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Rebuilding better: global economic and insurance market outlook 2021/22

Executive summary

After sharp recession this year, we see protracted economic recovery in 2021, with the balance of risk broadly neutral.

The world economy is in the midst of the deepest recession of our lifetime, sparked by COVID-19. We expect global gross domestic product (GDP) to shrink by 4.1% this year, followed by protracted recovery to 4.7% growth in 2021. Our forecast is below the market consensus expectation of 5.2%, reflecting our belief that even with a vaccine, much of the structural damage to the global economy has already been done. This year's GDP shock is disinflationary but the risk of rising prices further out has increased due to fiscal stimulus, potential for debt monetisation and acceptance of higher inflation as a policy choice. Interest rates are set to stay low for longer.

Sustainable recovery requires new policy direction, including spending on projects with high growth multipliers and more focus on inclusive growth.

The pandemic has accelerated some paradigm shifts such as digital transformation, de-globalisation (including de-risking global supply chains and fragmentation of regulatory regimes), and a larger role for governments in the economy. The huge fiscal stimulus unleashed to cushion the blow from the pandemic was necessary. However, we estimate the action will decrease economic resilience by 20%, shaving at least a cumulative 1.6 percentage points (ppt) off global growth over the next five years relative to long-term trends. For sustainable economic recovery, there needs to be a policy reset, with fiscal spending directed at productivity-enhancing areas like sustainable infrastructure and technology, and public sector initiatives to facilitate better recycling of private savings into the real economy. There also needs to be more focus on inclusive growth, not least because one effect of COVID-19 will likely be widened income inequalities, which will further weigh on growth. Insurance has a key role to play in supporting inclusive growth and resilience by providing households and businesses with the means to better withstand shock events.

The global non-life insurance sector has demonstrated resilience to the impact of the pandemic, and we forecast a swift recovery in premium volumes next year.

COVID-19 has impacted the insurance industry, although less so than we initially feared. Growth in personal lines was better than expected in the first half, especially in advanced markets, reflecting rapid leverage of digital channels by insurers and brokers in response to restrictions on mobility. As a result, where we had expected stagnation, we now see global non-life premiums growing by 1.1% in real terms in 2020, with a recovery to 3.6% growth in 2021 and 2022. We forecast that premium volumes will be back above pre-pandemic levels by the end of next year already. Rate hardening in commercial lines of business has been a main factor supporting the resilience and this momentum is set to continue through next year, underpinned by strong demand amidst rising risk awareness and rising claims. We forecast that premiums in China will grow 10% annually over the next two years. Profitability in non-life is under pressure and we estimate that sector return on equity (ROE) will slip to 5% this year, mostly due to lower investment returns. The outlook remains challenging. More COVID-19 related losses are likely this year: Swiss Re estimates total Property and Casualty (P&C) market losses in a range of USD 50–80 billion. Such an outcome would increase the combined ratio in commercial lines by 5–8 ppt. Meanwhile, increasing competition in personal lines could pressure rates in business that benefitted from windfall gains during lockdown.

The life sector has been harder hit but growth will rebound next year. Low interest rates will pressure profitability.

Although less than first expected, we forecast that global life premium volumes will still contract by 4.5% this year in the environment of rising joblessness, reduced purchasing power and ultra-low interest rates, which have diminished the attractiveness of saving-type insurance products. We expect a bounce back to 3% trend growth in 2021 on the back of economic recovery, increased risk awareness post COVID-19, and also greater use of data analytics and digital distribution channels by insurers and brokers to offer more commoditised products in personal lines. The emerging markets remain the engine of growth, led by China (life premiums up an estimated 8.5%in 2021). The full impact of COVID-19 on mortality claims this year is uncertain. However, with interest rates set to stay very low, investment returns and insurer profitability will remain under pressure. Sector ROE fell to 7.3% in the first half this year, from 10.3% in 2019. Given ongoing uncertainty on the economic outlook, this *sigma* also considers alternative scenarios and the implications for insurers. Under a severe protracted recession scenario, insurers would be vulnerable to persistently low interest rates. Under a stagflation scenario, inflation surprises could be disruptive, especially for long-tail business.

Key takeaways

We forecast 4.7% growth in global GDP in real terms in 2021, below the consensus of 5.2%, and have a balanced risk outlook. Aside from recent positive newsflow around a vaccine for COVID-19, accelerated digital transformation and policy efforts to rebuild economic resilience are the main upside factors in our outlook.

	2019	2020E		2021F		2022F	
	Actual (%)	SRI (%)	Consensus (%)	SRI (%)	Consensus (%)	SRI (%)	Consensus (%)
US	2.3	–4.1	–4.0	3.5	3.7	2.3	2.8**
UK	1.5	–11.0	–10.1	5.6	5.7	2.3	3.1
Euro area	1.3	–7.3	–7.5	4.0	5.3	3.0	2.8
Japan	0.7	–4.7	–5.7	2.4	2.5	1.1	1.6**
China	6.1	2.3	1.9*	7.4	8.2*	5.3	5.8*
World	2.5	–4.1	–3.9**	4.7	5.2**	3.3	3.6**

E = estimates, F = forecasts. Data as of 2 November 2020; *China data from IMF; ** Data from Bloomberg.
Source: Consensus Economics, Bloomberg, Swiss Re Institute

Cyclical and long-term macroeconomic picture: this year's massive public policy stimulus overshadows some of the longer-term consequences.

	Cyclical picture		Structural picture	
	Latest*	Short-term outlook	Longer-term outlook	Drivers
Real GDP growth, q-o-q (seasonally adjusted annual rate)	33%		More subdued	■ Higher debt levels ■ Looming risk of "zombification" of firms ■ Productivity increase through digital transformation
Unemployment	6.9%		Likely higher	■ Hardest-hit sectors struggling ■ Increasing automation/digitalisation ■ Lagging speed of skill adaptation
Real yield	–1.0%		Lower	■ Increasing "financial repression" ■ Change in monetary frameworks ■ Material risk of higher inflation

Note: from green = benign, to red = challenging territory of the level of a given macro indicator. Zombification refers to an increase in the number of highly leveraged and unproductive firms. *Data as of third quarter 2020. Values are for the US but are qualitatively applicable to many other economies.
Source: Swiss Re Institute

Insurance markets have demonstrated a degree of resilience in the face of this year's pandemic crisis. We forecast a swift return to trend premium growth in 2021–22.

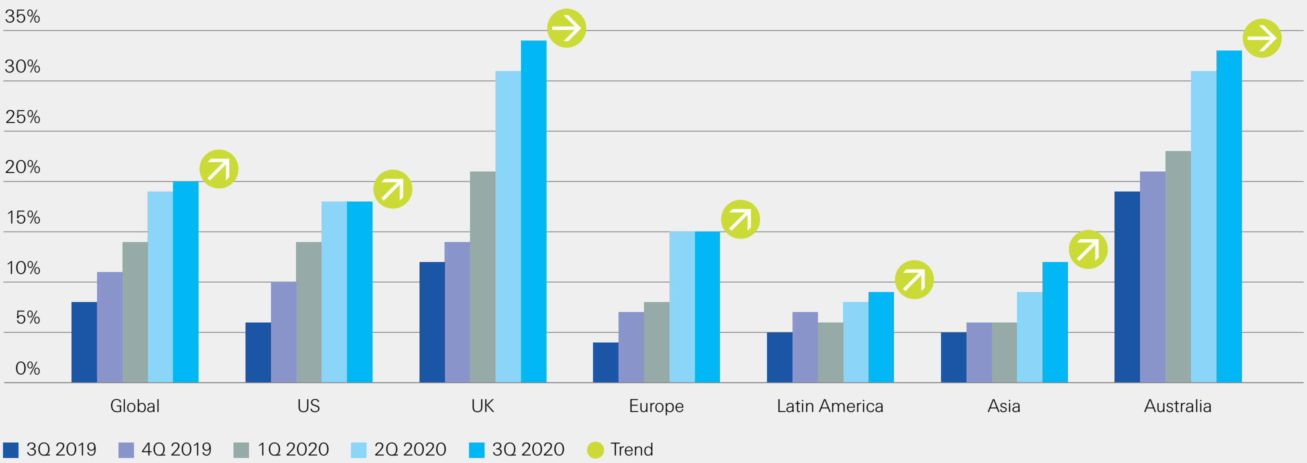
			Advanced markets							
	World		North America		EMEA		Asia-Pacific		Emerging markets	
	2020E	2021–22F	2020E	2021–22F	2020E	2021–22F	2020E	2021–22F	2020E	2021–22F
Non-life, direct										
Premium growth (real) CAGR, %	1.3	3.6	1.4	2.7	–0.5	2.8	0.6	2.7	3.3	7.6
Profitability ROE average, %	5.2	6.0	5.3	6.6	5.0	4.3	5.3	5.7		
Underwriting results (average)*	2.2	2.0	1.5	1.0	2.1	1.0	7.4	7.0		
Investment results (average)*	6.7	8.0	6.7	9.0	6.5	7.0	6.8	7.0		
Life, direct										
Premium growth (real) CAGR, %	–4.5	3.0	–2.6	0.6	–9.7	2.8	–3.3	2.3	–0.2	7.0
Profitability ROE average, %	6.9		8.1		6.1		6.7			

*As a % of net premiums earned. Non-life insurance encompasses property, casualty and also health insurance. CAGR = compound average growth rate.
Ring colourings based on deviation from long-term (2004–2019) trend in each region.

< –1.5% | –1.5% to –0.5% | –0.5% to 0.5% | 0.5% to 1.5% | >1.5%

Source: Bloomberg, Swiss Re Institute

Rate hardening in commercial lines was core to this year's resilience in non-life business. We expect positive rate momentum to continue through 2021, given strong demand amidst rising risk awareness and rising claims.



Note: up green arrow: accelerating rate increase, flat green arrow: stable rate increase at high level
Source: Marsh, Global insurance rate index, Swiss Re Institute

Key takeaways

Our baseline scenario is subdued global economic recovery in 2021 and 2022. We also consider alternative macroeconomic scenarios and assign related probabilities.

Optimistic scenario (probability 15%)
- Approvals of effective vaccines in early 2021, improved treatments
- Structural reform drive, additional policy support and increased cooperation, leading to sustained economic growth

Severe and protracted recession scenario (probability 5%)
- Vaccine setbacks and/or mutations that make the virus more infectious and lethal at the same time; on and off broad-based lockdowns
- Global credit crisis ensues amid a severe and protracted recession
- Governments and central banks severely constrained in being able to offer further support

Stagflation scenario (probability 10%)
- Vaccine set backs, on and off regional lockdowns
- Loss of central bank independence; "mission creep"
- Supply chain disruptions
- Fiscal policy mix, with more inflationary transfers than, for example, infrastructure spending

Source: Swiss Re Institute

Anticipated insurance premium growth and profitability in alternative scenarios.

	Optimistic	Severe and protracted recession	Stagflation
Premium growth			
Non-life			
Property	Positive	Negative	Moderately negative
Casualty	Positive	Negative	Moderately negative
Trade credit	Positive	Negative	Negative
Life			
In-force			
Protection	Positive	Moderately negative	Moderately negative
Life savings, guarantees	Moderately positive	Moderately negative	Negative
Life savings, unit linked	Positive	Negative	Negative
New business			
Protection	Positive	Moderately negative	Moderately negative
Life savings, guarantees	Moderately positive	Negative	Moderately negative
Life savings, unit linked	Positive	Negative	Negative
Profitability excluding general investment returns			
Non-life			
Property	Neutral	Neutral	Neutral
Casualty	Moderately negative	Moderately positive	Negative
Trade credit	Positive	Negative	Negative
Life			
In-force			
Protection	Moderately positive	Moderately negative	Moderately negative
Life savings, guarantees	Neutral	Negative	Moderately positive
Life savings, unit linked	Moderately positive	Moderately negative	Moderately negative
New business			
Protection	Neutral	Neutral	Neutral
Life savings, guarantees	Moderately positive	Moderately negative	Neutral
Life savings, unit linked	Neutral	Neutral	Neutral
Investment returns	Positive	Negative	Moderately negative

Negative | Moderately negative | Neutral | Moderately positive | Positive

Source: Swiss Re Institute

Macroeconomic environment and outlook

This year's pandemic has caused the deepest recession of our lifetime and is exacerbating societal challenges. We expect the global economy to contract by 4.1% this year and grow by 4.7% next year, less than the 5.2% consensus forecast for 2021. Even with recent news around a potential vaccine for COVID-19, still-ongoing containment measures remain a key headwind to economic growth. A global trade war and a credit crisis are also threats. Interest rates will be lower for longer, and higher inflation is a medium-term risk. To rebuild economic resilience will require a public policy reset to address growing inequalities in societies, and we anticipate targeted redistributive policies.

Economic and inflation outlook

The worst of the economic impact of COVID-19 is likely behind us, but the recovery will be fragile.

We expect the global economy to shrink by over 4% in 2020, more than twice the contraction (–1.8%) seen during the global financial crisis (GFC) of 2008–09. We forecast a return to pre COVID-19 economic output by the end of 2021, but the recovery will be uneven and protracted, and heavily reliant on further stimulus, particularly fiscal. This should cause the GDP growth rate to bounce back to 4.7% in 2021 (market consensus 5.2%) but will also significantly impact countries' capacity to absorb future economic shocks.[1] We expect global growth to slow after 2021 and stabilise at about 2.9% per annum from 2024 as the growth differential between emerging markets and advanced economies continues to decrease.

The key near-term risk is a new wave of COVID-19 and related containment measures.

Even with recent positive newsflow around a potential vaccine for COVID-19, the direction of recovery remains uncertain. With case numbers currently surging again, our SRI Pandemic Macro Clock (see Figure 1) indicates that the effective reproduction number (Rt) is above the critical value of 1 in most advanced economies.[2] In the largest seven economies by GDP weight, Rt tracked just below 1 until around mid-May before rising above the threshold. Until a vaccine proves effective and is rolled out on a global scale, governments are working to strike a fine balance between reducing the impact from lockdown measures and limiting virus outbreaks. In Europe, we expect sectoral lockdowns in hospitality and entertainment to result in negative growth in the fourth quarter in a number of countries, including Spain, France, the Netherlands and the UK, leading to double-dip contractions. We also see a double-dip recession in the US. Still, we do not expect authorities to implement containment measures as severe as in the first phase of the pandemic, and hence the economic impact from further outbreaks will likely also be smaller.

We estimate "new normal" economic capacity utilisation will be below 95% even when COVID-19 is under control.

