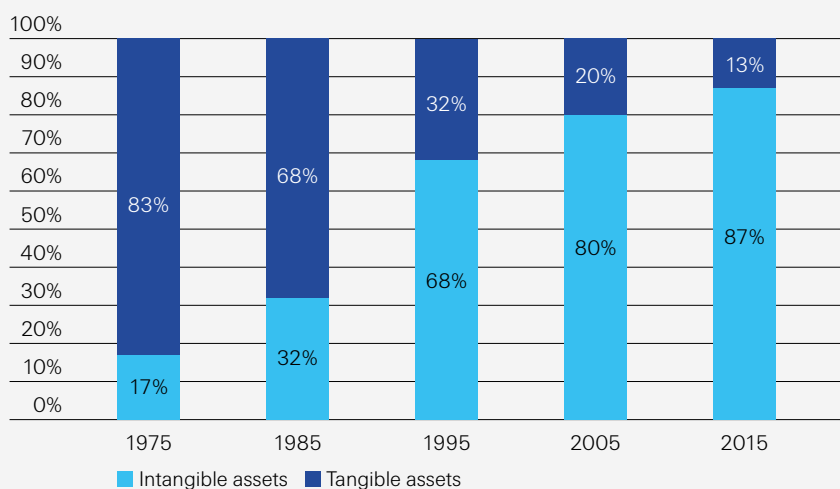
Digitalisation is changing the way economic value is created. The evolution of business models, including the sharing economy, can be seen in the rising importance of intellectual capital vs. bricks-and-mortar, research and development vs. capital spending, and services vs. manufacturing amongst others. Businesses operating in these areas face a different risk landscape and require new commercial insurance offerings. Advances in data availability, analytics, modelling, indemnity structures and other product innovations is making this possible. Increasingly, technology and innovation are making once uninsurable commercial sector exposures such as supply chain and cyber risks, product recalls, weather risks, and commodity and energy price risks insurable (although not always fully). This is another growth area for insurers, and a key component in strengthening overall system resilience.

The nature of value creation in business has moved on from the production of physical assets.

The growing intangibility of business value

The corporate sector has undergone a number of changes in recent decades. As companies have shifted from making physical things to providing information and services, the composition of companies' balance sheets has shifted too. In 1975, tangible assets such as plant, property, equipment and inventory constituted 83% of the total market value of the S&P 500, according to estimates by Ocean Tomo.⁵² By 2015, that share had fallen to just 13%, while intangible assets such as intellectual property, networks, platforms, data and customer relationships accounted for the other 87% of the market's value.

Figure 16
Tangible vs intangible assets as share of S&P 500 market value, 1975–2015



Source: *Annual Study of Intangible Asset Market Value*, Ocean Tomo, 4 March 2015.

Today, the world's biggest companies derive their economic value mostly from intangible assets.

With this change, today the value of firms derives mostly from intangible assets, whereas previously it was predominantly tangible-asset based. The change in the composition of the largest corporations of the S&P 500 over time reflects this development. In 1990, the largest firms in terms of market capitalisation were manufacturing and energy companies; in 2018, technology and service companies are on the top (see Table 7).

⁵² *Annual Study of Intangible Asset Market Value*, Ocean Tomo, 4 March, 2015.

Table 7
Market capitalisation of five largest public companies globally, 1992 vs 2018

1990			26 October 2018		
Rank	Company	Market capitalisation (USD billion)	Rank	Company	Market capitalisation (USD billion)
1	IBM	64.5	1	Apple	1 044
2	Exxon	64.5	2	Microsoft	821
3	General Electric	50.3	3	Amazon.com	801
4	Philip Morris	47.9	4	Alphabet	748
5	Royal Dutch	42.1	5	Berkshire Hathaway	493

Source: Thomson Reuters

Ingredients for success in business today: digitalisation, high labour skill, innovation, globalisation and intangible assets.

The sharing economy has been disruptive, with value derived mostly from services and intangibles.

... and created insurance demand in three areas.

There has also been change in traditional business models.

The insurance sector has developed solutions to cover against potential earnings and cash flow losses.

A recent study by the McKinsey says today, companies that capture the largest share of economic value creation share several common characteristics, including higher levels of digitalisation, greater labour skill and innovation intensity, more globalisation and more intangible assets.⁵³ The FAANG tech companies (Facebook, Apple, Amazon, Netflix and Google) have been particularly successful at capitalizing on the value of intangible assets such as software, data, patents and brands. Network effects create winner-takes-all types of economies of scale and ring-fence successful businesses quickly against competitors, protecting their attractive profit margins.

