Insurance Industry Investment Overview - Explanatory Note

Not surprisingly, there is a vast amount of detailed info out there on insurance. In this briefing note, I have simplified wherever possible. To save duplication, time and effort, I also suggest a scanned reading of the Columbia University report on valuation.

http://www.columbia.edu/~dn75/Analysis%20and%20Valuation%20of%20Insurance%20Companies%20-%20Final.pdf

This report contains line by line statistical breakdown of financials statements for the various insurance segments.

Plus, I suggest a glance at the more recent report by Deloitte on 2019 M&A activity

https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-ma-insurance-outlook.pdf

I have collated all the relevant charts into the appendix.

As usual apologies for any errors in grammar, format etc. I would rather spend the time looking at making money than looking at apostrophes.

Table of Contents

Introduction

Warning - Dullness Ahead!

Let’s start with a scenario..

Your at a party or a conference, a stranger suddenly sits next to you, “Hello! My name is Hans, I live in Munich ...I’m an accountant working in the insurance industry”

You see your life draining away before your eyes..

Now, I am not sure which one of those facts would top the annual “dull” charts, but let’s face it (my bet, accountant, followed by Munich!) insurance might be a good fourth!

In other words Insurance is boring. As we will see, It needs to be. Investing in insurance is also boring, perhaps more so. But, as hopefully this report will illustrate, dull and boring can be good. Especially if you are a value investor.

So, apologies for a boring report about a boring subject, but, hey get over yourself. It could be worse, you could be Hans… sorry Hans...for being forced to sit next to boring old me.

Are You a Buffett or a Taleb?

I won't insult the intelligence of anyone who has dealt with insurance companies, by saying the main aim of insurance firms is 'providing a service to their customers'. No, their main aim is dealing with and managing risk.

More specifically, the primary purpose of the insurance business, is in the spreading, managing and anticipation of risk. This is done through portfolio management. The sum total risk of an entire portfolio of insurance policies is smaller than that of the individual policies.

In other words, the business is a living example of portfolio theory and dealing with standard deviation in what is often referred to as Value at Risk (VaR).

The primary job of most Insurance companies is to diversify Property and Casualty (PC) and Life and Health (LH) risk, spreading the risk in an efficient way, similar to the role of mutual funds in diversifying away investment risks. In fact, because insurers accumulate substantial pools or a 'float' of funds in conducting their business, via premiums, the comparisons with mutual funds is an important one. This is because Insurance firms also diversify risks for their stakeholders by investing in their floats in diversified investment portfolios, usually fixed income bonds and other, supposedly "safe,dull and dependable' products.

Investing activities are particularly important for LH insurers. For many LH insurers, the spread between the return on investments and the interest cost of insurance liabilities is the primary source of income. That said Investment income is also significant for PC insurers. PC insurers accumulate substantial funds due to the time gap between the receipt of premiums and payment of claims, and they invest and manage these funds to generate investment income. This income contributes to earnings and so affects the pricing of insurance policies.

But where do Buffett and Taleb come in?

When people talk of Buffett they often mention his insurance firm GEICO. They then usually go on to state, ‘it’s because he wants to invest the float’. Well this is actually on partially true.

The difference between Buffett and Taleb demonstrates two philosophies of investing and applies them to insurance industry valuation.

If we look at the industry as a whole, the insurance sector referred to as Property and Casualty is probably the easiest to analyse because they underwrite insurance products of short duration and predictable risk. This means that claims for losses are usually made during the policy period and statistically, they work within certain standard deviation, there are few high sigma or ‘Black Swan’ events. They might have the occasional hurricane but that can be managed. They are stable, uneventful and low risk. Would it surprise you to learn that Buffet’s GEICO is, primarily, a PC firm, he likes low, predictable, manageable risks.

Insurance products which contain extreme events, ‘Black Swans’ in Taleb’s statistical terms (impress your new friend, Hans, by saying these are actually known as a Mandelbrotian distributions) are harder to assess. For example, how do you account for asbestos or other work related claims that may be made decades after the event? “Fat tail’ insurance companies have to provide a quote today for a loss that might happen 20 years later. Taleb is an options trader, he likes outside risks for opportunity. If he owned an Insurance company it would probably be an LH company.

So just decide on your own philosophy. Predictable risk or opportunity. But remember..Insurance is meant to be dull.

What is an Insurance Company?

As Hans would be happy to explain in great detail, this is not as simple a question as it might first appear.

Insurance as a product is unique, the final cost is often unknown by the purchaser. Revenue, called premium payments, are received by the company before anything happens. The company makes money by not having to do anything. But the services provided by an insurance company, for their premiums, can vary.

The Global Industry Classification (GIC) system classifies insurance companies as follows:

- Life and Health (LH) Insurers - Companies providing primarily life, disability, indemnity or supplemental health insurance.
- Property and Casualty (PC) Insurers- Companies providing primarily property and casualty insurance.
- Multi-line Insurers – Companies with diversified interests in life, health, property and casualty insurance.
- Reinsurers – Companies providing primarily reinsurance.

- Insurance Brokers – Companies providing insurance and reinsurance brokerage services.

Insurance companies are also classified based on their form of ownership, mainly stock and mutual companies (mutual insurers, which are owned by their policyholders, can issue debentures and similar financial instruments but not common stock). If you don't know what a stock company is, shame on you.

In reality, most insurers are stock companies.

For our purposes when looking to the industry in this briefing note, generally, unless otherwise stated, we will be discussing the three main business areas LH, PC and something called Distribution Channels - here used as referring to Brokers and how insurance is sold to the customer. For our purposes, this will save confusion and covers most areas.

Competition

Insurance markets are highly competitive. In the PC industry, a large number of insurers sell relatively similar products. There are modest barriers to entry, minimal economies of scale, and low levels of market concentration. Generally, no single company or group of companies dominates the market.

Competition in the LH industry is also intense although, compared to PC insurance, LH products are generally less bland and similar and there are fewer LH insurance companies. Unlike PC insurers, which compete primarily within the industry, LH insurers also compete with banks and other financial institutions. This is especially true for variable annuities, investment products, and asset management.

What Do They Do?

So, we have different types of insurance firms. But, in practise, most insurance contracts are classified as either property and casualty (PC) or life and health (LH) policies. Most insurance companies specialize in either PC or LH insurance, but some have significant operations in both areas:

PC insurance are contracts providing protection against:

- Damage to or loss of property caused by various perils, such as fire, damage or theft;
- Legal liability resulting from injuries to other persons or damage to their property;
- Losses resulting from various sources of business interruption; or
- Losses due to accident or illness.

(Just remember, Berkshire Hathaway is a PC Insurance company.)

LH insurance:

- Contracts that pay off in lump sums or annuities upon the insured’s death, disability, or retirement.

(Some, policies, primarily those related to health, have both PC and LH and can therefore be classified as either PC or LH!)

While many insurers ‘underwrite’ reinsurance policies (insurance sold to insurers), some focus on reinsurance as their core role.

Some insurers increasingly offer products and services that involve little or no insurance protection, such as investment products and fee-based services. This area is important to be aware of. Often referred to as Non-traditional Non Insurance activities (NTNI). Certain parts of this last area has been viewed within the industry as a potential problem and looked into by regulators, (note, the phrase regulators use is systemic risk, they have stopped using NTNI as it causes confusion with some products, more on this later).

And, the industry also includes companies that provide insurance brokerage services (sourcing of insurance contracts on behalf of customers). In recent years insurance has also moved to providing what was called ,

Contracts

Contracts are about uncertainty and risk. More importantly, for us as investors, they affect the planning and investment provisions of Insurance firms.