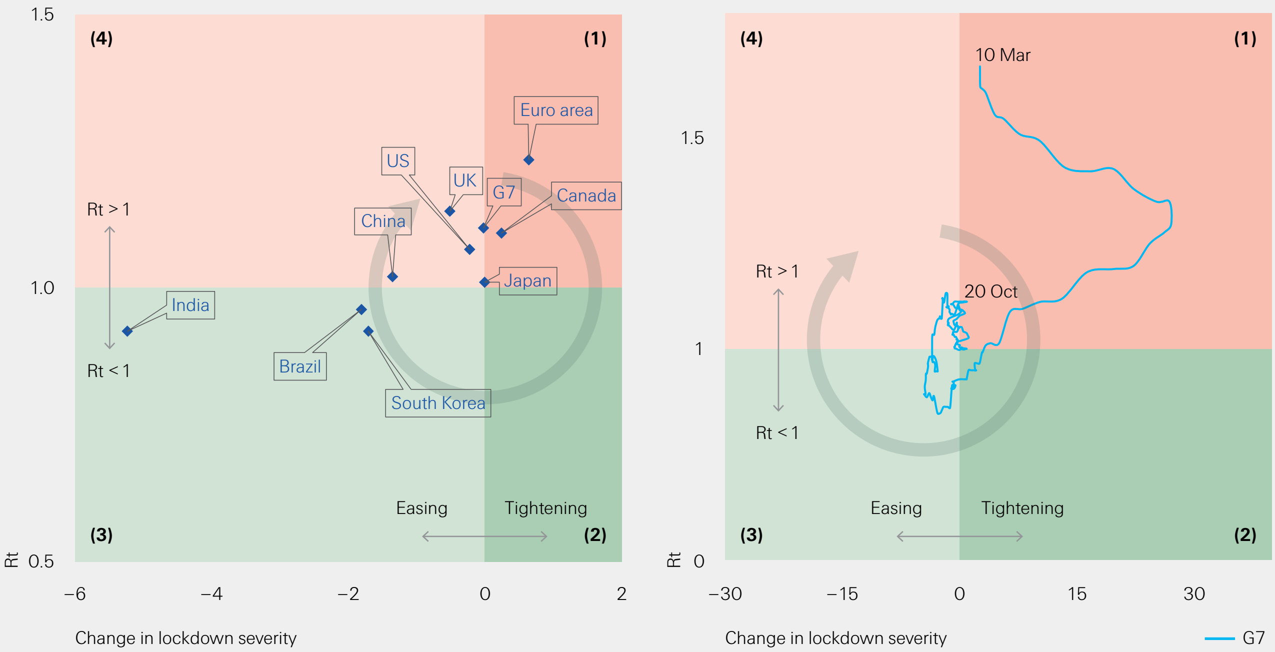
Using mobility data to gauge the impact of the pandemic on GDP shows that mobility in Europe is decreasing as the number of new infections rises and lockdown measures are reinstated. In the US, the second outbreak that began over the summer has also caused mobility to stagnate. In China activity is normalising, but the economy will continue to feel the effect of lower global demand. The US and the euro area are highly sensitive to rising case numbers with recent declines in mobility translating into activity shortfalls. We estimate that economic capacity utilisation in this "new normal" will be below 95% in the world's 20 largest economies till that time a vaccine is widely available, reinforcing our expectation of protracted recovery for the time being.

In uncertain times, scenario thinking provides broader perspective.

Scenario thinking is a crucial tool in the current elevated uncertainty. We assign 70% probability to our baseline scenario outlook, while we believe risk of the upside and our two downside (15% probability combined) scenarios to be roughly balanced. The first downside view is of a severe and protracted recession, where the virus outbreak lasts longer with subsequent waves and lockdowns in 2021. The second is a stagflation scenario where virus outbreak is kept under control but mis-aligned policies weaken economic recovery. We also assign a 15% probability to our optimistic scenario, where virus outbreak is under control and swift and coordinated policy action supports a V-shaped economic recovery. For more detail, see the chapter on *Alternative economic and insurance scenarios*.

1 *sigma* Resilience Index 2020: global resilience put to the pandemic test, Swiss Re Institute, 2020.
2 *COVID-19: hitting the sweet spot on the pandemic macro clock*, Economic Insights 13/2020, Swiss Re Institute, May 2020.

Figure 1
SRI Pandemic Macro Clock today (left) and over time (right)



Explanation of quadrants: (1) at the start of the outbreak, infections rise exponentially (R0>1) and lockdowns are imposed; (2) R0 declines below 1 as new infections are contained; (3) governments start easing lockdown measures; and (4) risk of infections picks up again as lockdowns are eased. Note: 7-day moving-average; change in lockdown severity (w-o-w) is an index calculated using a combination of Google mobility data and the Oxford university stringency index. Values are available with a lag depending on the country, as of 22 October 2020.
Source: Apple, Google, Oxford University, Wind, Swiss Re Institute

Table 1
Real GDP growth, inflation and interest rates in select regions, 2019–2022

		2019 actual	2020E		2021F		2022F	
			SRI	Consensus	SRI	Consensus	SRI	Consensus
Real GDP growth, annual avg., %	US	2.3	–4.1	–4.0 **	3.5	3.7	2.3	2.8 **
	UK	1.5	–11.0	–10.1	5.6	5.7	2.3	3.1
	Euro area	1.3	–7.3	–7.5	4.0	5.3	3.0	2.8
	Japan	0.7	–4.7	–5.7	2.4	2.5	1.1	1.6 **
	China	6.1	2.3	1.9 *	7.4	8.2 *	5.3	5.8 *
	Global	2.5	–4.1	–3.9 **	4.7	5.2 **	3.3	3.6 **
Inflation, all-items CPI, annual avg., %	US	1.8	1.1	1.2	1.7	2.0	2.0	2.0 **
	UK	1.8	0.0	0.9	0.0	1.5	0.0	2.0
	Euro area	1.2	0.2	0.3	0.8	0.9	0.8	1.3
	Japan	0.5	–0.1	0.0	0.3	0.0	0.8	0.6 **
	China	2.9	2.6	2.9 *	2.4	2.7 *	2.5	2.6 *
	Global	2.6	1.9	–2.3 **	2.2	2.6 **	2.4	2.8 **
Policy rate, year-end, %	US	1.63	0.13	0.13 **	0.13	0.17 **	0.13	0.24 **
	UK	0.75	0.10	0.10 **	0.10	0.05 **	0.10	0.10 **
	Euro area	0.00	0.00	0.00 **	0.00	0.00 **	0.00	0.00 **
	Japan	–0.04	0.00	–0.10 **	0.00	–0.10 **	0.30	–0.10 **
Yield, 10-year govt bond, year-end, %	US	1.9	1.0	0.8	1.0	1.1	1.0	1.5 **
	UK	0.9	0.2	0.3	0.2	0.5	0.4	0.9
	Euro area	–0.2	–0.4	–0.5	–0.4	–0.2	–0.4	–0.1 **
	Japan	0.0	0.0	0.0	0.0	0.0	0.2	0.0 **

E = estimates, F = forecasts. . Note: Euro area policy rate refers to the interest rate on the main refinancing operations; data as 2 November 2020. *China data from IMF. ** Data from Bloomberg, where US policy rate consensus is taken as the mid-point of the range.
Source: Consensus Economics, Bloomberg, Swiss Re Institute

Inflation is set to remain low in the near- but may rise in the medium term.

Inflation weakness is expected to persist in the short-term, with readings likely to be dominated by the collapse in global demand. However, higher inflation is a growing medium-term risk due to the unprecedented fiscal stimulus, potential for debt monetisation and acceptance of higher inflation as a public policy choice. Globalisation, a major driver of the years of low price and wage inflation in mature economies, is reversing, which could also push prices and wages back up.[3] Growing social discontent may lead to more redistributive public policies, which could put upward pressures on wages.

Unemployment rates do not capture the true impact of the pandemic on the labour market.

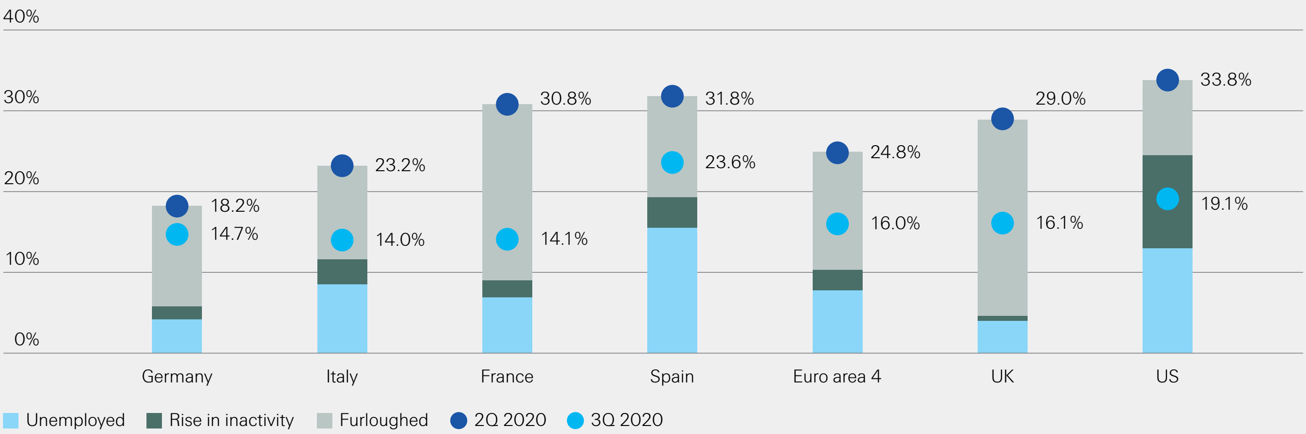
Shadow unemployment and cyclical labour market trends

The pandemic's impact on labour markets is far more severe than official data indicate. In Europe, the official euro area unemployment rate has moved surprisingly little (7.9% in July, up by 0.6 ppt since January) despite official employment data for the second quarter of 2020 showing the largest contraction in employment of the past 25 years (down 2.9% year-on-year (y-o-y)), and hours worked falling by 16.2%. The discepancy can be explained by the widespread use of government furlough/ job-retention schemes, as well as classification and measurement difficulties. A large number of job seekers have also become inactive or discouraged, and do not appear in jobless statistics. The resulting unemployment rate is hence an inadequate indicator of Europe's true labour market health.

Shadow unemployment peaked at 24.8% in the EA4 in Q2 but has since declined substantially.

To gauge the impact on the labour market we use a measure of shadow unemployment that considers inactive and furloughed workers in addition to the officially unemployed, as a share of the labour force (see Figure 2). This shadow unemployment rate reached almost 25% on average in the four largest economies in the euro area (the EA4) in the second quarter of 2020. Spain had the highest rate at 31.8% and Germany the lowest (18.2%). The UK had the largest share of employees on furlough as almost a quarter of the labour force used the Job Retention Scheme. In the EA4, 14.6% of the labour force were furloughed in the second quarter, but the number of furloughed workers dropped by more than 60% or 11.1 million by the end of July as restrictions eased. Third-quarter data has not been released yet. We expect that the shadow unemployment rate will have dropped significantly, particularly in France and the UK, but that it will have remained more stable in Germany due to the extension of the *Kurzarbeit* scheme with the same benefits.

Figure 2
Shadow unemployment rate and components



Note: "rise in inactivity" refers to the period 2Q20 vs. 4Q19. For the US, "furloughed" refers to "on temporary layoffs".
Source: National sources, Swiss Re Institute

[3] *sigma* 6/2020 – De-risking global supply chains: rebalancing to strengthen resilience, Swiss Re Institute.

Shadow unemployment in the US rose significantly due to a jump in inactive workers.

In the US, where the policy response to COVID-19 was more skewed to expanded unemployment benefits, the official unemployment rate is a more accurate reflection of the health of the labour market. The jobless rate spiked to 14.7% in April, before declining to 7.9% in September. However, this does not capture the sharp rise in inactive population (up by 11.5 ppt since the fourth quarter of 2019) and as such, still understates the true picture. Including both inactive workers and those temporarily laid-off (9.3% of the labour force), US shadow unemployment was closer to 34% in the second quarter, well above the EA4 average. We estimate that the shadow unemployment rate declined to 19.1% in the third quarter.

More policy support is needed to support the labour market and the nascent recovery.

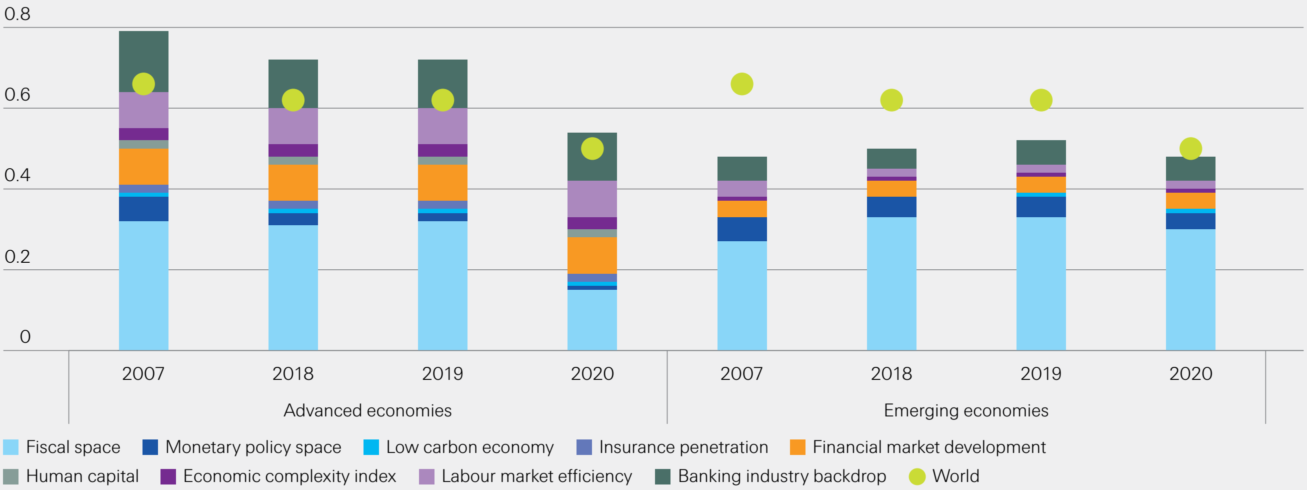
Most European countries have extended their furlough schemes until the end of 2020 or beginning of 2021. As schemes become less attractive for employers and employees, or are wound down, furlough rates should fall and unemployment rise. Assuming three quarters of workers furloughed at the end of the third quarter find work in the fourth, and one quarter become unemployed, with stable inactive populations and labour forces, the unemployment rate would rise to as high as 16.5% in Spain and 6.3% in Germany. Rising unemployment is likely to result in falling consumption, necessitating more policy support to protect the recovery, even if a COVID-19 vaccine is rolled out gradually in 2021.

The global economy went into the COVID-19 crisis with less capacity to absorb shocks than prior to the GFC.

Economic resilience

The global economy went into the COVID-19-induced recession with less capacity to absorb shock than prior to the GFC. In 2019, SRI and the London School of Economics estimated the shock-absorbing capacity of economies. In our 2020 update, about 80% of countries in the SRI Macroeconomic Resilience Index posted lower scores for 2019 than in 2007, and 45% significantly lower (see Figure 3).

Figure 3
Global economic resilience scores and decomposition over time



Source: Swiss Re Institute Macroeconomic Resilience Index, 2020.

Global economic resilience will decline by almost 20% in 2020 due to this year's public policy responses.

We expect this year's public policy responses to COVID-19 to lower global economic resilience by almost 20% from 2019. In relative terms, this fall is similar to that seen at the time of the GFC, but is far more rapid. During the GFC, the same scale of decline took three years to materialise. We estimate that the fall in advanced economy resilience during the GFC resulted in a roughly 1.6 ppt-cumulative decline in growth in the subsequent five years relative to long-term trends. We expect at least the same impact over the next five years given that economic resilience was already lower at the outset of the pandemic. Meanwhile, the fiscal and monetary packages announced in the US and Europe exceed the size of all bailouts of the past 50 years combined. While these have offset some of the economic output losses, lockdowns in most countries have and continue to hold back economic activity. This counter-effect from containment measures makes it harder to predict the effect of stimulus measures on future GDP growth.

The UK, Japan and the US took the largest hits to their economic resilience in 2020.

