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The era of sustainability and insurance

Allianz Research

A decisive decade

Allianz Global Insurance Report 2022

Executive Summary



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- Strong economic tailwinds, rising risk awareness and record-high savings buoyed by booming markets made 2021 a good year for the insurance industry. Insurers worldwide collected almost EUR4.2trn in premiums, 5.1% more than the year before (life: +4.4%; p&c: +6.3%). But what made 2021 really remarkable is the composition of premium growth: More than two-thirds were generated in Western Europe and North America, with the US market alone accounting for half of the increase. This is testament to the extraordinary recovery of the US economy after the Covid-19 crisis. Thus, 2021 represents an unusual end to the past decade in which global premium growth was much lower (+3.6% per year on average) and driven by Asia, which accounted for 40% of all additional premiums, more than half of them written in China. As a consequence, China's global market share doubled to 12%.
- 2022 was expected to be another bumper year for the insurance industry, but the invasion of Ukraine has dashed those hopes. Premium income is likely to grow by roughly 1pp slower than originally assumed as the war takes its toll on economic activity and confidence, even as inflation supports the top line. Overall, we now expect global premium income to grow by +4.8% in 2022, with life and p&c developing almost in step (+4.9% and +4.6% respectively). This figure must be considered against the backdrop of a global inflation rate of 6.2% this year.
- The Ukraine war will have far-reaching consequences for the global risk landscape. As the global division of labor is reorganized, the role of emerging markets is likely to shrink: The era of the emerging global middle class as a reliable growth driver might be over. On the other hand, the reconfiguration of international supply chains offers new opportunities as this process, at its core, is nothing but "applied risk management" the core competence of insurers. It will accelerate the shift from a pure product logic to a more service-oriented business model.
- Despite the great uncertainties today, we are not too pessimistic about the more distant future. After all, these uncertainties are precisely the breeding ground for rising risk awareness; they reinforce the impact of the two megatrends of climate and demographic change, which will continue to be the main drivers of demand for risk protection. Overall, we expect annual growth of +4.8% over the next 10 years (life: +4.9%; p&c: +4.6%). This corresponds to an increase in premium income by +67% or EUR2.8trn by 2032, of which just under EUR1.8trn will be generated by the life segment (+69%) and just over EUR1trn by the p&c segment (+63%).

- In the life business, demographic change is likely to be the decisive growth driver. This applies for both advanced and emerging markets: Unrelenting aging and social change combined with rising public debt and often inadequate social security systems speak loudly for the need to increase individual provisions. This development is likely to benefit from two crisis-related developments in the coming years: increased risk awareness in the wake of the Covid 19 crisis, and the inflation-triggered end of zero interest rates, which should make many savings and pension products more attractive again.
- In the p&c business, climate change is the main topic in two respects. First, extreme weather events will increase in the coming years, driving claims and premiums higher. On the other hand, climate-mitigation efforts will intensify, first and foremost the decarbonization of energy supply, even more important now amid the Ukraine war and the resulting quest for energy independence. This requires major investments from both the private and public sectors and creates a high need for risk protection as new risks will emerge with this radical transformation of our economy.
- Although the growth gaps between emerging and advanced markets will narrow reflecting the moderate recovery of life markets in Western Europe and Japan as well as diminished growth prospects in China the global insurance market will continue to shift in favor of the former. For example, China's share will increase from 12% to 15%, while the rest of Asia (excluding Japan) is expected to reach a share of just under 17% (2021: 12.2%). Around 42% of new premiums will be written in Asia (excluding Japan), half of which is likely to come from China alone. As a result, anyone looking for growth in the 2020s will still have to turn to Asia.
- All in all, does this mean good prospects lie ahead for the insurance industry? Yes, but with one important caveat: only if it succeeds in maintaining its economic and social relevance. The upcoming upheavals will give birth to new risks, for instance risks related to data protection, new green technologies or Al and climate liability. So there will hardly be a lack of demand for protection and prevention. However, the industry is called upon to offer solutions for these risks so that they do not remain uninsurable or have to be assumed willy-nilly by the state. The question of insurability and closely related: affordability is likely to become increasingly urgent in the coming years, not least with regard to natural hazards. This requires a level of creativity and collaboration with customers and governments that goes beyond previous efforts.
- The insurance industry is facing radical transformation. To paraphrase Giuseppe Tomasi di Lampedusa: The industry has to change if it wants to stay relevant. For this, the industry must move beyond pricing and transferring risk to changing outcomes. It needs to actively reduce risk in the system by impact underwriting and investing, and thus leading the pivot to sustainability.



The crisis year 2020 left a clear dent in the development of global premium income (p&c and life). The year on year growth was a meagre +0.3%, but despite all the adversities associated with Covid-19, it was still in positive territory, thanks to the non-life business. While the life segment declined by -1.3%, the p&c segment still managed to clock moderate growth of +2.8%. In 2021, the global insurance industry emerged from the second year of the pandemic with a strong recovery: insurers worldwide collected almost EUR4.2trn in premiums, 5.1% more than the year before. In 50 of the 61 countries surveyed, the total premium volume at the end of last year was already above the level of 2019; at the global level, the growth adds up to +5.5%.

Figure 1 depicts the growth dynamic in 2021 by region and line of business. Both lines of business contributed to the strong recovery of the overall market, with premium income for non-life insurance products growing much faster at +6.3% than life insurance products (+4.4%). However, the growth of the overall market depends to a greater extent on the life segment as this generates around 60% of total premium income.

The upswing in the life insurance business was driven by all regions, even if significant differences became apparent. The largest contribution to growth came from North America, or more precisely the US alone: In the US, where just under 27% of global life insurance premiums were written, our projections suggest a strong increase of almost +9%. The markets of Western Europe, which together generated almost 30% of the global premium volume, also grew by a +3.8%. Within the region, however, the development was anything but homogeneous. For instance, while double-digit growth rates were observed in Italy (+12.5%), Greece (+13.8%) and Portugal (68.5%), the life insurance market in France (-0.5%) shrank for the second year in a row. Germany also reported a decline of -1.4% after only meagre growth +0.4% in the previous vear.

With a growth rate of only +0.9%, the development of the Asian life insurance market was significantly weaker than the global average. As in Western Europe, there were significant differences within the region. The weak growth last year was mainly due to China, the world's second-largest life insurance market: In the Middle Kingdom,

where almost 35% of the regional or nearly 13% of the global premium volume was written, the market even shrank by -1.7% last year. The premium decline is mainly due to stricter regulation, i.e. the data of failed insurance companies no longer being included in the statistics. Underlying growth seemed to be closer to +4%, which admittedly – is also rather weak for the Chinese market. Besides China, negative growth rates were also recorded in Hong Kong (-1.3%), South Korea (-0.6%) and Taiwan (-8.9%). These four countries account for almost 24% of regional premium income. In Japan, on the other hand, the insurance association reported a robust premium increase of +2.9% after two years of declining premium income. All other countries in the region achieved total premium growth of +12%, with the strong development in Singapore (+21.5%) being particularly significant. India, another potential heavyweight in the region, also recorded an above-average increase of nearly +15%.

All other insurance markets (rest of the world, global market share of 4.2%) recorded growth of +12.7% in the life segment. This was mainly driven by strong increases in Latin America (+13.9%) and the Middle East & Africa (+18.9%), which account for around 29% and 42%, respectively, of this group of countries.

In the property insurance business, too, all regions made a positive contribution to global premium growth in 2021. As in the life segment, the US is at the top of the list: With almost EUR685bn, more than two-fifths of global premiums were written there alone in 2021, an estimated increase of almost +10% over the previous year. According to our projections, insurers in Western Europe enjoyed positive growth rates in all countries. Overall, the industry wrote 3.3% more business in the region than in the previous year. The development in Greece (+5.7%) and Austria (+4.7%), for example, was clearly above average, while larger markets such as Germany (+2.4%), Italy (+2.6%) and Spain (+2.7%) were below the regional average. Western Europe accounted for just under 24% of global premium volume at the end of 2021.

Asia's non-life insurance premiums grew by +1.7% last year, which was faster than the growth in premiums for life insurance products, but also significantly below the global average. Here, too, the weak performance is mainly due to the negative development in China (-1.7%). In addition, Japan, where premium volume almost stagnated (+0.2%), pushed down the regional average growth. If we look at the Asian region without these two countries, we see an increase of almost +8%. As for the life insurance business,



Figure 1: Gross written premium growth*, 2021 by region in %

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^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates.