PC losses are highly sensitive to catastrophic events such as hurricanes, earthquakes and terrorism acts, events which typically have limited effect on LH claims. The required payment for PC insurance claims depends largely on valuation of the insured person's actual loss, while for LH insurance it is often the face value of the policy. PC contracts involve greater future uncertainty than LH contracts. As a result, the frequency and magnitude of PC claims create more volatility than those for LH.

But, in reality, because PC reserves involve greater volatility and uncertainty than LH liabilities, PC insurers are required to hold larger equity cushions and generally invest in less risky assets when compared to LH insurers. They also reinsure significant portions of their exposure, issue insurance-linked securities, and arrange other capital facilities. In addition, because the timing of PC claim payments is less predictable and generally nearer than that of LH benefit payments, PC insurers invest in more liquid and shorter maturity (and therefore less interest rate sensitive) assets, particularly securities. In contrast, LH insurers often invest significant amounts in long term mortgages and risky securities.

So, ask yourself, are PC actually less risk? Remember Buffett and GEICO.

Finally, on contracts, some insurers obtain “thrift” or banking charters and use the charters to cross-sell related products to insurance clients (also referred to as savings and loan companies in the US). For example, small car loans to car insurance clients, mortgages to house insurance clients etc etc.

Is The Insurance Industry Cyclical?

I think the simple answer to this is yes, as an illustration, when businesses are expanding or people buying new houses, they typically require more insurance. So, it might be said, insurance generally follows economic growth, but the industry can also be influenced by its own internal cycle, called the ‘underwriting cycle’.

The underwriting cycle begins when insurers tighten their underwriting standards and sharply raise premiums after a period of severe underwriting losses or other negative shocks to capital, for example, investment losses. Stricter standards and higher premium rates lead to an increase in profits and accumulation of capital. The increase in underwriting capacity increases competition, which in turn drives premium rates down and relaxes underwriting standards, thereby causing underwriting losses and setting the stage for the cycle to begin again.

What is Happening in the Industry at the Moment?

Note - because of recording methods, figures tend to be a little historic (2016ish). But not enough to affect any trends.

This background information is all very nice and required to understand what is to follow. But, as investors we want to know are we going to make money and how much? So, firstly, I will describe things generally and then drill down into some specifics. Before we start, remember, this is Insurance, if you want spectacular growth look away now.

General

As will be described, with a low interest rate environment affecting bond prices, challenging returns in the equities market and a tighter regulatory regime, the global insurance industry is undergoing turbulent times. Or at least turbulent for an industry that prides itself on being dull. The impact of price-comparison websites (referred to in the industry as Aggregators), the spread of mobile phones in emerging markets and other technology developments, are causing a race to go digital, forcing insurers to adjust their long, centuries established, business models.

These changes, along with slowing growth, due to mature markets in North America and Western Europe, are highlighting areas of poor performance and competition, providing opportunities for investors.

With, as will be seen, the insurance areas of LH and PC flattening, mature markets are exhibiting slower growth rates than insurance in emerging markets (Unsurprisingly. This is the same in most industries we have looked at). Analysts are beginning to report major changes and differences across the various insurance businesses.

Of the three main segments, only the smallest, private health insurance, has seen good growth globally, expanding the fastest in the Asia-Pacific (APAC) region at 17.7%, albeit from a small start, in 2016. But, the big growth areas were confined largely to China and India, the world's fastest-growing country markets for insurance overall. Analysts are quoting a projected compounded annual growth rate (CAGR) in the region of 20%+ going forward in these regions.

It is anticipated that growth, in the next few years, despite any economic slow down, will continue to shift to Asia and other emerging markets, due to an expanding middle class in these economies, also due to a slowdown in PC growth in mature markets, this slow down is caused by advances in technology, for example, risk prevention in factories, offices and homes, and safety sensors in motor vehicles. As a result, it is expected that motor insurance and other traditional PC lines, both personal and commercial, are likely to face a slowing growth in the coming years.

Despite these new global shifts and new tech making things safer, costs are not coming down, in fact, they are going up. Many big players are investing in digital and other technologies, for example AI, but are not seeing this translate into lower costs through automation. This is a problem, industry costs will have to come down significantly if insurance wants to retain good margins. To achieve this, analysts consider that the role of direct selling rather than through brokers and the ability to through sell other products will become one of the most important factors in keeping margins healthy, Particularly in light of the increase of online competitors and, as mentioned, the use of Aggregators (price-comparison websites), which are having an impact in developed markets.

So, analysts predict lower margins in mature markets, with greater competition, leading to the need for more variety in products, greater price transparency and lower costs, as well as the need to change operating models of nondirect selling to fully multi or omnichannel models (omnichannel - Hans loves that word! That's why I threw it in).

Let’s look at things in a bit more detail

Outlook across the World

Life Insurance

Regional Growth Trends

Global life insurance gross premiums rose from 1% in 2016 to 3% in 2017! Overall industry profitability has remained stable at 10% in recent years. Emerging markets have accounted for the majority of this increase, led by the developing Asia–Pacific (APAC) countries. Within this region, China and India generated the bulk of the growth, with China contributing more than 85% of the region's total increase. Developing APAC, Eastern Europe, and Latin America achieved a relatively high growth rate of gross premiums in 2017, with, not surprisingly, China accounting for the largest absolute growth of premiums globally.

Africa, APAC, and Latin America are expected to see high growth (in insurance industry terms) in the next few years, while the Middle East is expected to benefit from stable growth. Europe and North America are expected to see a decline. In APAC, the absolute growth in the 2014–15 period was around 8%, which increased in the 2015–16 period to about 12%. However, the growth is expected to slow down to 7 to 9% by 2020s. Currently, Africa, APAC, and Latin America are the fastest growing regions in the life insurance industry globally.

Europe is expected to grow at a flattish rate of 1 to 2%. Latin America, however, is expected to show a slower growth rate of around 8%, a sharp downturn compared to 15 percent in 2015. The slower growth is a result of the recessionary environment in major geographies such as Argentina and Brazil, that also account for the bulk of the regional premiums. However, the industry is expected to grow at an average pace of 10% until 2020s.

APAC alone is expected to contribute about 70% of the global growth until the early 2020s for life, followed by North America, which is projected to contribute about 15% to total growth in the industry.

The growth in APAC has been fuelled primarily by endowment products.

Profitability of Life Insurance

The biggest markets in life insurance, UK, US and China, demonstrate significant differences in terms of profitability. For example, the current trend in the United Kingdom is a move toward less capital-intensive products (which are also less profitable). As a result, the return on equity (RoE) has declined there in recent years. In the United States, the profitability has reduced only slightly, whilst the industry has seen a shift from what are described as ‘variable’ products to longer term endowment policies. In China, the life insurance industry has seen a slight improvement in profitability in the last couple of years, driven by the industry’s push to move toward more value-driving products.

Historically, Latin America has had the highest RoE among all regions: 24% in 2016 and 23% in 2017. During this time, Argentina and Brazil led the region with RoEs of 37 and 30%, respectively. Two factors explain this result. Firstly, bancassurance (selling insurance through banks) commands lower commissions, increasing profit margins for insurers compared with broker- dominated markets. Secondly, a low loss ratio means that products such as life insurance are profitable. (Life makes up 15% of all products in Latin America).

Eastern Europe has the next-highest profitability, led by Hungary (25%) and the Czech Republic (22%).

The Future

In recent years, life insurance has faced challenging regulatory environments and low interest rates. However, momentum is expected to pick up in the next couple of years. Premiums are forecasted to grow at a CAGR of around 4% through early 2020s.

