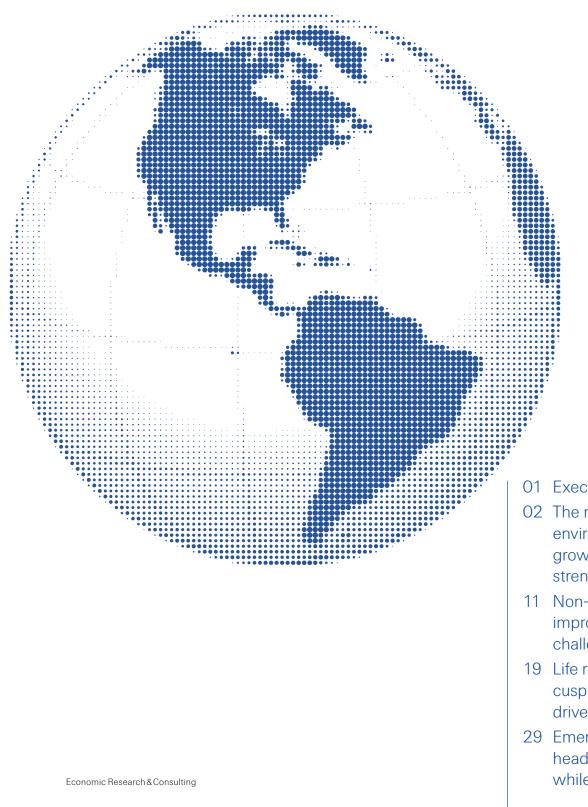


November 2015 Global insurance review 2015 and outlook 2016/17



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Executive summary

Global economic growth is forecast to improve in 2016.

Non-life premium growth will improve along with economic activity.

In reinsurance, property prices are expected to moderate, while casualty prices will be mixed.

Though life insurers face major challenges, premium growth and profits continue to improve.

Global growth for traditional life reinsurance premiums will be subdued in the advanced economies, but healthy in emerging markets.

Overall insurance premium growth is expected to be robust in the emerging markets.

The global economy is expected to strengthen next year. The US and the UK are currently growing at a moderate pace of close to 2.5%, and real gross domestic product (GDP) in Japan and the Euro area at a more subdued 0.7% and 1.5%, respectively. The four economies are all expected to see slightly better growth in 2016. Emerging markets will grow by about 5% annually in the next two years. The global economy faces three main headwinds: slower growth in China, lower commodity prices and an imminent rate increase by the Federal Reserve. The headwinds pose a risk to the baseline forecast, but are unlikely to derail the improving growth momentum. With the overall improved outlook and expected monetary policy tightening in the US and UK, government bond yields (especially in the US and the UK), will likely rise.

Demand for primary non-life insurance should increase in the next two years given the improving economic outlook. The emerging markets will be the main drivers, with an expected recovery in Central and Eastern Europe and incremental growth improvement in other regions. Growth in the advanced markets will slow due to softening prices and the only modestly stronger economies. Global primary non-life premium growth is forecast to improve to 3.0% in 2016 from 2.5% this year. Despite the challenging pricing environment, underwriting profits have been sustained by low natural catastrophe losses and a continuation of previous-year reserve releases.

The non-life reinsurance sector underwriting result has been strong so far this year based on low natural catastrophe losses, and the sector should achieve a combined ratio (CR) of about 90%. However, if the CR were adjusted upward for an average natural catastrophe loss year and stripped of reserve releases, it would be about 100%, reflecting the difficult pricing situation. With falling prices, profit margins have eroded over the past two years. Property catastrophe reinsurance rates are currently close to bottoming out and rate softening is expected to moderate or come to a standstill. In casualty and specialty, differences in pricing by market and line of business are expected.

Primary life insurers face downside risks from the modest global growth outlook, persistently low interest rates, volatility in financial markets and regulatory changes. Nevertheless, in the advanced markets real premium income is forecast to rise by about 2.5% in 2016 and 2017, up from about 2% this year. In emerging markets, life premiums are forecast to grow by 10.7% in both 2016 and 2017. This gain will in part be attributable to improved use of digital technologies and the adoption of more customer-centric business models. In addition, profits are improving in most regions.

In the advanced markets, real life reinsurance premium volumes are forecast to contract slightly in 2016 and 2017. In the US, regulatory changes – including increased scrutiny of the use of captive reinsurance and an expected move towards principles-based reserving – will impact business opportunities. In other advanced markets, traditional life reinsurance will continue to record low, single-digit growth in line with the protection business on the primary side. Growth in the emerging markets, on the other hand, is expected to be around 7.5% over the next two years. In these markets, life reinsurers' main value proposition is supporting primary insurers in product development, underwriting and claims management.

Non-life real premium growth in emerging markets is expected to improve in 2016 and 2017, rising by 7.9% and 8.7%, respectively, after a 5.6%-gain in 2015. Emerging Asia will see the strongest annual growth of 12% in 2016 and 2017, and Latin America the weakest (1% and 2.5%, respectively). Urbanisation and growing wealth will support overall insurance sector growth in the emerging markets. Life and Health premiums are projected to see stable and robust growth of nearly 11% in the next two years. Again, emerging Asia will have the most robust growth of about 13%. Sub-Saharan Africa will have the weakest (about 3%) due to the difficulties of increasing life insurance penetration on the continent. A key issue in many emerging markets will likely be implementation of risk-based solvency regimes.

The macroeconomic environment: global growth expected to strengthen

The global economy is growing moderately. It faces three main headwinds: slower growth in China, low commodity prices and a Fed rate hike.

Consistent with IMF and WB projections, growth is forecast to improve over the next couple of years.

The Fed is expected to raise rates soon.

Growth and rising policy rates will push government bond yields higher, especially in the US and the UK.

Table 1

Real GDP growth, inflation and interest rates in select regions, 2014 to 2017F

The major economies

The US economy continues to grow at a moderate pace, with real gross domestic product growth expected to be about 2.5% this year and a little stronger in 2016. The Euro area will likely have its best year since 2011 with growth close to 1.5% in 2015 and 1.7% in 2016, supported by domestic consumption and stronger net exports due to the weaker euro. Growth in the UK will be about a percentage point stronger than in the Euro area, and Japan's growth a little weaker. Growth in China has slowed and shifted from being investment- to consumption-driven. The slower growth and lower investment activity have weakened demand for commodities. Slower growth in China, the resulting lower commodity prices and an expected imminent tightening by the US Federal Reserve (Fed) have created uncertainty and volatility for the global economy, especially in the emerging markets.

The global economy is still expected to improve modestly in 2016 and 2017, with slightly higher growth in many regions, including the US, the UK and the Euro area. Mexico and Brazil are both expected to improve next year also, as are most Asian emerging markets with the exception of China, which continues to slow towards 6.5% growth by 2017. Both the International Monetary Fund (IMF) and World Bank (WB) project modest growth improvements: world real GDP growth will be 2.8%, 3.3% and 3.2% in 2015, 2016 and 2017 (WB) and 3.1%, 3.6% and 4.0% in 2015, 2016 and 2020, respectively (IMF).¹

The US Fed is expected to begin raising interest rates in December, while the UK will likely follow in 2016. Both the European Central Bank (ECB) and Bank of Japan (BoJ) will continue their quantitative easing programmes through next year and there are discussions of additional policy measures should inflation continue to undershoot the banks' target significantly. China's monetary policy will likely also be accommodative, but it is also attempting to dampen speculative investments at the same time.

In this macroeconomic environment, yields on benchmark government bonds are projected to rise at a more rapid pace in the US and UK than in the Euro area and Japan, although still only gradually compared to previous rate-hiking cycles. As growth strengthens and the Fed raises rates, the yield on the 10-year Treasury note is forecast to climb to 3.2% by the end of next year and to 4.4% by end-2017. Yields in the UK will rise to similar levels, but in the Euro area and Japan they will likely move up to 2.0% and 1.3%, respectively, by end-2017. Though rates are set to rise, insurers and reinsurers face declining investment yields on their bond portfolios for a while yet as higher-yielding bonds mature and are replaced with lower-yielding ones. Corporate bond spreads are expected to tighten a little after widening recently, and equity markets are expected to continue to rise, but only moderately.

		2014	2015E	2016F	2017F
Real GDP growth, annual avg., %	US	2.4	2.5	3.1	3.0
	UK	3.0	2.5	2.7	2.6
	Euro area	0.9	1.5	1.7	1.7
	Japan	-0.1	0.7	1.3	0.7
	China	7.3	6.9	6.6	6.5
Inflation, all-items CPI, annual avg., %	US	1.6	0.2	1.9	2.4
(monthly data refer to yoy growth)	UK	1.5	0.2	1.7	2.0
	Euro area	0.4	0.1	1.3	1.6
	Japan	2.7	0.7	1.2	2.2
	China	2.0	1.4	1.7	2.3
Policy rate, year-end, %	US	0.125	0.375	1.875	3.875
	UK	0.50	0.50	1.25	2.25
	Euro area	0.05	0.05	0.05	0.50
	Japan	0.07	0.07	0.10	0.18
Yield, 10-year govt bond, year-end, %	US	2.2	2.5	3.2	4.4
	UK	1.8	2.0	2.7	3.5
	Euro area	0.5	0.9	1.4	2.0
	Japan	0.3	0.5	0.7	1.3

E = estimates, F = forecasts.

Source: Swiss Re Economic Research & Consulting

Global Economic Prospects, World Bank, June 2015 and World Economic Outlook, IMF, October 2015. The IMF publication highlights 2020, not 2017, data.

The UK will hold a referendum on its membership in the EU.	UK referendum on European Union (EU) membership Most commentators, including recently Bank of England (BoE) Governor Mark Carney, say the UK had gained from being part of the EU. ² However, not everyone agrees, and PM David Cameron has promised that the UK will hold a referendum on its membership of the EU, possibly as early as 2016 and certainly by end-2017.
PM Cameron would like to get more flexibility for the UK on which EU policies it accepts and which it can reject.	Cameron's main aim is to get an exemption for the UK from stronger fiscal and monetary union with the Euro area. He believes the Euro area countries are attempting to set policy for all of the EU, including non-euro states. He also wants member states to be able to block legislation nationally, and for powers to be repatriated to member states where the EU has "overreached its competencies". Finally, the UK wants to rein in immigration, for example, by restricting benefits for newcomers.
Not surprisingly, proponents of exit see high costs to membership, while opponents see large benefits.	Proponents of an exit argue that gains will accrue from less regulation, and that the UK will save on its contributions to the EU (the UK is a net payer). They also believe the UK can achieve more favourable third-party trade deals, and limit migration to skilled labour. Opponents point out the costs to the UK of losing access to the EU market, damage to the City of London's status as Europe's financial hub, and a potential drop in foreign direct investment.
To Swiss Re ER&C, the benefits of membership outweigh the costs.	The range of estimates on economic gains and losses is wide – from a 12% gain (estimated by the UK Independence Party) to a decline of 2% to 10% (estimated by the London School of Economics' Centre for Economic Performance). ³ According to Swiss Re Economic Research & Consulting's (ER&C) qualitative assessment, the UK is likely to lose more than it gains economically, financially and politically in the long-term. For instance, the US has already said the UK would be subject to the same tariffs as China, Brazil or India, and that it has no interest in new bilateral trade negotiations, negating proponent's argument of achieving better third-party trade agreements. Additionally, in the short term, uncertainty leading up to and after a vote to exit will likely restrain business investment, and thus economic growth.
	Monetary policies will diverge in the major economies
The Fed and BoE are expected to raise policy rates soon.	The Fed and the BoE are expected to start raising rates soon. The US and the UK economies are relatively strong and their unemployment rates are declining – to 5.0% in the US and 5.4% in the UK. This is already causing a modest increase in wages in the US (see Figure 1) and the UK, where wages increased by over 3% in the year to August 2015, compared to a rise of less than 1% in the same period in 2014.
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policy rates soon. The ECB is on hold until late 2017 at	 economies are relatively strong and their unemployment rates are declining – to 5.0% in the US and 5.4% in the UK. This is already causing a modest increase in wages in the US (see Figure 1) and the UK, where wages increased by over 3% in the year to August 2015, compared to a rise of less than 1% in the same period in 2014. The Euro area economy remains fragile and deflation is still a risk, so the ECB is expected to extend its period of quantitative easing (QE) and/or raise the amount of assets it purchases. It also could cut deposit rates in the near term. All these actions
policy rates soon. The ECB is on hold until late 2017 at the earliest. The BoJ is currently content with its current QE program, but could ease	 economies are relatively strong and their unemployment rates are declining – to 5.0% in the US and 5.4% in the UK. This is already causing a modest increase in wages in the US (see Figure 1) and the UK, where wages increased by over 3% in the year to August 2015, compared to a rise of less than 1% in the same period in 2014. The Euro area economy remains fragile and deflation is still a risk, so the ECB is expected to extend its period of quantitative easing (QE) and/or raise the amount of assets it purchases. It also could cut deposit rates in the near term. All these actions will tend to bolster growth and stability, allowing a modest tightening by late 2017. The BoJ seems relatively confident of the impact of its QE policy on the economy, but could ease further early next year. Inflation and wages are responding modestly to the policy, with the manufacturing wage index rising slowly, but other indicators are flat or declining. Consumer price inflation is still positive, even though the sales

 ² M. Carney, "The European Union, monetary and financial stability, and the Bank of England," *Cairncross Lecture Oxford*, University of Oxford, 22 October 2015.
 ³ The 2015 Capital Economics Annual Conference in Zurich, 1 October 2015.

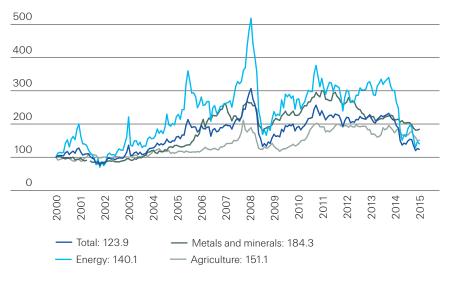
Emerging markets will continue to come under pressure as the Fed raises rates, increasing market volatility. For emerging markets the key issue is the rise in US interest rates. This will make US assets relatively more attractive causing some outflow of funds from emerging markets. Though their currencies could also depreciate more, most of this appears to be already priced in. Returns in emerging markets will continue to be higher than in the US and the UK, and the probability of a contagious emerging market crisis appears to be only about 15% given their stronger macroeconomic fundamentals than previously. Emerging market asset volatility, however, is likely to continue.