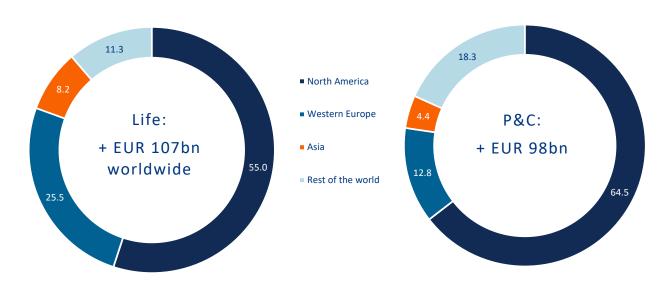
Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

India's non-life insurance premium growth was far above the average at around +15%. And even Hong Kong (+5.8%), South Korea (+6.4%) and Taiwan (+8.7%) reported above-average growth rates for property insurance premiums in a regional comparison.

All other insurance markets (rest of the world, global market share of 8.9%) recorded growth of +13.9% in the p&c segment. This was mainly driven by strong increases in Eastern Europe (+9.5%) and Latin America (+19.7%), which account for around 28% and 30%, respectively, of this group of countries.

Overall, insurers wrote over EUR205bn more in premiums in 2021 than in the previous year (life: just under EUR107bn; non-life: around EUR98bn). In both segments, the majority of the increase was attributable to the mature markets: North America and Western Europe alone generated more than three quarters of the absolute growth in the non-life segment and even around four-fifths in the life segment (see Figure 2).

Figure 2: Share of absolute premium growth* by region, 2021 in %



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates.

 $\textbf{Sources:} \ \text{National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz \ Research$

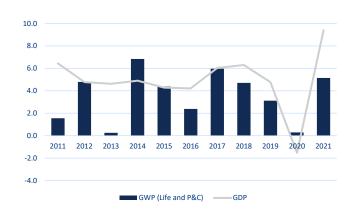
Compared to the past decade, 2021 was an exceptionally strong year for the insurance industry. From 2011 to 2021, global premium volume grew by an average of +3.6% annually – meaning that last year's growth rate beat the long-term average by a whopping 1.6pp. With a growth difference of 1.7pp, the gap in the life segment was even greater than in the non-life segment (1.4 pp.). However, this fits into the long-term picture as life insurance markets also grew more slowly than non-life insurance markets last year. While premium income in the non-life segment grew by an average of +5.0% per year, premium volume in the life segment grew by an average of only +2.8%. The persistent low interest rate environment discouraged savers from investing in long-term asset classes, resulting in lackluster demand for life insurance products. The willingness to take out life insurance was particularly low in the mature markets of Western Europe (+1.1%), where long-term average growth more than halved compared to the previous decade (+2.3%).

The property insurance line proved to be significantly more stable over the long term. In general, we see that the demand for property insurance products moves with the development of economic performance. Thus, the relatively stable economic environment (until the outbreak of Covid-19) ensured an increasing demand for property insurance products. In contrast to life insurance, long-term average growth even increased slightly compared to the previous decade (+4.7%).

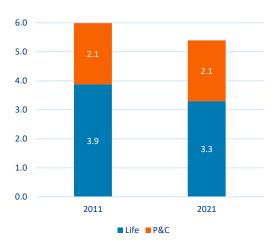
However, a comparison of global premium growth (life and non-life) with the growth in global economic output over the past decade shows that the insurance industry has not been able to keep pace with economic development. While aggregate gross domestic product grew by an average of +4.9% p.a. from 2011 to 2021, global premium volume grew 1.3pp slower on average over the same period. For insurance penetration, i.e. the ratio of premium income to nominal economic output, this results in a decline from 5.9% in 2011 to 5.4% in 2021; this decline is entirely due to the development in the life segment. Overall, the global insurance industry is thus a "mature" industry, with an income elasticity of demand for insurance of less than 1 on a global scale (see Figure 3).

Figure 3: Premium growth behind GDP growth

Global gross written premiums* and nominal GDP growth* (y/y, in %)



Global gross written premiums* as % of GDP



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates

Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

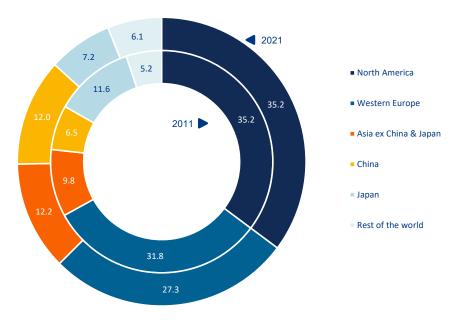
These different increases over the last decade are reflected in changing global market shares. A look at the regional distribution of the global premium volume shows that the weights have shifted noticeably in the course of the last decade. The rise of the emerging markets, first and foremost China, has meant that the share of more mature markets such as Western Europe and Japan in the global insurance business is significantly lower today than it was in 2011. While insurers were still writing around 44% of global premiums in these markets at that time, it was almost 10pp less at 34.5% at the end of last year. Remarkably, the US, the largest insurance market in the world, was able to defend its market share. On the other hand, China's share of global premium income alone almost doubled in this period to 12%. Overall, Western Europe, North America and the entire Asian region accounted for 94% of premiums at the end of 2021 (see Figure 4).

In absolute terms, global premium income increased by a total of around EUR1.34trn in the period from 2011 to 2021 (life: around EUR654bn; non-life: just under EUR688bn). In contrast to the situation last year, emerging economies played a more significant role in the long term: In the life segment, almost 60% of the additional premiums were written in the growth markets, half of them in China alone. With regard to the non-life insurance business, almost two-fifths of the global increase in premiums was attributable to the emerging markets, and slightly less than half of that to the Middle Kingdom (see Figure 5).

12%

China's share of global premium income doubled since 2011 to 12%

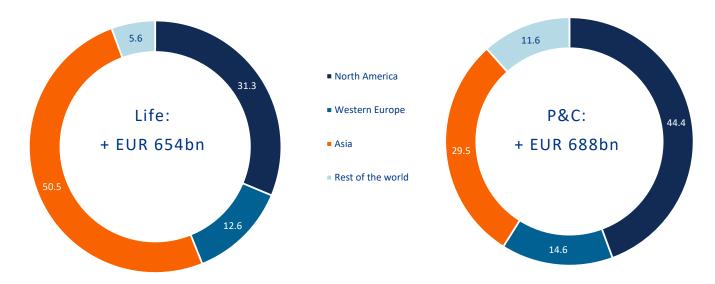




^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates

Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

Figure 5: Share of absolute premium growth by region, 2011 - 2021 in %



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates

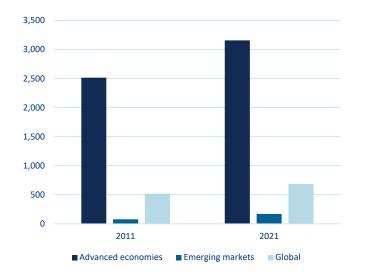
Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

Although the catching-up process of the emerging economies has already led to significant changes on the premium map, the differences in per capita expenditure on insurance products are still huge. At just under EUR3,160, premiums per capita in the industrialized countries at the end of 2021 were almost 19 times as high as that of emerging markets (around EUR170). At the beginning of the decade, however, the factor was still 33. For the global

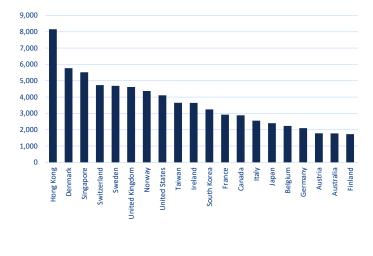
average, per capita expenditure was calculated at around EUR410 for life insurance and a good EUR270 for non-life insurance products, ranging in 2021 from EUR7 per capita in Nigeria to around EUR8,150 in Hong Kong, which benefits strongly from its status as off-shore market for mainland Chinese customers (see Figure 6).

Figure 6: Global gross written premiums* per capita (total, in EUR)

Still significant differences btw. advanced and emerging markets



The 20 countries with the highest premium income per capita 2021 $\,$



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates

Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

Decomposition of growth

Premium income for non-life insurance products from private customer businesses in the Eurozone has grown by more than +60% to around EUR165bn over the past 20 years. At around EUR50bn, almost four-fifths of this increase was attributable to the four largest markets in the region: Germany (EUR16.9bn), France (EUR20.9bn), Italy (EUR3.5bn) and Spain (EUR9.2bn). The French non-life insurance market, which almost doubled during this period, is at the top of the list. Premium growth in Spain was also above average at around +86%, while Germany (just under +51%) and Italy (a good +19%) were below the regional average.

However, these values "only" reflect the nominal development. Last year, inflation was already a major concern worldwide - and that was before the war in Ukraine. Against the background of galloping price increases, it is therefore worth taking a look back: What proportion of market growth has been down to inflation over the past 20 years? For our analysis, we use the inflation rate for expenses for insurance policies⁹ recorded by Eurostat as part of the harmonized consumer price index.