The United States is expected to have the highest contribution in global life insurance premiums, and China will be close behind with one of the highest CAGRs through the 2020s. The growth in developed markets is expected to rise gradually, with insurers in Western Europe placing greater emphasis on products that are less capital intensive. Brazil, India, Indonesia, and Russia are other markets to monitor for growth in the near future.

The life insurance industry in the United Kingdom has seen funds moving out of annuities and into pensions due to changes in regulation. Within pensions, there is a shift from defined benefits (DB) to defined contributions (DC). In the United States, the industry has seen funds moving from variable products to endowments due to poor market performance and fears of rising interest rates (let’s see how that might change, due to Mr Fed). China's life insurance industry has witnessed a shift from investment to protection products with strong growth in annuities. China's overall life insurance industry is expecting strong growth.

As mentioned above Life insurance growth is expected to slow down, falling from 4.8 percent to the 4% mark. Although emerging markets are contributing heavily to the growth, they could not offset the modest performance in mature markets, which still account for the bulk of premiums.

In basic terms, good growth in economic terms is reflected as good growth in life insurance. In 2016, for example, high growth in emerging Asian countries such as China and India drove the growth in life insurance. Overall industry profitability, measured as RoE, declined by approximately 1% point to about 10.6% in 2016 and is expected to fall further to about 10% until 2020 given a low interest rate environment and reliance on fixed income investment products.

Life Products, Who Buys What?

Globally, the life insurance product mixture has been stable over the years, with endowments the most popular product, accounting for about 40% of the total life insurance market. But there are variations. The share of term life in the total life insurance industry has been fairly constant at around 7%. Term life insurance (fixed payments for a fixed period) is considered a traditional, pure, insurance product with stable demand across the globe.

Within the life insurance product mix, a number of regional trends point in different directions.

In APAC, endowments are the leading product with a share of about 60% , followed by annuities with about 15%. The remaining 35% comprise term life, group life (generally company or union policies covering groups of people), and Unit Linked (UL, insurance linked to investments) products, in somewhat similar proportions.

In EMEA, the major product is group life with a share of about 40% , followed by endowment products, which also account for about 35% of the life insurance total. The next major product group is UL, followed by annuities and term life.

In the Americas, group life is also the major product with a share of approximately 30%, followed by UL products at about 25% of the total for life insurance. Endowments and annuities have somewhat equal shares of about 20% each, with term life accounting for the remainder.

The absolute growth in life insurance in 2015–16 declined to around €79 billion, from about €96 billion in the previous year. Any absolute growth is driven by endowment products. This large share is driven by the emerging Asian markets such as China and India. In China, endowment growth is supported by the demand from China's increasing aging population. This customer segment prefers savings- and pension-type products, which pushes sales of endowment and annuities products.
In India, endowment growth is a result of increasing financial inclusion measures implemented by the government through insurers.

The high growth in endowment products is flanked by moderate growth in other mature markets such as Hong Kong and the United States. Other mature Asian markets, such as Singapore and South Korea, have also posted growth in endowment sales, while Australia and Taiwan have witnessed a slight drop. Japan has seen a larger drop of about €1 billion (about 0.6% of endowment premiums in 2015) in its endowment premiums as a result of negative interest rates in the market, a trend that affects the life insurance industry as a whole.

Apart from Belgium, France, Spain, and the United Kingdom, most major Western European markets saw declines in endowment premiums in 2016 as compared to premiums in 2015, with major markets such as Germany declining by as much as €0.3 billion. In Belgium, for example, growth recorded in endowment products is partially explained by the fact that these products were practically the only alternative to savings accounts when several banks lowered the interest rate on savings.

PC

In PC insurance, once again Latin America, the Middle East, and APAC have, in recent years, recorded high growth of 23%, 12%, and 6% respectively, while North America, Europe, and Africa recorded only 4%, 0%, and -2% growth, respectively, But, a slowdown in overall growth is expected.

Regional Growth Trends

Mature markets in Asia have experienced a sluggish growth that is predominantly driven by the slowdown in Japan's PC insurance industry, which is one of the most concentrated markets in the world. Three players have more than 80% of the market share and the industry has been witnessing very low profitability.

Middle Eastern markets have generated a strong growth of 15% in motor insurance premiums in the past five years and are also expected to keep growing at an average rate of 13 to 15% p.a. In early 2020s.

The Italian PC market has had back-to-back years of decline, further driving the Western European market down. Along with motor insurance, fire and property premiums have also faced consecutive declines in Italy, raising questions about the overall economic status of the country, which is still struggling to put its GDP growth back on track. The competitive dynamics of the Italian auto market, currently at the lower end of its cycle, has kept growth in the motor insurance market relatively low. While the Italian market is currently the ninth largest PC market globally, going forward, it is expected to remain flat or increase only slightly, since tariffs are expected to rise.

The global PC insurance industry grew at a rate of about 5% over the last five years and is also expected to report stable growth at about 3 to 4% going forward . Motor and liability lines delivered the highest growth of up to 6% with fire and property registering the lowest growth among all lines at 3.9% annually from 2010 to 2015. Motor is expected to remain the largest line of business and keep driving overall PC growth, with a growth rate of around 5 percent.

Growth in Premiums

From 2016 to 2017, 28%of the growth in premiums came from the emerging markets of China and India, where the PC industry rose at a CAGR of 14% over the same period. This bump can be attributed to rising income levels, greater awareness of products, and increased government-backed penetration. For instance, the size of the crop insurance segment in India grew fourfold from 2016 to 2017 after the government introduced a new scheme.

PC - Who Buys What?

In North America, liability and accident products are forecasted to improve growth from 2017 to 2025, while the other three product categories are expected to experience slowing growth. Liability insurance in the United

States is expected to rise in the coming years because of more robust economic growth caused by QE (!) and impact from the new tax law's Base Erosion and Anti-Abuse Tax (BEAT) provision.

As Western Europe's major economies recovered from the Great Recession in 2008, growth in PC products was sluggish until 2017. In Spain, for example, the number of liability policies sold dropped as the country was embroiled in economic crisis from 2008 to 2014. However, Western Europe is predicted to show a slight improvement from 2017 to 2025 across all PC products.

Growth in Premiums

Rising demand and untapped market potential in the accident, liability, and motor products have caused PC premiums to rise in emerging markets (such as Latin America and developing APAC) from 2009 to 2017. This trend is also expected to lead to future growth.

Retail premiums grew faster than commercial premiums from 2013 to 2017 in all regions except developed APAC. In the emerging markets of developing APAC and Eastern Europe, retail premiums increased at double the rate of commercial ones in this time period. The United States, which underwrites almost half of the global PC commercial premiums, experienced a slowdown through 2017. However, in the aftermath of natural disasters in 2017, rate increases are expected to boost premium growth in commercial motor and commercial property in this market.

Commercial PC

China has the second-largest share of the global commercial PC market, and its commercial segment grew at a CAGR of 7% from 2013 to 2017. By contrast, retail PC grew 16% during the same time period.

From 2013 to 2017, In the top Western European commercial PC markets, such as France, Germany, and the United Kingdom, premium growth ranged from 0 to 3%.

Huge US commercial PC industry has an outsized influence.

Trends in Regional Profitability

In the past few years, the PC market has experienced deteriorating profitability owing to natural catastrophes in the Americas and APAC.

In North America, devastating losses resulting from Hurricanes Harvey, Irma, and Maria caused the net combined ratio to worsen in 2017 (the combined ratio is an industry wide valuation metric, see the section, valuations, for more detail, but basically below 100 means an underwriting profit, above 100 no profit).