Source: Bureau of Labor Statistics, Federal Reserve, National Bureau of Economic Research, Datastream.

The commodity market bust

As shown in Figure 2, commodity prices, except for agriculture products, have come under sustained pressure since 2012. From 2000 through 2012, China averaged growth of about 10% per year as it invested substantially in infrastructure, buildings and other commodity-intensive projects. Commodity prices climbed fairly steadily, except during the severe downturn of 2008 to 2009, so investment in the supply of commodities – oil, gas, coal, copper, iron ore and other metals – also grew rapidly. This investment eventually led to a robust supply, just as China's growth slowed closer to 7%, causing prices to plunge.



Notes: Latest values as of 28 October 2015.

Total index includes energy, metals & minerals, agriculture, forestry and fish. Source: Datastream.

Another development putting pressure on emerging markets is the decline in demand for commodities, mostly due to a slowdown in demand from China.

Figure 2

Figure 1

US average hourly earnings,

with periods of recession

unemployment rate and Fed funds rate,

Bank of Canada, Commodity price indices, weekly data, (indexed to January 2000=100) The decline in demand while supply continues to rise has lowered prices dramatically in some cases.

Commodity boom and bust cycles last a while, so pressure on commodityexporting emerging markets will continue for a couple of years.

Growth in emerging Asia will remain strong and stable into 2016.

Figure 3

Real GDP growth in select regions, 2014 to 2018F

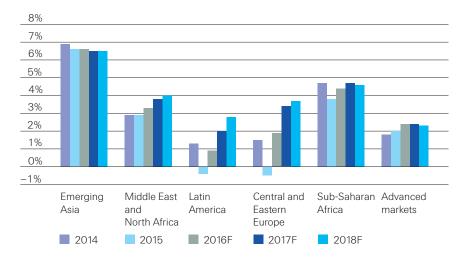
For example, since 2012, the price of West Texas Intermediate has fallen from an average of USD 98 bbl to below USD 50 recently, as the Saudis have not cut back on oil production and the US fracking industry sustains production at a surprisingly high level, despite lower prices. Other metal and energy products also have a similar case of excess supply, resulting in price declines. Prices will most likely be subdued for a couple years longer – even as production is cut back – because demand will rise only gradually.

In the past, these commodity cycles lasted a long time. For instance, oil prices rose from the late 1960s through to the mid-1980s, and then fell through 1999, before beginning a boom, which lasted until just recently. Adjusting to the bust period takes time but has immediate consequences for countries' economies. Currently Brazil, Russia and Venezuela are in recession, while growth in countries such as Chile, Colombia, Australia and Canada has slowed significantly. Reduced production, lower investment and the price declines are all negative for these countries' income. Countries heavily dependent on commodities will not recover for at least a couple of years.

Emerging markets

Emerging Asia

Economic growth in emerging Asia will remain fairly strong and stable in 2015 and 2016, in spite of slowing growth in China. The highly-leveraged property sector coupled with weak real estate prices remains the key downside near-term risk in China, particularly given the reliance of property on shadow banking for financing (see section on "The risk of a hard-landing in China"). In India, business and consumer sentiment have improved significantly on expectations of a strong push towards economic reform and liberalization by Prime Minister Modi. In Southeast Asia, economic activity is expected to be robust, with the Philippines, Malaysia and Vietnam having the strongest growth.



Source: Swiss Re Economic Research & Consulting

We expect China to announce a lower growth target and project 6.6% real GDP growth for 2016.

Corporate default risks remain a key concern, as profits deteriorate and real interest rates remain high.

In CEE, growth rates will diverge, with Russia and Ukraine remaining weak.

Geopolitical tensions and lower oil prices

are the main concerns in MENA.

However, the overall growth outlook for the region is still positive.

The risk of a hard landing in China

China grew by 6.9% in real terms in each of the first three quarters of 2015, slightly below the official target of 7.0%. Weaker exports and lower investment growth were the main reasons. Nominal GDP growth was even weaker, slowing to 6.6%. With negative inflation from the GDP deflator and leading indicators implying weakness ahead, deflation risk has increased. In response, on 23 October 2015 the central bank announced this year's fifth interest rate and fourth reserve requirement cut. Nevertheless, real GDP growth is expected to be below 7% in the fourth quarter of 2015, and the full-year will still miss the official target. To fight deflationary pressures and boost growth, the People's Bank of China will likely introduce more policy easing, particularly monetary policy measures, since local government balance sheets are already stretched, making large-scale fiscal stimulus unlikely without causing another crisis down the line. We expect China to announce a lower growth target and project 6.6% real GDP growth for 2016.

Risks to growth remain on the downside. China's debts are the highest among the emerging markets and continue to rise, with the total debt-to-GDP ratio rising to 240% in the first quarter of this year from 149% at the end of 2008. This was driven mainly by a rapid build-up of corporate sector debt, which rose to 161% of GDP from 99% over the same period. Signals from the corporate debt market are troubling. Corporate profits are deteriorating and real interest rates (inflation-adjusted financing costs) are relatively high. Credit spreads of lower rated corporates remain at high levels. Concerns over the high debt level in China is a main factor underpinning our assessment of an elevated risk of a hard-landing at 20%.

Central and Eastern Europe (CEE)

Aggregate growth in CEE declined in 2015 due to recession in Russia, but this masked much better growth in smaller countries. In particular, growth in many EUmember countries accelerated, driven by improving consumer sentiment, low inflation and better labour market conditions. Russia will likely remain in recession in 2016. Inflation in Russia is very high, driven by the depreciating rouble and capital outflows. The effect will be to reduce investment. The economic situation in Ukraine remains extremely difficult, with GDP contracting sharply this year and moderating a little next. We expect the Ukraine crisis to remain at the current impasse, but CEE growth will likely resume next year and beyond. And, if tensions with Russia ease, CEE could benefit more from stronger economic growth in Western Europe.

Middle East and North Africa (MENA)

Growth in the MENA region will likely be supported by higher private consumption from expansionary fiscal policies, and the resumption of full-scale oil production in Libya and increased Iraqi crude exports. However, heightened geopolitical tensions and sustained low oil prices continue to drag on growth, with countries bordering Syria, including Jordan, Lebanon and Turkey, suffering most.

Overall, however, the growth outlook for the region is positive. That said, the trend is different for oil-exporting vs importing countries, given the low oil prices. In the short-term, many oil-exporting countries (GCC member states in particular) have been able to maintain spending given their large financial reserves built up when oil prices were high. However, prolonged lower oil prices will compromise their fiscal positions and in the longer-term, government spending will likely need to be reduced. Oil-importing countries are stronger, given global economic growth and lower oil prices. In countries with regulated oil prices, lower prices reduce the oil subsidies, helping the fiscal balance and allowing greater spending on infrastructure and other development activities.

Overall growth in SSA will slow in 2015 due to lower commodity prices, but many economies will remain strong.

Growth should improve in 2016, but the region remains dependent on capital inflows for infrastructure improvements.

There is heightened risk of emerging

market weakness weighing on global

Sub-Saharan Africa (SSA)

SSA faces headwinds as commodity prices remain low and capital flows out of the emerging markets. GDP growth will likely slow considerably in 2015, but SSA is still the fastest growing region after emerging Asia. Growth patterns diverge significantly across the region, with the three largest economies acting as a drag. South Africa is weighed down by ongoing electricity shortages, strikes, low export prices and high unemployment. Meanwhile Nigeria and Angola have been hit hard by low oil prices, and have been forced to cut government spending. Nigeria additionally suffered from uncertainty around the presidential elections and transfer of power to a new administration. Yet, many other SSA countries will see sustained growth. For example, Kenya will grow given its dynamic services sector and spending on infrastructure.

Economic growth in SSA is projected to improve in 2016, even though commodity prices will remain low. While slower growth in China will weigh, the advanced economies, which account for 45% of African exports, are growing. However, the region will depend on capital inflows to finance infrastructure improvements and government deficits. Current government and external debt levels are fairly low, but that could change quickly as borrowing in foreign-denominated currencies increases, interest rates rise and currencies weaken. In addition, persistent infrastructure bottlenecks will limit growth in major markets (eg, Nigeria and South Africa). In Nigeria, the newly-elected president is determined to address endemic corruption and loss of oil revenues, which should help to reduce the government deficit and improve infrastructure investment.

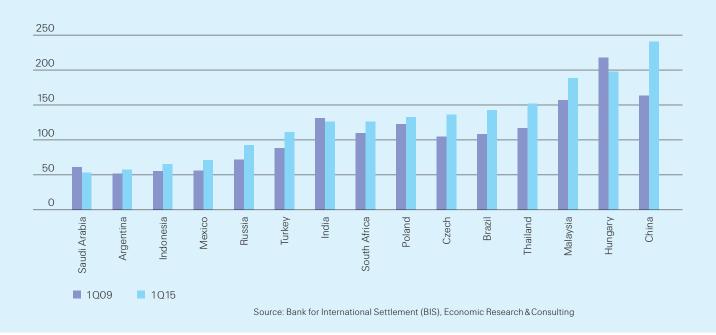
Emerging market risks from US monetary tightening

The prospect of slowdown in the emerging markets, and its impact on global growth, is gaining increasing attention. From 2010 to 2014, the emerging markets contributed on average about 80% of annual global growth, meaning a slowdown in growth could also substantially reduce growth in the advanced regions via trade and financial channels.

Figure 4

growth.

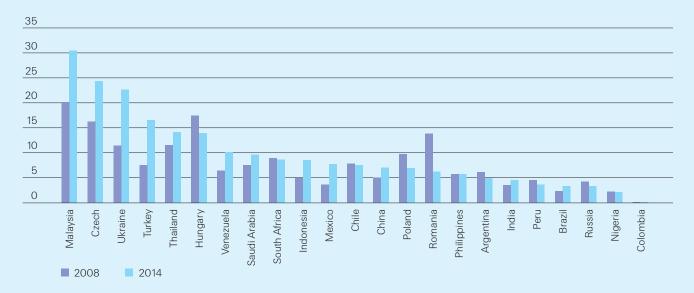
Total debt as % of GDP in select emerging markets



A double-edged sword: low growth and high debts.	As the US dollar strengthens, emerging markets face the challenges of low growth and high debt. In recent years, their economies have been supported by rapid growth in credit from cheap and abundant domestic and external liquidity, leading to a notable rise in emerging market private sector debt, particularly in the non-financial sectors.
The diverging monetary policy stance between the US and emerging markets has been a key driver of capital outflows.	Expectations of a US rate hike and subsequent reduction in global liquidity, have led to capital outflows from the emerging markets. In recent months, these markets have had a large drop in official reserves, and a number of the currencies have come under pressure. According to estimates from the Institute of International Finance (IIF), 2015 will be the first year since 1988 of net capital outflows from the emerging markets. ⁴
These outflows and currency weakness have ignited concerns of a repeat of 1990s-style emerging market crises.	The outflows and currency weakness have ignited heightened concerns of a repeat of emerging market crises of 1990s: the Mexico Tequila crisis in 1994–1995, the East Asia financial crisis in 1997–1998, and the Russia crisis of 1998. This time, China's financial markets are a key worry. Chinese stocks plunged in June and July, and a surprise depreciation of the renminbi in August further dented investor confidence, putting pressure on global asset prices.

Figure 5

Total external short-term debt in select emerging markets as % of GDP



Brazil, China and Russia are most at risk.

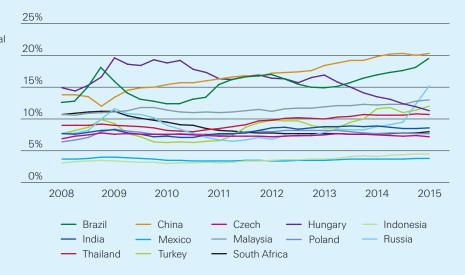
Source: BIS, Swiss Re Economic Research & Consulting.

With rising indebtedness and weaker currencies, liquidity and credit ratings, the debt servicing costs for the non-finance sectors in emerging markets have risen.⁵ Three of the largest markets – Brazil, China and Russia – are most susceptible to interest rate hikes, according to data from the Bank for International Settlement (BIS).

- ⁴ N. Chandran, "Is this the mother of all warnings on EMs?", *cnbc.com*, 1 October 2015, http://www.cnbc.com/2015/10/01/emerging-markets-to-post-first-negative-year-of-net-capitalflows-since-1988.html
- ⁵ The debt service ratio is defined as the ratio of interest payments plus amortisations to income. For details, please see http://www.bis.org/statistics/dsr_doc.pdf

The risk of emerging market crisis contagion is low.

Growth concerns and elevated market volatility will likely continue to push capital out of the emerging markets. Even so, the risk of financial contagion is low. The structure of capital flows is different from the 1990s, when capital inflows to Asia had been mostly short-term bank lending. Today, more is in long-term portfolio debt. Further, the foreign exchange (FX) mismatch/balance sheet issues in the emerging markets are not as severe as in the 1990s, and the fundamentals of most Asian emerging economies remain solid, including sufficient FX reserves and low foreign currency external debts. Moreover, bank liquidity, regulation, capitalization and asset quality still look healthy. More flexible FX regimes should also help mitigate shocks to the real economy. Still, some countries with fairly sizable foreign currency debts and weaker external positions are vulnerable. The Asian financial crisis in 1997 revealed the importance of monitoring short-term external debt, often the most important and most volatile component of countries' obligations.



Source: BIS, Swiss Re Economic Research & Consulting.