The pandemic will affect countries' economic resilience levels differently, depending on initial capacity to absorb shocks and government policy choices. Preliminary data suggest fiscal responses to the pandemic will be the key differentiator, as monetary policy buffers will be largely exhausted in most advanced economies. In terms of large advanced economies, the UK, Japan and the US are expected to see their fiscal buffers depleted most.

Replenishing resilience should be a top policy priority to ensure sufficient buffers for future economic shocks.

Improving long-term growth prospects and replenishing economic resilience need to be policy priorities. The global economy no longer has the luxury of relying on monetary and fiscal levers alone. Alternatives should include structural reforms that strengthen resilience, such as targeted investments into sustainable infrastructure, and the digital and low-carbon economies. Governments should also establish policy frameworks to limit rises in inequality, foster human capital, deepen the liquidity and dynamism of financial markets, and improve the efficiency of labour markets. All these have the ability to reinvigorate longer-term growth prospects: a combination of them would be more powerful still.

How to sustain public finances

Public finances can be made more sustainable with investment in long-term productivity, among others.

The unprecedented nature of fiscal stimulus in 2020 raises the question of how public finances will be sustained in the future. Public debt in advanced economies will increase by about 20 ppt this year alone.[4] As a result, aggregate debt-to-GDP ratios will rise to above 100% in the euro area and to an estimated 130% in the US. The very accommodative stance of central banks will keep debt servicing costs low for the foreseeable future but we believe a few fundamental factors could enable less reliance on low interest rates and while also making public debt more sustainable:

1. **Smart fiscal spending to boost productivity, and public-private partnerships**
   Countries not only need to spend more, they also need to spend better. Investments should focus on productivity-enhancing areas such as infrastructure, technology and climate. Building new sustainable infrastructure and upgrading the old has a significant multiplier effect on GDP growth.[5] As many government budgets are under pressure, mobilising private capital and forming public-private partnerships (PPP) will be key to shouldering the costs and delivering infrastructure at the quality and scale required.

2. **Increase transparency of public accounts**
   Fiscal transparency – the comprehensiveness, clarity, reliability, timeliness and relevance of public reporting on the past, present and future state of public finances – is critical for effective management and accountability. Governments should ensure independence of public budget forecasting. For example, the UK Office for Budget Responsibility provides independent and authoritative analysis of the country's public finances. This helps strengthen the credibility of budget frameworks and improve the disclosure and management of fiscal risks.

   Relatedly, public net worth should become a key fiscal metric. Governments should not only look at spending and revenues, but also at assets and liabilities to consolidate their finances. This would allow them to rethink how they invest and leverage existing assets for the sake of longer-term goals.[6]

3. **Use more innovative debt instruments**
   In the current environment, issuing perpetual bonds as the UK and US governments have done in previous times, could be an option, particularly for the euro area. There the newly-created borrowing power of the recovery fund for joint debt issuance would allow for cheap long-term financing, with the advantage that the mutual obligation would stop at paying annual interest. GDP-linked bonds also ensure longer-term debt sustainability. These instruments are a form of floating-rate bond with a coupon that is associated with the nominal growth rate of a country and hence acts as a countercyclical stabiliser. Studies show that issuing more GDP-linked sovereign bonds facilitates higher fiscal space.[7]

[4] According to the *IMF Fiscal Monitor* from October 2020
[5] Infrastructure investments can have GDP multipliers of up to 2x or 3x, according to the US Congressional Budget Office and the IMF.
[6] For more information, see *Public Sector Balance Sheet Strength and the Macro Economy*, IMF Working Paper, 2019
[7] See for example J. Benford, J. Ostry and R. Shiller *Sovereign GDP-Linked Bonds: Rationale and Design*, (chapter 1.3), 2018.

Interest rate outlook

Central banks have delivered unprecedented stimulus at speed in response to the pandemic.

Financial markets reacted dramatically to the COVID-19 shock in March. Major central banks quickly revisited their GFC playbook, expanding their assets by 9% of GDP between January and the end of September.[8] Central banks around the world lowered policy rates to reduce borrowing costs, and the US Federal Reserve (Fed) extended international swap lines to cushion the impact of international pressure on money markets. Central banks also took measures to support the real economy, including policies to encourage banks to lend to large and small businesses. We expect more innovation from central banks if needed, since any political constraints can be overcome if societies explicitly or implicitly demand more action.

Central bank policies will remain accommodative for some years.

The Fed has reduced its policy rate by 150 basis points (bp) since the start of 2020 and announced quantitative easing (QE) purchases equivalent to 12% of US GDP. A new change to the Fed's framework (see *Central bank regime changes*) reinforces the impression that low interest rates are here to stay for longer. We expect the first Fed rate hike only in 2024. In the event that the next US recession is accompanied with US dollar appreciation, the Fed may be inclined to take its policy rate into negative territory. The European Central Bank (ECB) was also quick to respond to the crisis, but the main stimulus came in the form of additional QE, with purchases worth more than 11% of euro area GDP. Elsewhere, the Bank of England (BoE) is toying with negative rates. We see this as a real possibility given the challenges ahead.

Low interest rates for even longer than anticipated are a risk for insurers.

We forecast US 10-year Treasury yields to remain at 1.0% until the end of 2022, and the German equivalent to trade at –0.4%. Alongside the monetary, sizeable fiscal stimulus measures have played an important role in alleviating the economic shock and encouraging higher demand in 2020. This fiscal easing will translate into higher public debt. However, greater government bond issuance and debt will not necessarily push yields higher, particularly if central banks work to keep them low. Instead we expect an increase in "financial repression" (see *Financial repression set to remain elevated*), with central banks limiting yield increases, or at least ensuring that borrowing costs stay low for the foreseeable future. Meanwhile, the review of central bank policy frameworks suggests inflation will be allowed to pick up as interest rates remain low: a challenging macro environment for insurers.[9]

8 Here we report asset purchases from the Fed, the ECB, the Bank of Japan, the People's Bank of China, and the Bank of England, as an average percentage of national GDP.
9 *Lower for even longer: what does the low interest rate economy mean for insurers*, Swiss Re Institute, September 2020.

Financial repression to remain elevated

Financial repression reached a new high in 2020 as monetary policies expanded in response to COVID-19.

Financial repression – the monetary policy, regulatory and direct market interventions by which governments influence private capital allocation – reached a new peak this year, the SRI Financial Repression Index indicates.[10] The driver is the unprecedented central bank monetary easing in response to the pandemic. Financial repression has been persistently high since 2012 and will likely continue now interest rates are expected to stay lower for longer. However, the costs of financial repression as a policy choice outweigh the benefits. The two main outcomes are low interest rates and strong price increases in financial assets. These have a large and unequal impact on returns to savers and institutional investors.

In the US, repression has had the effect of a 3.5% annual "tax" on disposable income.

We calculate that on average, since the GFC the net "tax" on US households from foregone interest income on deposits, pensions and life insurance assets has been USD 160 billion per year.[11] This equates to about 3.5% of the total disposable income of US households per year, or half of the average annual savings rate of 7.0% since 2008. On average, each year since 2008 long-term investors such as US and European insurers and pension funds have foregone USD 185 billion of yield income, equivalent to about 1.5% of their total fixed income investments (see Figure 4).[12]

Figure 4
Key costs associated with financial repression since the global financial crisis

↑ **~USD 1 380 billion*** Average annual increase in US government gross debt	↑ **~USD 490 billion*** Average annual increase in Fed balance sheet
↓ **~3.5% annually** Average US "tax" on household disposable income from foregone interest income	↓ **~1.5% annually** Average foregone yield income as a percentage of fixed income holdings of US and EU insurers, and pension funds**
↓ **~40%** Average gains from the equity market rally as a percentage of total US financial wealth for the top 1%***	↑ **~70%** Amount of outstanding government debt in Europe offering sub-zero yields

* Increases in US government gross debt and Fed balance sheet span 2008 to June 2020, while all other variables reported cover 2008 to 2019.
** Europe is proxied by Germany and the UK for which pension fund data is available.
*** The period considered for the stock market rally is from 2009 to 2019.
Source: OECD, Datastream, Credit Suisse *Global Wealth Databook 2019*, Swiss Re Institute.

Financial repression comes with costs, which policymakers should adjust for.

Financial repression is likely to remain a key policy tool given the fragile growth outlook and public debt overhang from COVID-19. However, its significant costs must be acknowledged. Financial repression by itself is not a sustainable strategy: economic resilience can only be improved by increasing trend growth.

10 *Financial repression: here to stay and stronger than ever*, Swiss Re Institute, September 2020
11 Household debt costs, primarily mortgages, are also reduced by financial repression. We deduct this benefit from the total foregone interest income to arrive at a net "tax" on households.
12 Europe is proxied by the UK and Germany, for which pension fund investment information is available. Fixed income investments comprise bills, bonds and loans issued by the public and private sectors.

Risk considerations

Escalation of tensions between the US and China into a global trade war remains a significant risk.

Given our expectation that a COVID-19 vaccine will allow some social and economic normalisation in 2021, we see the risks to the outlook as roughly balanced, with downside risks still there. Possible escalation of the US-China trade and technology dispute into a global trade war (probability: 35%) remains the next-biggest threat to global economic stability. The dispute has evolved from tariffs to non-tariff measures, with a stronger focus on protecting US tech firms and national security. We do not expect tensions to subside even with post-election changes in US politics. According to one study, the trade war reduced US investment growth by 0.3 ppt from early 2018 to end-2019, and is expected to cut another 1.6 ppt by end-2020.[13] Beyond China, digital taxes from Europe and tariffs with Canada may also affect US trade.

Corporate debt and revenue levels raise the risk of a global credit crisis.

Corporate debt defaults have been low to date, largely due to unprecedented public stimulus, but the pandemic has led to higher debt and a slump in revenue for companies worldwide and may lead to prolonged high default rates rather than a typical cyclical peak. While we expect renewed lockdown measures in Europe to come with additional fiscal stimulus and extended job retention schemes, many firms may not survive another downturn, with risks rising as lockdown restrictions are broadened across sectors. The increase in debt and deficits in 2020 is the largest, fastest and broadest based since World War II. The pandemic is accelerating the corporate transition since 2008 to rising debt levels and worsening credit quality. We see threat of a global credit crisis (probability: 15–20%). The risks of "zombification" mean any further stimulus should allow to fail those companies that would struggle post COVID-19.[14] Indeed, the share of "zombie" firms in the US, EU and Japan are 6%, 9% and 1% currently, compared to 24% of Japanese firms in the late 1990s.[15] Although it may avoid a credit crisis in the short term if unproductive firms are kept afloat, zombification would weigh on long-term economic growth.

There is potential for central bank policy error.

Another threat to our outlook is a central bank policy error (probability: 15%). The change in the Fed's framework to average inflation targeting implies slower policy reactions to rising inflation.[16] This is particularly meaningful given that we cannot identify accurately the dominant inflation drivers of the post-COVID-19 world. The framework also includes employment targets, which risks overburdening the Fed's mandate. With interest rates set to remain low for a long time, heightened financial repression will also continue. In our update of the SRI Financial Repression Index,[17] we show that financial repression through low interest rate contributes to savings hoarding, corporate zombification, and weakens the case for structural reforms.

Weak macroeconomic resilience amplifies the threat of subsequent crises

We estimate that global economic resilience will fall by 20% this year from 2019 levels, as fiscal and monetary headroom diminish from the massive stimulus packages in response to the pandemic.[18] There are fewer public policy buffers left to combat a future shock and the global economy no longer has the luxury of relying on monetary and fiscal levers alone. Alternatives should include structural reforms to increase resilience such as targeted investments into sustainable infrastructure and the transition to a low-carbon economy. Governments should also address inequality (see *COVID-19 to increase inequality*), foster human capital, deepen the liquidity and dynamism of financial markets, and improve the efficiency of labour markets.

[13] *The Effect of the US-China Trade War on U.S. Investment*, Federal Reserve Bank of New York, May 2020.
[14] Zombification refers to an increase in the number of highly leveraged and unproductive firms, the so-called "zombie" companies.
[15] *Corporate zombies: a trick or a treat for the 2021 outlook?*, UBS, 13 October 2020. Note: zombie firms are defined by having EBIT/ interest expense below 1 and debt to Enterprise Value above 90%, by firm count and assets.
[16] Previously the Fed used an absolute 2% inflation target and a "bygone" inflation strategy, meaning that it did not try to make up for past inflation target misses.
[17] *Financial repression: here to stay and stronger than ever*, Swiss Re Institute, September 2020,
[18] *sigma* Resilience Index 2020, op. cit.

Paradigm shifts

The COVID-19 shock has accelerated several paradigm shifts, including a larger role for governments in the economy, digital transformation and a de-risking of global supply chains, and is also leading to noticeable structural shifts. The pandemic risks further weakening already-subdued growth and widening the rift between financial markets and the real economy should no effective vaccine be found in due time. The main positive paradigm shift could be accelerated digitalisation but it is too early to ascertain whether this has already boosted productivity growth.

The COVID-19 crisis is accelerating structural shifts in economies.

Every major crisis marks an inflection point and the global economic shock from COVID-19 is no exception. Long-lasting paradigm shifts will affect the economic environment beyond the medium-term impact of the pandemic. While some have emerged directly from the pandemic, others are being accelerated by recent events. Some shifts, such as the restructuring of global supply chains and the increasing digitalisation of personal and professional lives, will likely offer new opportunities to insurers. Others, such as the risk of higher inflation and longer lasting low interest rates, will challenge profitability.[19] In addition to potential for higher inflation, other paradigm shifts that will impact the global economy and insurance markets include:

- **Fiscal/monetary coordination and outright debt monetisation:** central bank policies previously considered unorthodox will likely become the norm. Politicisation of monetary policy and "mission creep" are risks to central bank independence. One example is fiscal/monetary coordination in the form of monetisation of government debt through "helicopter money".[20] Moves in this direction are already underway, with several governments having vowed to do "whatever it takes" to support households through the pandemic. In addition, central banks are buying very large quantities of government debt.

- **The growing role of governments:** as spenders of last resort, governments have taken a much more active role in the economy during the crisis. This has ranged from emergency loans and guarantees for businesses, to payments of salaries and transfers to many individuals. The transfer payments to households are equivalent to a temporary universal basic income. There have already been public injections of capital into and nationalisations of private firms, and we expect more loans will turn into equity stakes and guarantees into bailouts. We believe governments are unlikely to beat a hasty retreat once the crisis is over: the experience of the GFC shows that temporary stimulus measures can very well turn permanent.

- **Peak of globalisation and parallel supply chains:** virus containment measures have intensified the disruption of global supply chains, a further manifestation of the reversal in globalisation spirit.[21] Coupled with US-China trade tensions, this is likely to encourage companies to accelerate supply chains restructuring and diversify production chains to become more resilient. This will bring redundancies and may also increase costs. We believe such supply chain alterations will have significant repercussions for China's economy, with an estimated 20% of the country's exports relocated to other markets over five years. Counter-cyclical policies will be vital for sustainable economic recovery in China.

  Deglobalisation will lead to more local "content" at many levels, well beyond the country of value creation of goods and services. For example, the trend will also likely lead to diverging taxation regimes, different labour law standards and more regulatory fragmentation, with have implications for all industries. Insurers too will need to be prepared and able to adapt to new regulatory requirements that evolve in the different jurisdictions in which they operate. The relocation by some insurers of functions and operations to the euro area from the UK on account of Brexit provides an example of the impact that regulatory fragmentation can have.