Other developed regions experienced a steady flattish line. Underwriting profitability remained consistent in Western Europe, for example, with an average net combined ratio of 95%. However, it is expected to deteriorate in the future due to a softer rate cycle. Profitability in developed APAC stabilized in large part because of Japan, which accounts for almost 50%

of the claims incurred in the region. That country improved its profitability thanks to the absence of natural disasters in 2017.

Trends in Motor Insurance

Motor insurance has led growth in the PC industry with a CAGR of 7% from 2016 to 2017. This increase was primarily because of improving macroeconomic conditions in North America, a rise in disposable income, and the increasing number of vehicles in emerging markets.

In developing APAC, China currently generates 90% of the growth in motor premiums. More affordable cars in the Chinese market provided a boost for the retail motor segment. Other major contributors to growth were the developing markets of Argentina (caused by inflation), India, and Poland and the developed markets of Canada, Germany, and South Korea.

Forecast for PC Insurance

A new wave of ‘insurtechs’ has disrupted the PC insurance industry and could heavily influence the growth of premiums. While macro factors will likely continue to shape premium development, rapid technological innovations (such as usage- based insurance, blockchain, robo-advisory, and the Internet of Things—especially in pricing and distribution) are transforming the insurance landscape across product lines. More specifically, the sharing economy could create new products by shifting risks into commercial products. Lifestyle changes for younger generations, are increasing demand for flexible insurance coverage.

On the regulation side, the rising demand for transparency could reduce the sale of certain product types, especially bundled products. At the same time, increased litigation could expand the demand for liability insurance. Electric and autonomous vehicles could further decrease claims by encouraging safer products. On the downside, the greater frequency and increasing severity of natural catastrophes may result in additional claims, due to climate change.

For these reasons, the global PC market is expected to maintain its momentum in the next couple of years. Premiums are forecasted to rise by a CAGR of 4% through 2020, and mature markets, which account for more than 50% of premiums, would continue to fuel this growth.

Latin America, developing APAC (led by China, India, and Vietnam), and Africa are predicted to grow at double-digit rates in the short term.

Motor insurance is estimated to still account for more than 50% of the total growth of the PC industry, with liability insurance holding a share of about 16 percent of the growth.

The global PC insurance industry experienced a setback in 2016, of about a two- percentage-point decline in RoE. This decline is, however, expected to restabilize at an RoE of approximately 9 to 10% for 2020. The combined ratio of the P&C industry is reported to be in a stable position at 96-97% but should remain under 100% going forward. With decreasing growth expected in shareholder’s equity until 2020, RoE is expected to remain stable even after a slight increase in the net combined ratio.

Health

The global health insurance market grew 5% in 2017. North America and developing APAC were the top two regions by contribution. Developing APAC, followed by Africa, had the best track record for growth rates from 2014 to 2017.

North America continues to lead the growth of health premiums, with an increase in premiums of USD43 billion and a 5% CAGR of around. Medical cost inflation and an aging population helped to boost demand.

In developing APAC, China recorded a CAGR of 40% from 2014 to 2017. This trajectory can be attributed to public greater wealth levels, and unmet demand for basic medical insurance.

Africa has also witnessed huge growth, with Egypt and Kenya achieving CAGRs of 21 and 22% ,respectively, from 2014 to 2017. Egypt's robust market can be attributed to increased government spending on health and improved infrastructure. In addition, Misr Insurance (the biggest player in Egypt, with 48% of the market) has seen a sharp increase in its medical insurance line. (note, Misr looks like it is only listed on ESX).

Kenya's rise can be attributed to an increase of around 8% in penetration over the past several years. The country's top six players, which constitute around 80% of the market, expanded by a CAGR of 48% from 2014 to 2016.

Overall, the global health insurance market grew by 6.5% from 2010 to 2016 and 5.3% CAGR in 2017.

But, although health insurance is a growing line of business, the commercial segment appears to be declining significantly. In the United States, for example, profitable
from 2010 to 2017, the global health insurance market’s average combined ratio was around 98 percent. However, profits have declined over the past few years.

The recent decrease of global underwriting profit can be largely attributed to North America. In Canada, for example, the net claims incurred grew by a CAGR of 11% from 2010 to 2016 while net premiums earned rose by 8%. The increase in net claims incurred was caused by cost inflation, higher utilization of services, entry of new services and products, and regulatory changes. The increase in net premiums earned was because of a 70% jump in average healthcare costs during the past two decades and an aging population.

The United States followed a similar pattern: from 2010 to 2016, the CAGR of net claims incurred outpaced net premiums earned by 1% point. The increase in net claims incurred was caused by poor claims performance in the individual market and the growth of managed Medicaid products, which tend to have high claims rates but low margins. In addition, total healthcare spending grew by around 6% a year from 2010 to 2016, and this steady increase contributed to the rise in net premiums earned.

European profit margins on health have declined to about 3% and are expected to remain in this range for the next several years. The biggest markets in health insurance, such as France, Germany, and the Netherlands, had a net profit margin of about 2% on average in the 2015–16 time frame, whereas the smaller markets, such as Russia and the United Kingdom, generated margins above 10%

The claims ratio in the UK’s health insurance sector has been stable historically, which has helped in maintaining moderate profitability. In Russia, health premiums are on the rise, and profitability has received a boost. This uptick is due to an increase in prices set by healthcare centres, promotion of risk programs that offer limited medical services/payments on occurrence of insured events, and the decline of state-sponsored health programs.

The expense ratio (another industry ratio, explained later) in different regions may vary significantly depending on a few factors, including the difference in product preferences, which drives differences in commission rates. Administrative expenses can also differ by region due to cost of operations, investment in digitization, and general operating expenses.

Forecast For Health Insurance

The global health insurance industry is currently dominated by the the United States, which accounted for around 70% of health premiums in 2015. The annual share of emerging markets is expected to increase in the coming years as income levels rise, coverage widens, and more private health insurers enter the fray. The rapidly growing markets of

China and India are poised to lead this growth and increase APAC's share of the global private health insurance premiums from 4 percent in 2015 to 11 percent in 2020.

Premiums are forecasted to grow at a CAGR of around 7%. The contribution by emerging markets to global premiums is expected to continue to grow in the future. The highest-growth markets will be developing APAC (particularly China and India) and Africa, which are predicted to expand at double-digit rates.

Distribution Channels

Basically it sales, but, let's quickly describe what a Distribution Channel is and a few commonly used terms within the industry.

Tied Agents and Branches

There are two types of tied agents, Self-employed tied agents work exclusively for one or a few companies, or for the partners cooperating with a company. Paid on a commission-only basis.

Salaried Employed Tied Agents

These work exclusively for one or a few companies. Paid via a salary plus commission.

Insurance Distribution through branches implies that the salesmen are part of the insurer's staff. In other words, they receive a salary, not commission.

Brokers are independent insurance distributors who are not tied to any company or salaried. They represent the client, not a company, and distribute products from a panel of companies.

Bancassurance involves distribution through bank branches.

The **“direct and other channels**” category includes two components. Direct channels refers to insurance distribution through remote channels, that is, telephone, internet, email. ‘Other channels’ includes channels not included in any of the above categories for example, retailers, car dealers, worksite marketing, for example someone buys a car and gets a new insurance policy through the car dealer.

The distribution function, in the insurance industry, is of great importance, reflecting the traditional ‘sales growth by pushing products’ model in the industry. It is also of importance for value investors, helping understand where sales growth is coming from and how it varies globally.

Distribution has evolved over the years as insurers try to better connect with their customers. In the pasta the industry has seen a dominance of face-to-face selling (agents and brokers). However, with the increasing penetration of the Internet and customers preferring convenience, the digital mode of sales is becoming increasingly popular.