New business models, new insurance opportunities

Digital transformation has given rise to new types of business models, most notably the sharing economy. New transportation firms like Lyft and Uber own no cars, and Airbnb owns no rental units, yet they are overtaking traditional players in their respective sectors in terms of growth and market capitalization. Instead of locking up capital to purchase or make physical assets, they achieve growth by focusing on connecting (existing) supply and demand in the market. The value creation in these businesses is based mostly on intangibles such as data, trust, brand recognition, scale and network effects.

This sharing economy business model implies a shift of operational risks, and a need for insurance in three areas: (1) covers for the shared economy business operators; (2) covers for all those gaining employment through the shared economy business; and (3) covers for the end consumers. This protection gap constitutes a new frontier of developing new innovative solutions and providing much needed coverage to the rapidly growing sharing economy.

More broadly, business models in traditional industry sectors are changing as well. Manufacturing firms are increasingly generating revenue from services to operators in the sharing economy (eg, maintenance) rather than from selling the physical assets they produce. In addition, some are moving to selling/renting out the functionality of those assets, as in the case of a wind turbine manufacturer selling the output of the turbine rather than the turbine itself.

Protecting earnings and cash flow risks

With the transformation of the corporate sector to being rich in intangible assets, demand for insurance solutions is moving from asset covers to protection for business risks that were previously uninsurable like earnings and cash flow losses. The source of these losses can be many including disruption to business, cyber, product recall, reputation, and weather and energy price risks. The evolution of triggers, indemnity structures, and data and modelling advances means that insurance solutions for potential earnings and cash flow losses are now available. Challenges remain, however, as many of these risks are fluid and demand more

⁵³ *Superstars: The dynamics of firms, sectors, and cities leading the global economy*, McKinsey Global Institute, October 2018.

active management and collaboration in the fields of loss prevention and mitigation. Indeed, research suggests there remains plenty of scope for greater uptake of such solutions. For example, according to Aon, companies have cover for just 15% of their potential cyber-risk losses, compared to 59% for property, plant and equipment exposures.⁵⁴

Over time, commercial property insurance has broadened to encompass business and contingent business interruption covers.

Globalisation has resulted in longer and more complex value chains. By outsourcing and diversifying their operations, today many companies connect to a number of suppliers across the world. This has increased focus on business interruption (BI) and related risk management processes. Over time, the nature of insurable commercial property risks has broadened from traditional property damage, such as damage to buildings and machinery, to BI and contingent business interruption (CBI). Standard BI insurance is triggered in the event of an insured's own-property losses when business is disrupted, and CBI is to cover for property losses at an external party, such as a supplier or client.

Non-physical damage business interruption is the next step in the development of insurance innovation.

In our view, the next stage in the evolution of innovative insurance products is the development of non-physical damage business interruption (NDBI) covers, in some cases referred to as "named-peril earnings insurance". With NDBI, the insured risk is detached from traditional asset-related property risk, as the cover protects earnings even when there is no physical damage at an insured's own or a third-party property. Some examples of potential NDBI events are electricity blackouts, strikes, organised blockades or government actions, a withdrawal of regulatory approval or product license (eg. due to quality or safety issues), and bankruptcy at a key supplier.

Once again, digitalisation plays a key part.

Digitalisation is another key driver of NDBI losses, as data increasingly becomes a critical asset. In addition to cyber attacks, software errors and breaks in internet access, firms have become more vulnerable to events that prevent data from being used, leading to economic value loss. Traditional perils like earthquakes and hurricanes can also cause NDBI losses. For instance, it could happen that an insured's retail property does not suffer damage in a flood event but the surrounding area does, leading to loss of access to the retail facility, a decline in customer traffic, and associated revenue loss.

Product development and innovation around data and data analytics is expanding the scope of insurance.

New covers are developed in response to the changing corporate risk landscape. Many innovative insurance solutions are custom-made for buyers' specific needs. Some use parametric triggers, double-trigger indemnity⁵⁵ and structured solutions. In contract terms, many are derivative solutions rather than insurance. All new or expanded areas of risk transfer require progress in modelling or underwriting, enabled by the expanded availability of data and the evolution of analytical capabilities. One area that insurers need to take into consideration is regulation, which can constrain implementation of new risk protection concepts. These new solutions expand the boundaries of insurability and in doing so enlarge the scope of insurance risk pools. Starting from a small base currently, we expect rapid growth for the foreseeable future.

⁵⁴ 2017 Global Cyber Risk Transfer Comparison Report, Ponemon Institute, April 2017.

⁵⁵ Insurance that pays out if two separate trigger events occur.

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