[19] For additional information on paradigm shifts affecting the insurance industry, please see *sigma* 4/2020 – World insurance: riding out the 2020 pandemic storm, Swiss Re Institute, June 2020.
[20] For further insight on our view of helicopter money see *sigma* 6/2019 – Sustaining resilience amid slowing growth: global economic and insurance outlook 2020/2021, Swiss Re Institute, Nov. 2019.
[21] For our view of how US-China trade tensions impact supply chains see *sigma* 6/2020 – De-risking global supply chains, Swiss Re Institute, September 2020.

- **Digital transformation:** lockdowns and the implementation of social-distancing rules to contain COVID-19 have accelerated digitalisation. More people are working remotely and e-commerce platforms have become increasingly important. We expect these trends to become the "new norm".

As stimulus fades, structural shifts from COVID-19 will emerge…

The "new normal": structural shifts

The cyclical effects of the COVID-19 crisis have been extreme but moderated by the large amount of stimulus implemented globally. As this stimulus fades, the long-term structural implications of the pandemic will emerge (see Table 2).

Table 2
Structural shifts anticipated by 2022

	Cyclical picture		Structural picture	
	Latest*	**Short-term outlook**	**Longer-term outlook**	**Drivers**
Real GDP growth,q-o-q (seasonally adjusted annual rate)	**33%**		More subdued	▪ Higher debt levels ▪ Looming risk of "zombification" of firms ▪ Productivity increase through digital transformation
Unemployment	**6.9%**		Likely higher	▪ Hardest-hit sectors struggling ▪ Increasing automation/digitalisation ▪ Lagging speed of skill adaptation
Real yield	**–1.0%**		Lower	▪ Increasing "financial repression" ▪ Change in monetary frameworks ▪ Material risk of higher inflation

Note: from green = benign, to red = challenging territory of the level of a given macro indicator. Zombification refers to an increase in the number of highly leveraged and unproductive firms. *Data as of third quarter 2020. Values are for the US but are qualitatively applicable to many other economies.
Source: Swiss Re Institute

…such as higher unemployment, lower long-term potential growth and real yields.

We expect unemployment to remain above pre COVID-19 levels despite a gradual reversal of the spike of earlier this year. This will hold especially true for hard-hit sectors such as hospitality and leisure. Even with a vaccine, these sectors will take some time to recover. The boost to automation and digitisation will further exacerbate job polarisation. Second, several factors point to lower long-term global growth prospects, which were already trending downward following the GFC. High debt overhang and rising zombification as central banks and governments work to prevent firms from failing also threaten productivity and potential growth. Third, the prospect of higher inflation risks sending real yields deeper into negative territory given rising financial repression, and with yield curve control gaining traction.

We also see greater income inequality post pandemic

Another effect of the pandemic has been to widen the gulf between Wall Street and Main Street that opened after the GFC, with monetary easing the main catalyst. We expect inequality to receive more political attention in many advanced economies in the coming years. Finally, we expect governments will take on a larger role in the economy and financial markets. Economies and markets can easily get used to fiscal stimulus even if it is initially temporary in nature.

More PPP can promote efficient mobilisation of private capital into productivity improvements.

In the current environment, potential upside could come from greater promotion of PPP to also become a component of the new normal. Such partnerships can mobilise private capital into productivity enhancing infrastructure and also make previously uninsurable risks more insurable with the formation of risk pool initiatives.

The Fed's new framework suggests that higher inflation will become a policy choice.

Central bank regime changes

Two of the world's biggest central banks, the Fed and the ECB, are undergoing important changes. In August 2020, the Fed announced the conclusion of its monetary policy framework review in which it changed its policy approach to flexible average inflation targeting. Under the new regime, any periods of shortfall in inflation will need to be compensated for in future periods, to achieve an inflation target of 2% over time. Compared to the previous approach, this implies that: 1) higher inflation is tolerated as a policy choice; 2) interest rate hikes will come later than usual in an economic cycle, as the Fed will first want to see evidence of inflation increasing; and 3) interest rates will stay low for even longer. The Fed's focus will also be on financial conditions as the transmission mechanism for monetary policy, effectively cementing the "Fed put".[22] Structurally, looser interest rate policy and the Fed's objective to let the economy get "hotter" than was previously the case, increase the likelihood of higher inflation outcomes over the medium to longer term.

The Fed will consider "inclusive" jobs growth in monetary policy decisions.

The new Fed framework also highlights that aggregate labour market data will become less relevant. It will focus more on distributional aspects of labour markets, particularly "inclusive" employment growth. This suggests that labour markets will have to tighten more before the Fed takes action than in the past.

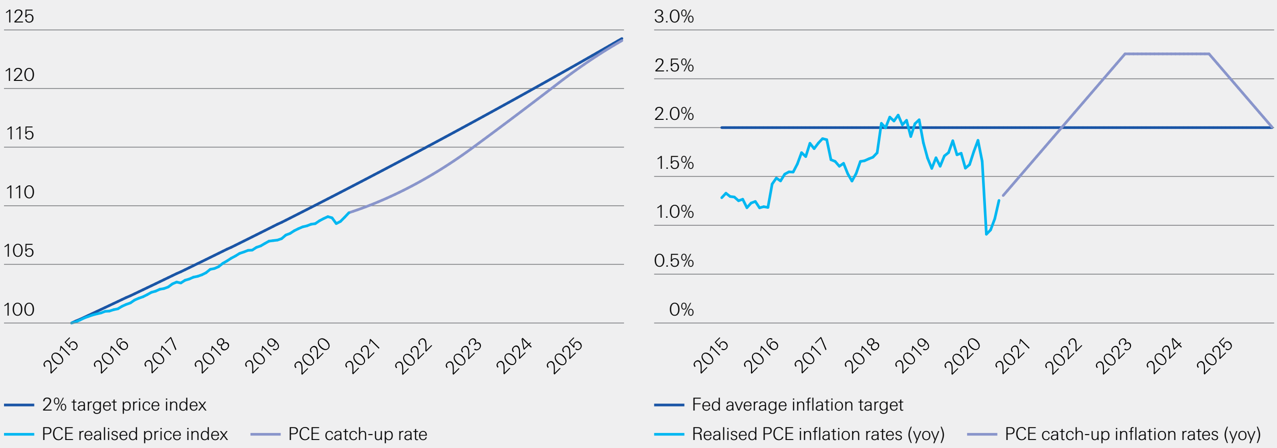
The ECB's framework review is very broad in scope and will run into 2021.

The ECB's framework review appears to have a much broader scope.[23] It ranges from a review of the price stability objective to the effectiveness of monetary policy, inflation measurements, digitalisation, globalisation and climate change among others. We expect the review to be concluded in the second half of 2021.

The framework reviews are not a silver bullet for monetary policy challenges.

The evolution of the Fed and ECB frameworks aligns with changing economic realities. However, framework reviews bring drawbacks and arguably do not resolve the main monetary policy challenges. Central banks have not reached their inflation targets for a decade, and a framework change is unlikely to change that. Setting central banks a broad range of goals risks overburdening them and making them a political target. Finally, both central banks' monetary stimulus is already highly accommodative. A change in the framework does not provide them with more monetary policy space for the future.

Figure 5
How US realised inflation could catch up with the 10-year average (January 2015 = 100, LHS). Illustrative US inflation rates that would be needed to catch-up with a 10-year inflation average of 2% (RHS)



Source: Swiss Re Institute

[22] Financial conditions are essentially sovereign yields, credit spreads and equity prices as well the volatility of all these asset classes. The "put" loosely and figuratively refers to a put option for financial markets with the insurance being provided by central banks by curtailing large financial market tail risks.
[23] The ECB has 12 workstreams. All will influence the outcome of the framework review. See overview at *https://www.ecb.europa.eu/home/search/review/html/workstreams.en.html*

Fiscal transfers have helped cushion the negative impact of the COVID-19 crisis on low earners.

COVID-19 to increase inequality

Economic recessions tend to exacerbate income inequality as those with lower-paid jobs are more likely to be laid off or experience wage cuts. Government actions in response to the COVID-19 crisis have masked this impact in the short term. For example, in Europe large-scale job retention schemes have prevented a sharp spike in unemployment in sectors hit hardest. And in the US, fiscal transfers have over-compensated for loss of earnings in lower income segments. However, we think the pandemic and resulting structural changes to the economy will have a larger-than-usual negative impact on income distribution over the medium term.

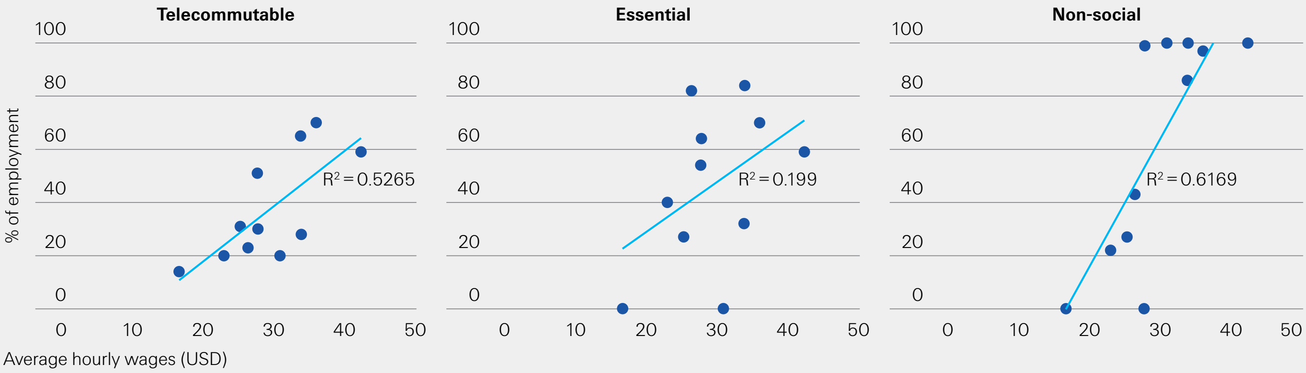
Jobs that are non-essential, cannot be done remotely and require physical interaction have been most at risk.

In this year's COVID-19-led economic downturn, jobs with certain characteristics have been particularly vulnerable. Jobs that cannot be done remotely, involve a high degree of interpersonal contact ("social") and are not "essential" have been and remain most at risk. An IMF study has found that the number of "social" job losses has been disproportionate in the current pandemic compared with what happened at the time of the GFC.[24] Telework-able and essential jobs have been/were relatively less affected in both cases, but those in non-telework-able and non-essential occupations have been much more severely hit this year. As the virus continues to spread and social distancing measures remain in place, employment recovery in the affected sectors will be slow. And, accelerated digitalisation of work may put those in non-telework able jobs at a disadvantage, even post pandemic.

These jobs also tend to pay less, which means income inequalities may well rise.

Industries with a large share of jobs that are telework-able, essential and do not require physical interaction tend to have higher earnings, albeit with heterogeneity across occupations and sectors (see Figure 6). Workers in those sectors hardest hit by COVID-19, meanwhile, tend to earn less than those in more shielded jobs. The double whammy of the most vulnerable jobs also being lower-paid work will exacerbate income inequality over time. A recent report shows that low-wage earners in the US have experienced both more job losses and a slower recovery during the pandemic.[25] While employment of high-wage earners was almost back to pre-crisis levels by early June, low-wage earners' employment fell 25% short and remained almost 20% below pre-crisis levels in early October. And the IMF estimates that given the relationship between telework-ability, employment loss and income distribution, inequality in the emerging markets could return to levels broadly comparable to 2008, alongside a smaller retrenchment in advanced economies.[26]

Figure 6
Share of telework-able, social and essential jobs by industry compared to average earnings in those sectors



Source: IMF, Nomura, Swiss Re Institute

[24] *The Distributional Impact of Recessions: the Global Financial Crisis and the Pandemic Recession*, IMF Working Paper, June 2020.
[25] R. Chetty, J. N. Friedman, N. Hendren et. al. "The Economic Impacts of COVID-19: Evidence from a New Public Database Built from Private Sector" *www.tracktherecovery.org*, September 2020.
[26] *World Economic Outlook*, IMF, October 2020.

COVID-19 may have long-lasting effects on inequality on account of interruptions to education.

Interruptions to schooling are likely to affect children from poorer families more, further increasing the risk of rising inequality in the long run. Less well-off children are statistically less likely to have well-educated parents who can support them with school work. They may also have less access to online learning, as devices may have to be shared, and homes may be overcrowded or noisy. One in four of the least well-off quarter of American children has no access to a computer at home.[27] According to UNESCO, almost 50% of enrolled learners globally were still affected by countrywide school closures at the end of September 2020, predominantly in emerging markets.[28]

Increased social inequalities could see introduction of more redistributive policy action in the medium term.

While we expect income inequality to increase because of the COVID-19 crisis, there could also be a backlash which may – eventually – act as an equalising force. The debts built up by governments during the pandemic will in some cases reach heights last seen during the world wars. As a result, we expect pressure for tax rises to increase, especially for the highest-paid income group, the wealthy and corporates. The move to a more redistributive policy stance could also include more fundamental changes to national systems, such as the introduction of universal basic income in some (a small number) countries.

[27] "Closing schools for COVID-19 does lifelong harm and widens inequality", *Economist*, 30 April 2020.
[28] See *Education: From disruption to recovery*, UNESCO. The figure corresponds to the number of learners enrolled in pre-primary, primary, lower-secondary, upper-secondary and tertiary education levels.

Insurance market outlook 2021/22

The outlook for insurers will be shaped by the pace of global economic recovery. Amidst the uncertainty, we forecast that in real terms, global non-life premium growth will improve to 3.6% annually over the next two years from 1.3% in 2020, and that life premium growth will rebound to 3% after a sharp contraction this year.[29] China will take the lead, and the emerging markets together will continue to outperform the advanced. In non-life, a main driver will be rate hardening in commercial insurance. Increased risk awareness in the wake of COVID-19 should boost demand on the life side. Swiss Re estimates COVID-19 related P&C losses this year in a range of USD 50–80 billion. The negative impact will be ameliorated by lower claims frequencies in motor and other personal lines of business.

Global insurance markets have proven more resilient to the COVID-19 crisis than we initially projected...

The global insurance market has proved more resilient than expected, with the premium downturn in the first half of this year much less severe than we initially feared. Premium volumes will decline in 2020, but we now forecast a 4.3 ppt drop from pre-pandemic levels rather than the 5.8 ppt fall we had predicted in June. The better-than-expected growth of personal lines, especially in advanced markets, reflects the fast response of both insurers and brokers in leveraging digital channels. Sales disruptions from social distancing were less of a headwind than expected as many more consumers moved online for their daily needs.

...and we expect premium growth to rebound in 2021.

We also project a swift comeback, and that premium volumes will be 5 ppt higher than pre COVID-19 levels by the end of next year. Our more optimistic view is because demand in advanced markets has been more stable than expected. Our assessment of the emerging markets is broadly unchanged. As a result, we have revised up our growth forecast for the global non-life market. Where we previously saw stagnation this year, we now estimate that global non-life premiums will rise by 1.3% in real terms in 2020, supported also by stronger-than expected rate hardening. We have also taken 2 ppt off our contraction forecast for global life premiums, as the reduction in demand in the US in the first half was less severe than we had previously assumed.