Emerging Trends

In most regions, the direct channel has enjoyed robust growth resulting from higher internet penetration and consumer preferences toward convenience and price.

A look at motor insurance across the regions, however, reveals interesting variations. Whilst most UK and German direct players have outperformed their markets in both premium growth and profitability as measured by the combined ratio, Western Europe has recently endured stagnation in the direct channel, but Eastern Europe continues to exhibit steady growth in direct motor insurance sales.

Most Eastern European markets have seen the direct channel gain market share. In Russia, the strong growth of direct motor insurance sales results from mandatory motor third-party liability (MTPL). Starting on January 1, 2017, all insurers selling MTPL have had to make these products available for purchase online (called eOSAGO).

Many European insurers have embraced aggregators (price comparison websites) as an effective way to reach consumers. The online price aggregator channel has progressed significantly over the past decade. As European aggregators have evolved, they have helped insurers dramatically expand their customer reach, but at an inevitable cost.

Even though the industry is currently dominated by agents and brokers, both life and PC insurance segments have seen direct channels make progress overall. Current trends suggest a pronounced shift toward an approach that includes both traditional and direct channels in the coming years.

Distribution in Life

In life insurance, the distribution landscape varies across regions. The distribution mix across regions reflects trends in local markets and consumer preferences, since insurers work with distributors to tailor products and a sales-force strategy to align with the local environment.

Industry analysts see a preference for brokers and independent financial advisers in the Americas, while Europe, the Middle East, and Africa (EMEA) rely more on bancassurance. In the Asia–Pacific (APAC) region, the traditional tied agency channel is still more dominant, as people prefer personalized advice.

In the US life insurance market, the direct channel has been gaining shares since 2012. This channel is increasing in all customer segments as insurance becomes more digital. Since digital channels are more prevalent in life and protection products,
a decrease in individual annuities is matched by a decrease in the share of brokers and agents.

The bancassurance channel has declined in popularity in the United Kingdom for two reasons. First, there has been a decline in certain product sectors, such as life-wrapped investments and mortgage-linked protection plans, for which banks were the key distribution channel. Second, most banks have decided to avoid the cost of reorganizing their businesses and training their financial advisors, which the 2013 Retail Distribution Review regulation required them to do, if they wanted to continue selling investment products. This regulation also reduced the market share for the tied agents and branches channel. As a consequence of these changes, the broker distribution channel increased has its share of sales by around 7%.

The bancassurance channel lost share in China because of a new regulation, issued jointly by banking and insurance authorities, which states that one physical bank branch may work with a maximum of three insurance companies.
This law has helped the tied agent and branch channel become dominant, increasing its share of sales to around 56%.

PC Distribution

The situation is similar for PC distribution. Just as in life insurance, there is no distinct trend in the distribution channel across regions in PC. Over the last few years, Germany, Italy, Japan, and the United States have seen few changes in the distribution landscape. Other countries, however, have experienced significant shifts:
For example, in the UK, the share of the “direct and other” channel has increased substantially in recent years. The UK is the market leader in this trend.
This shift mainly resulted from an increase in motor and home insurance products.

In China, the direct and other channel share rose from 31% to 45% in response to the increase of online and telemarketing sales of PC products. This increase is backed by a very strong trend in online sales, especially in motor insurance. Consumers are also tending more toward the digital (online or mobile) mode of purchase.

Growth in Premium

Within Western European countries, such as Germany, France, Italy, the Netherlands, Spain, and the United Kingdom, the growth in premiums was mostly due to the growth in the direct channel. In motor insurance, in particular, where the 2005–15 and 2010–15 periods saw a decline in premiums from traditional channels, the direct channel experienced strong growth at rates of 5.3 % and 6.1%, respectively. Nonmotor lines also grew rapidly at 6% and 6.8%, respectively, for direct channel premiums in the same time periods.

Overall Conclusion on Insurance Growth etc.

As it stands in 2019, the PC insurance industry is riding a wave. According to McKinsey’s 2019 Global Insurance Pools, the industry’s gross written premiums hit USD 1.5 trillion in 2017, up 5.1% from the year before. And despite a number of natural catastrophes, many firms are still awash in cash.

Overall, the insurance industry is expected to perform well but still with different results in terms of profitability across the business segments. Thus, life and PC insurance growth slowed down, while health showed the highest growth rate. From a geographic perspective, top growth opportunities in the global insurance markets come, not surprisingly, both from the fastest-growing markets and from the most sizable developed markets.

In terms of growth opportunities at the geographic level, Latin America and the Middle East are expected to be the fastest-growing geographies. But, to this we need to add the APAC region, where the top line is expected to grow at a brisk pace with health being the fastest-growing segment.

Regulations and Accounting Practises

Well, if you thought the previous section was dull, welcome to the wonderful world of regulations and accountancy! However, consider this the most important section, because it will enable us, as investors, to understand potential flaws in risk management and hidden value. The actual process is long and complex, trust me, I've read it. As a result, I have summarised certain parts.

Background

I do not intend to provide a long history of the Great Recession, especially where Insurance firms are concerned, I will just state certain phrases- liquidity, CDOs, risk and AIG Insurance. You can fill in the gaps. These phrases sum up what is now happening in respect of regulation and accounting practise in insurance and any responses.

Insurers invest in a wide range of assets to meet the needs created by the variety of products they provide. More than three-quarters of insurers' assets are represented by equities and corporate and government bonds. Insurers generally favour these asset types because their risk and term profiles satisfy the demands created by their liabilities. The problems caused in the past have largely come about because a low interest rate environment and a drive for profits through financial engineering has led to taking on of greater risk. This increased risk taking saw moves, by some, into what are referred to as 'Non Traditional No Insurance Activities', or NTNI. Regulators, mirroring banking in many respects, are looking to manage risk and capital requirements.

Please note - Regulators themselves like to use the phrase Systemic Risk, a broader phrase, not NTNI.

What is happening

The main regulations are provided by the International Association of Insurance Supervisors (IAIS), which cover about 97% of jurisdictions, who are laying down a global Insurance Capital Standard (ICS). But different countries are at differing implementation levels. So, for example, Europe is ahead of the game and has pressed ahead with regulations called Solvency II. Others, such as the US are mirroring the suggestions, but have a different legislative framework.

As a minimum, countries and their listed firms should have an ongoing process for recovery, covering those domestically incorporated firms that could be systemically significant or critical, if they fail. The goal is to maintain or restore the business in a sustainable way in the event of financial distress.

Regulators have laid down rules identifying Global Systemically Important Insurers (G-SII) and Internationally Active Insurance Groups (IAIG).

GSIIs are required to have a Systemic Risk Management Plan (SRMP). They must separate their NTNI activities. This is to help reduce or mitigate systemic risks and comply with regulations in respect of self sufficiency, governance, keeping things at arms length and reputational risk.

They must also have a Basic Capital Requirement (BCR), also called an Insurance Capital Standard (ICS). At the moment, in Europe for example, 15 risk measures are used to calculate BCR. This approach is intended to apply a simple structure to all insurance groups while maintaining transparency.

2020 sees the beginning of a five-year monitoring period by the IAIS, the first of two stages for implementing capital standards. During the monitoring period, the IAIGs will calculate the ICS capital requirement on the basis of a standard template and report to supervisors. However, no action will be taken. Initially, the focus is solely on collecting information on how the undertakings apply the ICS worldwide.

The lessons learnt from the analysis and the discussions will then be shared.

The monitoring period will be followed by the second stage, the formal implementation of ICS Version 2.0, the world's first binding minimum capital standard for IAIGs! (exciting stuff this). For Europe, this means that the European Insurance and Occupational Pensions Authority (EIOPA), will be able to use the monitoring period until the end of 2024 to evaluate whether any changes to Solvency II will become necessary as a result of the global ICS.