Latin America

Real economic growth turned negative in 2015, because of the recessions in Brazil and Venezuela and weaker growth in the rest of the region. Brazil's downturn deepened amid an escalating crisis of confidence, epitomized by S&P's downgrade of Brazil's sovereign credit rating to below investment grade in September. The government's initial response to the downgrade was to reaffirm its commitment to fiscal discipline, yet it is struggling to regain credibility. Political infighting, rising social discontent and an ongoing corruption scandal are contributing to policy paralysis and undermining the government's fiscal consolidation efforts. Further downgrades are likely in the absence of a major policy shift, which would cement Brazil's speculative-grade status. The resulting reduction in supply of credit from abroad and higher borrowing costs will curtail investment spending at a time when monetary policy is already tight and risk aversion towards emerging markets in general, and Brazil in particular, is high. Given these significant downside risks, GDP growth expectations in Brazil for the short-to-medium term have been cut to -3% for 2015 and -1% for 2016.

The Pacific coast countries of Peru, Mexico, Colombia and Chile have also slowed, but to a lesser extent and in a more orderly fashion than the Mercosur economies (Brazil, Argentina, Venezuela). Inflation pressures are broadly contained, despite some "pass-through" from weaker exchange rates, and growth rates are likely to be in the 2–3% range. Three key factors are expected to underpin the continued outperformance:

The region-wide economic slowdown in Latin America intensified during 2015.

Chile, Colombia, Mexico and Peru will partially compensate for weaker growth in Brazil, Argentina, and Venezuela.

Figure 6

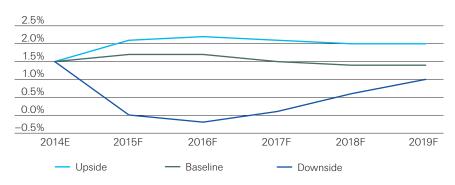
Debt service ratio for the private non-financial sectors in select emerging markets, %

- A greater ability to absorb external shocks due to a combination of features, including flexible exchange rates, ample FX reserves, and manageable levels and maturities of sovereign external debt.
- More policy options including stimulus measures to counter the economic slowdown.
- Greater exposure to the US, helping these countries take advantage of America's economic upturn which in turn will compensate for weaker growth in China and Brazil.

Nevertheless, despite these strengths, the external headwinds will be a binding constraint. Regional GDP is forecast to grow by only 1% in 2016 and accelerate gradually to 3% by 2019.

Risk scenarios

The downside risks to global growth are currently balanced, with some bias to the downside. Last year, the Euro area was a main concern but in 2015, China and the emerging markets are more worrisome. The upside risk, still 10%, is not as large in growth terms as the downside risk, particularly in the Euro area and emerging markets (see Figure 7). The possibility of a major regional downturn is also 10%, but it lowers growth by more than the upside lifts growth. Prospects for the US housing market have improved and the Euro area is on surer footing, but China and commodity-exporting countries are hurting. Japan's prospects have not changed.





In the downside scenario, yields on government bonds would stay near current levels through to mid-2016 and perhaps longer, while equity markets would decline and credit spreads would widen. In the upside scenario, US housing starts would reach some 1.5 million units in 2016, up from about 1.1 million this year. Consumers remain confident, so vehicle sales would top 18 million, up from about 17 million in 2015. In Europe, the UK economy would grow by more than 3%, based on domestic demand, and Spain by over 4%. Italy's recovery would gather steam on the back of Prime Minister Renzi's reforms and Germany would also begin more economic reforms, boosting business confidence and investment. Finally, China's policymakers would seek to put growth on a more sustainable path by reforming state-owned enterprises.

Under the baseline upside scenario, insurance premium growth will be close to GDP growth in the advanced economies and generally higher than GDP growth in the emerging markets, which will benefit from increased insurance penetration. In the downside scenario, there is greater stress from lower premium growth and pressure on asset valuations. The upside scenario would be more favourable for the re/insurance industry. Investment yields would improve and premium volumes would rise along with economic activity.

Upside and downside risks are more balanced this year.

Figure 7

Real GDP growth (%) upside, baseline and downside scenarios, 2015–2020F, based on Euro area real growth

Global growth could be stronger than expected, driven by stronger growth in the US, UK and Euro area.

Real GDP growth drives insurance premium growth in all scenarios.

Non-life re/insurance: improving growth, challenges to profitability

Global non-life premium growth slowed in 2015.

Premium growth in the emerging markets slowed notably in 2015.

Depreciation of emerging economies' currencies reduced premiums in US dollar terms.

In the US, underwriting results improved slightly in the first half of 2015 ...

... while underwriting results in Europe have been generally stable.

Non-life insurance in 2015: moderate growth, mixed underwriting results Non-life premium growth was slower in 2015 than in 2014, in both the advanced and emerging markets. Global non-life premiums are estimated to have risen by 2.5% in adjusted real terms in 2015,⁶ after a 2.8%-increase in 2014. In the advanced countries, premium growth declined to 1.7% from 2.0% last year. The Western European markets slowed marginally despite moderate rate increases in Germany, France and the UK. In Italy, premium income fell sharply again due largely to shrinking demand for motor insurance, while the Spanish and Portuguese markets are coming off their lows. Larger markets with accelerating growth include Japan, Korea, Spain and the Netherlands.

Non-life premiums in the emerging markets grew by an estimated 5.6% in 2015, also slower than in previous years. This was mainly due to economic slowdown in Latin America and CEE. However, there was strong growth in emerging Asia (12%), in China in particular, based on strong demand in motor. Premiums in other emerging Asia markets, and in MENA, grew by around 6%. In SSA, premiums were up 4.5%.

In addition to the overall inflation-adjusted slowdown in the emerging markets, there was a significant slowdown in premium growth rates in US dollar terms also due to the severe currency depreciation in many of the countries. Emerging market premium volumes declined 1% in dollar terms in 2015, having increased by 6% in the previous year.

Underwriting profitability improved in the US, stable in Europe

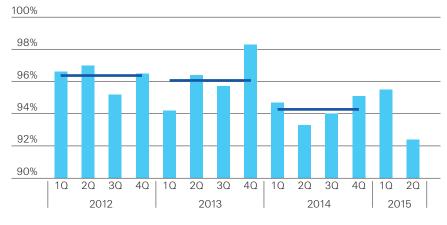
The US P&C industry's combined ratio improved by 1.2 percentage points to 97.8% in the first half of this year. The improvement was driven by lower catastrophe losses and higher reserve releases than in the same period in 2014. Excluding the impact of reserves releases, the accident year combined ratio for the US P&C industry improved slightly to 101.1% in the first half of 2015 from 101.9% in the first six months of 2014. Prior moderate rate increases in liability contributed to the slight strengthening of underwriting profitability in both commercial and personal lines.

Underwriting profitability in Europe⁷ was about the same in the first two quarters of 2015 as in the same period in 2014, with an average combined ratio of about 94%. Underwriting results were stable to slightly stronger across the board, based on a low loss burden from natural catastrophes and solid technical results. In Germany and Italy, underwriting results in motor are moderating. This year's large winter storms mostly affected Northern Europe, especially windstorm Elon-Felix and winter storm Niklas, which triggered more than EUR 1 billion in insured losses. The Nordic countries in particular suffered from windstorm Elon-Felix, which drove their combined ratio up by 6.5 percentage points in the first quarter. Germany was also affected by the two storms, which in part explains its higher combined ratio of 98%.

- ⁶ For 2015, adjusted real terms is estimated by using core inflation instead of all items CPI, in order to neutralise the impact of collapsing oil prices on CPI and consequently to the real growth rate calculation.
- Based on an aggregated sample of large European insurers active in Germany, France, the UK, Italy, Spain, Switzerland and the Nordic countries.



Combined ratios in Europe, Q1 2012 to Q2 2015



Note: Annual average is the horizontal bar. Source: Swiss Re Economic Research & Consulting.

Underwriting results in Japan and Australia, the biggest mature markets in Asia Pacific, have been mixed this year. In Japan, overall underwriting results improved across all lines, although the combined ratio in compulsory motor lines remains high. Underwriting performance in Australia, however, deteriorated due largely to poor property risk (homeowners, fire&industrial special risks) offsetting improvements in compulsory motor. The voluntary motor and liability lines have been relatively stable.

Investment returns and overall profitability remain weak

Investment returns for non-life insurers remain under pressure as average yields are stalling and operating cash flows are weak, given slowing premium growth and weak underwriting results. Eight years after the financial crisis, the investment environment remains challenging for fixed income securities, the main asset class in insurance, with low yields and exposure to mark-to-market losses when interest rates rise. Corporate bond spreads widened in 2015, causing some mark-to-market losses. Equity and alternative investments have also added volatility to returns. Portfolio yields are close to bottoming out, but even with market rates forecast to rise, insurers' running yields will improve only gradually.

For 2015, investment returns in non-life are estimated to have been about 10.9% of net premiums earned, down from 11.4% in 2014, and well below the 13.8% annual average of 1999–2007. Overall industry profitability has declined with return on equity (RoE) estimated to be 7% in 2015, down from around 9% in 2013 and 2014.⁸

Japan and Australia had strong underwriting results this year.

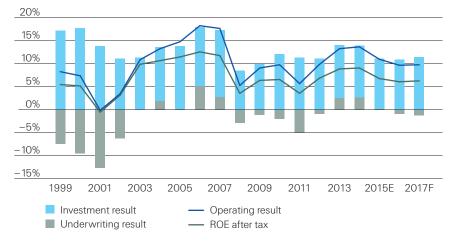
Investment yields for non-life insurers are close to bottoming out.

Overall profitability in 2015 was down from prior years.

³ The calculation of the industry average profitability is based on data for the following eight leading non-life insurance markets: Australia, Canada, France, Germany, Italy, Japan, the UK and the US.

Figure 9

Composition of profits as a % of net premiums earned and ROE, aggregate of eight major markets, 1999–2017F



Source: Swiss Re Economic Research & Consulting.

Outlook: premiums will grow, but pressure on profitability to continue

The global economic outlook for 2016 and 2017 is more positive and demand for non-life insurance should increase. The emerging markets will be the main driver with a strong improvement to 8-9% premium growth in real terms in 2016 and 2017. Growth in advanced markets is expected to slow slightly since rates are expected to moderate further and macro conditions will only improve modestly. Global premium growth is forecast to improve to 3.0% in 2016 and 3.2% in 2017, from 2.5% this year.

Country/region	2013	2014	2015E	2016F	2017F
US	3.2%	3.0%	3.8%	1.8%	1.3%
Canada	2.7%	1.9%	2.7%	0.8%	2.3%
Japan	7.7%	0.3%	2.5%	2.8%	1.0%
Australia	5.7%	1.3%	-0.1%	0.7%	2.1%
UK	-1.8%	1.9%	2.3%	1.3%	2.2%
Germany	2.5%	2.9%	2.6%	1.7%	0.6%
France	0.1%	0.3%	0.7%	1.0%	1.4%
Italy	-6.1%	-3.0%	-3.0%	-1.8%	1.5%
Advanced markets ¹	2.1%	2.0%	1.7% ²	1.8%	1.7%
Emerging markets	8.0%	6.3%	5.6%	7.9%	8.7%
World	3.2%	2.8%	2.5% ²	3.0%	3.2%

Notes: ¹ Advanced markets include North America, Western Europe, Israel, Oceania, Japan, Korea, Hong Kong, Singapore, and Taiwan. ² Real growth of advanced markets in 2015 was distorted by a drop in CPI inflation by about 1 percentage point from the collapse in energy prices. Using core CPI indices, excluding food and energy prices, real premium growth in most mature markets slowed down slightly in 2015. Source: Swiss Re Economic Research & Consulting.

Premiums will grow in 2016 and 2017, driven by emerging market growth.

Table 2

Real growth of direct premiums written in major non-life insurance markets and regions Insurance prices in US commercial lines have increased at a slow pace or started to soften.

Price softening is more prounounced in Europe, Asia, and Latin America.

Global renewal rate changes by line of

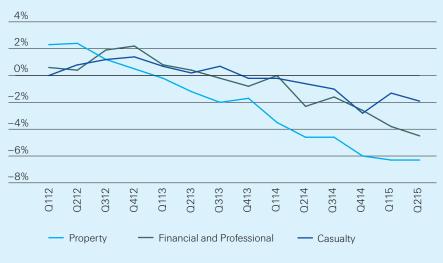
Figure 10

business

Commercial insurance

Pricing in commercial insurance deteriorated in 2015. Rates in US commercial lines increased at a slower pace or started to soften. The third quarter 2015 survey by the Council of Insurance Agents & Brokers indicates an overall softening of rates, with the exception of hardening in D&O, employment liability and commercial auto lines.⁹ Liability lines continue to fare better than property, and larger accounts are softer than smaller accounts. Pricing is expected to improve once reserve releases turn to adverse development. Growth in claims costs will likely exceed rate trends in all lines, eroding underwriting profitability.

Marsh reports commercial rate declines across regions and lines of businesses. In the second quarter of 2015, global commercial insurance rates fell for the 9th consecutive quarter (-4.4%), driven mostly by abundant capacity and an absence of large natural catastrophe losses. Property renewal rates continued to show the biggest decrease (between -5% and -7.5%), with the most significant declines in Asia Pacific and continental Europe. Casualty renewal rates were down from 0% to -2.5%, with the largest decline in Asia Pacific. And renewal rates in financial and professional lines also decreased further (by between -2.5% and -5%), with the largest decline in the UK. An exception to the deteriorating rate trends is cyber insurance, where rates are firming.



Source: Marsh.

The pricing outlook is challenging and increasingly competitive ...

... but the trend to rate softening could be short-lived.

The general pricing outlook for the non-life insurance industry remains challenging due to abundant capital and benign claims development. An important factor is the currently strong capital position of the insurance industry. Abundant capital leads to: (1) a decline in reinsurance demand since more risks can be retained; and (2) pressure on primary insurance margins. Even so, the current trend towards rate softening may be short-lived.

- Reserving may soon prove insufficient. Reserves from the redundant hard-market years are wearing thin and the reserves adequacy of more recent loss years is unclear. This is because the current benign loss trends are prolonging the period of releases. Reserve releases will eventually shift to a need to strengthen reserves, but it is difficult to forecast the timing. When this happens, the current low prices will become more unsustainable and the scene will be set for rates to harden.
- Commercial P/C pricing: Downward Rate Trend Continued Across Most Lines, According to CIAB Market Survey, CIAB, 29 October 2015.