Table 3
Total insurance premium growth forecast in real terms

	2020E		2021F		2022F	
World	–1.4%	▲	3.4%	=	3.3%	▲
Advanced markets	–2.0%	▲	2.5%	=	2.3%	▲
North America	0.3%	▲	2.0%	=	2.4%	▲
EMEA	–5.7%	▲	3.5%	=	2.3%	▲
Asia-Pacific	–2.3%	▲	2.7%	▲	2.2%	=
Emerging markets	1.4%	=	7.0%	=	7.1%	=
Excl China	–3.0%	=	4.0%	▲	4.3%	=
China	5.1%	▲	9.1%	▼	9.0%	=

Note: icon shows direction of revisions to forecasts since June.
Source: Swiss Re Institute

We forecast global non-life premium growth will recover 3.6% in 2021.

In non-life, we forecast that global premium growth will improve to 3.6% in real terms in 2021 and 2022, supported by strong and broad-based rate hardening in commercial lines across regions. Offsetting factors like ramped-up competition in personal lines and some of the negative effects of COVID-19 on exposure growth (eg, premium rebates and lower rates in lines with windfall gains due to lower accident rates or less utilization of medical services) will likely materialise in 2021 only. On the life side, we expect a rebound to trend growth over the next two years

[29] All premium growth figures are in real terms, ie adjusted for local consumer price inflation, unless stated otherwise.

after steep contraction in 2020. Our forecast is based on expected economic recovery and heightened awareness of the importance of risk protection covers, especially for health, born out of the pandemic experience. However, we add a note of caution: our expectations of sustained economic recovery assume that social distancing measures and other restrictions on mobility will ease, which is not certain.

Accelerated digitisation will weaken the role of brokers in personal lines but strengthen it in commercial insurance.

The paradigm shift of accelerated digitisation in a post-pandemic era also has implications for insurance distribution channels. Personal lines products like motor and home insurance may get commoditised quicker in a digital world, and agents may become less relevant. Brokers continue to play a broad role in commercial lines transactions, and the increasing complexity of risk analysis and risk transfer products will further strengthen their place in the insurance value chain. Brokers have systematically advanced their digital strategy and are at the centre of digitising commercial risks, particularly in the small and medium-sized enterprise segment.

Digitisation and data analytics are also at the core of mitigating and insuring supply chain risks.

Another paradigm shift is manufacturers' focus on strengthening global supply chain (GSC) resilience. Events this year, from trade tensions to the pandemic, have exposed GSC vulnerabilities. Digital technologies offer ways to better understand the supply chain, enabling risks to be identified, assessed, monitored and mitigated in a more targeted manner. New digital supply-chain platforms, ecosystems and sensor technologies are transforming the granularity of data available to corporates and insurers. Similarly, structured and unstructured data can be collated more effectively by fast-evolving analytical capabilities, enabling deeper insight into complex, interconnected supply chains. With these insights, corporations and insurers can develop solutions to proactively mitigate and insure these risks.

Table 4
Insurance market key indicators

	World			Advanced markets: North America			Advanced markets: EMEA			Advanced markets: Asia-Pacific			Emerging markets		
	Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook	Past	Current	Outlook
Non-life, direct															
Premium growth (real), CAGR %	4.0	1.3	3.6	3.9	1.4	2.7	2.4	−0.5	2.8	2.2	0.6	2.7	7.6	3.3	7.6
Premium growth (USD), difference	118	66	207	88	45	93	−1	6	38	4	2	17	28	13	58
Profitability ROE average, %	7.2	5.2	6.0	7.1	5.3	6.6	6.7	5.0	4.3	9.3	5.3	5.7			
Underwriting results average*, %	0.9	2.2	2.0	−0.2	1.5	1.0	2.1	2.1	1.0	50	7.4	7.0			
Investment results average*, %	10.2	6.7	8.0	11.0	6.7	9.0	8.8	6.5	7.0	7.9	6.8	7.0			
Life, direct															
Premium growth (real), CAGR %	2.7	−4.5	3.0	1.8	−2.6	0.6	2.4	−9.7	2.8	−0.5	−3.3	2.3	9.0	−0.2	7.0
Premium growth (USD), difference	52	−147	156	19	−11	17	−3	−111	50	−3	−13	31	39	−12	57
Profitability ROE average, %	9.0	6.9		10.4	8.1		7.8	6.1		8.6	6.7				
Total (Stock market indicators)															
Price to book, insurance sector average	1.3	1.1		1.3	1.2		1.1	1.0		1.3	1.2				
Price to book, total market average	2.2	2.2		3.3	3.6		1.8	1.8		1.5	14				
Stock prices, insurance sector, CAGR %	4.0	−14		7	−13		2.0	−25		3.0	−9.0				
Stock prices, total market, CAGR %	5.2	1.9		8.3	4.6		0.5	−9.4		1.4	2.0				

*As a % of net premiums earned. Non-life insurance encompasses property, casualty and also health insurance. CAGR = compound average growth rate.
Ring colourings based on deviation from long-term (2004–2019) trend in each region.

<−1.5% | −1.5% to −0.5% | −0.5% to 0.5% | 0.5% to 1.5% | >1.5%

Source: Bloomberg, Swiss Re Institute

Non-life

Rate hardening in commercial insurance offset by competitive pressures in personal lines

Non-life premium growth has remained stable this year.

We forecast that global non-life premiums will grow by around 1% in 2020, stronger than the no-growth we had forecast in June, in spite of the economic shock caused by the COVID-19 crisis. The main reason is stronger-than-expected rate hardening in commercial lines. We see a recovery to 3.6% premium growth in 2021 and 2022, supported by rising economic strength (although output will not return to pre-pandemic times), a hard market in commercial lines to a degree not seen since 2002–03, and a rebound in most emerging regions. Some factors will hinder even stronger growth. For instance, commercial lines account for just a quarter of total non-life premiums globally, and incomplete economic recovery will likely put some constraints on demand from the business sector. Meanwhile, personal lines business will see increased competition particularly in segments that have benefitted from low claims frequencies during the lockdown, such as motor or individual medical indemnity insurance.

A main reason has been rate hardening in commercial lines.

At 1%, non-life premium growth in the advanced regions has been unexpectedly resilient so far this year, again due to rate hardening in commercial lines. The only region of contraction has been EMEA. We forecast advanced market premium growth of close to 3% in 2021 and 2022, with advanced Asia and the US outpacing EMEA. Commercial property and liability lines will see much faster growth: we project more than 6% in the eight largest markets. The main downside risks to these forecasts include the protracted economic recovery and related-uncertainties depending on how the COVID-19 scenario plays out, and a sooner-than-expected fading of the hardening cycle in commercial lines.

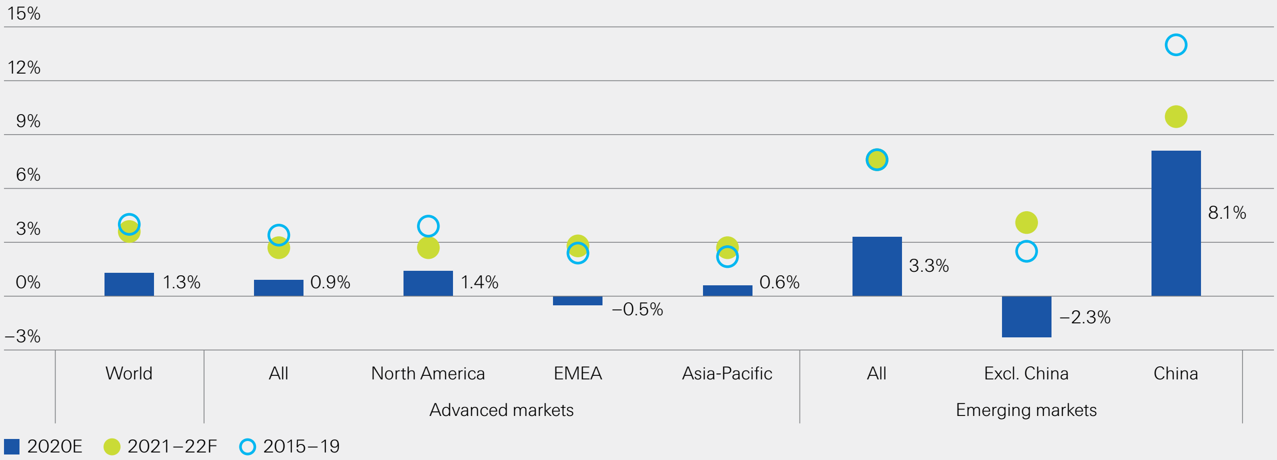
China remains the engine of global sector growth…

China remains the world's fastest growing non-life insurance market: we forecast 8% expansion in non-life premiums this year, a boost coming from double-digit growth in health business. Growth in the other emerging markets will be weaker. We project broad-based recovery across emerging regions in 2021 and 2022, with heightened risk awareness boosting demand for personal lines. We forecast 10% annual premium growth in China. De-tariffication in motor will drag given resulting lower rates, but government policy will support growth in other lines. In other regions, protracted economic recovery could slow premium growth, particularly in markets that were sluggish even before the pandemic, such as in Africa and the Middle East.

…although the advanced markets remain the largest in premium volume terms.

In terms of the contribution to the global non-life premium pool, North America will add most with USD 93 billion annual through 2022. China will add USD 45 billion, more than the USD 38 billion from western Europe. Other emerging markets will contribute about USD 14 billion. Overall, the advanced markets remain dominant in terms of absolute amount of premiums, contributing 70% of additional premium volumes.

Figure 7
Global non-life insurance premium growth in real terms, actual and forecasts



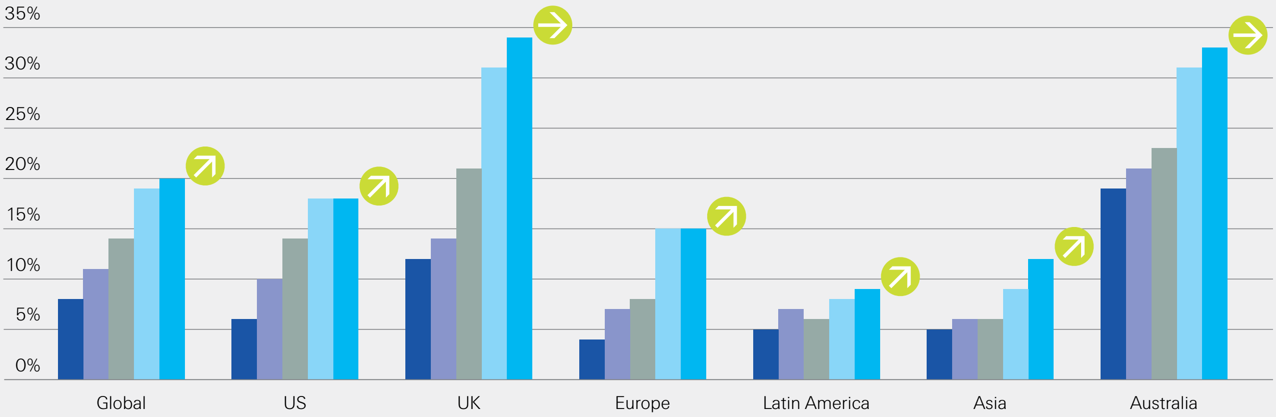
Source: Swiss Re Institute

Rate improvements across lines of business will continue into 2021.

Stronger pricing to continue

Pricing in non-life insurance commercial lines has strengthened again this year, and we expect this to continue well into 2021. The third quarter of 2020 marked the sharpest rate increase in since 2001/2002 after the 9/11 terror attack, with prices up 20% year-on-year (y-o-y). The upswing has broadened across lines of business and by region. There were strong price increases in Property (21% in the third quarter) and in Financial and Professional liability (FinPro) (+40%) lines in almost all regions. For Property, rates have been mainly driven by cat-related covers, and in FinPro by rising D&O claims. Casualty business, which had remained soft until 2018, has started to exhibit stronger but still single-digit (6%) price improvements this year. This is being driven by improvements in the US and Europe, while Asia and Latin America remain sluggish. We see sustained strong rate hardening in commercial lines into 2021. Our positive view on rate increases into next year is based on the prospect of strong demand amidst rising risk awareness, ongoing claims developments (including COVID-19 related claims), and a still large profitability gap in non-life (see chapter *How low interest rates impact non-life profitability*). We expect prices in casualty to improve against the background of ongoing social inflation in the US and declining interest rates.

Figure 8
Global commercial insurance rate change 3Q19 to 2Q 2020 (top), and second quarter 2020 (bottom)



Note: up green arrow: accelerating rate increase, flat green arrow: stable rate increase in high level

Third-quarter 2020

Rate change in percent	Global	US	UK	Europe	Latin America	Asia	Pacific
Property	↑ 21	↑ 24	↑ 20	↑ 21	↑ 15	↑ 18	↑ 31
Casualty	↑ 6	↑ 8	↗ 6	↑ 5	↓ –4	↗ 1	↑ 11
FinPro	↑ 40	↑ 28	↑ 67	↑ 24	↑ 26	↑ 18	↑ 49
Composite	↑ 20	↑ 18	↑ 34	↑ 15	↑ 9	↑ 12	↑ 33

Note; arrows indicate change of direction in rates since the third quarter of 2019: green = up; red = down; yellow diagonal = moderately up/down
Source: Marsh, Global insurance rate index, Swiss Re Institute

Rates in US commercial insurance rose by 10.8% in the second quarter.

Pricing in US commercial lines continued to strengthen in the second quarter of 2020. According to the Council of Insurance Agents & Brokers (CIAB), at the aggregate level commercial rates were up 10.8% y-o-y.[30] There were gains in all lines of business, the first time this has happened since 2015. Rates in commercial property (+13.3%) and business interruption (BI, 9.7%) were up for a third year running, boosted by years of heavy natural catastrophe losses. Commercial auto was up 9.6%, despite a temporary decrease in claims frequency due to COVID-19 induced lockdowns. Hardening in liability lines became stronger with general liability up 6.8%, and umbrella covers up 20% on account of more "nuclear verdicts" (single plaintiff claims in the tens of millions of dollars driven by outsized non-economic damage awards). D&O rates were also up strongly (16.8%) amid higher securities class actions and cyber related claims. Workers' compensation rates increased for the first time since 2014 (+0.7%).

[30] *Umbrella and D&O Increases In Excess Of 15%, COVID-19 Continued To Impact Market, According To CIAB Market Survey.* CIAB, 24 August 2020.

2020 cat losses contribute to market hardening

Natural catastrophe losses rose steeply in the second half…

After a quiet first half event wise, the combination of hurricane landfalls and other events, and upward revisions to loss estimates, have pushed global catastrophe losses higher. As such, in the year-to-date, we estimate that insured claims have risen to roughly USD 75 billion, already surpassing the USD 63 billion loss total for the full-year 2019. We expect claims to rise further as the fourth quarter unfolds and as loss adjustment is completed.

…mostly due to a high number of hurricane landfalls in the US.

The 2020 North Atlantic hurricane season has seen 28 named storms, making it one of the most active on record, The season has also seen the most named storms to make US landfall in a single year (11). Of those, five were hurricanes, the highest since 2005. Louisiana alone has been battered by five named storm landfalls in a single season, again the highest on record.

The hurricane loss tally will be fully assessed in the remainder of this year.

Despite this, so far insured losses from the current season total just only USD 19 billion. That the figure is not higher is because three of the five hurricane landfalls were in some of the least populated areas along US eastern coast, keeping damage and costs significantly lower than in the peak seasons 2005 and 2017. However, the full insured tally of the hurricane season and other large disasters will take time to be fully assessed, as one of the impacts of the COVID-19 crisis has been a slowdown in claims processing. In addition, some of those storms, in particular Laura and Delta, hit the same regions in quick succession making it difficult to fully ascertain the claims for each.