What is important to know as investors?

From here on I will use Solvency II, the most advanced gold standard example to describe things. Any long term follower of the Sven Carlin Investment Platform, who understands his views in risk, will quickly work out how to take advantage of this situation, perhaps.

There are many elements to Solvency II, but, in basic terms, capital requirements are placed in bands based on their risk free rates, using what is called the volatility adjustment. They are then managed according to their risk levels.

In order to value the 'Best Estimate of Insurer liabilities' (BEL) under Solvency II, the future expected cash-flows of long-term guarantee products are discounted using risk-free rates plus an eventual volatility adjustment in the case of fixed-income markets as calculated by the European regulators, EIOPA.

The risk-free rates are published monthly by EIOPA and are essentially based on swap rates (these are currently 6 month EURIBOR swap rates) up until the Last Liquid Point (LLP), which is set at 20 years. Beyond the LLP, the rate curve is moved to an Ultimate Forward Rate (UFR).

On top of this risk-free rate, EIOPA allows under specific circumstances to add a “volatility adjustment” (as a fixed spread), which is aimed at dampening the “own funds’ artificial volatility” that is caused by fixed-income financial markets. This “artificial volatility” comes from non-default related changes in market values (MV) of assets, for example, the market value of a bond can vary due to market movements other than a default risk, such as liquidity changes.

However, since the insurance companies tend to hold long-term policies etc and aim to hold their assets accordingly, Solvency II states that their own funds (and their required capital calculation) should not be affected by those temporary changes. Since their assets in the Solvency II balance sheet are quoted at market value, ‘marked to market’, SII allows for an adjustment to their Best Estimate Liabilities calculation instead, by applying the volatility adjustment, to the discount rate.

As mentioned earlier, this at first glance appears complex. But in reality they are just attempting to smooth out short term volatility in the markets.

Opinion

What does this all mean as investors? Well we perhaps should look past the technical aspects to the simple facts. The model relies heavily on risk free rates for capital requirements.

The insurance industry invests heavily in fixed income bonds and equities. The new process introduces capital requirements which causes an even greater reliance on interest rates, as additional capital buffers caused by higher rates, mean less investment and higher prices for insurance policies due to risk. So, perhaps, for investors, insurance firms are now even more attractive in a low interest rate environment.

In addition, long term commitments are now tied to shorter term risk free rates. Short term fluctuations have less effect on insurance companies. A significant proportion of insurers' investments are in bond and bond-like assets with fixed maturity values. Where insurers have long-term liabilities and they can hold assets to maturity, they are not exposed to volatility in current market value due to changes in credit spreads and are only exposed to actual defaults. This is very different to a situation where assets are traded or may have to be sold at any time. However, Solvency II currently treats all assets as if they were traded, as if the insurer were not in a position to “ride out” market volatility.

Therefore, the risk element of their investments is actually considerably less than they are budgeting for. They are also now influenced not by the market but by an outside regulator, publishing monthly.

As a result, as long as dull, boring insurance firms stay away from NTNIs and continue to invest in long term fixed income and equities, their risk profile will remain low and is actually lower than budgeted for.

Most insurance policyholders keep paying their premiums even during an economic downturn. This enables insurers to keep investing when others withdraw. Indeed, the existence of a continual flow of premiums enables insurers to provide liquidity to the market and to act as natural buyers of assets that are undervalued during a downturn.

Perhaps, they are a cheaper, more efficient way to invest in fixed income bonds than a fund, which are exposed to liquidity risks from customer withdrawals etc, without the fees attached?

Also, profits and as a result, company valuations, are being surpressed by excessive capital requirements, imposed by a regulator, not market conditions. Will they change at the end of the current 5 year monitoring period?

Note - Please see the last chart in the appendix for a guide to RoC under Solvency II.

IFRS 17

As is typical with valuation of companies, it’s all about the discount rate!

IFRS17 is the International Financial Reporting Standard applied to insurance contracts, in place since 2017, mandatory from 2021. The objectives of Solvency II and IFRS17 differ, Solvency II aims at protecting policyholders against insurers’ insolvency and increasing financial stability. IFRS17 aims at giving a measure of future cash flows to financial markets.

Under Solvency II, the insurer should meet its obligations with certainty (risk free rate plus an artificial spread to avoid artificial volatility) whereas under IFRS17, insurance liabilities should be valued consistently with financial instruments providing similar characteristics.

To quote the accounting regulators:

“Discount rates must reflect the characteristics of the insurance contracts and should be consistent with observable market prices of financial instruments with cash-flows that are consistent with the insurance contract’s characteristics in terms of timing, currency and liquidity”.

IFRS 17 requires a company that issues insurance contracts to report them on the balance sheet as the total of:

- The fulfilment cash flows—the current estimates of amounts that the company expects to collect from premiums and pay out for claims, benefits and expenses, including an adjustment for the timing and risk of those amounts; and
- The contractual service margin—the expected profit for providing insurance coverage.

The expected profit for providing insurance coverage is recognised in profit or loss over time as the insurance coverage is provided. IFRS 17 requires the company to distinguish between groups of contracts expected to be profit making and groups of contracts expected to be loss making. Any expected losses arising from loss-making,
or onerous, contracts are accounted for in profit or loss as soon as the company determines that losses are expected.

IFRS 17 requires the company to update the fulfilment cash flows at each reporting date, using current estimates of the amount, timing and uncertainty of cash flows and of discount rates.

What does this mean in English and why does it matter?

In English, the new accounting standard means that firms will have to apply “a current value” to insurance contracts and recognise profit as insurers provide services and are released from risk. It also means profit or loss earned from underwriting activities are reported separately from financing activities.

In addition, detailed footnotes will explain how items like new business issued, experience in the year, cash receipts and payments, and changes in assumptions affected the performance and the carrying amount of insurance contracts.

In other words, it potentially will be harder to hide rubbish and discount rates and policies will become more standard across firms, making comparison for valuation purposes easier.

Insurance Firm Valuation

Let's take a short look at certain industry ratios etc.

Note - This a fairly broad explanation of the valuation process for insurance companies. To save time and duplication, plus, for a much greater and impressive breakdown, I refer you to the study carried out by Colombia Business School (link below), although this is largely US focused and does not go into the physical mechanics. Warning - it is 182 pages of tax regimes, VaR etc etc.

http://www.columbia.edu/~dn75/Analysis%20and%20Valuation%20of%20Insurance%20Companies%20-%20Final.pdf

First - A Note Explaining the Float

As has been seen, investment income is a significant part of the insurance business

The gap between the receipt of premiums and payment of claims, which creates the so-called float, is often referred to as having four parts. The first, is the interval between the receipt of premium and the occurrence of insured events. In most cases this part is relatively small, because the duration of PC policies is usually short, six-months to a year.

This component of the float is to be found recorded in financial statements under the balance of 'unearned premium liability'.

The other three components, which vary in importance, relate to the gap between when the insured event happened and any subsequent payments. Some insured losses are discovered many years after the event, for example, exposure to asbestos. In many cases the claim settlement process extends over several years, for example medical malpractice litigation. Also, in some cases insurance payments are made over extended periods of time, for example, workers' compensation.

These three components are to be found in financial statements via the balance of the 'reserve for losses' and 'loss adjustment expenses', which insurers are required to accrue when an insured events occur.

As a result, analysis of the float should, primarily, look at the loss reserve (the other three sources of float) and then at the unearned premium.