- Stricter solvency regulations and higher capital requirements could help turn the market. Solvency II is expected to be implemented in 2016 and a further tightening of rating agency models is also expected. Independent of Solvency II, A.M. Best is changing its model to require more capital for tail risk events.
- Volatile and significant capital market developments impacting insurers' capital base may be another trigger for rate hardening, which could include impairments of invested assets, or a quick and strong rise in interest rates.

Underwriting profitability in non-life insurance will likely deteriorate in 2016 and 2017, especially if natural catastrophe losses return to historical averages. If reserves begin to develop negatively in 2016, reducing accounting profits, this could lead to broad rate increases in casualty.

As interest rates gradually rise, investment income will grow only slowly and with a lag to rising interest rates. Overall profitability in 2016 and 2017 is expected to remain at the current low levels, (ie, RoE of around 6%).

The non-life reinsurance market: challenging years for profits

The non-life reinsurance industry is caught between a fair present and cloudy future. The industry is heading for a fourth year of strong underwriting results. Assuming there are no large catastrophes in the rest of this year, the combined ratio for 2015 is expected to be at around 90% again, bolstered by reserve releases and below-average natural catastrophe losses.

However, reinsurance prices have been softening since US property catastrophe rates started to weaken in mid-2013. The trend towards softening has since spilled over into other lines of business. In general, rates in casualty have been more stable than in property.

Capital development in non-life reinsurance stalled in 2015

There is still an abundance of reinsurance capital, with strong supply in both traditional and alternative capacity (AC). However, the quick expansion of AC in 2013–2014 that generated the supply/demand imbalance in property catastrophe reinsurance has moderated. AC has maintained its share (16%) of global capacity, estimated to be USD 65 billion by mid-2015, up marginally from year-end 2014.

The capital position of global reinsurers, the traditional source of capital, weakened by 6% in the first half of 2015. The main reasons were currency fluctuations, which contributed to a decline in USD-denominated reinsurance capital, continued strong capital management, which returned almost all of the industry's net income to the shareholders, and unrealized capital losses on bond and equity portfolios. Comparing capital and premium developments in reinsurance shows that premiums – as a proxy for insured exposures – have roughly traced capital development since 2009. In recent years, capital growth has more and more been managed through dividend payments and share buy-back programmes.

Underwriting profitability is likely to deteriorate.

As interest rates gradually rise, investment income will improve, but only slowly and with a lag.

Strong underwriting results and increasing capital levels ...

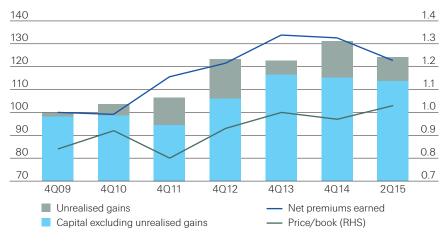
... triggered significant rate softening in non-life reinsurance this year.

A strong influx of alternative capital led to a supply/demand imbalance in property catastrophe reinsurance.

Traditional capital declined in USD-terms in 2015.

Figure 11

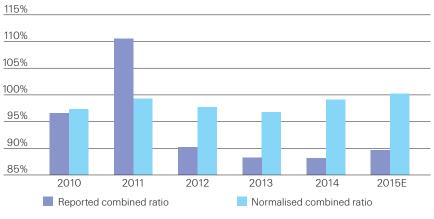
Global non-life reinsurance premiums and GAAP capital, 40 2009 = 100 (traditional reinsurance)



Source: Swiss Re Economic Research & Consulting.

Strong underwriting results in non-life reinsurance

Underwriting results in non-life reinsurance were strong in the first three quarters of 2015, amidst an absence of large natural catastrophe losses. Based on preliminary data, the reinsurance industry is expected to report a combined ratio of around 90% for the financial year 2015, the fourth successive year with a ratio of 90% or lower. However, this does not properly reflect underlying underwriting profitability, because natural catastrophe losses have been lower than anticipated and the claims ratio has been reduced by positive reserve releases from redundant reserves for prior years' claims.¹⁰ Excluding these two impacts, the underlying combined ratio would instead be around 100% in 2015.



Source: Swiss Re Economic Research & Consulting.

Investment returns still weak, windfall gains on underwriting result boost RoE

The investment environment for reinsurers is the same as it is for insurers: challenging. The industry achieved a mere average 3.4% annualized investment yield in the first half of 2015, unchanged from 2014. The current investment yield is 2.7%, and capital gains are at 0.7%. Nevertheless, based on the strong underwriting results, an overall RoE of around 13% is expected for non-life reinsurance for the full-year 2015. Adjusted for the special factors that boost the underwriting result, the average RoE would be lower around 6-7%.

¹⁰ With regards to the P&L account of insurers, claims reserve releases lower the amount of claims incurred which are booked in a certain financial year, thus positively impacting underwriting results and net income. Claims reserve additions add to the accounted claims burden in a financial year, with the opposite effect on the P&L. For a deeper discussion, see also *sigma* 4/2014: Liabilility claims trends emerging risks and rebounding economic drivers, Swiss Re.

The reinsurance underwriting result has been strong so far this year, based on low natural catastrophe losses.

Figure 12

Reported and normalised combined ratio of the reinsurance industry, 2010 to 2015

Capital gains and current yields are down, and underlying RoE is at around 6–7%.

Premium growth will be subdued in the advanced and emerging markets.

Price pressures are expected to moderate.

The average combined ratio is expected to be around 100% in 2016, with RoE at around 7%

Outlook for 2016 and 2017

Real premium growth in the non-life reinsurance sector is expected to weaken in 2016 and 2017. Advanced markets will be impacted by the current rate softening, which is slowing. In the emerging markets (with the exception of China), premium growth will improve on the back of macroeconomic recovery, particularly in Latin America. In China, reinsurance demand is expected to drop following the introduction of the new solvency regime C-ROSS (see also emerging markets chapter). For 2017, a recovery of the growth trend is expected, driven by stronger sales in primary insurance in all regions.

Given the strong erosion of profit margins over the last two years, property catastrophe reinsurance rates are close to bottoming out. Across lines of business, the softening of average rates is expected to moderate or come to a standstill. For casualty and specialty lines, significant differences in pricing developments by market and line of business are expected.

Assuming average catastrophe losses, moderating rates, a less-benign claims environment than in the last three years and declining reserve releases, the combined ratio in non-life reinsurance is forecast to be at around 100% in 2016, the same as this year after adjustments. Underwriting profitability is expected to remain below the average of recent years. Also, though interest rates in the advanced markets are expected to rise, they will still be low by historical standards, and investment returns will remain below pre-financial crisis levels. The overall profitability outlook for next year is therefore expected to be moderate, with RoE of around 7%, assuming average losses arising from natural catastrophes.

Table 3	Region	2013	2014	2015	2016E	2017F
Real growth of non-life reinsurance	Advanced markets	1.1%	-2.7%	0.8%	0.7%	1.7%
premiums	Emerging markets	8.8%	0.4%	1.6%	-4.0%	6.3%
premiums	World	3.0%	-1.9%	1.0%	-0.5%	2.9%

Source: Swiss Re Economic Research & Consulting.

M&A in non-life re/insurance heating up

After a few quiet years, there have been numerous deals since November 2014, mostly involving Bermuda-based re/insurers, Lloyd's syndicates and US commercial insurance carriers. The pressure on global reinsurance profits, the flight-to-quality of insurance buyers, the commoditization of property catastrophe reinsurance by reinsurance brokers and the proliferation of alternative capital have squeezed smaller traditional carriers in particular. These pressures are likely to drive more deals in 2015 and next. The business model of a small-focus specialized underwriter no longer works in the current soft market. Instead, smaller re/insurers are being pressured to consolidate in order to increase scale and improve their capital cost through more diversification.¹¹

Competitive market dynamics drive consolidation.

¹¹ sigma 3/2015: M&A in insurance - start of a new wave?, Swiss Re.

Table 4:

Recent non-life re/insurance M&A deals

Buyer	Domicile	Target	Domicile	Announced
Mitsui Sumitomo	Japan	Amlin	UK	Sep 15
CMI Corp	China	Sirius	Bermuda	Jul 15
ACE	Switzerland	Chubb	US	Jul 15
Tokio Marine	Japan	HCC	US	Jun 15
Validus	Bermuda	Western World	US	Jun 14
Fosun	China	Ironshore	Bermuda	May 15
EXOR	Italy	PartnerRe	Bermuda	Apr 15
Endurance	Bermuda	Montpelier	Bermuda	Mar 15
Fairfax	Canada	Brit	UK	Feb 15
XL Capital	Bermuda	Catlin	UK	Jan 15
Fosun	China	Meadowbrook	US	Dec 14
RenRe	Bermuda	Platinum	Bermuda	Nov 14

Details of all these tranacations are available from the respective company websites. Source: Swiss Re Economic Research & Consulting.

Recent trends include consolidation of small and medium sized Bermuda and Lloyd's carriers ...

... accessing US commercial insurance ...

... and Chinese investors expanding strategically in the US and Lloyd's.

Japanese insurers are also expanding internationally given limited growth opportunities at home.

The deals reveal the following trends, which should continue for the foreseeable future. A number of M&A among specialist re/insurance providers have come in response to increased competition. Strategic tie-ups offer potential diversification gains, scale economies and cost synergies to help incumbent firms meet the challenge from commoditisation, cedants' trend to downsize their number of reinsurance partners, and the growing importance of top-tier reinsurers with ability to offer new/differentiating products and whole-account solutions. Bermudan re/insurers and Lloyd's syndicates have been prominent in takeover deals, many of which can be considered defensive in light of the aforementioned market trends.

Another trend relates to the potential of the US as the largest commercial insurance market globally. All buyers of US companies in recent months (eg, HCC, Chubb Western World & Meadowbrook) have been foreign insurers. ACE's acquisition of Chubb¹² can be considered strategic or transformational, but that is not to say it heralds a wave of megadeals.

Insurers from advanced countries continue to expand in high-growth markets through acquisitions, although the recent slowdown in emerging economies may dampen that trend. Increasingly, insurers from developing economies, especially China, have been acquiring firms in Europe and the US (eg, Anbang, Fosun). Chinese companies see the US insurance market and Lloyd's as key steps in their global expansion.

Japanese life and non-life insurers are also buying businesses overseas to widen their international footprint given weak growth opportunities and low investment yields at home. Targets have been mainly in other parts of Asia and in the US (eg, most recently Tokio Marine – HCC ¹³, Sumitomo – Symetra¹⁴). However, there have also been acquisitions in the London market (Sumitomo – Amlin¹⁵) and in reinsurance (earlier this year, Sompo acquired a 15% minority share in SCOR¹⁶).

- ¹² ACE to Acquire Chubb for USD 28.3 billion in Cash and Stock, ACE, 1 July 2015, http://news.acegroup.com/press-release/corporateglobal/ace-acquire-chubb-283-billion-cash-andstock
- ¹³ "Tokio Marine Holdings to Acquire HCC Insurance Holdings in USD7.5 billion transaction", *hcc.com*, 10 June 2015, http://www.hcc.com/pressRelease
- ¹⁴ "Sumitomo Life Insurance Company to Acquire Symetra Financial Corp", *businesswire.com*, 11 August 2015, http://www.businesswire.com/news/home/20150811005634/en/Sumitomo-Life-Insurance-Company-Acquire-Symetra-Financial
- ¹⁵ "Japan's Mitsui Sumitomo Insurance to Buy Amlin for USD 5.3 Billion", wsj.com, 8 September 2015, http://www.wsj.com/articles/japans-mitsui-sumitomo-insurance-to-buy-amlin-for-5-3billion-1441693745
- ¹⁶ "Sompo Japan to Buy 15% Stake in French Reinsurer SCOR", *bloomberg.com*, 6 March 2015, http://www.bloomberg.com/news/articles/2015-03-06/sompo-japan-to-buy-15-stake-in-frenchreinsurer-scor

Life re/insurance: on the cusp of technologydriven transformation

Global life premiums grew by 3.3% in 2015, but the outlook remains challenging.

On an accounting basis, capitalisation improved through the second quarter of this year ...

... but low interest rates continue to create headwinds.

Shareholder equity for 29 global

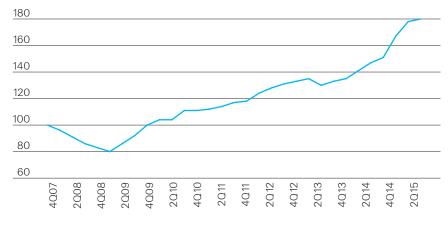
composite and life insurance companies,

Premiums grow, but business environment will remain challenging

Global life insurance premiums are estimated to have risen by 3.3% in 2015 in real terms. Life insurers' balance sheets have generally strengthened as companies de-risk products and asset impairments moderate due to stronger credit and equity markets. Nonetheless, the business environment will remain challenging given expectations of just modest global economic growth, low interest rates and regulatory changes.

On an accounting basis, the life insurance industry's reported capitalization improved further through the second quarter of 2015, mirroring solid business operations and strong profits (see Figure 13). However, the improvement was in part driven by declining interest rates, resulting in higher mark-to-market values of fixed-income investments and derivatives instruments.¹⁷

In an economic sense, low interest rates continue to create serious headwinds. Life insurers must honour guarantees close to, or even above, their average investment yield, resulting in lower profitability and negatively impacting capitalization and solvency.



Market cap weighted average

Note: Based on IFRS/local GAAP data. Missing Q1/Q3 values are interpolated. Companies in the sample include: Aflac; Allianz; Assurant Inc; Aviva; AXA; China Life; CNP; Generali; Genworth Financial; Great-West Lifeco; Hartford; Legal & General; Lincoln National; Manulife; Metlife Group; Old Mutual; Ping An; Protective Life; Prudential (UK); Prudential (US);

St. James Place; StanCorp Financial Group; Standard Life; Storebrand ASA; Sun Life; Swiss Life; Torchmark; Unum Group; Zurich

Source: Swiss Re Economic Research & Consulting.

With low interest rates continuing to pressure investment yields, life insurers have been shifting their portfolio mix toward higher-risk, less liquid assets like infrastructure, private equity and joint ventures (See section on "Investment income – why still so high?"). Interest rates are projected to gradually increase but they will remain low by historical standards. The full impact of rising rates on investment yields will be slow to play out because only a fraction of total investments are reinvested at market yields. Insurers' investment portfolio running yields therefore lag changes in bond market yields. In the baseline scenario of gradually rising rates, running yields will continue to fall over the next few years and squeeze investment returns, a main source of income for life insurers.