On average over the long term, insurance inflation in the Eurozone has moved in line with the general inflation rate (1.7% in each case), although in some years there have been significant differences. At the country level, no uniform pattern emerges: Unlike in Germany, where insurance inflation was even 0.7pp below the overall consumer price index, it was higher in Spain (+1 pp.), France (+0.5 pp.) and Italy (+0.3 pp.). Accordingly, the annual insurance inflation rates over the period considered add up to +39% in Italy, around +40% in France and just under +58% in Spain. Germany, with +17%, pushes the regional average down to a good +33% (see Figure 7).

In Italy, the overall weak market development led to an average insurance inflation that was twice as high as the premium growth itself. In other words, the Italian retail p&c market has shrunk over the last two decades in real terms. The Spanish insurance market, on the other hand, recorded above-average growth rates, but here it was the noticeably higher inflation that led to around two-thirds of the market growth being attributable to price increases alone. In France, which had the highest market growth in a country comparison, 41% of the premium increase was fed by price increases. Although the insurance market in Germany grew at a below-average rate in a regional comparison, the inflation rate, which was also below average, meant that "only" a good third of the market growth was driven by inflation. That means that the real growth of the German market (+33.6%) was even higher than in Spain (+28.5%) and also above the Eurozone average (+29.2%) since 2001.

In other words, more than half of the (nominal) premium growth in the Eurozone over the past 20 years was driven by insurance inflation alone. Almost EUR30bn of the additional premiums written in the Eurozone from 2002 to 2021 was due to volume growth and almost EUR34bn to price growth.

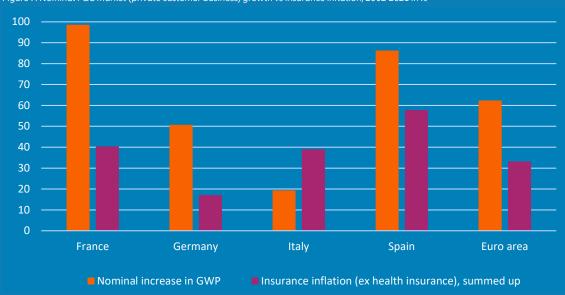


Figure 7: Nominal P&C market (private customer business) growth vs insurance inflation, 2002-2021 in %

Sources: Eurostat, National financial supervisory authorities, insurance associations and statistical offices, Allianz Research

¹ As we consider the non-life insurance market without health insurance products in our analysis, we have adjusted the reported inflation rate accordingly.





Ukraine war

Inflation redux: The economic environment

The Russian invasion of Ukraine has brought back significant headwinds to the global economic recovery and raised wider geopolitical risks. In response, governments around the world have imposed sweeping and sizable financial and economic sanctions against Russia, impacting commodity prices, trade and finance. The global economy now faces a significant negative supply shock, with higher commodity prices and volatility, notably for oil & gas. Russia and Ukraine also represent more than 10% of global exports of agricultural commodities (wheat, maize, rapeseed, sunflower seeds and oil) and are a key source of strategic raw materials (nickel, palladium). To add to this, Russia is the world leader in several key fertilizers (nitrogen, potassium and phosphorous). Put together, these factors are raising the risk of food crises in several parts of the world. Trade is under threat, too, as the current crisis has delayed the normalization of supply chains and is likely to weigh on potential output due to a defensive, resilienceoriented reallocation of resources. In addition, the further tightening of sanitary restrictions in China in response to fresh Covid-19 outbreaks have had ripple effects on the functioning of global logistics.

In this context, we have cut our outlook for global economic growth in 2022-23. After an expansion of +5.9% in 2021, we now expect GDP growth to slow down to +3.2% in 2022 and +2.8% in 2023. In this baseline scenario (55% probability), in which the supply of oil & gas from Russia to Europe is not cut, rising energy prices (close to 120 USD/bbl on average for oil) will dampen aggregate demand in Europe (and to a lesser extent in the US, which is reducing restrictive Covid-19related measures faster) and further push up inflation. We estimate that the invasion of Ukraine will shave off about -0.9pp of real GDP growth globally in 2022, with the Eurozone being most affected outside Russia and Ukraine (-1.2pp against -0.6pp for the US). Eurozone growth is expected to decelerate to +2.6% y/y in 2022 and to +1.6% y/y next year. We have revised up our inflation forecast to 6.2% y/y for 2022 and 3.3% y/y for 2023, reflecting higher food and energy inflation and higher expected feed-through from elevated producer prices to core goods. Beyond developed markets, we expect substantial contagion risk to emerging markets due to rebalancing as they enter this new crisis with scarring effects from Covid-19.

In our adverse scenario (35% probability), we assume that a stop in energy trade with Russia could become a big oil shock, leading to stagflation morphing into a recession early next year in all advanced economies, as well as commodity-importing emerging markets. For the Eurozone, in this scenario, we would see inflation at 8.0% y/y in 2022 and 4.0% y/y in 2023. Growth would decelerate from +1.5% y/y this year before a contraction sets in next year (-1.2% y/y).

In light of the significant damage to real activity, fiscal and monetary policy decisions will be critical. Most EU countries have already extended (and adopted further) fiscal measures to help vulnerable households and firms cope with energy inflation. We expect fiscal policy to continue to play a key role over the near term, and to partly mitigate the impact of higher energy prices on inflation and on consumers' disposable income. In the case of our adverse scenario materializing, countries may be forced to intervene to control prices and, in a more extreme case, administer scarce supplies.

Despite the continued hawkish shift of the monetary stance in the US and the Eurozone, monetary policy normalization in advanced economies will be slightly delayed if central banks become increasingly concerned about slowing growth. In emerging markets, central banks will continue to fight inflation and currency depreciations through further rate hikes, dampening the growth cycle even further.

In global markets, higher uncertainty has resulted in significant equity and bond market volatility. Under current conditions, we expect continued monetary normalization to stabilize real rates and support equities (on the back of still strong corporate earnings expectations) while long-term nominal rates in advanced economies remain contained by safe haven flows, increasing recessionary concerns and some reversal in spiking inflation expectations. But in the adverse scenario, equity markets will sharply correct and safe haven flows will lower benchmark long-term sovereign rates.

Geopolitics redux:

The changing global risk landscape

The brutal invasion of Ukraine is a turning point in world history, the likes of which we last experienced more than 30 years ago with the fall of the Berlin Wall. However, while this past turning point was associated with lofty expectations for a better world – some of which were realized – today's war represents the end of precisely those hopes. The idea of a rule-based global order of liberal and pluralistic societies had already begun to show deep cracks, most clearly in the growing rivalry between China and the US. The world is facing a new era of geopolitical confrontation, which brings back memories of the "Cold War" of the previous century, including the nuclear threat: the possibility of nuclear war is suddenly once again a risk that must be reckoned with. But the differences cannot be overlooked either: The struggle is not only for political and ideological hegemony, but also for informational and technological dominance. And China is a new, powerful player. The new era is therefore by no means limited to the return of the familiar and what was thought to have been overcome; its contours cannot yet be clearly discerned. There is no doubt, however, that relations in the world economy will change fundamentally. Trade relations, energy supplies, international value chains and

technological dependencies will all be put to the test. This will have far-reaching consequences for the global division of labor, the role of emerging markets and the green transformation. Indirectly, it will also have a major impact on the financial markets, because all these changes crystallize in one crucial variable: the return of inflation.

First, let us look at the global division of labor. What had already become apparent in the aftermath of the Covid-19 crisis is now a certainty: The global division of labor is no longer governed by the imperative of efficiency, but by that of resilience and security. This is not synonymous with a reversal of globalization; national autarky efforts are simply foolish. But it is necessary to reduce one-sided dependencies. The lesson to be learned from the tearing of supplier networks should be to weave the net even more tightly in the future, with duplications at neuralgic points. There are no longer "purely" private sector projects; in the new era, the political must always be taken into account: strategic thinking is called for. This applies not least to dealings with China. While (European) dependence on Russia rested primarily on its role as a supplier of (cheap) energy, the case of China is different: Its influence is based primarily on its huge

market; China's strength is not oil and gas, but millions of wealthy consumers. Against the background of the changes in China itself, the increasingly interventionist and authoritarian behavior of the government or Communist Party, many companies will also rethink their China strategy in the coming years. The continued rivalry between China and the US will do its part to drive decoupling.

What does this mean for the insurance industry? The reorganization of the global division of labor certainly offers opportunities. Because at its core, this process is nothing other than "applied risk management" – the core competence of insurers. Ultimately, insurance is not only about simply indemnifying losses incurred from a default but providing businesses with the support and knowledge to improve their risk management. Insurers offer actionable economic knowledge – in essence, modern insurers are more information providers than risk carriers. The shift from a pure product logic to a more service-oriented business model is thus gaining pace; partnership-oriented relational business models are the future.