Combined Ratio

The combined ratio is a specific industry ratio, used as a measure of profitability. It is calculated by taking claim-related losses and general business costs and then dividing that sum by the earned premiums over the period.

$$Combined\ Ratio = \frac{Losses + Expenses}{Earned\ Premiums}$$

The ratio is usually given as a percentage. A combined ratio of less than 100 shows that an insurer is taking in more money from premiums than it's paying on claims and overhead, in other words is making a profit. A combined ratio of more than 100 shows that the insurer is paying more in claim losses and expenses than it's collecting in premiums, a loss!

When looking at insurance firms, people often look at a flood or catastrophic event and then worry about profits. To do this they concentrate on another measure, the loss ratio. This is a mistake. Long-term these events are not major issues. After all, insurance companies occasionally have to pay out money, they know this and build it into their models.

However, just as important to profits is how well an insurer manages to run its operations, and that gauge shows up in the insurer's expense ratio. The expense ratio takes operating expenses and divides them by earned premiums.

The combined ratio, basically, takes the loss ratio and the expense ratio and combines them.
Be aware though, not all firms make the ratio clear, for example breaking it down into regional ratios. You may need to either calculate it direct or use a weighted average.

But, it’s not the whole picture!

Combined ratios are entirely about underwriting profits and losses. They don't include the investment gains that insurance companies earn from the float..

So, a combined ratio above 100 doesn't mean that a company is unprofitable. A business could be profitable because of investment income.

My suggestion, if at all possible, look at all three in comparison across businesses.

Conclusion on Valuation

Good insurance firms make profits in three ways:

- Pricing their policies to reflect risk from losses;
- Pricing to covering costs; and
- Profit from their floats

On top of this, a good insurance company will consistently earn an underwriting profit. In reality few insurance companies actually do, consistently. Analysts consider a pre tax operating profit margin of 10% to be very good in the insurance industry, if rare.

So in practise, the advice is, be happy to identify a firm with consistent underwriting profits. Look to Price to Book and Return on Equity and above all, look to the float!

Appendix

Charts

Here are a series of charts illustrating the points made. Mainly taken from McKinsey Global Insurance Pools 2019 report.

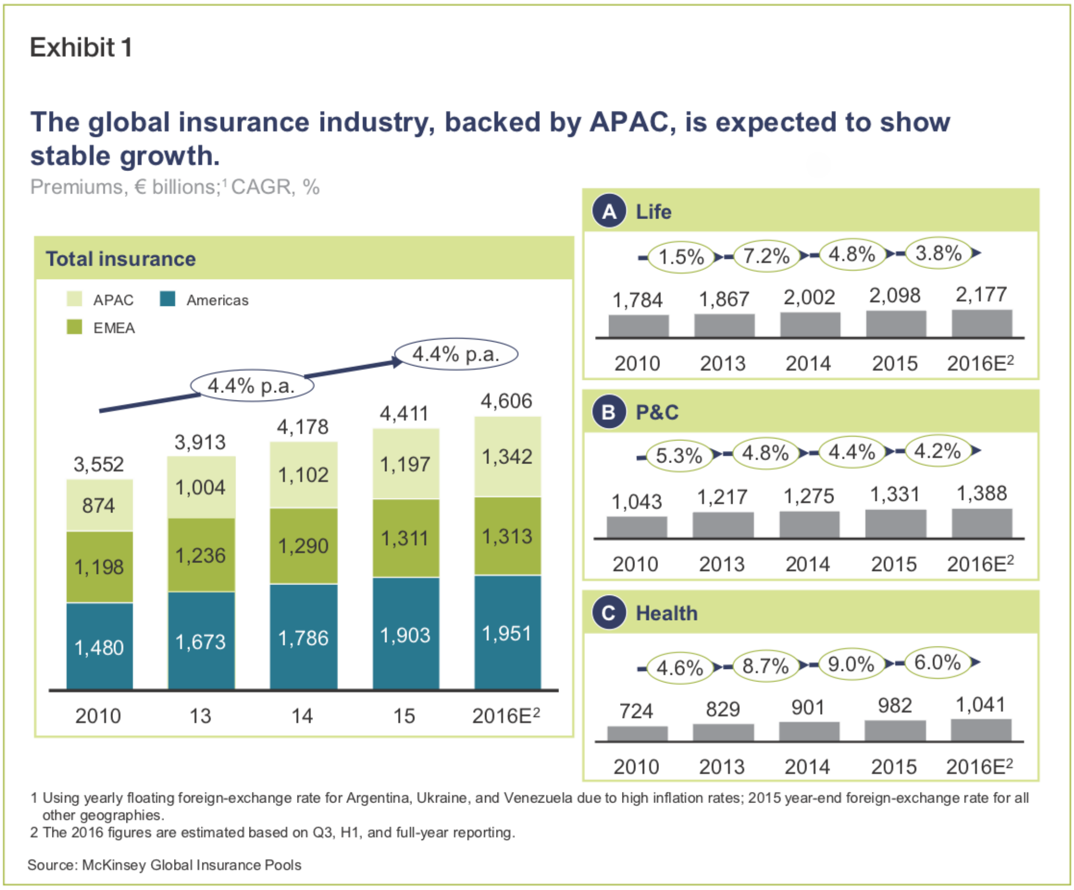
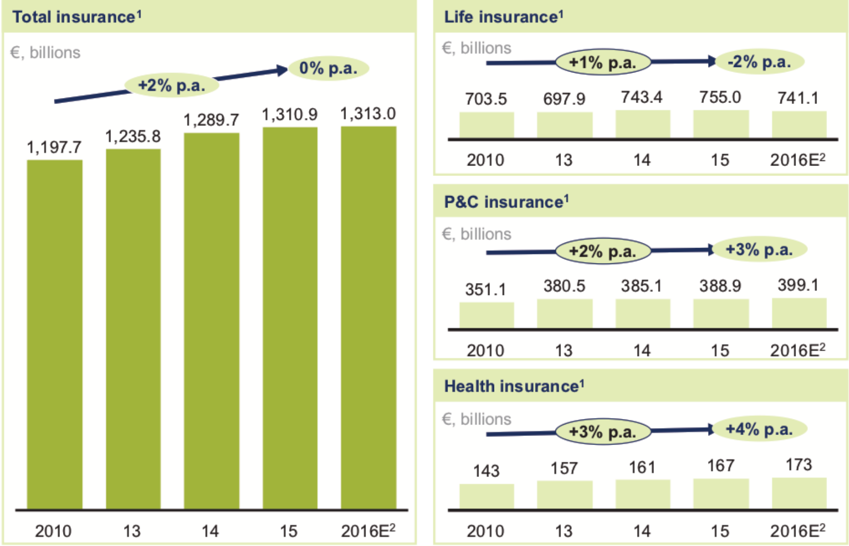


Exhibit 2

Total EMEA premiums are expected to have slower growth in comparison with development in the past four years.