A number of severe wildfire events in the US will add to the year's loss total.

Since mid-August, after a record-breaking heat wave in western US, more than 800 wildfires have burned in excess of 5 million acres in California, Oregon and Washington State. The National Oceanic and Atmospheric Administration (NOAA) says that is at least three times the annual average of the previous 10 years.[31] At least 17 fires (a record) encroached more densely populated areas, destroying thousands of structures and triggering additional large losses.

[31] *Assessing the US Climate in September 2020*, NOAA, 7 October 2020.

We forecast that non-life sector ROE will decline to 5% by end of 2020.

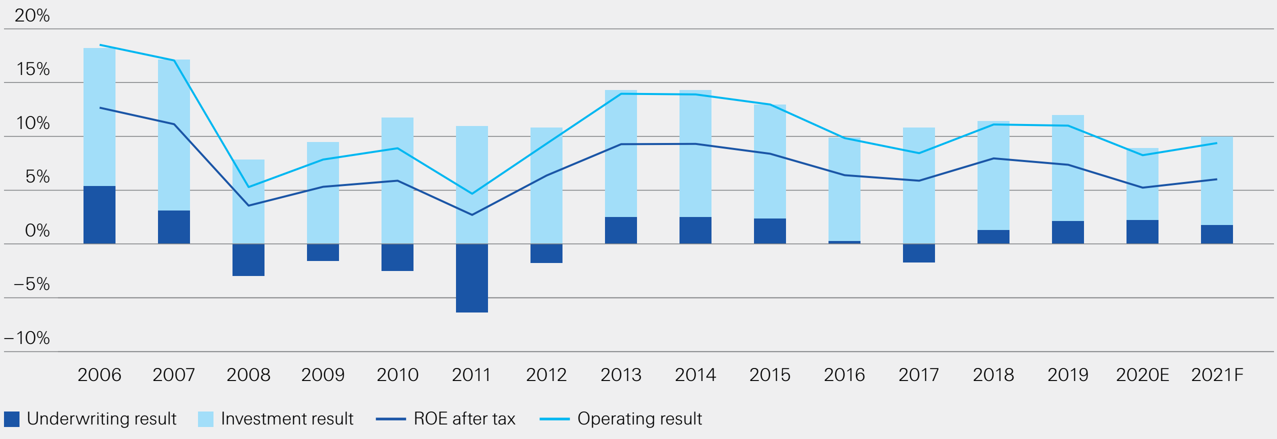
Profitability

We estimate that overall profitability of the non-life insurance sector, measured by return on equity (ROE) will be at 5% in 2020, down from an already low 7% in 2019, mostly driven by lower investment returns. Overall, we expect underwriting results to remain stable or even improve. There will likely be many more claims in (the comparably small segment of) credit & surety, and higher claims in workers compensation for health workers, and, in the US and other Anglo-Saxon countries, additional D&O and medical malpractice claims. Therefore, underwriting results in personal insurance lines will likely improve this year, but there will be deterioration in commercial lines. It remains uncertain what the full-year claims total will be. Swiss Re estimates total market P&C losses will range from USD 50–80 billion (see *COVID-19 related underwriting losses*).

With the low yield environment here to stay, any profitability improvement will depend on improved pricing.

The profitability outlook will remain challenging. More COVID-19 related losses are likely, particularly in casualty, but also in markets where additional government restrictions or even full lockdowns are re-introduced. Among personal lines, increasing competition could put pressure on rates in lines of business that have benefitted from windfall gains due to lower claims frequencies during lockdown. On the flipside, we expect the current hard market in commercial lines to last well into 2021. However, in casualty lines that exhibited just modest price improvements before the background of even lower interest rates and rising claims of recent years, more rate increases are needed. In essence, any improvement in sector-wide profitability will depend on stronger underwriting performance. Investment yields are set to remain low for even longer and, with corporate insolvencies due to rise, credit losses on invested assets could eat into bottom lines. Underwriting results need to improve if there is to be adequate return on capital.

Figure 9
Aggregated performance of eight large non-life insurance markets, 2006–2021



Source: Swiss Re Institute

COVID-19 related underwriting losses

Swiss Re estimate that this year's P&C market COVID-19 related losses will mount to around USD 50–80 billion.

COVID-19 related insurance claims are significant. With the pandemic still ongoing, it remains unclear what the claims total for this year will be. Swiss Re estimates P&C market pandemic losses of USD 50–80 billion. While legal uncertainty remains high in the US and in Europe, some of the worst fears have not come true. In the US, the largest market, court decisions have generally upheld virus exclusion clauses; the majority of cases so far have also held that COVID-19 has no effect on the physical premises of a business, and therefore coverage is not triggered. Attempts at retroactive legislation have also been unsuccessful. On the other hand, the Financial Conduct Authority (FCA) test case in the UK revealed policy wording weaknesses for BI covers where communicable diseases or pandemics are not clearly excluded. Other European countries, including in France, Germany and Switzerland, have experienced similar issues.

The majority of the losses are related to commercial insurance lines of business.

P&C insurance losses due to COVID-19 are almost entirely related to commercial insurance lines of business.[32] The biggest part is BI triggered by communicable diseases clauses and event cancellations. Trade credit insurance will likely also experience significant losses. Leading trade credit insurer Euler Hermes expects a surge in insolvencies between the second half of 2020 and the first half of 2021, to a record high 35% increase between 2019 to 2021.[33] Government backstops in Europe will allow insurers to continue to offer credit insurance capacity at pre-crisis level. There will likely also be significant claims in liability (E&O, D&O, medical malpractice) and workers' compensation for healthcare workers.

Personal lines such as motor and household saw significantly lower claims frequency.

Globally, we estimate that the pandemic will negatively impact the combined ratio in commercial lines by between 5 and 8 ppt in 2020, although unevenly distributed across regions and lines of business. We note too a "positive" impact of COVID-19, at least in terms of underwriting results in some lines of business. The lockdowns imposed to contain the spread of the virus this year have reduced claims frequency in some areas in particular in motor (especially personal auto) and household insurance. Unsurprisingly, the number so of theft claims have been very low.

Underwriting results in the US were stable in the first half of 2020…

According to preliminary results from A.M. Best, US P&C direct premiums written increased by 2% in nominal terms in the first half of 2020, even with widespread premium rebates in motor for lower insured exposures due to stay-at-home orders and government-ordered business closure orders. The underwriting result remained stable at 97.6%. The underlying underwriting result improved by 2.5 ppt, with lower claims in personal auto and better pricing in commercial insurance largely offset by higher claims in commercial lines due to COVID-19.

… and slightly stronger in Europe due to better performance in motor.

On average, the non-life in Europe sector saw stable underwriting performance in the first half of 2020. The combined ratio was slightly stronger than in full-year 2019.[34] Significantly lower claims, notably in motor, offset higher BI losses. In Italy, claims were down 7 ppt, mostly due to the dominant motor business. BI-related claims in France, Germany and the UK prevented improvement in overall market underwriting results. Assuming no further lockdowns, we expect motor claims to normalise and underwriting results to improve in 2021, based on better pricing.

[32] Exceptions are travel insurance which is small and some niche products like burial insurance (only relevant in a few markets) and marriage insurance etc.

[33] *The insolvency time bomb: prepare for a record-high increase in insolvencies, the collateral damage of the Covid-19 crisis*, Euler Hermes, 16 July 2020.

[34] The information is based on an aggregated sample of large European insurers active in Germany, France, the UK, Italy, Spain, Switzerland and the Nordic countries

Insurers in Australia are exposed to BI claims; Japan has seen lower claims frequency.

The largest markets in advanced Asia-Pacific – Australia and Japan – fared differently in the first half. In Australia, the non-life underwriting result weakened by around 5 ppt on higher BI, natural catastrophe and liability claims. There was a rise in motor claims in the first quarter before the lower frequency due to lockdowns set in. In Japan, COVID-19 insurance payments are very limited and on a net basis, the industry profited from significantly lower claims in motor and accident insurance.

In China, liberalisation and fewer car sales have undermined earnings in motor.

In China, underwriting performance remains under pressure, mainly because of liberalisation of the motor insurance sector, which has sparked fierce price competition. Slower car sales growth is also weighing on the sector. Premium growth and profitability developments in non-motor business (40% of non-life premiums) have been positive. Given stated government policy support for particular lines (especially liability and agriculture insurance), a further opening up of China's economy and progress in Belt and Road projects, we expect strong growth in non-motor lines to continue. We forecast average annual growth of 17% in 2020 and 2021. However, with dichotomy between motor and non-motor lines set to continue, overall sector profitability will remain under pressure for a while yet.

Life insurance

Trend growth to resume in 2021

We estimate that global life insurance premiums will contract by 4.5% in real terms in 2020.

We forecast that global life premiums will contract by 4.5% in real terms in 2020. That represents a slight improvement to our June forecast of a 6% contraction, and is based on a stronger-than-expected performance in the US. The still significant decline will result from rising unemployment in this year's COVID-19 induced recession, reduced purchasing power and thus weaker demand, a slowdown in distribution activities due to lockdowns and still low interest rates, which will dent the attractiveness of life insurance as a savings vehicle. We forecast that premiums in the advanced markets will contract by around 5.7% this year, while the emerging market premium growth will stagnate (–0.2%), with positive momentum in China lending support. We expect a rebound in 2021 on economic recovery and increased risk awareness post pandemic, but it is unlikely all this year's losses will be recouped.

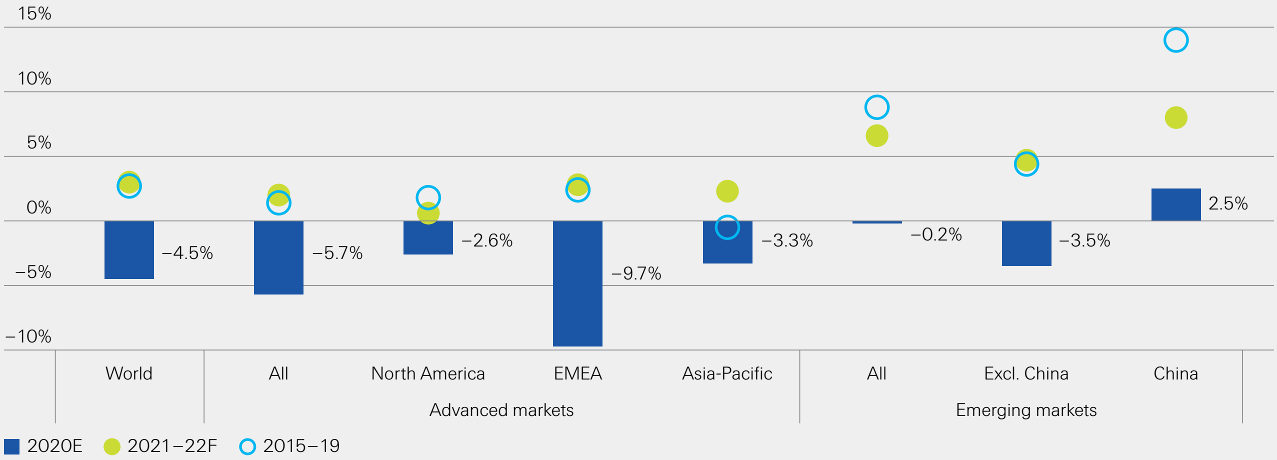
The contraction will be sharpest in advanced EMEA and Oceania.

In North America, we expect a significantly lower real premium contraction (–2.6%) in 2020 compared to the 7.7% contraction we had forecast in June. The revision to our forecast is mainly down to a better-than-expected performance in the US in the first half. Disruptions to distribution due to lockdowns were lower than initially anticipated and rising risk awareness has shored up demand for protection products. In group annuity business, there was unprecedented 37% premium growth in the first quarter y-o-y as funds moved to stable value assets. We expect a slow recovery in 2021 as the high number of COVID-19 cases in the US will continue to depress economic activity and employment. Early indicators suggest that real premiums in advanced EMEA and Oceania will contract sharply this year. With steep recession and because savings business is by far the largest source of sector premium income, we expect life premiums in advanced EMEA to decline by close to 10% in 2020, and return to trend growth of 3.6% in 2021. Ultra-low interest rates will continue to drag on the demand for savings-liked products. In Oceania, we expect real premiums to contract by 19% mainly driven by a sharp decline in investment-linked business in Australia.

China remains the sector's growth engine.

Recovery in emerging markets will follow strengthening in economic activity. In China, increased risk awareness and fast adoption of digital distribution channels will drive premium growth, also at the emerging markets aggregate level. We project that emerging market life premiums will grow by 6.9% in 2021, with 8.5% growth in China (4.7% in the other emerging economies).

Figure 10
Global life insurance premium growth in real terms, actual and forecast (2020 values in brackets)



Source: Swiss Re Institute

It is uncertain what total COVID-19 related L&H claims will be.

With respect to COVID-19, it remains uncertain what this year's ultimate claims burden will be. On the flipside, another effect of the pandemic could be a decline in accident-related claims, with this year's lockdown measures and more people working-from-home having curbed overall mobility.

The impact of low interest rates on investment income is yet to be seen.

Low interest rates are yet to feed through to investment performance. Major global life insurers reported stable investment income in the first half of 2020 compared with the same period last year. Most of the impact came from change in the fair value of investments due to stock market volatility. The impact of low interest rates will only slowly feed through to fixed-income investments. Persistently low interest rates may lead to asset-liability mismatch, threatening the solvency position of life insurers, particularly those with higher exposure to annuities and contracts with guarantees.

Return on equity weakens due to a decline in investment results

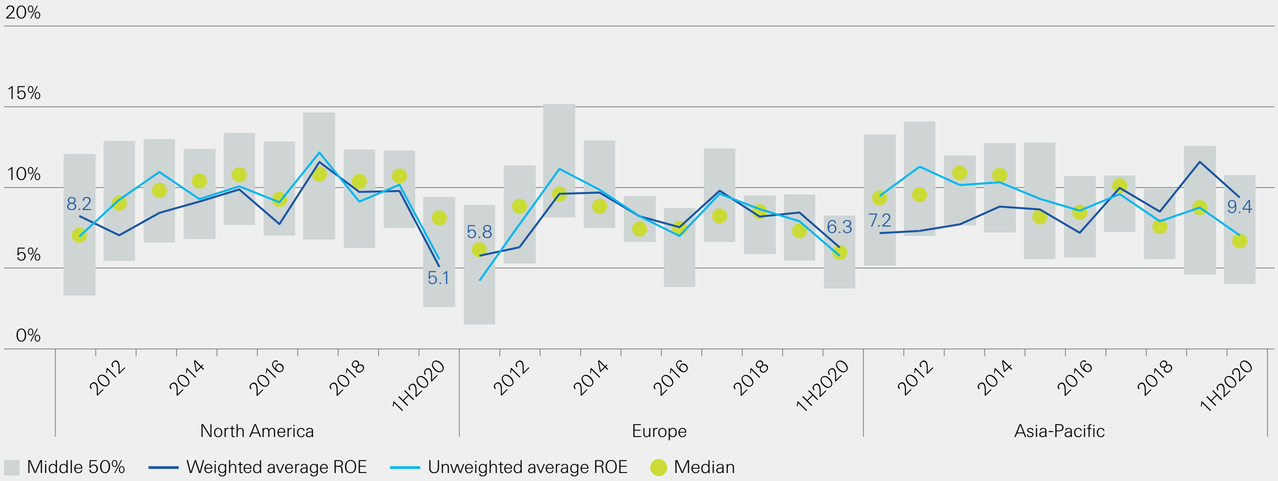
Low in interest rates and financial market volatility will hit sector profitability.