¹⁷ In US GAAP and Japan GAAP, the interest rates used to value liabilities are locked in. Under IFRS, valuation of insurance liability allows insurers to use either US or local GAAP. In the UK, Canada, Australia, the Netherlands, Sweden, South Africa and other countries, local GAAP do not lock in rates.

(40 2007=100)

Figure 13

In a scenario of gradually increasing interest rates, running yields will continue to decline.

Life insurers' portfolio yields are still above market yields because of highyield bonds in their portfolios.

Life insurers have benefited from the strong performance of equities, based on already existing portfolio positions.

Investment income - why still so high?

Investment yields for insurers have held up reasonably well despite low interest rates.¹⁸ There are three main reasons for the relatively good return on investment (ROI). First, the portfolio yield (average yield across all investments) changes only slowly over time because only a fraction of the fixed income investments mature at any one time. Insurers are therefore still benefiting from high yields on bonds purchased years ago (see left panel of Figure 14).

The second reason is that the stock market rally of the past three years has supported investment results. Although insurers typically invest only 3% to 4% of their assets in equities, the strong performance of shares has offset declining bond portfolio yields even without adjusting the portfolio mix (this was the case in the past also, eg in 2003-2007, see left panel in Figure 14).

Figure 14 Historical and projected ROIs

Historical ROI Projected ROI 8% 8% 7% 7% 6% 6% 5% 5% 4% 4% 3% 3% 2% 2% 1% 1% 0% 0% 2008 2010 2012 2014 2016F 2018F 2020F 2000 2002 2004 2006 2008 2010 2012 2014 2006 10-y yield (RHS) BOI German I &H ROLUS L&H US bond portfolio yield - ROI US bond portfolio yield DE bond portfolio yield Source: Swiss Re Economic Research & Consulting. Note: The historical ROI includes also realized gains and losses. For projected ROI, the investment split is assumed to be 72% in government bonds, 25% in corporate bonds, 3% in equity until 2011, and then shift to 61%, 30% and 4%, respectively from 2012 and later.

Also, life insurers have geared their

investments towards less liquid assets that have been performing well.

All told, however, investment results are likely to remain under pressure in the next two to three years.

And thirdly, insurers have shifted funds towards less liquid assets, including private and public equity, and property. These shifts have been relatively small but they have made a positive contribution to investment results. The isolated effect of the investment shift is estimated to have added up to 27 basis points to ROI.

All told, ROI will remain under pressure. The lagged impact of low interest rates will keep portfolio yields on a weakening trend over the next two to three years, even with a moderate recovery in yields (see right panel in Figure 14). There is also a risk that stock market performance will be less favourable once interest rates recover, meaning that an important pillar of investment returns may fade.

¹⁸ Life insurers' investment portfolios mainly consist of fixed income securities like government bonds, corporate bonds, covered bonds and loans. Overall, fixed income securities account for about 75% of investments. The rest is invested in structured products, equity, property and cash

Premiums in the advanced markets increased by 1.9% in 2015.

Premium growth in the emerging markets has come mostly from Asia and Latin America.

In-force real premium income growth

Table 5

for life insurance

In-force premiums and new business slowed in 2015

In the advanced markets, real premium income growth is estimated to have slowed to 1.9% in 2015 from 4.2% in 2014. The slowdown would have been more pronounced if not for the overall benign inflation rate environment, driven by the sharp decline in energy prices. Growth decelerated or continued to decline in most continental European markets, and premiums grew at a slower pace in Canada and Japan. In Australia, premium income contracted following robust growth in 2014, the weakness stemming mainly from volatility in investment-linked products and also poor performance of disability and income protection products. In the US and the UK, premium income returned to growth in 2015 following contraction in the previous two years.

In emerging markets, premium income rose by an estimated 10.6% in 2015 after a 7.4%-gain in 2014. Growth was strongest in the emerging Asian countries (up 13.2%). In China, premiums were up 12% and in India by 7.7%, the latter after five years of contraction and stagnation due primarily to regulatory changes. Premium growth strengthened to 8% in Latin America while in CEE, premiums were down 1.7% in real terms, led by a decline in Russia because of the economic recession, high inflation, unfavourable currency moves and weakening credit which had fuelled growth before.

Country	2013	2014	2015E	2016F	2017F
US	-7.1%	-1.7%	1.3%	1.0%	2.3%
Canada	3.0%	7.6%	3.4%	3.5%	3.8%
UK	-5.9%	-10.4%	3.3%	3.5%	3.2%
Japan	-6.8%	7.1%	2.7%	3.0%	3.7%
Australia	9.8%	26.5%	-5.8%	4.1%	2.1%
France	3.6%	8.4%	4.2%	2.6%	2.5%
Germany	2.5%	2.7%	3.1%	0.9%	0.9%
Italy	20.6%	29.5%	2.8%	2.2%	2.3%
Spain	-4.3%	-2.5%	-11.6%	0.3%	0.6%
The Netherlands	-5.9%	-5.2%	-10.0%	2.2%	1.7%
Advanced markets	-2.5%	4.2%	1.9%	2.4%	2.6%
Emerging markets	4.0%	7.4%	10.6%	10.7%	10.7%
World	-1.5%	4.7%	3.3%	4.0%	4.2%

Note: this table provides growth rates for Life business alone (ie, excluding medex). The emerging market chapter provides growth rates for the Life and Health (L&H) businesses together. Source: Swiss Re Economic Research & Consulting.

Life insurance is a long-term business and new business is an important contributor to industry growth. New business in seven major markets representing about 60% of global premium income is expected to have risen by 1.9% in 2015 (after inflation), following a 9%-increase in 2014. The modest increase this year was mainly from improving sales of protection products in most markets, but the savings business contracted or slowed due to pressures from low interest rates, equity market volatility and the impact of pension reforms in some markets (eg, the UK).

In the US, sales of term insurance products increased 2% (nominal) in the first half of 2015, after declining slightly in the previous year. Sales of disability insurance have improved also, while new business demand for long-term care continued to weaken due to higher prices. In Canada, term sales recovered modestly (up 3%) in the first half of 2015 after a dip in 2014.

The protection business in the UK is growing again after a long period of contraction. In the first half of the year, protection sales rose by 3.7% following annual declines of close to 4% in both 2013 and 2014. In Germany, term sales were down 4.4% in the first two quarters of the year, while sales of disability products grew by 5.8%. Long-term care insurance sales in Germany improved solidly also. In Italy, protection sales are projected to have grown again too, albeit marginally.

New business volume increased by just

1.9% in 2015, after rising 9% in 2014.

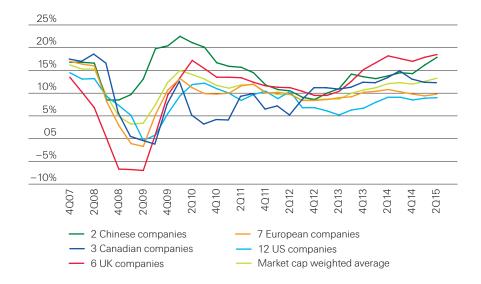
In North America, sales of protection products improved moderately.

In Europe, protection sales have also ticked up modestly.

There is scope to up sales of protection products, but life insurers need to be better at engaging consumers. There is significant potential for sales growth in mortality and health protection given a large protection gap in many markets and growing consumer awareness of underinsurance. Moreover, in the current environment, the mortality and short-tail health protection business is attractive for life insurers because profitability performance is less sensitive to interest rates than in the savings products segment. However, despite both demand- and supply-side drivers supporting sales of protection products, the latest estimates of the mortality protection gaps in Asia and the US showed continued increase in the level of underinsurance.¹⁹ The results are a call to action for life insurers to find new ways to engage with consumers, especially the younger generations (ie, the future customers). They can use technology and new data analytics to do so.

Profitability: positive developments in the first half of 2015

Profitability for a sample of global composite and large life insurers continued to improve in the first half of 2015 (see Figure 15), with return on equity rising to around 13%. This was largely driven by solid profits for UK and Chinese insurers. The results of life insurers in China benefited from rapid premium growth and sturdy investment income results through June 2015, when equity markets were still rising.



Sources: Company reports, Bloomberg, Swiss Re Economic Research & Consulting.

Note: Based on IFRS/local GAAP data. Missing 1Q/3Q values are interpolated. Companies in the sample include: Aflac; Allianz; Assurant Inc; Aviva; AXA; China Life; CNP; Generali; Genworth Financial; Great-West Lifeco; Hartford; Legal & General; Lincoln National; Manulife; Metlife Group; Old Mutual; Ping An; Protective Life; Prudential (UK); Prudential (US);

St. James Place ; StanCorp Financial Group; Standard Life; Storebrand ASA; Sun Life; Swiss Life; Torchmark; Unum Group; Zurich

¹⁹ In Asia the size of the gap increased to USD 58 trillion in 2014, from USD 42 trillion in 2010. In the US, the gap increased to USD 22 trillion in 2013, from USD 20 trillion in 2010. See *Mortality Protection Gap: Asia-Pacific 2015* and *The US mortality protection gap – an update*, both Swiss Re, 2015.

Life insurers' profitability continued to improve in the first half of 2015

Figure 15

Return on equity of 29 global composite and life insurance companies

Life insurers are looking to re-establish the value proposition of savingstype insurance in a low interest rate environment.

Improved cost efficiency, underwriting, and asset liability management will help offset lower investment results.

The short and mid-term outlooks for the life insurance sector are challenging.

Further measures to improve balance sheets will be necessary.

Insurers in advanced and emerging countries will continue to diversify in eachothers' markets.

Life insurers should adopt more customer-centric business models.

Most global life premium income stems from savings-type insurance business.²⁰ Around 85% of premium income is from savings deposits, and this is refunded to policyholders on maturity of insurance contracts. Low interest rates have made it harder for insurers to earn enough investment income and in many countries, guarantees and profit sharing have been reduced. Savings-type insurance has also become more expensive for regulatory reasons (eg, higher capital requirements for long-term guarantees, or asset liability mismatches). This has made savings-type insurance less attractive for both policyholders and suppliers. Together with adjusting their products and offering more flexible guarantees, insurer are introducing new concepts such as a guarantee of a certain return over the full duration of the contract, rather than an annual return.

Other actions life insurers have taken to increase revenues and lower expenses include improving investment and asset liability management, and reducing operational costs. Also, companies have divested of subsidiaries and closed blocks of savings business. In recent years a number of insurers have sold their asset-intensive business to consolidators backed by alternative investors.

Outlook for 2016 and 2017: technology-driven transformation ahead

Interest rates, and the macroeconomic and financial market environments, will shape the outlook for the life insurance industry. Downside risks from the modest global growth outlook, persistently low interest rates, volatility in financial markets and regulatory changes remain significant in the short- to mid-term horizon. Global real premium income is forecast to rise by 4.0% and 4.2% in 2016 and 2017, respectively. Premiums in the advanced markets are expected to grow by 2.4% in 2016 and by 2.6% in 2017. In emerging markets, they are forecast to grow by 10.7% in both 2016 and 2017.

Stressed companies will continue to seek ways to improve their balance sheets, be that through further optimization of their asset and liabilities, reinsurance, monetization of embedded future profits, or divestiture of some parts of their business. Depending on how long interest rates stay low, weaker companies may be forced to stop writing new business or merge with stronger competitors. In addition, in many markets new regulatory frameworks (eg, Solvency II in Europe and other risk-based solvency regimes around the globe) will bring operational challenges. This will encourage capital optimization and a reconfiguration of operations to achieve scale and cost efficiencies. As a result, there will likely be more industry consolidation, mergers and acquisitions activity, and sales of run-off business.

In emerging markets, stronger economic growth, growing populations, urbanization and a rising middle class underpin a positive growth outlook for insurers, with rising penetration (insurance premiums as a percent of GDP). Global insurers from the mature markets will continue to expand in these high-growth markets, though the recent slowdown in emerging markets may dampen the pace of growth. Conversely, insurers from developing economies, especially Asia, will increasingly enter advanced markets to deploy capital, obtain know-how and diversify geographically.

Life insurers have been taking steps to adopt more customer-centric and technologyinspired business models. The insurance industry has been slow to utilise some of the innovations that digital technology offers. There has been gradual acceptance of certain aspects such as digital distribution over the past decade but change, especially in the life sector, has been at the margins only.²¹ Customer-centricity is not yet the norm in life insurance: a "one-size-fits-all" approach and a focus on agents rather than consumers is still widespread, limiting consumer choice and product customisation. Moreover, a lengthy and convoluted buying process often leaves consumers confused and lacking trust in insurance providers.²²

- ²⁰ Savings-type insurance combines risk protection and wealth accumulation, for example fixed and variable annuities, universal life and variable universal life, endowment policies, and most unit-linked business as well as retirement and pension products.
- ²¹ sigma 2/2014: Digital distribution in insurance a quiet revolution, Swiss Re.
- ²² sigma 6/2013: Life insurance focusing on the consumer, Swiss Re.

The industry is set for fundamental technology-driven transformation.