For developing and emerging countries, Covid-19 was already a hard blow. Inadequate vaccination campaigns and soaring debt have left them extremely vulnerable. The Ukraine war, with its fatal consequences for energy and food prices, is the next blow. The economic, political and social consequences are likely to weigh on the development of these markets for years to come. Furthermore, the overhaul of the global division of labor could imply a shortening of supply chains, leading to the on- or near-shoring of production. This would undermine the business model of many of these markets that strived in the era of hyper-globalization as the "workbench" of advanced markets. At the same time, digitalization is not only changing the way we communicate but also the way we work and create value. Big Data, artificial intelligence and connected automation are taking over the workplace. The comparative advantages of relatively cheap labor – on which the rise of the emerging markets and the global middle class in recent decades was primarily based – count for less in this new world. In the past, the emerging middle class was a reliable growth driver: In the decade between the 2008 financial crisis and Covid-19, premium income in emerging markets grew at +11% per year, compared to +2.1% in advanced markets. Those days appear to be over for now. In any case, the growth of the global middle class has come to a

standstill for the time being.2

For the insurance industry, this means that in the future, growth will probably be driven less by geographical footprint and more through convincing product and service offerings. Sustainability is likely to play an increasingly important role in this. The "reconstruction" post Covid-19 and the striving for energy independence will give powerful momentum to the green transformation, the decarbonization of the economy, to free economies from fossil fuel imports. This also opens up new business and investment opportunities for the insurance industry, from which new growth opportunities will arise. Last but not least, the return of inflation is a thoroughly ambivalent development for the insurance industry. On the one hand, rising claims costs are a burden and represent a major challenge for pricing. On the other hand, the associated rise in interest rates could bring relief on the investment side. However, investing is not likely to become any easier in the future as the interest rate turnaround is likely to shake up financial markets. The era of reliably rising prices, generously subsidized by central banks and dubbed as the "everything rally", is over. With the end of low inflation, the macroeconomic foundation that allowed central banks to keep rates low as well is no longer in place. In addition, rising interest rates will again confront more companies (and also governments) with insoluble debt problems.

The insurance industry is facing challenging times. However, concerns about its business model are misplaced. Changing risk perceptions among households and businesses suggest that demand for insurance coverage will remain strong: In the wake of the Covid-19 pandemic and the Ukraine war, amid the worsening climate crisis and in the face of increasing cyber-attacks, the desire for coverage and prevention remains high. At the same time, the rising risks pose major challenges for insurers: Data-based and granular risk assessment is becoming increasingly important. Only in this way can the insurance industry maintain its role as a reliable partner to customers and society in the upcoming transformation of the economy toward sustainability.

2 See our report Allianz Global Wealth Report 2021: Saving from home

Health Insurance

The Covid-19 pandemic put health systems into focus. The marked differences of health systems around the globe with respect to access to health services is reflected in the global distribution of health expenditures, the financing sources as well as private health insurance penetration and density.

Even before the outbreak of the Covid-19 pandemic, mainly driven by population aging and medical advancements, worldwide health expenditures had reached a new record-high EUR 7.4trn³ in 2019, corresponding to almost 10% of global GDP. However, 80% of these expenditures were spent in high-income countries, which account for roughly a fifth of the worldwide population. Only around 17% were spent in upper-middle income countries and less than 1% in low-income countries. The US alone accounted for 42% of global health spending, with health expenditures equaling 16.8% of the US GDP. For comparison: In India and Nigeria health spending amounted to merely 3.0% of the countries' GDPs.⁴ (see Figure 8).

⁴ Data refers to 2019. See World Health Organization (2021): Global expenditure on health: Public spending on the rise?, Geneva 2021, p. vi, and United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. The WHO reported the highest share of expenditures in Tuyalu, with 24.0% of GDP.



Figure 8: Industrialized countries account for 80% of global health expenditures

Sources: Australian Bureau of Statistics, World Health Organization

While in high income countries more than 70% of the health expenditures were financed by government spending, i.e., government schemes and compulsory contributory health care financing schemes, in low-income countries, out-of-pocket spending and external aid are still the main sources of financing, accounting for more than 60% of the financing in total. In most member countries of the European Union as well as in the US and Canada, the share of out-of-pocket financing was below 20%. In most Latin American countries though, this share was markedly above 25%. In the countries we cover in our analyses, the ratios ranged between 24.9% in Brazil and 42.1% in Mexico, only exception was Colombia where the out-of-pocket share was merely around 15%. In the Asian countries, except Japan and Thailand, in general more than 30% of the health costs were paid out-of-pocket, with the shares being above 40% in Vietnam, Sri Lanka and the Philippines and almost 55% in India. However, among the countries covered in our analysis Nigeria stuck out, with an out-of-pocket share of more than 70%, while at the same time South Africa reported one of the lowest shares worldwide with merely 5.6% ⁵.

³ In 2021 EUR.

⁵ Source: World Health Organization (2022): Global Health Expenditure Database.

Total health expenditures in the analyzed countries added up to around EUR 7.2trn⁶ which corresponded to more than 90% of global health expenditures in 2019. Almost half of these expenditures, 3.3 trillion EUR, were spent in the USA and Canada. 23% were spent in the Western EU countries, Norway, Switzerland and the UK and Asia accounted for a fifth of the expenditures. Given the weight of high-income countries in our sample, out-of-pocket expenditures accounted for less than 20% of total spending, summing up to 1.2 trillion EUR. However, on a regional perspective, out-of-pocket expenditures corresponded to an average 28% of total expenditures in Asia and Africa, to almost 29% in Latin America and to 34% in the other European and Western Asian countries.⁷

Health insurance premium summed up to EUR 970bn, thereof EUR 590bn in the US and Canada. Insurance premium in Western Europe accounted for 19% and that of Asia for 14% of total health insurance premium income. Consequently, the highest insurance penetration, 3.2%, was reported in North America. On the other side of the scale were the eastern European EU-member countries, where the combined health insurance premiums accounted only for an average 0.2% of GDP. In the western European EU-member countries, Norway and Switzerland as well as in Australia and New Zealand insurance penetration was markedly lower than in the US, reaching 1.4% and 1.3% respectively. In the other regions the average figure was still below 1%: In Asia (ex Japan) total health insurance premium income amounted to 0.8% of GDP, with market penetration ranging between 0.1% in Indonesia and 1.9% in Taiwan, and in the analyzed Latin American countries it added up to 0.4% of GDP⁸ (see Figure 9).

⁸ Based on latest available data from Axco as well as national insurance supervisory offices and associations. The region North America includes Canada and the US, Africa the countries Kenya, Morocco and South Africa, Middle East the countries Bahrain, Egypt, Saudi Arabia and the UAE, Asia the countries China, Hongkong, India, Indonesia, Malaysia, Singapore, Sri Lanka, Taiwan and Thailand, Latin America the countries Argentina, Brazil, Chile, Colombia, Mexico and Peru, other Europe the countries Ukraine, Russia as well as the UK and Western Asia the countries Kazakhstan, Pakistan and Turkey.



Figure 9: Marked differences in insurance penetration

Sources: Axco, national insurance supervisory authorities and associations, IMF

⁶ In 2021 EUR.

⁷ Source: World Health Organization (2022): Global Health Expenditure Database.

Health insurance density ranged between and average EUR 1,595 in North America and merely EUR 9 in Western Asia, though also with marked differences within the regions. Australia and New Zealand as well as the western European ranged upper midfield with average health insurance premiums per capita amounting to EUR 585 and EUR 438 respectively. In the Middle East, Saudi Arabia and the United Arab Emirates per capita premium were markedly above the regional average, with around 160 EUR and 460 EUR respectively. In Asia like in Eastern Europe and Latin America the average per capita health insurance premium was markedly below 50 EUR. However, in Hongkong and Taiwan the average health insurance premium was markedly above the regional average amounting to 217 EUR and 545 EUR respectively (see figure 10).



Figure 10:: Low insurance density hints at backlog demand in emerging markets

Sources: Axco, national insurance supervisory authorities and associations, IMF and associations are supervisory authorities and associations are supervisory authorities.

Against this background, in many emerging markets private health insurance saw double-digit premium growth. In the Latin American countries, 10-year average annual growth rates ranged between 11% in Colombia and almost 17% in Brazil. Partly due to high inflation, the 10-year CAGR was even 41% in Argentina. The same holds true for the eastern European EU-member countries and Asia, where health insurance premiums in the two most populous countries of the world, China and India, increased by an average 28% and 17% respectively. In the high-income countries, the average growth rates were in general below 10%, reflecting on the maturity level of the insurance markets. This marked growth differences are likely to remain in the coming years. We expect continued double-digit premium growth in many Latin American and Asian markets, mainly driven by backlog demand. Globally, health insurance premiums are expected to grow by over 10% over the next decade, reaching around EUR 2.3trn in 2032. However, an important, albeit hardly predictable factor in future private health insurance market growth will be the generosity and coverage of public health systems. Nonetheless, a squeeze-out of private health insurance is nothing to be worried about. On the contrary: The rapid aging of many societies might foster an increasing need for supplementary private health insurance schemes.