While the impact of COVID-19 related claims on mortality books of in-force business remains uncertain, we believe the central bank policy response to the crisis will impact life insurers' investment results. Realised investment losses due to bond and stock market volatility in the first half of the year have already hit the profitability of major life insurers. The financial market volatility of the first half will weaken full-year investment results and insurer balance sheets, particularly those with exposure to commercial real estate and equities.

We forecast that life sector ROE will decrease significantly, especially in North America.

The life sector ROE decreased 3 ppt to 7.3% in the first half of 2020, mainly driven by lower investment results. Realised investment losses deteriorated overall investment performance. Using part-year data for a sample of 21 North American, 27 European and 27 Asian-Pacific life and composite insurers (stock companies), we estimate that sector ROE will decrease across all regions in 2020, with a particularly large drop in the US (see Figure 11). In North America, the weighted average ROE almost halved to 5.1% in the first half of 2020. Profitability in Europe and Asia will also fall as the weighted average ROE of life insurers dropped 2.2 ppt to 6.3% and 9.4% in Europe and Asia-Pacific, respectively, in the first half. Nevertheless, most companies in our global sample maintain positive ROE and strong capital and liquidity positions.

Figure 11
Return on equity (%) of a sample of life insurers, by region



Note: From a sample of 84 life insurers
Source: Bloomberg, Swiss Re Institute estimates

COVID-19: a catalyst for improved mortality protection?

COVID-19 could strengthen interest in risk protection products.

Risk protection – and mortality coverage in particular – is a core value proposition of life insurance. To date, the market has focused more on saving-type business, with only a relatively small share of sector premiums coming from risk protection solutions. However, the many years of ultra-low interest rates since the GFC have negatively impacted sales of these products, and life insurers have turned to products such as biometric risk instead. This is reflected in the declining share of saving-type products in total life premiums to 81% in 2019, from 86% in 2008.

COVID-19 related fatalities have led to excess mortality in many countries.

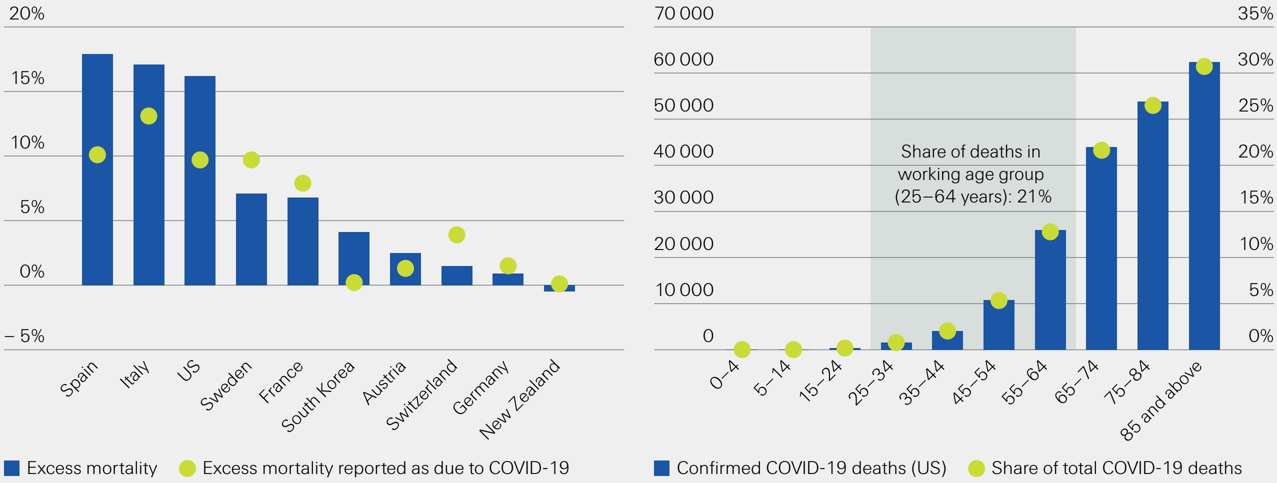
Excess mortality data, which captures the increase in total deaths compared with previous years' averages, reflects the large impact of COVID-19 on mortality (see Figure 12 (LHS)). The analysis is based on the latest available data for 2020. The actual number of COVID-19 related deaths are expected to be higher than the reported numbers due to factors like under-reporting and delay in reporting. In countries where the COVID-19 related deaths exceed total excess deaths, the positive impact of lockdowns and other control measures such as lower motor vehicular deaths has likely resulted in overall lower excess mortality. While pandemic-related deaths are skewed towards the elderly, the working-age population has also been hit. For instance in the US, which to date has the highest number of *recorded* COVID-19 fatalities globally, 21% of the deaths have been among those aged 25–64 (see Figure 12 (RHS)).[35]

Many households still lack financial protection against mortality risk

The Swiss Re Institute Mortality Resilience Index (Mortality I-RI) study showed that 56% of global mortality risk was unprotected pre-COVID 19,[36] translating into a record high mortality protection gap last year of USD 427 billion (see Figure 13). The pandemic may well further reduce household resilience against mortality risk and we expect the global mortality protection gap to increase in 2020 as excess mortality and reduced income levels expose households more to the risk of financial hardship in the event of a premature death of breadwinner(s).

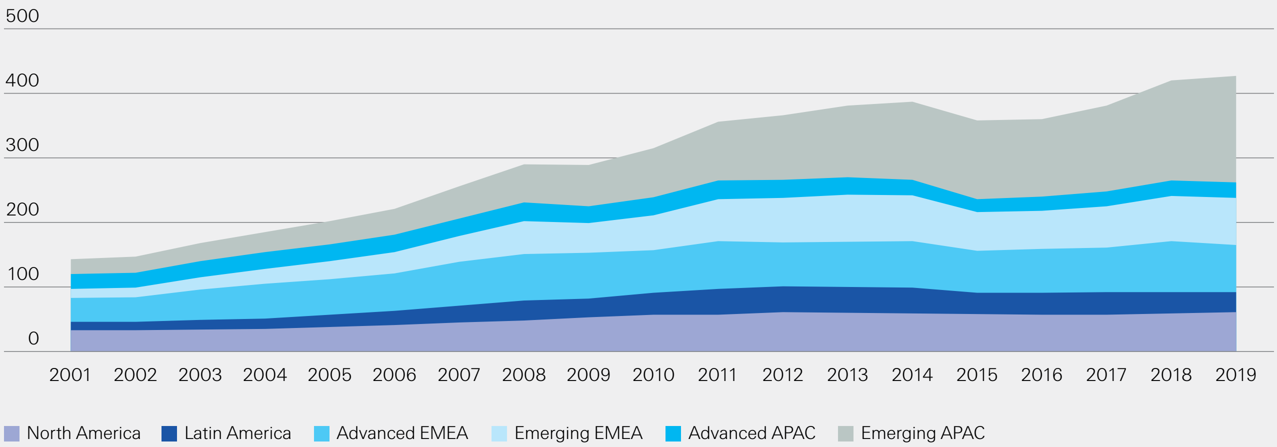
[35] *Provisional COVID-19 death count by week*, US Centers for Disease Control and Prevention, 2020.
[36] More details about the methodology, please see *sigma Resilience Index 2020: global resilience put to the pandemic test*, Swiss Re Institute, 2020

Figure 12
Excess and confirmed COVID-19 mortality rate (LHS) and US COVID-19 deaths by age-group (RHS)



Left: Excess mortality = total deaths in 2020 exceeding average deaths from 2015 to 2019, in %; Excess mortality reported as due to COVID-19 = COVID-19 deaths in 2020 as a % of average deaths from 2015 to 2019; both 1 January to 30 August 2020. Source: Human Mortality Database via Our World in Data; Right: Based on confirmed COVID-19 deaths in the US between 1 February and 10 October 2020. Source: Center for Disease Control and Prevention

Figure 13
Mortality protection gap by region, USD billion



Source: Swiss Re Institute

Longer term, a positive outcome of this year's health crisis could be lower mortality protection gaps.

Longer term, if there is a "bright" spot, we anticipate that COVID-19 will have the effect of raising awareness of the value of risk protection covers, in particular for mortality and healthcare needs. Supporting this optimistic view, a Swiss Re survey conducted after the virus outbreak points to increased intention on the part of consumers to buy related insurance protection.[37] This would help households reduce their financial vulnerability to shock events which will inevitably come to pass again in the future.

[37] Swiss Re COVID-19 Consumer Survey: Financial anxiety, demand for insurance products accelerates across APAC, Swiss Re, 28 April 2020.

Alternative economic and insurance scenarios

Strategic scenario thinking is crucial in times of uncertainty. Our alternative economic scenarios indicate that insurers in the US, Europe and China with long-tail business should watch for interest rate sensitivities under a severe protracted recession scenario, and inflation surprises under a stagflation scenario. In China, insurance market growth will be more exposed to GDP elasticity than in the US and Europe under all scenarios. European insurers with larger life savings businesses will be more sensitive to low interest rates, and US liability insurers more to claims inflation.

Economic scenarios

The economic outlook is uncertain.

Scenario thinking is crucial when high uncertainty in baseline projections makes point forecasts less reliable. In addition to our core outlook, we consider three alternative economic scenarios – one optimistic, two pessimistic – and their implications for the insurance sector in the US, Europe and China. Insurers should consider making contingency plans and prepare for asset and liability portfolio adjustments should one of these alternative scenarios develop.

Our baseline scenario see weak recovery, with some output permanently lost.

Our baseline scenario expects a subdued recovery in 2021 and 2022 after a strong rebound in the third quarter of 2020. Progress towards a COVID-19 vaccine is likely to enable the gradual normalisation of economic activity. Strong fiscal and monetary policy responses have prevented a worse economic and financial market outcome. Despite this we expect a proportion of output to be permanently lost, and do not expect the global economy to return to its previous expansion path. We accord this scenario a 65–70% probability, but uncertainty around this scenario is high.

Importantly, whether a shock is cyclical or structural in nature also depends on the initial starting point of an economy going into a shock. In many cases, temporary shocks can have lasting and structural implications for economies. Since several triggers can occur across different scenarios, evaluating the scenarios and implications should be done in accordance to signposts (see below). Finally, even though, for example, a stagflation scenario is probably more temporary in nature than others, it can materialise through a slow process (eg, cumulative policy choices) rather than only a disruptive trigger (eg, energy crisis).

The three alternative economic scenarios in depth

The optimistic scenario envisages sustained economic recovery supporting risky assets, with rising bond yields.

The most positive scenario ("V-shaped recovery", 15% probability) envisages a ustained growth rebound as pent-up demand returns, fiscal stimulus takes effect and the pandemic is curtailed. Emergency monetary and fiscal stimulus is phased out in the second half of 2021, and central banks start to raise interest rates in 2022. Bond yields rise significantly but are underpinned by sustained recovery in the real economy, so equity markets also perform well. Credit markets are resilient despite some limited rating downgrades and idiosyncratic high-yield defaults.

The most pessimistic scenario envisages a two-year contraction evolving into a credit crisis.

The second alternative is the "severe and protracted global recession" scenario (5% probability). Vaccine set-backs and broad lockdowns in response to high infection numbers push the global economy back into recession in 2021. This evolves into a global credit crisis. The credit sell-off is less severe than during the GFC given strong central bank backstops. Nevertheless, rating downgrades surge and actual defaults exceed GFC levels, predominantly in high-yield bonds. High fiscal deficits are increasingly financed by central banks, which prolong asset purchase programmes and keep interest rates unchanged for years. Bond yields reach new lows.

In stagflation, risky assets perform badly amid rising interest rates.

The third alternative is stagflation (10% probability). The sharp contraction of 2020 turns into economic stagnation. COVID-19 is kept under control but economic recovery is weak. The policy response is less effective at preventing rising credit defaults and a large structural increase in unemployment than in the baseline view. Government funding needs dominate monetary policy ("fiscal dominance"). Supply-chain disruptions and fiscal and monetary easing lead to inflation, and interest rate rises are too late to prevent years of high inflation. Bond yields rise over time and risky assets sell off in a negative feedback loop between rising infection numbers, economic stagnation and volatile financial markets.

Table 5
Economic and financial market assumptions under alternative scenarios

Country		Optimistic			Pessimistic – severe and protracted recession			Pessimistic – stagflation		
		2020	2021	2022	2020	2021	2022	2020	2021	2022
Real GDP	US	–5.4	7.2	3.4	–8.4	–1.5	0.7	–6.4	2	0.7
	Euro area	–6.5	7.8	2.5	–10.5	–0.9	0.5	–7.5	2.5	0.5
	China	3.7	9	5.8	0.7	1.3	4.1	2.7	5	4.1
Inflation	US	0.7	1.8	2.5	0.2	0.8	1.7	0.9	2.1	3.6
	Euro area	0.2	1.1	1	–0.4	0.6	0.6	0.4	1.3	2
	China	2.3	2.7	2.7	1.9	1.7	2.2	4.1	4.6	6.4
10-year yield	US	1	1.3	2.6	0.1	0.2	0.3	1	1.5	3.7
	Euro area	–0.4	–0.1	1	–0.8	–0.6	–0.5	–0.4	0.5	2.9
	China	2.8	2.9	4	1.1	1.5	1.3	2.8	3.2	4.6
Risk assets	USD IG, bps	130	85	80	150	270	230	130	170	210
	USD HY, bps	605	430	330	655	1105	1005	605	680	855
	US equities, %	6	15	10	1	–30	10	6	–5	–10

Source: Swiss Re Institute

For scenario thinking to be effective, alternative economic scenarios are complemented with "signposts" – the indicators that a scenario is emerging. These act as early signals of the direction of travel. Figure 14 shows the conceptual approach to recognising and monitoring each of our alternative scenarios.

Figure 14
Alternative scenarios and triggers, signposts and structural changes to watch out for

	Optimistic	Pessimistic: Severe and protracted recession	Pessimistic: Stagflation
Triggers	▪ Approvals of effective vaccines in early 2021, improved treatments ▪ Structural reform drive ▪ Crisis as catalyst for increased cooperation (across countries, institutions, public and private sectors) ▪ Growth boost from "green energy" investments	▪ Vaccine set-backs and/or virus mutations that make it more infectious and more lethal at the same time; on and off broad-based lockdowns ▪ Global credit crisis ▪ Regional conflict (eg, in South China Sea) ▪ Severe social unrest	▪ Vaccine set-backs, on and off regional lockdowns ▪ Loss of central bank independence, "mission creep" ▪ Public policy responses ineffective at preventing defaults/bankruptcies ▪ Government funding needs dominate monetary policy ("fiscal dominance") ▪ Escalation of trade war ▪ Supply chain disruption ▪ Energy crisis ▪ Social unrest leading to massive redistribution policies
Structural changes	▪ Productivity boost from increased digitalisation	▪ Low productivity growth ▪ Sustained increase in inequality ▪ Increased role of government ▪ Reversal of globalisation	▪ Reversal in globalisation hampers productivity and increases price pressures ▪ Sustained increase in inequality ▪ Reversal of globalisation
Cyclical signposts	▪ High ability/willingness of governments and central banks to provide additional support ▪ Quick labour market recovery ▪ Sustainable rebound of corporate earning ▪ Sentiment indicators	▪ Severely constrained ability of governments and central banks to do more (monetary and fiscal space); little policy effectiveness ▪ Persistently-elevated unemployment ▪ Systemic market stress, sharp tightening in financial conditions and market liquidity, increasing defaults ▪ Business bankruptcies, zombification of firms ▪ House price collapse ▪ Sentiment indicators	▪ Monetary policy framework changes (eg, higher inflation targets, helicopter money) ▪ Persistently elevated unemployment ▪ Systemic market stress, sharp tightening in financial conditions and market liquidity, increasing defaults ▪ Fiscal policy mix, with more inflationary transfers than, for example, infrastructure spending ▪ Reversal in stock bond correlation ▪ Sentiment indicators

Note: The triggers listed are meant to illustrate how scenario narratives could develop. The list of triggers is not exhaustive and can come into play both independently and in different combinations at the same time. Source: Swiss Re Institute

…and insurance market implications

Insurers should watch for interest rate and inflation surprises for long-tail business…

Table 6 illustrates the impact of the three alternative economic scenarios on the insurance sector's premium recovery paths, claims trends and profitability. In the optimistic scenario, premium growth and investment returns would be stronger than the baseline. Commercial lines would benefit most from improved economic activities, and life business from lower the lapse rates. Higher interest rates as well as strong capital markets would improve investment returns. The severe and protracted recession scenario would serve a double blow to premium revenues, with a deeper contraction in 2020 and a weaker recovery in 2021 and 2022. Non-life long-tail lines would benefit from lower claims severity in a disinflationary environment. For life business, saving products with guarantees and duration mismatch would see a stronger hit on profitability than unit-linked business, where the asset risk is borne by the policyholder.