The life insurance sector is set for fundamental transformation, brought about by technological advancements and new data analytic techniques. Digital technology and Big Data have the potential to transform how life insurers interact with consumers, underwrite and distribute products. Insurers will need to fill resource gaps and adapt business models to embrace the new opportunities provided by technology and data science (See section: "Growing adoption of cloud computing"). The use of wearable devices to monitor individuals' exercise, diet or health is increasingly influencing product design, pricing and claims management. Non-traditional players with access to comprehensive information about consumer behaviour present opportunities for mutually beneficial partnerships, but they could also eventually become direct competitors.²³

Growing adoption of cloud computing, and some associated risks

The convergence of four technologies (social media, mobile, analytics and cloud (SMAC)) is a key trend insurers are monitoring. Of the four, cloud computing has had the slowest uptake, but in 2015 insurers are beginning to use the cloud in core applications. For example, non-traditional players are making cloud platforms available to insurers. In China, this year Alibaba launched eBaoCloud, a platform that allows insurers to use standardized internet insurance capabilities without having to build their own systems. Several local insurers have signed up to launch products and apps using eBaoCloud.²⁴

The cloud is also used to drive marketing campaigns. This year Swiss Re announced that it would deploy V12 Group's proprietary marketing platform, Launchpad Marketing Cloud, embedded with Swiss Re's segmentation algorithms. This will allow insurance clients to target prospects and policyholders through multiple channels.²⁵ Insurers with large global networks are also using cloud based tools to bring global uniformity into their processes, eg, balance sheet reconciliation in finance and accounting (F&A). RSA now uses a cloud-based solution (BlackLine) to bring F&A teams in all the RSA offices together on a consistent global platform and automate balance sheet reconciliation.²⁶

The cloud is also being used as an enabler for expansion into emerging markets. This year Ageas announced that it is partnering with SAP to use its end-to-end insurance software in the cloud. Ageas will launch its solution at its new joint venture in the Philippines and potentially use it for other green-field operations also.²⁷

However, making use of new technologies also presents insurers with new security risks. A large insurer typically needs to deal with hundreds of third-party partners across dozens of countries, and the IT systems of these partners can be vulnerable to security breaches. Insurers are therefore partnering with solution providers focused on cyber security threats and vulnerabilities. For example, Zurich Insurance has retained SecurityScorecard, a security-risk benchmarking company, to monitor its third-party cyber risks. The foundation of the platform is ThreatMarket[™], a data engine that collects 30 million daily security risk signals from the entire internet.²⁸

- ²³ sigma 6/2015, forthcoming, Swiss Re
- ²⁴ "eBaoTech and Alibaba Cloud Launch World's First Internet Insurance Cloud Platform", *PRNewswire*, 27 July 2015, http://www.prnewswire.com/news-releases/ebaotech-and-alibaba-cloud-launchworlds-first-internet-insurance-cloud-platform-300118765.html
- ²⁵ Swiss Re to Launch Multichannel Marketing Cloud to Reach Middle Market Life Insurance Consumers, V12Group, 3 March 2015, http://www.v12groupinc.com/swiss-re-to-launch-multichannel-marketingcloud-to-reach-middle-market-life-insurance-consumers/
- ²⁶ RSA Selects BlackLine to Automate Global Balance Sheet Reconciliations, BlackLine 27 Apr 2015, https://www.blackline.com/company/press-releases/2015/rsa-selects-blackline-to-automate-globalbalance-sheet-reconciliations
- ²⁷ Global Insurance Group Ageas Adopts Industry's First End-to-End Enterprise Insurance Software in the Cloud Thanks to SAP, SAP, 22 October 2015, http://news.sap.com/global-insurance-group-ageasadopts-industrys-first-end-enterprise-insurance-software-cloud-thanks-sap
- ²⁸ "Zurich Insurance Taps SecurityScorecard for Third Party Risk Evaluation and Monitoring", *PRNewswire*, 12 October 2015, http://www.prnewswire.com/news-releases/zurich-insurance-tapssecurityscorecard-for-third-party-risk-evaluation-and-monitoring-300157846.html

Insurers are becoming more comfortable with using cloud computing in mission critical applications.

Global insurers are using the cloud to bring consistency across accounting practices.

The cloud can also facilitate expansion into new markets

However, new technologies also bring additional risk considerations.

The regulators have expressed caution regarding the use of cloud computing in insurance.

Note that regulators have expressed caution on increased cloud adoption. One example is The Australian Prudential Regulation Authority (APRA), which released an information paper on considerations and key principles for outsourcing of shared computing services, including cloud storage. APRA expects the use of shared computing services to continually evolve, along with the maturity of risk management and mitigation techniques applied. It urges "ongoing dialogue with industry participants to ensure prudent practices are in place and risks are adequately mitigated".²⁹ Insurers will need to monitor and adapt to the evolving regulatory requirements.

The life reinsurance market

For the seven reinsurers among the Top 10 with available data,³⁰ net premiums were down 3.5% (in nominal USD terms) in the first half of 2015 from the same period in 2014. Individual company performance within the group varied and was impacted by currency moves. The Accident & Health business supported premium growth at some firms, as did large annuity and longevity contracts. Meanwhile, other business lines had weak organic growth and some treaties were cancelled. Health and annuity transactions are expected to continue to drive growth in the coming years and also help reinsurers in the UK and North America diversify away from traditional mortality business.

Global premiums in traditional life reinsurance, consisting of mortality and morbidity, are estimated to have grown by 1.6% in real terms in 2015. In advanced markets, a 0.8% increase was driven by positive developments in the UK and the large continental European markets, while premiums in the US continued to contract as a result of lower cession rates and still-weak protection sales. In the emerging markets, premiums grew by 8.4%, Growth in Asia (particularly China) and Latin America was strong, mirroring the primary market.

Region	2013	2014	2015E	2016F	2017F
Advanced markets	-0.3%	1.1%	0.8%	-0.1%	-0.2%
Emerging markets	2.5%	5.1%	8.4%	7.5%	7.6%
World	0.0%	1.5%	1.6%	0.8%	0.7%

Source: Swiss Re Economic Research & Consulting.

Prospects for 2016 and 2017

World premiums in traditional life reinsurance are expected to increase only marginally over the next two years. Growth will be driven by emerging markets while the advanced markets will see a slight decline. In the US, regulatory changes – including increased scrutiny of the use of captive reinsurance and an expected move towards principles-based reserving – will impact business opportunities. In other advanced markets, where cession rates are usually much lower than in the US and the UK, traditional reinsurance will continue to record low, single-digit growth in line with the protection business on the primary side. In emerging markets, life reinsurance premiums are expected to increase by about 7.5% annually in the next two years. In these markets, life reinsurers' main value proposition will be to support primary insurance in product development, underwriting and claims management.

²⁹ APRA releases information paper on outsourcing involving shared computing services, including cloud, APRA, 6 July 2015, http://www.apra.gov.au/mediareleases/pages/15_17.aspx

³⁰ These seven companies (Munich Re, Swiss Re, RGA, SCOR, Hannover Re, Berkshire Hathaway and Partner Re) accounted for about 85% of the total life reinsurance market net premiums earned in 2014.

Net premiums earned by top life reinsurers declined by 3.5% in the first half of 2015.

Global traditional life reinsurance premiums grew by 1.6% in 2015.

Table 6

Real premium income growth for traditional life reinsurance

Premiums in traditional life reinsurance will improve modestly in the next two years.

There will likely be strong demand for block deals and capital relief solutions. Reinsurers are developing risk transfer	Life reinsurers will continue to seek non-traditional or less-developed areas of growth. In the next few years, many primary insurers will need solutions to manage the capital strain that the macroeconomic environment and changes in regulation will inflict. Some primary insurers will shed unprofitable or non-core business while others will look to grow through M&A, thus creating opportunities for transferring blocks of in-force business to reinsurers and specialised consolidators. The need for these transactions is likely to remain strong, providing a growth opportunity for life reinsurers.
solutions for longevity risks.	primary firms with annuity business, and from private and public pension plans. A record high amount of longevity liabilities were transferred or protected via publicly-disclosed longevity reinsurance and swap transactions in 2014, and momentum in risk transfer remained strong in 2015 (See section on "Longevity risk transfer"). The market is traditionally most active in the UK. There have also been transactions with Australian, Canadian and French insurers. Longevity reinsurance activity is expected to develop in other markets as well, including in the Netherlands, Switzerland and the US, where there is significant demand potential, particularly from pension funds. The US has an active market for pension buy-outs, and several large deals have been completed there in recent years.
There are several options for transfering longevity risk.	 Longevity risk transfer There are several options that primary insurers and pension funds can pursue to protect themselves from longevity risk. The most common are a pension buy-out, a pension buy-in, longevity re/insurance and longevity swaps: In a buy-out, the pension scheme transfers its entire relationship with plan members to an insurance company, in return for payment of an upfront premium to the insurer. Thereafter, each member has an individual annuity with the insurer. All risks, not only longevity, are transferred away from the pension fund. Typically the pension scheme is wound up after a full buy-out, and the sponsoring company is free from any further pension liabilities. With a buy-in, the pension scheme purchases a bulk annuity as an investment. The annuity is held by the pension trustee, which still pays the pensions of scheme members. Thus, unlike a buy-out, the liabilities and assets remain in the pension plan. Longevity re/insurance indemnifies the holder of longevity risk by exchanging a fixed sequence of payments (the premium) for a 'floating' one (claims paid). Pension funds make pre-agreed fixed premiums to a re/insurer or other counterparty based on forecast fund liabilities, and receive payments based on actual longevity experience. In practice, only the net difference is exchanged. A longevity swap also transfers only longevity risk, similar to longevity re/insurance, but in a derivative format.
Longevity reinsurance gained momentum in 2014 and 2015.	In 2014, about USD 62 billion of liabilities were reinsured against longevity risks, the highest ever (See Table 7). The boom has continued in 2015, with 11 deals and almost USD 46 billion liabilities reinsured through to the end of the third quarter, including a first deal in Canada. New players are also entering the field. For example, Pacific Life Re has recently closed two deals with USD 4 billion of liabilities reinsured.

Table 7

Longevity re/insurance and swaps, 2008–2015 year-to-date

Month/quarter and year announced	Liabilities transferred, USD bn	Longevity risk cedent	Risk transferred to
February	0.1	Lucida	J.P. Morgan
October	0.8	Canada Life (UK)	J.P. Morgan
December	0.4	Australian insurer	Swiss Re
Total 2008	1.3		
February	2.2	Abbey Life	Pacific Life Re&RGA
March	0.7	Norwich Union	RBS
May, Sep., Dec.	1.8	Babcock International	Credit Suisse
July	3.1	RSA pension fund	Rothesa Life (GS)
October	0.4	Australian insurer	Swiss Re
December	1.6	Royal Country of Berkshire pension fund	Swiss Re
Total 2009	9.8		
February	4.6	BMW pension fund	Abbey Life
July	2.0	British Airways pension scheme	Rothesa Life (GS)
Third quarter	2.0	Industrial Alliance: annuity block	Not disclosed
Total 2010	9.0	industrial Alliance, annuity block	Notuisciosed
		Papaian Insurance Corporation	Not disclosed
January	0.8	Pension Insurance Corporation Pall: non-retired members of UK DB scheme	
January.	0.1		J.P. Morgan Prudential Financial
June	0.2	Rothesay Life (GS)	
July	1.8	Rothesay Life (GS)	RGA
August	2.8	ITV pension scheme	Credit Suisse
October	0.6	L&G: bulk annuitant longevity risk	RGA
November	0.7	Rothesay Life/Paternoster (GS)	Prudential Financial
November	4.7	Rolls-Royce pension fund	Deutsche Bank
December	2.0	British Airways pension scheme	Rothesa Life (GS)
December	1.5	Pilkington pension fund	L&G
Total 2011	15.2		
February	19.0	Aegon: Dutch annuity reserves	Deutsche Bank
February	0.7	Rothesay Life (GS): Uniq DB scheme	Prudential Financial
May	2.2	Akzo Nobel N.V.: one of its UK pension funds	Swiss Re
July	0.5	Pension Insurance Corporation	Munich Re
December	1.3	LV=	Swiss Re
December	0.6	Pension Insurance Corporation	Munich Re
Total 2012	24.2		
February	5.1	BAE Systems	Legal & General
April	0.7	Abbey Life (Deutsche Bank)	Hannover Re
April	0.7	Rothesay Life	Hannover Re
April	0.6	Bentley Motors	Deutsche Bank
November		Pension Insurance Corporation	RGA
December	1.9	Aegon: Dutch annuity reserves	Scor (50%)/"reinsures and investors"
December	1.6	Carillion	Deutsche Bank
December	4.1	AstraZeneca	Deutsche Bank
December	2.8	BAE Systems	Legal&General
Total 2013	2.8 19.9	DAL SYSTEMS	Leyal&Dellelal
		Aviva Staff Panaian Cahama	Logal & Conoral
March	8.0	Aviva Staff Pension Scheme	Legal&General
June	2.6	Pension Insurance Corporation (PIC)	Hannover Re
July	27.5	BT Pension Scheme	Prudential Financial
August	15.0	Delta Lloyd	RGA
August	0.8	AXA	Hannover Re
August	1.4	Phoenix Group	RGA
August	1.7	Rothesay Life	Prudential Financial
August	1.5	Phoenix Group	Phoenix Life
October	2.2	Legal & General	Prudential Financial
December	1.6	Rothesay Life	Pacific Life Re
Total 2014	62.2		

Life re/insurance: on the cusp of technology-driven transformation

Month/quarter and year announced	Liabilities transferred, USD bn	Longevity risk cedent	Risk transferred to
January	2.3	MNOPF	Pacific Life Re
January	0.5	Rothesay Life	Prudential
February	3.1	Scottish Power	Abbey Life
March	4.0	Bell Canada Pension Plan (BCE Inc.)	Sun Life Financial Inc. (plus SCOR&RGA Re)
April		Pension Insurance Corp.	Prudential Financial
June	16.0	Delta Lloyd	RGA
June	2.3	Pension Insurance Corp.	Prudential Financial
July	4.4	AXA UK Group Pension Scheme	RGA
August	6.7	Aegon	Canada Life
August	2.9	Legal&General	Prudential Financial
September	3.6	Scottish&Newcastle Pension Plan	Friends Life (AVIVA) and Swiss Re
Total 2015	45.7		

Source: Swiss Re Economic Research and Consulting based on various public sources.

Demand for longevity risk transfer will remain strong.

There is a large amount of longevity risk on corporate balance sheets and in private and public pension plans. Accounting and regulatory reforms (IFRS and Solvency II) will further increase the awareness of longevity risks, increasing demand. However, re/insurance capital will be insufficient to meet that demand and capital market solutions will be needed.

Emerging markets: headwinds in non-life, while life remains strong

Emerging Asia continued to outperform in non-life.