A decisive decade

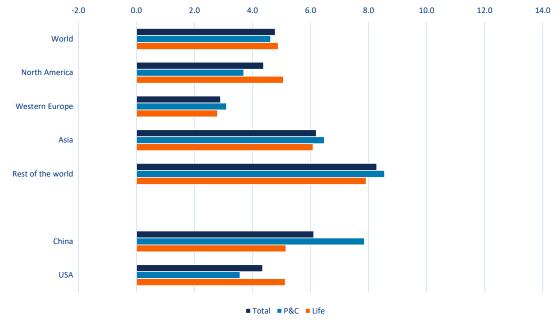
At the beginning of 2022, there was a widespread expectation that the recovery post Covid-19 would more or less continue, albeit somewhat weakened. We also assumed another strong year for the insurance industry. However, the invasion of Ukraine on 24 February dashed those hopes as well. For 2022, we now expect premium income to grow by just under 1pp slower than originally assumed (slightly more in the life segment, slightly less in the p&c segment). There is a simple reason why we have not reduced our forecast even further: inflation. At least for the top line, the strong price increases are having a positive effect. Overall, we now expect global premium income to grow by +4.8% in 2022, with life and p&c developing almost in step (+4.9% and +4.6% respectively, see Figure 11). This figure may seem high in view of the spreading sense of crisis, but it must be seen against the background of global inflation expected at 6.2% this year. 2022 should see a return to the familiar picture of the emerging markets growing significantly faster than advanced markets. Unsurprisingly, Europe brings up the rear, with growth of just under +3% expected. Nowhere are the effects of the war more strongly felt, as nowhere is the dependence on Russian energy greater. In the US, growth is expected to almost

halve. After the exceptional year of 2021, in which premium income shot up by more than +9%, we expect a "normalization" (+4.3%) this year. This is due less to the war than to record-high inflation, which is forcing the US Federal Reserve to resolutely tighten its monetary policy, which should increasingly weigh on growth. In contrast, we expect a significant recovery in Asia for a single reason: China should return to the growth path. At +6.1%, premium growth is likely to be relatively modest – by Chinese standards. However, given the increasing risk that the rigorous zero-Covid policy will force more and more areas into renewed lockdowns for ever longer periods, there is no small downside risk to this forecast.

+4.8%

Expected rise in global insurance premiums in 2022%

Figure 11: Gross written premium* growth, 2022 by region in %



*Note: Without health; the conversion into EUR is based on 2021 exchange rates

Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

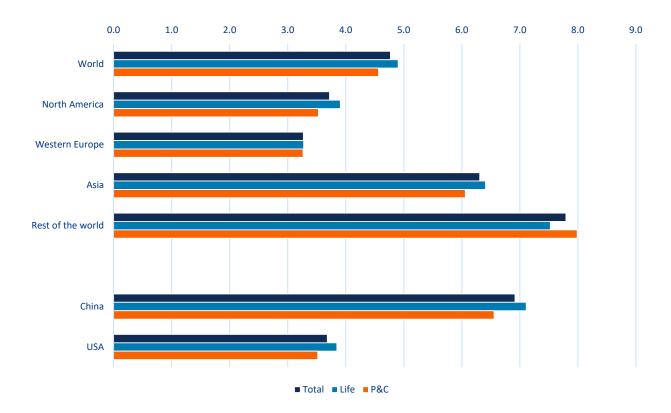
What happens next? Despite the great uncertainties today – from the impact of the Ukraine war to the consequences of the interest rate turnaround and the continuing threat from Covid-19 – we are not too pessimistic about the more distant future. After all, these uncertainties are precisely the breeding ground for demand for rising risk awareness; they reinforce the impact of the two megatrends of climate and demographic change, which will continue to be the main drivers of demand for risk protection. Overall, we expect annual growth of +4.8% over the next ten years (life: +4.9%; p&c: +4.6%). This corresponds to growth of +67% or additional premium income of EUR2.8trn by 2032, of which just under EUR1.8trn will be generated by the life segment (+69%) and just over EUR1trn by the p&c segment (+63%).

In the life business, demographic change is likely to be the decisive growth driver. This applies to advanced markets where life risk protection and provision for old age has lost none of its urgency; in fact, the aging of societies will accelerate in the coming years and the exploding national debt argues for more rather than less individual provision. And it also applies to emerging markets where the often still rudimentary nature of social security systems and progressive social and demographic change argue for more individual retirement provision.

This development is likely to benefit from two crisisrelated developments in the coming years: increased risk awareness in the wake of the Covid 19 crisis and the inflation-triggered end of zero interest rates, which should make many savings and pension products more attractive again.

In the p&c business, climate change is the main topic in two respects. First, extreme weather events will increase in the coming years, and with them nat cat claims from floods and droughts, forest fires and storms. This development will inevitably lead to higher premiums as well. On the other hand, climate-mitigation efforts will intensify, first and foremost the decarbonization of energy supply, which has become even more important against the backdrop of the Ukraine war and the resulting quest for energy independence. This requires major investments from both the private and public sectors and creates a high need for risk protection as new risks emerge with this radical transformation of our economy.

Figure 12: Gross written premium* growth, CAGR 2022 -2032 by region in %



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates

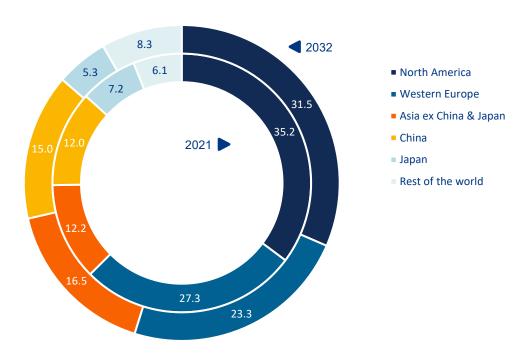
 $\textbf{Sources:} \ National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research and Statistical Offices, Refinitive Datastream, Allianz Research and Refinitive Datastream and Refinitive Datastream$

Unsurprisingly, we expect the emerging markets to grow faster than advanced markets once again over the next decade (see Figure 12). However, the gaps will narrow from 6.2pp to 4.5pp. There are two main reasons for this. First, Western Europe and Japan are no longer lagging so far behind. While premium income in Western Europe grew by only +1.6% annually in the previous decade, we expect it to accelerate to +3.3% in the following 10 years. In Japan, annual growth of +2.0% is likely after the market had previously contracted by -0.6% per year. In both regions, the reason for this is almost exclusively to be found in the life segment. While the p&c segment is likely to see only a slight increase – from +2.7% to +3.3% in Western Europe and from +1.9% to +2.1% in Japan the jump in the life business is much greater – from +1.1% to +3.3% in Western Europe and from -1.3% to +1.9%in Japan. The combination of undiminished need for provision, increased risk awareness, diminishing scope for government action and – last but not least – interest rates that are once again positive and rising should mean that moderate growth is once again possible in both regions in this business sector, no more and no less.

Secondly, the growth prospects for China have diminished, though they still remain at a high level. The current changes – both in the global economy and in China itself – are not conducive to strengthening the country's long-term growth potential; doubts are growing that an authoritarian-controlled economy will achieve its ambitious goals. This is also felt in the insurance market: After annual growth of +9.2% in the past decade, we expect "only" +6.9% for the following one

However, even though the growth gaps between emerging and advanced markets are narrowing, this does not change the fact that the global insurance market will continue to shift in favor of the former (see Figure 13). For example, China's share will increase from 12% to 15%, while the rest of Asia (excluding Japan) is expected to reach a share of just under 17% (2021: 12.2%). In contrast, the shares of Japan, North America and Western Europe combined are expected to decline by just under 10pp.

Figure 13: Total gross written premiums*, 2021 and 2032 by region in %



*Note: Without health; the conversion into EUR is based on 2021 exchange rates

Sources: National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

The growing importance of the emerging markets, and Asia in particular, becomes even clearer if only the additional premium income in the next decade is taken into account (see Figure 14, next page): In this view, the share of Asia (excluding Japan), reflecting the bigger size of the markets, remains stable at around 42%, half of which is likely to come from China alone. The Asia and China story is therefore still largely valid in the 2020s. Anyone looking for growth will have to turn to Asia. But there can be no more talk of "China hype". As recently as 2019, before the Covid-19 crisis, many observers (including us) had assumed that China would replace the US as the world's largest insurance market by premium income around 2030. A few crises later, this seems all but impossible. Current projections suggest that China will probably have to be patient until about 2050. Several factors contribute to this. First, as mentioned, is the slowdown in China itself. Second is the strengthening of the US, which looks set to emerge

stronger from the recent crises – if the US Federal Reserve manages to avoid a recession in its (belated) fight against inflation. However, in the absence of a reliable long-term exchange rate forecast, we base our projections on current exchange rates. Since we calculate in euros, the current strength of the US dollar makes the US insurance market look even bigger.