The stagflation scenario would bring a weaker recovery in premium revenues in 2021 and 2022. Long-tailed non-life business would be more sensitive to claims inflation. On the other hand, in-force life savings products with guarantees would see improved profitability from higher interest rates.

……and make strategic reactions and portfolio adjustments to macro scenarios.

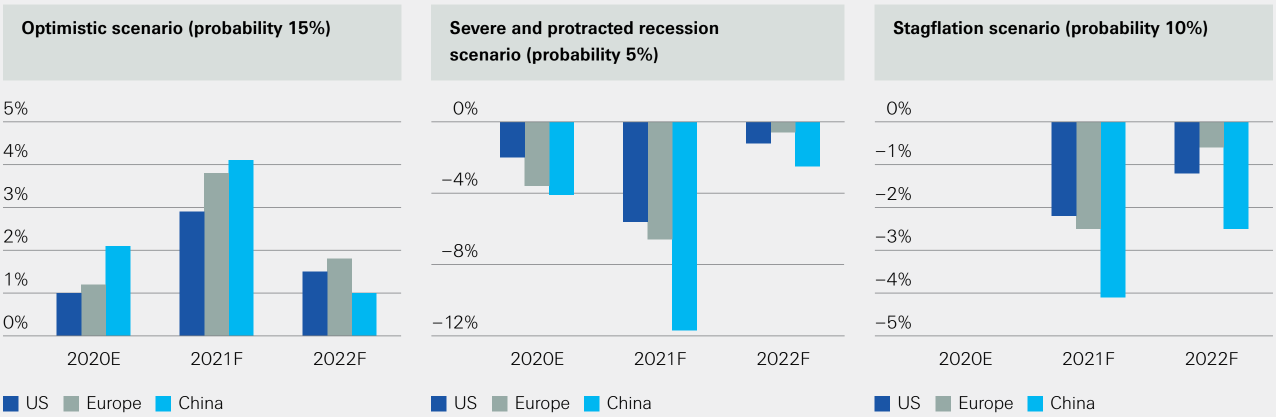
Figure 15 quantifies the sensitivity of insurance premium growth to GDP under the three alternative economic scenarios in key markets. Key takeaways for insurers' growth and profitability are:

- **China: premium growth more exposed to upside or downside risk** than the other markets under all scenarios, due to the economy's relatively higher GDP elasticity.

- **Europe: insurers face interest rate sensitivity** due to their larger life savings business (about 90% share), rigid long-term guarantees and duration mismatches. They will be more exposed to low interest rates than US insurers (80% share) and China (70% share) and to reinvestment risk.

- **US: greater inflation sensitivity may create claims pressure**, as the relatively large US commercial liability sector, and specific litigation system and culture, make insurers more sensitive to claims inflation. However, consumer price inflation (CPI) is not the only driver of claims inflation; other important factors include medical and social inflation. For instance, in the early 1990s, US liability claims inflation was lower than CPI.

Figure 15
Change in direct insurance market premium growth vs baseline (percentage points)



Note: assumes five-year average premium income elasticity (2015–2019), analysis based on non-life and traditional life business.
Source: Swiss Re Institute

Table 6
Impact of alternative economic scenarios on insurers' profitability.

	Optimistic	Severe and protracted recession	Stagflation
Premium growth			
Non-life			
Property	Positive	Negative	Moderately negative
Casualty	Positive	Negative	Moderately negative
Trade credit	Positive	Negative	Negative
Life			
In-force			
Protection	Positive	Moderately negative	Moderately negative
Life savings, guarantees	Moderately positive	Moderately negative	Negative
Life savings, unit linked	Positive	Negative	Negative
New business			
Protection	Positive	Moderately negative	Moderately negative
Life savings, guarantees	Moderately positive	Negative	Moderately negative
Life savings, unit linked	Positive	Negative	Negative
Profitability excluding general investment returns			
Non-life			
Property	Neutral	Neutral	Neutral
Casualty	Moderately negative	Moderately positive	Negative
Trade credit	Positive	Negative	Negative
Life			
In-force			
Protection	Moderately positive	Moderately negative	Moderately negative
Life savings, guarantees	Neutral	Negative	Moderately positive
Life savings, unit linked	Moderately positive	Moderately negative	Moderately negative
New business			
Protection	Neutral	Neutral	Neutral
Life savings, guarantees	Moderately positive	Moderately negative	Neutral
Life savings, unit linked	Neutral	Neutral	Neutral
Investment returns	Positive	Negative	Moderately negative

Negative | Moderately negative | Neutral | Moderately positive | Positive

Source: Swiss Re Institute

How low interest rates impact non-life profitability

Before COVID-19, most major markets had already been in a prolonged phase of below-average profitability, reflecting soft underwriting conditions, weak investment performance and a high level of capital funds. For last year, we estimate that non-life insurers in the G7 markets would have needed to improve their underwriting margin by 6 to 9 percentage points (ppt) to achieve long-run ROE expectations. With the current further drop in interest rates, we estimate that the sector's profitability gap will widen by another 1–3 ppt to 7–11% of premiums earned through 2021.

Non-life insurers' long-tail business are highly sensitive to interest rate movements.

Non-life insurers are generally less sensitive to interest rate changes than their L&H peers, given a low share of multi-year contracts in their policy portfolios and the absence of product guarantees. Nevertheless, investment income on invested cash flows, which for long-tail lines can remain on the balance sheet for a couple of years, is an integral part of the business model. Non-life insurers' yields on asset portfolios have fallen since the GFC, putting pressure on profitability. At the same time, soft market conditions have left insurers with little pricing power to offset lower investment returns, even before the COVID-19 crisis set in. Pre-GFC total yields in most G7 markets were in the 4–6% range; by 2019, earned yields had fallen to 2% to 4% (see Figure 16 (LHS)).

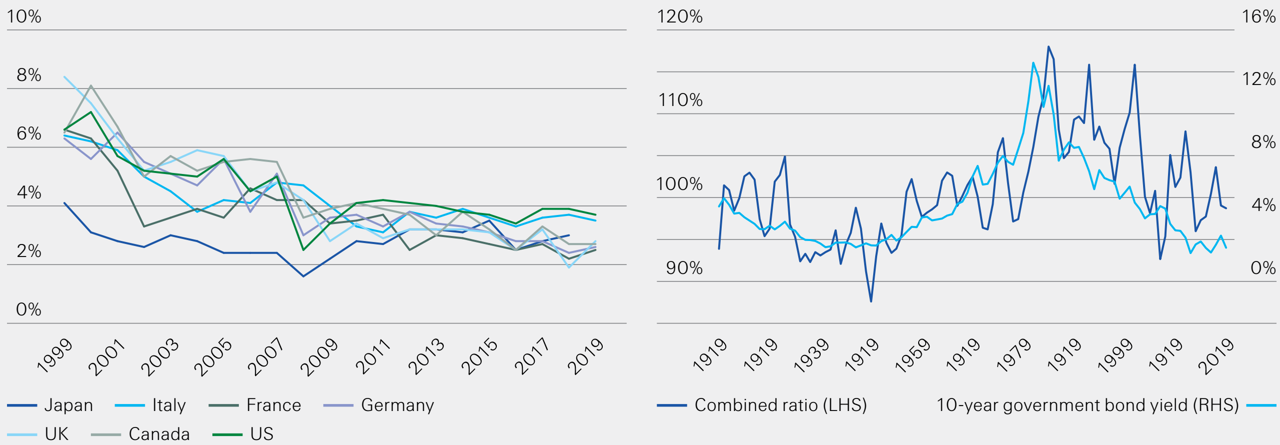
Investment income on underwriting cash flows is integral to non-life rate calculations.

Accordingly, pricing for non-life products considers the time value of money. Non-life insurers hold technical reserves for two reasons: (1) premiums are payable in advance at the start of each duration covered by a policy, meaning that insurers typically hold funds for a period of time before an insured event occurs; and (2) there tends to be a time-lag between occurrence of an insured event and actual claims payment. For claims with long settlement periods, the investment of underwriting cash-flows between occurrence and settlement are more exposed to interest rate risk. On average, premiums for US long-tail lines like general liability, medical malpractice and workers' compensation are invested for about three to four years.

Interest rates and non-life underwriting performance are inversely correlated over the long run.

Empirical analysis across the major markets shows a strong long-term relationship between the combined ratio in non-life insurance and nominal interest rates. During periods of lower rates, weaker investment returns need to be offset by better underwriting results. Over the past 100 years, the correlation between the US non-life insurers' (stock companies) combined ratio and lagged government bond yields has been about 70% (see Figure 16 (RHS)). However, the relevance of these interactions becomes very small when looking at short-term (quarterly or annual) changes in interest rates and the impact on combined ratios.

Figure 16
Total investment yield* (LHS), and long-term relationship between interest rates and combined ratio (RHS)



Note:* Based on statutory data.
Total investment yields include realised capital gains.
Source: Swiss Re Institute

Note: Values show US stock non-life insurers' combined ratio and 10-year government bond yield.
Source: A.M. Best, Datastream, Swiss Re Institute

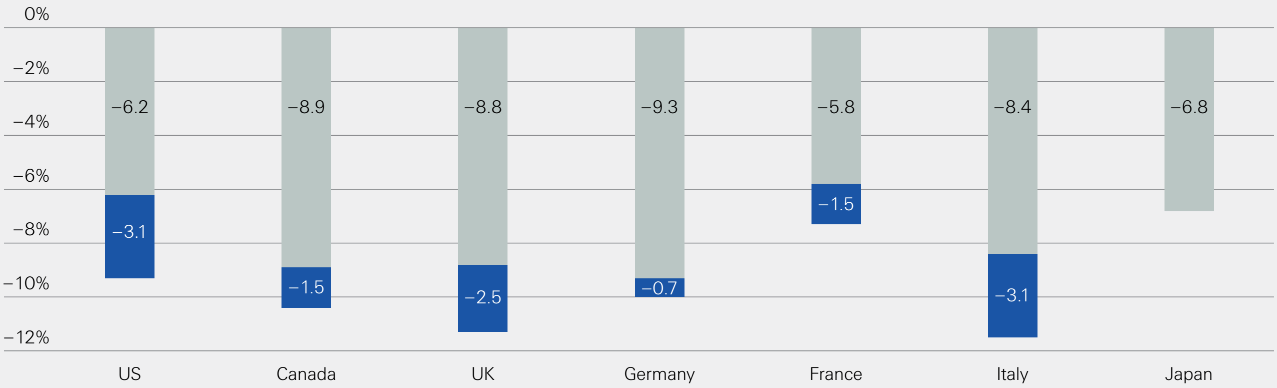
To meet targets ROEs, underwriting results in major markets need to improve by 6–9 ppt in 2019.

Before COVID-19, most major markets had already been in a prolonged phase of below-average profitability. In the last decade, the average ROE of the G7 markets has been relatively low at around 7%, reflecting a period of soft underwriting cycle, weak investment performance, and the high level of capital funds. For 2019, we estimate that G7 non-life insurers would have needed to improve their underwriting margin by 6 to 9 ppt after adjusting for cat losses and reserves releases, to achieve long-run ROE expectations. This is equivalent to points of combined ratio improvement needed.

We project interest rates to fall further in 2021, and the profitability gap will widen by another 1–3 ppt to 7–11%.

We expect that interest rates will fall further. To provide a forward-looking view of profitability for next year, we re-ran the simulation by lowering the investment yield by the same amount as the estimated drop in 10-year government bond yields. The profitability gap (points of combined ratio improvement needed) widens by another 1 to 3 ppt, based on the predicted lower market rates through 2021 and current leverage in the markets' balance sheets. Estimated profitability gaps widen to 7–11% of premiums earned. The largest gaps are in Italy and the UK, and the lowest gaps in Japan and France (see Figure 17).[38]

Figure 17
Estimation of the 2019 non-life profitability gap (light blue), and sensitivity to lower interest rates through 2021 (dark blue)



Note: Underwriting profitability gaps in major markets (as % of net premiums). RoE targets are set to approximate long-term average returns, adjusted for outliers from extreme cat events and the GFC.
Source: Swiss Re Institute

[38] For details of the calculation and assumptions, please see *Lower for even longer: what doe low interest rate economy mean for insurers?* September 2020, Swiss Re Institute

How low interest rates impact non-life profitability

More rate increases in excess of claims tends will be needed to achieve sustainable improvement in profitability to cope with ultra-low interest rates.

Most non-life policies are annual and can be re-priced every year, which in theory allows for mitigation of the impact of low interest rates. However, premium rates are determined by supply and demand, and are thus dependent on the underwriting cycle and structural factors such as rate regulation or competition from alternative capital. In the recent competitive environment, insurers' pricing power has been limited, and they were not able to sufficiently offset low interest rates pre COVID-19. Even with recent rate hardening in commercial lines, our analysis suggests more hardening is needed offset the effect of low interest rates. Capital optimisation is also part of improving profitability.

Capital optimisation via reinsurance to shorten the duration of insurers' portfolios can also improve profitability.

Raising rates is the main variable to correct for current and future shortfalls in profitability caused by low interest rates. Beyond premium rates, there is little scope for product re-design to deal with changing interest rates. The duration of long-tail liabilities is inherent in the underlying risks insured and not a function of product design. However, insurers can shorten the duration of the portfolio of reserves they hold via reinsurance.

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Swiss Re Management Ltd
Swiss Re Institute
Mythenquai 50/60
P.O. Box
8022 Zurich
Switzerland

Telephone +41 43 285 2551
Email institute@swissre.com

Authors
Lucia Bevere
Irina Fan
Astrid Frey
Fiona Gillespie
Dr Anja Grujovic
Dr Thomas Holzheu
Roman Lechner
Patrick Saner
Rajeev Sharan
Daniel Staib
Olga Tschekassin

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sigma editors
Alison Browning
Paul Ronke

Managing editor
Dr Jerome Jean Haegeli
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Swiss Re Management Ltd.
Swiss Re Institute
Mythenquai 50/60
P.O. Box
8022 Zurich
Switzerland

Telephone + 41 43 285 2551
swissre.com/institute