Non-life insurance in 2015: strong economic headwinds holding back growth In the non-life sector, premiums in the emerging markets are estimated to have risen by 5.6% in 2015, down from a 6.3% gain in 2014. Emerging Asia outperformed with healthy growth of around 12%. In China, premium growth has been supported by rising rates in motor and the rapid development of liability, agriculture and credit & surety insurance. Other markets in the region also performed well in 2015, supported by infrastructure investments and expansion in motor. The Philippines (+14%) and Vietnam (+11%) reported the fastest growth in Southeast Asia. In the Philippines, there was broad-based expansion in most lines and in Vietnam, the lifting of capital restrictions on the establishment of new branches supported sector growth. In India, premiums grew by 7.9%, up from 2.7% in 2014, due to a stronger economy.

There was no growth in Latin America ...

... while premiums in CEE were held back by recession in Russia and yet another year of contraction in Poland.

The MENA region fared relatively well and SSA is recovering.

An absence of major natural catastrophe losses supported non-life underwriting results in the emerging markets. In Latin America, non-life premiums fell 0.2% in 2015, after increasing by 4.8% a year ago. This was mainly due to a sharp drop in Brazil, from 8.2% growth in 2014 to a 5% contraction in 2015. The initial weakness in trade- and investment-related lines extended to other lines as the economic downturn deepened. At the same time, premiums in Venezuela fell by more than 25% in 2015 amid a protracted economic crisis. The declines in Brazil and Venezuela more than offset improvement in Mexico, Argentina and Chile, as well as steady growth in other regional economies such as Colombia and Peru.

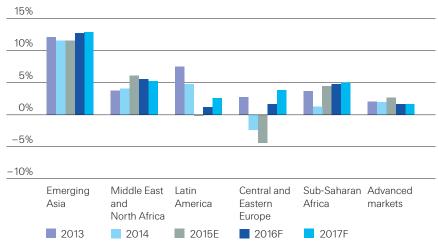
Conditions in CEE also remained challenging in 2015, with premiums down 4.4%. Non-life premiums contracted by 12% in Russia, the region's largest economy, due to the recession. In Poland, premiums were down for the fourth year in a row (but only by 0.8%). The performance of other regional markets was also generally weak.

In MENA, sustained investment in infrastructure, rising motor premiums and continued strong growth in the health segment, particularly in the GCC countries, pushed non-life premium growth up to 6.1% in 2015 from 4.1% in 2014. In SSA, GDP growth is estimated to have slowed to around 3.8% in 2015 from 4.7% in 2014, but the region is still the fastest growing after emerging Asia. Non-life premium growth increased to 4.5% in 2015, after having been suppressed in previous years by the increased enforcement of the cash-and-carry principle. With this rule, insurers can only issue policies and book premiums after they have received payment. Premiums in South Africa recovered in 2015, despite the weak economy and intense competition, as insurers raised rates on the basis of past claims experience. Demand for non-life insurance is likely to remain strong in the oil-importing countries of SSA, but premium volumes are expected to grow more slowly in the oil- and commodity-exporting countries.

Underwriting results have been healthy in the non-life sector in emerging markets, partly due to the absence of major natural catastrophe losses. Nevertheless, catastrophe losses still loom large in individual markets. For instance, insurers in India suffered heavy losses from flooding in Kashmir and cyclones on the eastern coast of India in 2014–2015. Meanwhile, investment yields continue to be low, reinforcing the need for strong discipline in underwriting.

Figure 16

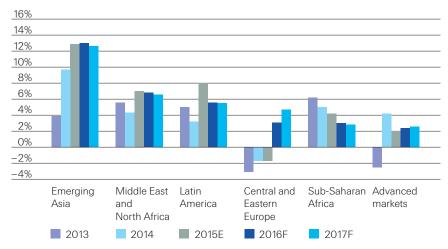
Non-life real premium growth by region, 2013 to 2017F



Source: Swiss Re Economic Research & Consulting.

Life & Health in 2015: strong growth overall; significant regional variations Life & Health (L&H) insurance premiums in the emerging markets are estimated to have risen by 10.7% in 2015, after a 4.0%-gain in 2013 and 8.1% in 2014. However, the rate of growth differed across regions. In emerging Asia, the recovery which started in 2012 is nearing an end, with premium growth stabilising in the low double-digits. The recovery in Latin America, meanwhile, remains uneven and in CEE, the L&H sector is only just beginning to show signs of improvement.

Among the regions, L&H premiums are increasingly concentrated in emerging Asia, which had a 69% share of the emerging market total in 2015, up from 60% in 2012. Premium growth in China was strong (16%) again in 2015, supported mostly by sales of traditional life policies. Unit-linked investment products (ULIP) and participating life policies were negatively hit by the year's stock market volatility. To date, China accounts for almost half (49%) of all emerging market L&H premiums, and contributed two-thirds of the emerging regions' total premium growth in 2015. Growth elsewhere in emerging Asia was strong also, with an acceleration in India due to a revival of unit-linked products and improved performance in bancassurance. And Indonesia, Thailand and the Philippines have all maintained average annual real premium growth of close to 10% over the last decade.



Source: Swiss Re Economic Research & Consulting.

L&H premium growth in the emerging markets accelerated to 10.7% in 2015 from 8.1% in 2014.

Emerging Asia remains the biggest contributor to L&H premium growth in the emerging regions.

Figure 17 L&H real premium growth by emerging region, 2013 to 2017F

Premium growth weakened in Latin America and remained flat in CEE.

Growth was steady in the Middle East and North Africa.

South African dragged on overall performance in SSA. Growth remained strong in the less developed markets.

A recovery in non-life is expected to drive overall emerging market insurance sector growth in 2016 and 2017.

Non-life premium growth is expected to improve gradually in 2016–2017.

L&H premium growth in Latin America was stronger in 2015 compared to 2014. The gain was mostly due to strong growth in Brazil's large variable life insurance market at the beginning of the year, although momentum faded quickly mid-year as recession began to bite. Generally resilient growth elsewhere in the region, in particular an acceleration in Mexico to 5.9% from 3%, helped offset a steep decline in premiums in Venezuela, where high inflation is eroding the value proposition of life products. In CEE, the negative impact of economic weakness has yet to fully dissipate. For instance in Russia, which is in deep recession, life premiums were down an estimated 2.2% in 2015. In contrast, in Poland premiums were up 2.1% after two years of contraction.

The MENA region had a better performance in 2015, in spite of heightened geopolitical tensions and sustained low oil prices. L&H premiums rose 7% in 2015 from over 4% growth in 2014. The improvement was mainly due to a strong rebound to 11% growth in Turkey after a 8.7% decline in 2014 (see also section: "Insurance, bancassurance and Takaful in the Middle East, Turkey and Pakistan"). Growth in the UAE has slowed from high double-digits in 2009 to around 10% in 2015.

In SSA, premium growth is estimated to have slowed to 4.2% from 5% in 2014. Growth weakened further to 3.8% in South Africa as the economic environment failed to improve and the rand was hit by capital outflows. Elsewhere in SSA (eg, in Kenya and Nigeria), growth is estimated to have remained strong. But given that South Africa accounts for around 90% of the region's L&H premiums, the results for SSA overall were disappointing.

Insurance in emerging markets in 2016–2017: cautious outlook

Total insurance premiums in emerging markets grew by 8.6% in 2015, and are projected to increase by close to 10% each year in 2016 and 2017. Non-life premium growth is projected to improve steadily while life premium growth is expected to stabilise at its current pace. Downside risks remain significant, particularly financial market volatility and recent capital outflows from the emerging markets. These could translate into more cautious buying behaviour by both the household and corporate sectors. At the same time, soft prices in non-life would cap further significant gains. On the other hand, the increasing use of online and mobile technologies is helping to increase insurance penetration, particularly in lower-income emerging markets (see section: "The use of mobile technology in SSA insurance markets").

Non-life business in the emerging markets will benefit from an expected recovery in CEE and incremental growth improvement in other regions. Overall non-life premium growth is expected to be around 8–9% annually in the coming two years. In emerging Asia, China will continue to support growth, and India and Southeast Asia are also expected to contribute. Competitive pressures will intensify in China and Malaysia with ongoing motor de-tariffication in those markets. Expectations of stronger economic growth in CEE and Latin America should translate into stronger non-life premium growth in both regions in 2016 and 2017, although recovery will likely be slow. For instance, premiums in Venezuela are projected to shrink further in 2016 and 2017 due to lingering economic concerns. At the same time, the transition to a Solvency II type framework in Mexico will be a major challenge for the insurance sector in 2016.

Urbanisation and growing wealth will support premium growth in the emerging markets.

L&H premiums are projected to stabilise; improvement still expected in CEE.

There is a focus on the implementation of risk-based solvency regimes in many emerging markets. In many emerging markets, non-life insurance will continue to benefit from urbanisation and rising home and car ownership. Concerns about environmental protection and food safety are also expected to start filtering through into stronger demand for associated liability insurance products (see section: "Liability insurance in Asia"). In SSA, growth will likely remain robust, as the oil-importing countries see solid economic growth and as regulatory regimes improve. In contrast, premium growth in the oil-exporting countries is expected to fall short of previous years' averages. Global and regional insurance groups continue to expand their footprint in SSA which will bring in more expertise.

L&H premium growth in the emerging markets overall is expected to be relatively stable at around 11% per annum in 2016 and 2017. This will be supported by strong expansion in China, where the major driver will be accommodative government policies, which will offset slower GDP and income growth. The government has set a target to increase penetration to 5% by 2020 from around 3% in 2014. Policies including tax rebates and incentives are expected to bolster demand. In the rest of emerging Asia, economic headwinds will cap premium growth in L&H, but at a high rate. Some improvements are expected in Latin America assuming a bottoming out of the region's key economies, including Brazil, Argentina and Venezuela. Premiums in Latin America are now projected to increase by close to 6% per annum in 2016 and 2017. In CEE, a more robust recovery in premiums is projected in the coming two years based on the assumption that economic growth in the region will rebound. In many emerging markets, L&H insurers are increasingly focusing on the large mortality protection gap for future business opportunities (see section: "The mortality protection gap in emerging Asia and Latin America"). This could, however, hold back premium growth given that protection products are smaller-ticket revenue earners than savings solutions. In SSA, innovative distribution models, micro insurance and very low penetration levels will support growth.

Many countries have embarked on revamping their solvency and capital regimes.³¹ For instance, implementation of C-ROSS (the China-Risk Oriented Solvency System) in China is expected to start in early 2016.³² In Latin America, Brazil, Mexico and Chile are in advanced stages of implementing risk-based capital regimes. ³³ Another important development is the passing of the Insurance Laws (Amendment) Bill in India in March 2015.³⁴ The most important items in the Bill are: (1) a raising of the foreign direct investment (FDI) ceiling in Indian insurers to 49% from 26%; and (2) allowing foreign reinsurers to establish branch offices in India. These are expected to significantly facilitate foreign participation in the booming Indian market. In contrast, in Indonesia the new Insurance Law introduced in September 2014 requires local re/insurers to optimise domestic capacity. Re/insurers must provide local reinsurance coverage "as far as possible", the aim being to develop the local reinsurance market and minimise premium outflows. In SSA, South Africa is due to move to its Solvency II type regime in early-2017. In Kenya, a risk-based solvency framework is expected to become effective in 2016. Actions are increasingly being taken to keep more business local in SSA also.

- ³¹ There is strong resistance in some markets. For instance, the Philippines' Court of Appeals recently ruled to stop the implementation of capital hike for insurers. Despite this, the Insurance Commission of the Philippines reiterated that insurers in the country are required to increase their minimum net worth to 1.3 billion pesos by 2022 in order to better capitalize the industry and serve policyholders.
- ³² China Risk Oriented Solvency System Introduction, CARe Conference, Guy Carpenter, June 2015, https://www.casact.org/education/reinsure/2015/presentations/C-15.pdf
- ³³ Insolvency regulation in Latin America: modernizing at varying speeds, Swiss Re, January 2015.
 ³⁴ Insurance Laws Amendment Bill 2015 Passed, International Lawyers Network, 16 March 2015, http://www.ilntoday.com/2015/03/insurance-laws-amendment-bill-2015-passedthe-insurance-lawsamendment-bill-2015-insurance-bill-which-has-been-pending-in-various-versions-for-more-than-7years-was-passed-by/

Emerging market-related special topics include liability insurance in Asia, mortality protection gaps, distribution in ME and mobile technology in SSA.

The liability insurance market in Asia is small but expanding, mainly driven by China.

China is the second largest liability market in Asia but penetration is still very low.

India is the sixth largest liability market in Asia.

After Singapore, Malaysia and Indonesia are the biggest liability markets in ASEAN.

Regulatory, economic, social and technological factors will drive demand for liability insurance in Asia.

Special topics - emerging markets

This section reviews four issues that are topical for the insurance sector in the emerging markets: (1) liability insurance in Asia; (2) the mortality protection gaps in emerging Asia and Latin America; (3) insurance, bancassurance and Takaful in the Middle East, Turkey and Pakistan; and (4) the use of mobile technology in SSA insurance markets.

1. Liability insurance in Asia

The liability insurance market in Asia (including both advanced and emerging Asia) is currently small, but is expected to offer significant growth opportunities. In 2014, liability premiums in the region were USD 12 billion, accounting for 3.8% of total non-life premiums in Asia and 8% of global liability premiums.³⁵ The market has been growing rapidly: between 2007 and 2014, liability premiums in Asia grew by 10% per annum.³⁶

China is the second largest liability market in Asia after Japan, with premiums in 2014 estimated to be USD 4.1 billion, up an average 25% each year since 2007. However, penetration is still low at 0.04% of GDP. Public liability is the biggest line of business. Abundant capacity and low loss experience have led to stable and soft pricing. Despite this, underwriting profitability in liability has remained healthy relative to other non-life lines. This could reflect low claims frequency, especially related to food safety and environmental liability. Profitability in the coming years will hinge heavily on regulatory changes, and on changes in consumers' claims awareness.

India is the sixth largest liability market in Asia with estimated premiums of USD 254 million in 2014. The market is still underdeveloped, with penetration of just 0.01% of GDP. Underwriting profits, though, have remained strong. Rates in liability have been stable over the last couple of years with the exception of medical malpractice, where they increased by 10–20% in 2014. General liability is the biggest line of business currently. Recent trends suggest that after the enactment of a new Companies Act in 2013, there has been an uptick in corporate interest in D&O liability cover. In addition, more engineering, pharmaceuticals and automotive companies are buying product liability insurance. Demand for professional indemnity is also increasing.