Allianz Research

Figure 14: Additional gross written premiums* by 2032, by region in %



^{*}Note: Without health; the conversion into EUR is based on 2021 exchange rates **Sources:** National financial supervisory authorities, insurance associations and statistical offices, Refinitiv Datastream, Allianz Research

So does this mean that the insurance industry can look forward to good prospects? Yes, but with one important caveat: if it succeeds in maintaining its economic and social relevance. The last few years, and the Covid-19 pandemic in particular, have raised doubts about this. Often, the focus has been on excluding risks or passing them on to customers, e.g. in life insurance, which has moved toward unit-linked products under the pressure of zero interest. Without question, the upcoming upheavals will give birth to new risks, for instance risks related to data protection, new green technologies or AI and climate liability. So there will hardly be a lack of demand for protection and prevention. However, the industry is called upon to offer solutions for these risks so that they do not remain uninsurable or have to be assumed willy-nilly by the state. In that context, the question of

the limits of insurability is likely to become increasingly urgent in the coming years, not least with regard to natural hazards. In many cases, closer cooperation with governments will become unavoidable. Closely linked to the question of insurability is the question of affordability. Here, too, innovative approaches are needed. Otherwise, there is a risk of price caps or uniform prices, which would be the worst solution from an incentive point of view. This, too, requires a level of creativity and collaboration with customers and governments that goes beyond previous efforts. In other words, the insurance industry is facing radical transformation. To paraphrase Giuseppe Tomasi di Lampedusa: The industry has to change if it wants to stay relevant.



Trending topic #inflation

Inflation was running hot even before the invasion of Russia in Ukraine. Last year, alarm bells rang over high commodity prices, supply-chain interruptions and high energy prices, starting in emerging markets and swiftly following in developed markets. While high inflation, especially unexpected high inflation, affects the economy as a whole, households often suffer disproportionately from it. Following the Russian invasion of Ukraine, our economic outlook has been revised downwards. The developments at the macro level are echoed by demand dynamics at the household level: The main channel in which inflation affects consumers is by decreasing their real disposable income. In other words, their purchasing power. When prices increase and households are unable to simultaneously adjust their income, the shares of their income available for consumption and savings are automatically decreased. Lower purchasing power tends to reduce households' insurance demand in the form of a declining share of insurance in total consumption.

Households will have to adjust their consumption depending on how financially healthy they are. Discretionary consumption will suffer first, i.e. spending on those items that are non-essential: luxury goods, entertainment, travel, just to name a few. Consumer staples, such as food and healthcare as well as hygiene products are the last ones to be discarded. Consumption on mandatory insurance is one of those staples. Insurance consumption includes insurance connected to housing, health, private health, transportation, motor, travel, and other miscellaneous insurance. Not all those categories are mandatory. In terms of compulsory insurance,

included in household consumption, motor third party liability insurance is perhaps the only type of mandatory insurance in all the EU27 countries. Nonetheless, other types of protection (damage, accident, etc.) are not usually required by law.

Non-life insurance markets are also impacted by the new economic expectations – albeit in different ways. Reduced economic activity reduces insurance demand by around half, according to our estimations of past average demand elasticity.9 On the other hand, insurance markets have some measure of pricing power and high inflation has a small positive impact on nominal insurance consumption growth. As a result, in our baseline scenario, nominal insurance consumption (incl. health) could increase even in 2022 and 2023 in two of the markets we forecast private insurance consumption for: In Germany, we expect insurance consumption to slow down but still grow by +1.3% in 2022 and +1.5% in 2023. We expect France to also have a positive insurance consumption growth, penciling in +2.4% in 2022 and +2.2% in 2023. On the other hand, we expect insurance consumption to fall in Spain by -3.7% in 2022, returning to positive territory at +1.1% in 2023. We expect growth in Italy to slightly fall by -0.4% in 2022 and to return to positive growth in 2023 (+1.4%), see figure 15.

9 See our report <u>Drivers of growth: Property and casualty insurance.</u>

Figure 15: Insurance consumption growth, in %



Sources: Eurostat, Allianz Research

Insurance consumption as percentage of total consumption data from Eurostat show that following financial slumps, household insurance consumption as percentage of total consumption falls slightly but stays rather stable in the long run (see figure 16, next page). We use our consumption growth forecasts to determine the ratio of insurance consumption as a percentage of total consumption. Much like in the Great Financial Crisis (GFC) and the euro crisis, we expect the current economic situation to weigh on households and trigger a slight fall in insurance consumption as a share of total consumption. In Germany, we expect insurance consumption to go from 3.4% of total consumption in 2021 to 3.2% this year and stay around that figure in 2023; it is unlikely to fall further as housing and motor insurance are widespread and represent the largest share of insurance consumption. In France, where complementary health insurance is compulsory, we expect the insurance consumption to stay at around 4.4% during the forecasting period. However, it is important to mention that such a requirement to have mandatory health insurance does not linearly cause growth in premiums as it is fully paid by the policyholders and much subsidized by the state. In Italy, we expect the

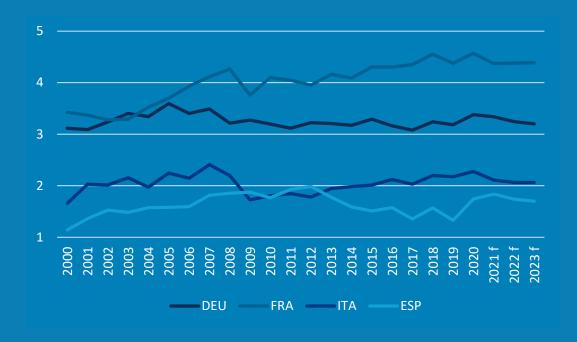
ratio of insurance consumption to total consumption to fall from 2.1% in 2021 to 2.0% in 2023. In Spain, insurance consumption, according to our estimations, will go from 1.8% in 2021 to 1.7% in 2023.

Nonetheless, these figures mask a harsh reality: some households may have to cut back on more than insurance if food prices and fuel prices continue their steep upwards path. In 2020, 8.6% of the EU population and more than one in five people at risk of poverty (21.7%) were unable to afford a meal with animal protein or a vegetarian equivalent every second day. Moreover, 3.3% of the EU population and one in ten people at risk of poverty (9.7%) were unable to afford an internet connection. These are items used to determine the severe material and social deprivation rate. Since then, real disposable income fell by -2.0% in in Germany and Italy in 2021, and by -5.0% in Spain. In France, real disposable income barely grew by +0.9% (see figure 17, next page). If the situation worsens, mandatory or not, insurance might be far down the priority list.

3.2%

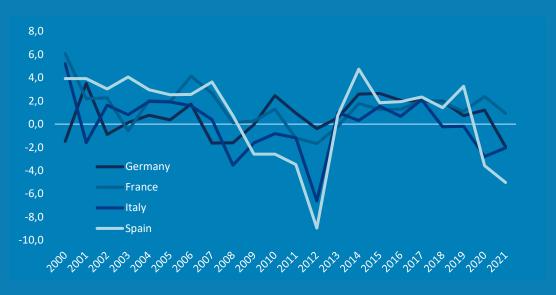
insurance consumption as percentage of total consumption to fall from 3.4% last year in Germany

Figure 16: Insurance consumption as % of total consumption



Sources: Eurostat, Allianz Research

Figure 17: Real disposable income growth



Sources: Eurostat, Allianz Research





and insurance

Sustainability is an age-old concept. In earlier times, it was essentially about preserving the natural balance as a basic prerequisite for human activity. With the dawn of the 21st century, this premise can no longer be upheld. For in the Anthropocene, as a result of unrestrained global industrialization, the natural balance has been destroyed. Sustainability is therefore mutating from an inherently conservative concept – the preservation of the existing – to a revolutionary one: restoring balance through radical changes to the way we live. Insurance, too, is an age-old concept. The idea of transferring and distributing risks goes back to the early days of trading centuries ago. But like the idea of sustainability, it has reached a turning point where old concepts no longer work. Risk is only rising in the world, be it caused by natural catastrophes, extreme weather or cyber-attacks. This rising tide renders inadequate the mere transfer of risk. To stay relevant, the industry has to change accordingly, moving beyond pricing and transferring risk to changing outcomes from nonsustainable behaviors and processes to sustainable ones. Its double role as risk underwriter and major investor puts the insurance industry in a unique position to drive this

transformation and bring about economic, social and environmental sustainability.

In underwriting, this requires the implementation of more impact activities. But impact underwriting is not just about having sustainable insurance solutions in the portfolio; rather, it is about actively shaping and contributing to society, having long-term impact. Take renewable energy as an example: Global capacities will more than triple by 2050. Accordingly, the demand for insuring renewable energy installations against physical, development or operational risks will rise. Risk consulting and risk service solutions support establishing new technologies or developing new territories. Mobility is another example: Electric vehicles will dominate new car sales before long. Impact underwriting can support this transition by offering insurance solutions to the areas of mobility sharing as well as autonomous driving, and can seize new opportunities in the sector coupling of vehicle batteries with the energy infrastructure. In a nutshell, impact underwriting means that insurers work together with their customers in adapting to climate change, increasing the resilience of their infrastructure, facilities or supply chains.

But impact insurance does not have to stop with underwriting. Claims are important as well. Sustainable insurance-claim regulation can allow for upgrades to eco-labeled appliances and machinery, and, due to a life-cycle analysis of the emissions associated with a product, appliances could be repaired instead of replaced. In a nutshell, impact claims means to evolve from compensating financially to rebuilding and renewing in a much more sustainable way. Both impact underwriting and claims establish insurers as change agents for sustainable outcomes.

Insurers can become the standardbearer of change, actively reducing risk in the system by impact underwriting and investing, and thus leading the pivot to sustainability

Similarly, when it comes to impact investing, insurers occupy a crucial role. There are two reasons for this: First, their investment horizon is long-term. They are not subject to the "tragedy of the horizon", as defined by former Bank of England governor Mark Carney, but automatically take the (very) long term into account in their investment decisions because of their own commitments, which extend over decades. Their investment strategy is geared towards achieving long-term current returns, not short-term increases in value. Interim fluctuations in value hardly play a role here because, unlike banks, they do not generate any short-term liquidity requirements. Secondly, insurers' investment calculus is comprehensive, their perspective resembling that of a public good maximizer (the so-called social planner). This is because the large number of assets in their portfolios means that they are interested not only in the profitability of the individual investment, but also in the cost to the other assets by which that profitability is achieved. For example, if a company increases its profitability by emitting more greenhouse gases, it increases the likelihood of climate damage to other companies. In this way, a broadly diversified portfolio leads to congruence of goals: What makes a society as a whole prosper and grow sustainably is also reflected in the balance sheets of institutional investors. In a nutshell, impact investing takes the 360 degree / 100 years approach.

However, for insurers to fulfill their new role, for successfully transforming from being institutions that transfer risk to ones that change outcomes – nothing less than changing from being conservative to being revolutionary – a societal consensus is needed on the direction, extent and speed of the green transformation. Even in the 21st century, the political revolution precedes changes at the material base. Without reliable, long-term policy guidance, institutional investors such as insurers cannot live up to their ambitions and aspired roles. These public-private partnerships, however, should not stop at forging a broad social consensus and support for the green transition. They also have to encompass the operational level for a simple reason: if the risk in the system increases over time, it is in the end the public sector that ends up holding most of it, an outcome that can hardly be described as sustainable.

The Covid-19 crisis and the recent catastrophic flooding in places as different as Germany and Australia are a case in point: The dimensions of damage were simply overwhelming. The state had to step in as the rescuer of last resort and ad-hoc measures to save lives and livelihoods were clearly inevitable. Still, they created some negative consequences. And that is not to mention the resulting debt mountains and the increasing entanglement of the state in the private sector. The behavioral consequences might even count more as unprecedented measures can set a dangerous precedent: the expectation that the state will always act as the safety net, protecting households and companies from all big risks – whatever it takes. This goes far beyond pandemics but may also include climate change, cyberattacks and old-age poverty. It could herald the return of the almighty state, which renders self-responsibility and own efforts to mitigate risks obsolete. But it goes without saying that without self-vigilance, risks will only grow bigger and bigger.

For that reason, it is so important to build ex-ante publicprivate risk-protection schemes. There are already some in place – for example for flooding (UK) or terrorism (US) – but this should be done more systematically across all possible systemic hazards, be it pandemics, natural catastrophes or cyber-attacks. As long as all participants retain skin in the game, they have a strong self-interest in taking preventive and preparatory measures. In such a system, private insurers could form a kind of plumbing system: they check the claims and make the payments. And unlike the state, which is used to putting up protective umbrellas with guarantees but struggles to distribute funds quickly, directly and un-bureaucratically, insurers have the necessary know-how, processes and structures. Financial support is not only promised quickly, but also provided efficiently and precisely.

The same logic for public-private partnerships applies for investments. The requirements for creating a sustainable economy are gigantic: The transformation of our energy system toward climate neutrality alone will account for about 2% of global value added annually for the foreseeable future – equivalent to about EUR1.5trn. This is clearly beyond the means of the state. Mobilizing private capital is key – and the good news is that there is plenty of it: The supply of capital is not the bottleneck of the green transformation. Private households worldwide have around EUR200trn in financial assets; insurers and pension funds account for just under 30% of this.

Without reliable, long-term policy guidance, institutional investors such as insurers cannot live up to their ambitions and aspired roles.

Demand for capital has been rather subdued in recent years; this applies to both public and private investment. However, a paradigm shift is taking place as a result of the pandemic: Governments are massively increasing their spending on infrastructure, exemplified by the Biden Plan in the US or the NextGenerationEU Fund, a large part of which is to flow into the green transformation. But there are also signs of a turnaround in the private sector. Many companies, spurred by the need to reduce their dependence on fossil fuels and stretched global supply chains, have significantly increased their investment plans. The next years thus offer a great opportunity to make decisive progress on the road to climate neutrality. There are two key issues of a sustainable capital market and the role of institutional investors in it: adaptation pathways and capital requirements. The big transformation is not simply about implementing a green investment policy, i.e. portfolio shifts into "clean" companies such as manufacturers of electric cars or solar panels. That would be far too simple – and would likely lead to a green capital market bubble. It is much more important to mitigate emissions in the existing portfolio, i.e. to provide capital to companies with emissions that are still too high today, enabling them to meet their

science-based reduction targets in line with the 1.5 degree target. This implies that not all investments will be 100% green, i.e. emission-free, overnight, but they must be on the defined adaptation path. Again, it is all about changing outcomes.

To stay relevant, the industry has to change accordingly, moving beyond pricing and transferring risk to changing outcomes from non-sustainable behaviors and processes to sustainable ones.

In turn, the regulatory requirements for risk capital adequacy are a key factor in the provision of sufficient capital, which brings the regulatory framework for insurers, namely Solvency II, into focus. The revision of Solvency II should strengthen insurers' position as long-term investors; it should avoid the creation of artificial volatility in solvency ratios, which could result in procyclical investment incentives and the "de-risking" of the portfolio.

At the same time, other opportunities to spur long-term investments should be exploited. These include, for example, so-called "credit enhancement" arrangements, which enable project promoters to improve the quality of their bonds, thereby making them more attractive to institutional investors. It is another example of a public-private partnership at the operational level, in which the greater risk-bearing capacity of public institutions and the expertise and availability of private capital form a winning combination.

Climate change is an existential threat; fighting it is the challenge of the century. This requires public-private partnerships at a new scale. And insurers will have to play a crucial role. In doing so, the new insurance model will be born: insurers can become the standard-bearer of change, actively reducing risk in the system by impact underwriting and investing, and thus leading the pivot to sustainability.