Five ASEAN countries – Malaysia, Indonesia, the Philippines, Thailand and Vietnam – together accounted for USD 400 million of liability premiums in 2014, growing by an average 12% each year since 2007. In terms of premiums, the biggest market in ASEAN (after Singapore) is Malaysia, followed by Indonesia. But in Indonesia, liability has underperformed mainly due to lack of regulation and low claims consciousness, with premiums of USD 85 million in 2014. In recent years, demand has been driven by exporters and contractors to major corporations or multinationals. There has also been demand related to infrastructure projects.

Overall, liability premiums in emerging Asia are expected to outgrow those in other non-life lines in the coming decade. Regulatory changes in particular are set to drive growth in a number of liability lines. Societal changes brought about by urbanisation and a rising middle class, rising liability awareness, globalisation, cyber risk and new liabilities from emerging technologies will also support demand over the longer term.

³⁵ Asia here includes 14 markets: China, Hong Kong, India, Indonesia, Japan, Malaysia, Pakistan, the Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.

³⁶ Liability insurance in Asia, Swiss Re Economic Research & Consulting, 2015.

The mortality protection gap in Asia has widened, driven mostly by the emerging Asian markets.

Economic growth, inflation and an expanding labour force are the main reasons for the widening.

The mortality protection gap in Latin America has also widened.

The Middle East, Turkey and Pakistan economies have grown strongly in recent years, boosting the insurance industry.

Even so, insurance penetration remains low, particularly in life.

The non-life insurance sector in the METP has grown rapidly, supported mainly by compulsory lines.

2. The mortality protection gap in emerging Asia and Latin America

The mortality protection gap is the difference in actual protection compared to the protection needed to sustain a household at its same living standard after the death of a breadwinner. The aggregate mortality protection gap in 13 Asia-Pacific markets³⁷ widened to USD 58 trillion in 2014 from USD 42 trillion in 2010. In absolute size, China has the biggest gap (USD 32 trillion). It also accounts for most (>80%) of the widening of the gap in Asia Pacific between 2010 and 2014. India has the second largest gap in absolute terms, at USD 8.6 trillion.³⁸

The gap in other emerging Asian markets is smaller in absolute size given low household incomes and their relatively smaller populations. However, almost all markets have reported a strong widening of the gap over recent years based on economic growth, wage increases, inflation and the expanding labour forces. China and Vietnam recorded an annual average widening of 17% between 2004 and 2014. The gaps in the Philippines and India widened at a slightly slower, but still significant rate of 11–13% each year. Gap widening in other markets has been closer to 10% annually.

In Latin America, the mortality protection gap for seven key markets (Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela) totalled USD 7.3 trillion in 2014, up from USD 6 trillion in 2010. Brazil has the biggest gap in absolute size, at USD 2.5 trillion, followed by Argentina and Mexico. The gap widened fastest in Argentina (+13.1%) and Brazil (+12.7%) between 2004 and 2014, reflecting high inflation and wage growth.

3. Insurance, bancassurance and Takaful in the Middle East, Turkey and Pakistan

The economies of the Middle East, Turkey and Pakistan have grown solidly since the turn of the century supported by rising oil prices, investments in infrastructure and strong domestic demand. The combined GDP of the Middle East, Turkey and Pakistan (METP) was 4.8% of global GDP, or USD 3.7 trillion, in 2014. The outlook is mixed, with geo-political tensions and prolonged low oil prices representing the main downside risks.³⁹

The insurance industry has been a key beneficiary of the robust economic development, favourable demographics, increased risk awareness and the introduction of compulsory lines. Premium volumes increased almost fivefold between 2003 and 2014, most notably in the Gulf Cooperation Council (GCC) member states⁴⁰ and Turkey. Even so, penetration rates, particularly in life but also in non-life, remain low.

Non-life premiums in the METP grew 9.8% annually between 2003 and 2014. An important driver was the introduction of compulsory lines, which are dominant in health and motor. Motor constitutes close to 40% of total non-life premiums in the METP. Health, which is a compulsory line of business in the UAE, Saudi Arabia and Qatar, constitutes close to one-fourth. The life insurance sector, in comparison, is small, with only around 16% of total METP premiums in 2014.

- ³⁷ The 13 markets of Asia-Pacific here are Australia, China, Hong Kong, India, Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam.
- ³⁸ Based on research by Swiss Re Economic Research & Consulting, 2015.
- ³⁹ Executive Summary Insurance, bancassurance and Takaful in the Middle East, Turkey and Pakistan, Swiss Re Economic Research & Consulting, 2015.
- ⁴⁰ Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE).

Bancassurance, including bancatakaful, is gradually gaining importance.

Saudi Arabia and the UAE dominate the Takaful market in the METP.

Mobile technology has expanded the reach of insurance.

Mobile communication can enable endto-end distribution and reduce costs.

There are more than 25 million mobile insurance customers in the emerging markets, many of whom were previously completely uninsured. Bancassurance is limited in most METP markets but is becoming more popular, particularly for life products. In Turkey, bancassurance dominates distribution in life, with close to 80% market share. It is becoming increasingly important in the UAE, particularly Dubai, and has gained prominence in Pakistan as well. In the latter, between 2008 and 2014, the bancassurance business grew by a compound annual growth rate (CAGR) of 95%,⁴¹ though from a low base. In contrast, in Saudi Arabia the Insurance Intermediaries Regulation issued by the industry regulator in 2011 has made the selling of insurance through banks more difficult. Meanwhile, bancassurance that is compliant with the Islamic faith, called Bancatakaful, is expected to play a major role in the development of the market as Takaful products continue to gain acceptance.

Takaful, a form of Shari'a-compliant insurance, is gaining popularity with the launch of new and strongly capitalised companies in some countries. The main markets in the METP are Saudi Arabia and the UAE, which together account for more than 90% of total Takaful contributions. The "Cooperative Insurance" model of Saudi Arabia is conceptually distinct from other Takaful models, but it is deemed to be Shari'a compliant. In Turkey, the sector is still in its infancy but offers significant long-term opportunities. In Pakistan, the Takaful sector is growing steadily, supported by recent regulatory relaxations. Growth is expected to outpace the conventional sector in the coming decade. Stringent and comprehensive regulations will be key for orderly sector growth.

4. The use of mobile technology in emerging insurance markets

Mobile technology has expanded the reach of insurance globally, including in the emerging markets. While 80% of the emerging markets population do not have a bank account, 70% have access to a mobile phone.⁴²

Digital advances mean that end-to-end distribution of insurance products via mobile is now technologically possible. For relatively simple and standardised products (remote distribution typically means greater product commoditisation), mobile channels can be used to educate consumers, monitor agent quality, simplify underwriting, collect premiums and pay claims. Mobile distribution can make insurance more affordable by enabling shorter-term contracts and more frequent premium collection. Because low-income households often receive their wages daily or weekly, paying smaller premium amounts on a more frequent basis better fits their spending patterns and ability.

The distribution of insurance via mobile devices in emerging markets has grown exponentially in the last decade. As of February 2015, the two largest technology service providers for mobile micro insurance had reached approximately 28 million customers combined. SSA has taken the lead in insurance distribution via basic mobile phones. Survey evidence indicates that mobile insurance is reaching many previously uninsured and low-income consumers. A survey in five countries in Africa and South Asia in early 2014 revealed that 97% of the mobile micro insurance consumers sampled live below USD 10 per person per day. Of those, 77% never had any form of private insurance previously, and 42% have no savings account.

⁴¹ "SECP issues Draft Bancassurance Regulations", Securities & Exchange Commission of Pakistan, 24 September 2013, http://www.secp.gov.pk/news/PDF/News_13/PR2_Sept24_2013.pdf

⁴² Mobile insurance distribution in emerging markets: African innovations spreading globally, Swiss Re Economic Research & Consulting, 2015. Mobile channels can enhance customer education, help monitor agent quality, and simplify underwriting.

In some countries, it is possible to pay premiums via mobile money or airtime deductions.

Mobile data collection and mobile biometric identification can help verify and speed claims processing.

Timely claims payment can be the best form of marketing and help insurers guard against mis-selling.

Mobile technology will be key to increasing insurance penetration in emerging markets.

Mobile channels can reduce the costs of customer education and help monitor agent quality. For example, reminding existing policyholders by text to update coverage details can reduce lapses and also improve customer experience. Mobile networks can also provide vast amounts of data which insurers can use to improve underwriting. In South Africa, insurers are already looking at data from wearable devices in combination with other financial and medical test data to improve riskadjusted pricing.

With regulatory approval, it is possible that customers can pay premiums via mobile money platforms (such as mPesa in Kenya), or use prepaid airtime as a form of direct payment. Direct airtime deduction by service providers may be a great advantage for insurers because it allows automatic, or sometimes even 'opt-out' premium payments.

With mobile data collection, insurers can track potential claims and speed-up claims verification and processing, vastly reducing the headcount required and the cost of claims processing. Rapid payment is essential for low-income consumers who may not have cash at hand to front costs, especially for popular products such as hospital cash or funeral insurance. Mobile biometric technology can also be used to identify policyholders. For example in India, financial services company FINO has used smart-card based biometric authentication technology to verify claimant identity , and IFFCO-Tokio has used biometric tags for cattle to reduce fraud in livestock insurance . Biometric identification has also been used to increase speed and reduce graft in distributing natural disaster relief. Where regulations allow, claim payments can be made directly via mobile.

Paying claims can be the best marketing and trust building-tool for insurance firms, particularly with customers who have never had insurance before, as word of mouth spreads among family members and friends that a claim has been successfully paid. To date, the claims rate for mobile micro insurance is far lower than expected, suggesting that many customers may not realize that they have coverage, or that they do not know how to make a claim. Education about the claims process is key for client retention.

Mobile technology is key to increasing insurance penetration in the emerging markets. The main benefits are reduced distribution costs and improved risk assessment and claims verification for remote customers. The key challenges are consumer protection and upholding the insurer-customer relationship through remote communications. Insurers face a big risk of losing relevance in this market. The leading third-party technology service providers have essentially taken over insurance functions such as product design, underwriting, policy administration and claims, and use local insurers mainly for licensing and capital requirements.

Table 8

A glance back and a look ahead at insurance in emerging regions

Emerging region		Performance 2015	Outlook 2016–2017
Emerging Asia	Life	 China reported a strong double-digit increase in premiums, mainly in traditional life business. India saw sustained strong growth in premiums, led by bancassurance, a revival in ULIPs and greater use of technologies. Premiums also grew strongly in Southeast Asia, particularly in Indonesia, the Philippines and Thailand. 	 Life insurance growth will continue to stabilise at high levels. Volatility in equity and financial markets could continue to dampen interest in investment-linked products; insurers are increasingly focusing on protection products. Bancassurance remains important but online and mobile platforms are increasingly popular distribution channels.
	Non-life	 Premium growth in China remained strong, supported by motor, agriculture and liability. India also reported strong growth. Profitability is expected to improve. Premium growth in Southeast Asia was supported by infrastructure projects and stable expansion in the motor business. 	 Economic headwinds, in particular the need to deleverage, will constrain premium growth. However, public sector investment in infrastructure projects is set to accelerate. Price pressures will intensify in China's and Malaysia's motor sectors due to de-tariffication.
	Life	 Life premium growth was fairly robust at around 7%. In Brazil, volatility in life premium growth was mainly due to the unit-linked life savings products, (VGBL). Growth in Mexico accelerated to 5.9%. 	 Given the challenging economic outlook, premiums are expected to post a modest gain of around 6% annually in 2016 and 2017. Premiums in Venezuela are expected to continue on a downward trend, reflecting heightened financial and economic risks.
Latin America	Non-life	 Premiums fell 0.2% due to weaker economic activity in Brazil and Venezuela. The slowdown in Brazil was initially driven by investment- and trade-related lines but broadened to others as recession deepened. Premium growth in Mexico improved to 4.2% in 2015 from -0.3% in 2014, due in part to strong performance in motor. 	 Weak economic fundamentals will continue to cap premium growth, particularly in Brazil. A noticeable rebound is expected in 2017 only. Premiums in Venezuela are projected to shrink further in 2016 and 2017. The transition to a Solvency II type framework in Mexico will be a major challenge for the insurance sector in 2016.
Central and	Life	 Premiums shrank marginally in 2015, mainly due to a weaker performance in Russia, the region's largest economy. The Czech Republic and Hungary are showing some early signs of improvement. 	 A stronger rebound is expected in 2016 and 2017, as regional economic growth picks up. Premiums in Russia are expected to return to growth by 2017 only.
Eastern Europe	Non-life	 Non-life premiums shrank for a second year in CEE. The main driver was a 12% contraction in Russia. Conditions in Poland likewise remain dire with almost no growth. Competition remains strong amid strong downward price pressures. 	 A steady recovery in premium growth is projected in 2016 and 2017. Russia will take longer to fully recover. A meaningful rebound in Poland is expected in 2016.
Middle East and	Life	• Life premium growth accelerated to 7% in 2015 from 4.6% in 2014. Strong growth continues to come from the oil-exporting countries.	 Low penetration rates and increasing awareness should continue to boost demand. Rising incomes will lead to more demand for wealth protection and accumulation products.
North Africa	Non-life	 Growth improved to 6% notwithstanding geopolitical tensions and low oil prices. A rebound in growth in Turkey was a major contributor. 	 The introduction of more compulsory lines, large expenditure in infrastructure and construction projects, and improving regulatory regimes should all benefit growth.

Emerging region		Performance 2015	Outlook 2016–2017
Sub-Saharan Africa	Life	 Premium growth slowed to 4.2% on the back of a weak growth in South Africa. Growth remained solid elsewhere in SSA. 	 Moderate growth in South Africa is likely as the country struggles with a difficult economic environment. Innovative mobile distribution and micro-insurance will continue to support growth.
	Non-life	 Growth accelerated to 4.5%, as South Africa saw improvements despite a sluggish economy. Premium growth also benefitted from a lower incidence of non-payment of premiums. 	 Solid growth expected in the oil importing countries. Infrastructure projects will support non-life premium growth.

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