Appendix

		P&C insurar	nce market			Life insurance	ce market ¹	Life insurance market ¹			
2021 KPIs	total in EUR bn	2021 yoy in %	per capita in EUR	as a % of GDP	total in EUR bn	2021 yoy in %	per capita in EUR	as a % of GDP			
Argentina	9.4	52.4	207	2.6	1.4	49.4	32	0.4			
Australia	32.1	11.2	1,245	2.4	13.7	0.8	529	1.0			
Austria	10.7	4.7	1,186	2.6	5.4	0.6	594	1.3			
Bahrain	0.3	-0.7	196	1.1	0.2	23.3	103	0.6			
Belgium	10.4	3.0	898	2.1	15.5	3.2	1,336	3.1			
Brazil	15.3	13.3	72	1.1	6.7	14.2	31	0.5			
Bulgaria	1.4	8.4	198	2.1	0.2	42.8	36	0.4			
Canada	53.7	5.6	1,410	3.2	56.0	6.4	1,470	3.4			
Chile	3.8	12.6	200	1.6	4.2	3.5	217	1.7			
China	177.7	-1.7	123	1.1	325.2	-1.7	225	2.1			
Colombia	4.4	20.1	85	1.8	3.6	15.6	70	1.5			
Croatia	1.1	12.8	265	1.9	0.4	9.4	94	0.7			
Czech Republic	4.9	8.4	461	2.0	1.8	1.1	171	0.7			
Denmark	9.8	3.9	1,680	3.0	23.8	6.0	4,091	7.3			
Egypt	1.3	40.0	13	0.4	1.6	26.4	15	0.5			
Finland	4.2	2.8	755	1.7	5.4	35.7	975	2.2			
France	75.2	3.2	1,150	3.0	115.7	-0.5	1,769	4.6			
Germany	78.6	2.4	937	2.2	97.2	-1.4	1,158	2.7			
Greece	2.3	5.7	218	1.3	2.4	13.8	228	1.3			
Hong Kong	3.6	5.8	470	1.1	58.0	-1.3	7,684	17.7			
Hungary	2.0	7.7	202	1.3	1.6	13.4	168	1.1			
India	17.3	2.2	12	0.6	81.5	9.7	58	3.0			
Indonesia	4.1	-0.7	15	0.4	11.4	14.7	41	1.1			
Ireland	4.0	4.3	802	0.9	14.1	6.6	2,838	3.2			
Italy	36.1	2.6	599	2.0	118.1	12.5	1,956	6.6			
Japan	73.0	0.2	579	1.7	229.6	2.9	1,821	5.5			
Kazakhstan	0.7	11.7	37	0.4	0.6	60.9	30	0.4			
Kenia	0.8	17.0	14	0.9	1.0	24.0	18	1.1			
Laos	0.1	21.1	10	0.5	0.0	25.0	1	0.0			
Lebanon	0.7	27.0	97	0.4	0.3	-9.9	48	0.0			
Malaysia	3.6	3.0	111	1.1	9.0	8.0	273	2.8			
Mexico	10.6	10.5	81	0.9	12.9	11.0	99	1.2			
Morocco	2.2	8.8	60	2.0	2.2	11.6	58	2.0			
Netherlands	12.9	5.3	754	1.5	12.6	3.1	732	1.5			
Nigeria	0.8	36.2	4	0.2	0.6	21.3	3	0.2			
New Zealand	4.5	7.1	924	2.1	1.8	5.4	360	0.8			
Norway	10.2	7.0	1,860	2.8	13.7	29.3	2,509	3.7			
Pakistan	0.5	17.6	2	0.2	1.5	30.1	7	0.6			
Peru	1.7	16.1	50	0.9	1.9	39.8	57	1.0			
Philippines	1.7	12.6	16	0.5	5.4	25.4	48	1.6			
Poland	10.4	8.8	275	1.8	3.3	6.5	87	0.6			
Portugal	4.6	3.9	451	2.2	7.7	68.5	760	3.7			
Romania	2.1	13.2	108	0.9	0.5	23.6	27	0.2			
Russia	13.2	13.2	91	0.9	5.1	0.1	35	0.2			
Saudi Arabia	3.5	0.8	98	0.5	0.4	28.8	11	0.4			
Singapore	2.5	3.4	431	0.7	30.0	21.5	5,085	8.8			
Slovakia	1.2	-4.0	216	1.2	0.8	-6.2	144	0.8			
South Africa	11.1	26.6	184	3.3	37.3	20.1	622	11.2			
South Korea	78.5	6.4	1,530	5.2	87.9	-0.6	1,714	5.8			
Spain	28.4	2.7	608	2.3	23.6	7.9	504	1.9			
Sri Lanka	0.4	2.7	18	0.5	0.5	21.1	25	0.8			
Sweden	7.8	2.6	772	1.5	39.8	33.5	3,916	7.5			
Switzerland	17.4	2.5	2,000	2.5	23.8	-7.9	2,728	3.3			
Taiwan	8.6	6.6	366	1.3	79.4	-7.6	3,280	3.3 11.5			
Thailand	7.1	4.7	102	1.7	13.1	0.8	188	3.1			
Turkey	4.1	21.1	48	0.9	13.1	9.7	11	0.2			
Ukraine	0.5		12	0.3	0.2	0.3	4	0.2			
United Arab Emirates	3.7	-50.0 1.3	374	0.3	2.0	3.6	198	0.1			
United Kingdom	3.7 81.7	3.9	1,198	2.9	233.2	-2.0	3,419	8.3			
United States	685.0	9.7	2,058	3.4	682.5	-2.0 8.8	2,050	3.4			
United States			2,058	0.5	5.6	13.2	2,050	3.4 1.8			
Vietnam	1.7	17.0									

Appendix B:		P&C insurance ma	arket	Life insurance market ¹			
Long-term development	CAGR 2011-2021	CAGR 2022-2032	total premiums in 2032	CAGR 2011-2021	CAGR 2022-2032	total premiums in 2032	
	in %	in %	in EUR bn ²	in %	in %	in EUR bn ²	
Argentina	37.7	21.4	79.3	34.1	21.9	12.7	
Australia	5.4	3.9	49.1	-6.1	2.7	18.4	
Austria	3.2	3.5	15.7	-3.0	1.9	6.6	
Bahrain	1.3	4.5	0.6	3.7		0.3	
Belgium	2.1	2.3	13.4	-1.9	2.2	19.8	
Brazil	8.2	8.9	39.1	11.9	11.4	22.1	
Bulgaria	6.2	4.0	2.1	7.2		0.5	
Canada	6.5	3.7	79.9	4.1	4.6	91.9	
Chile	8.7	6.6	7.8	4.2	5.3	7.4	
China	10.8	6.6	357.4	8.4	7.1	692.3	
Colombia	9.4	8.1	10.3	10.6	9.7	9.8	
Croatia	2.0	4.1	1.7	1.6	2.5	0.5	
Czech Republic	3.5	3.9	7.5	-4.0	3.4	2.6	
Denmark	2.5	3.0	13.5	6.1	5.0	40.8	
Egypt	15.9	9.4	3.6	16.4	7.9	3.7	
Finland	2.8	2.9	5.7	1.1	1.5	6.4	
France	3.1	3.3	107.3	-2.0	2.6	153.2	
Germany	3.1	2.5	102.6	1.0	2.6	128.8	
Greece	-2.6	2.3	2.9	0.4	2.5	3.1	
Hong Kong	5.4	4.7	5.9	10.4	7.0	122.3	
Hungary	5.6	4.0	3.0	2.6	3.9	2.5	
India	13.4	12.3	62.3	8.1	11.2	261.9	
Indonesia	9.2	8.5	10.1	9.2		33.6	
Ireland	2.5	2.1	5.0	3.7	3.3	20.2	
Italy	0.2	2.9	49.4	2.5	2.8	159.4	
Japan	1.9	2.1	91.9	-1.3	1.9	282.4	
Kazakhstan	10.8	5.1	1.2	28.0	7.9	1.3	
Kenia	8.0	9.0	2.1	15.0	11.5	3.3	
Laos	15.5	14.1	0.3	27.3	25.5	0.1	
Lebanon	3.3	9.2	1.7	1.0	1.5	0.4	
Malaysia	3.0	6.1	7.0	5.2		18.7	
Mexico	8.2	8.9	27.1	9.4	7.1	27.6	
Morocco	5.8	6.0	4.3	11.9	7.8	4.9	
Netherlands	-1.0	3.5	18.9	-4.2		16.8	
Nigeria	8.3	12.6	3.0	16.7	18.1	3.7	
New Zealand	6.8	3.6	6.6	5.0	4.2	2.8	
Norway	5.0	2.6	13.5	6.8	3.0	19.0	
Pakistan	9.2	13.8	2.2	17.2		6.6	
Peru	8.3	7.4	3.6	10.2		5.4	
Philippines	7.3	8.8	4.5	14.4	10.8	16.5	
Poland	7.3 5.8	4.2	16.3	-5.2	5.1	5.6	
Portugal	2.1	3.5	6.7	-5.2 -4.0	3.4	11.2	
Romania	4.0	5.0	3.5	3.9	5.2	0.9	
Russia	8.0	3.0	18.3	28.8	1.4	5.9	
Saudi Arabia	7.5	6.3	6.8	4.8	4.5	0.6	
Singapore	2.3	3.5	3.7	11.8	6.9	62.6	
Singapore Slovakia	2.3	3.0	3. <i>1</i> 1.6	-2.9	3.9	02.0	
South Africa	9.7	3.0 7.5	24.6	-2.9 8.3		86.5	
South Korea	9.7 6.8	7.5 5.7	24.6 144.6	3.3	7.9 4.7	145.5	
Spain Korea	1.0	3.5	41.5	-1.0	2.3	30.2	
•	8.8	9.2		13.4			
Sri Lanka Sweden	3.6	9.2	1.0 9.8	6.2		2.3	
						60.6	
Switzerland	1.1	2.6	23.0	-1.8	2.9	32.5	
Taiwan Thailand	5.0	5.2	15.2	1.8	6.8	162.2	
Thailand	6.1	6.5	14.2	5.0	5.6	24.0	
Turkey	17.7	11.0	12.8	18.9		4.0	
Ukraine	-2.6	4.5	0.8	16.8	4.0	0.2	
United Arab Emirates	1.6	3.5	5.4	6.8	4.8	3.3	
United Kingdom	5.3	4.5	132.6	2.5		363.0	
	4.9	3.5	1,001.9	2.9	3.8	1033.8	
United States Vietnam	10.8	13.4	6.9	23.9	14.3	24.4	



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