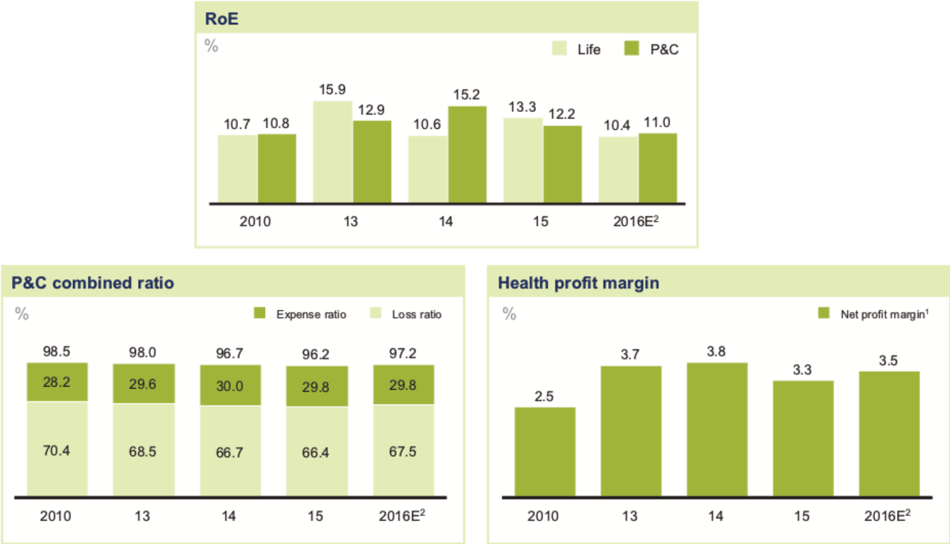


1 Using 2015 year-end foreign-exchange rate for all geographies.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 3

EMEA insurance market profitability is expected to deteriorate, especially in life.



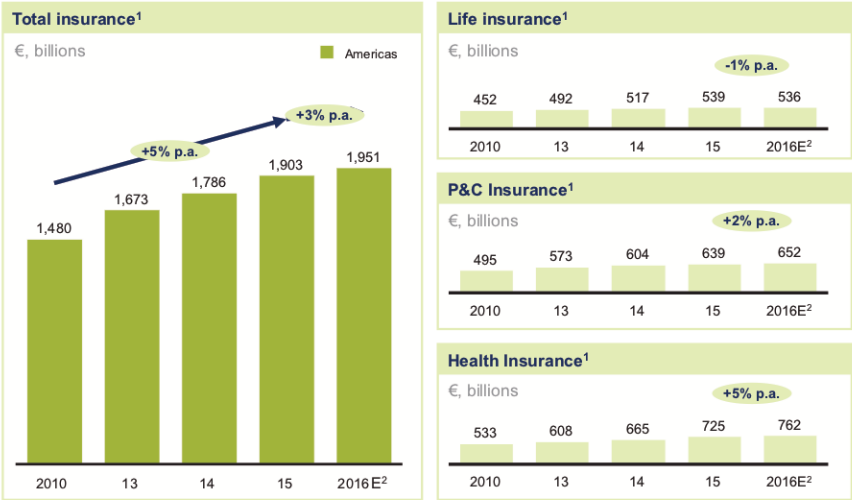
1 After tax profit/gross direct domestic written premiums.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Americas

Exhibit 4

Total premiums in the Americas are expected to grow at 3 percent per annum.

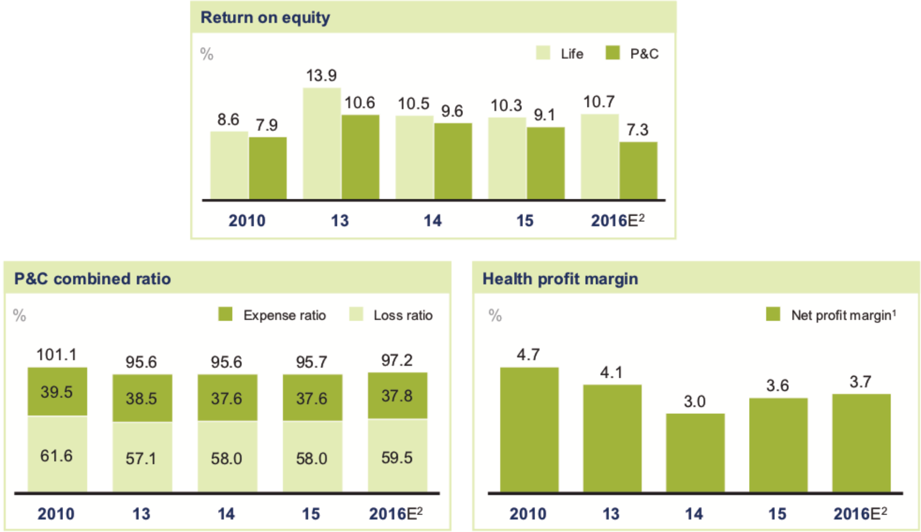


1 Using yearly floating foreign-exchange rate for Argentina, Ukraine, and Venezuela due to high inflation rates; 2015 year-end foreign-exchange rate for all other geographies.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 5

Insurance market profitability in the Americas is expected to improve in health.

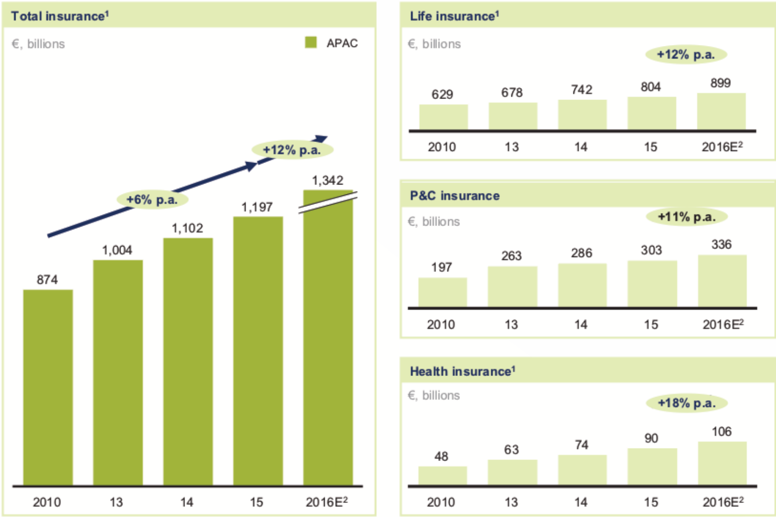


1 After tax profit/gross direct domestic written premiums.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 6

Total APAC premiums are expected to grow at a brisk pace; health will be the fastest growing segment.

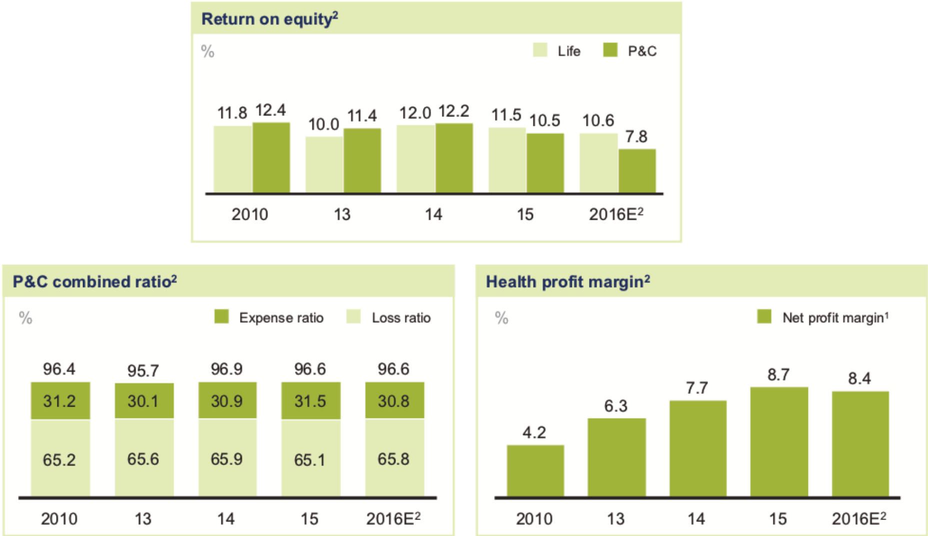


1 Using 2015 year-end foreign-exchange rate for all geographies.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 7

APAC insurance market profitability has been declining.

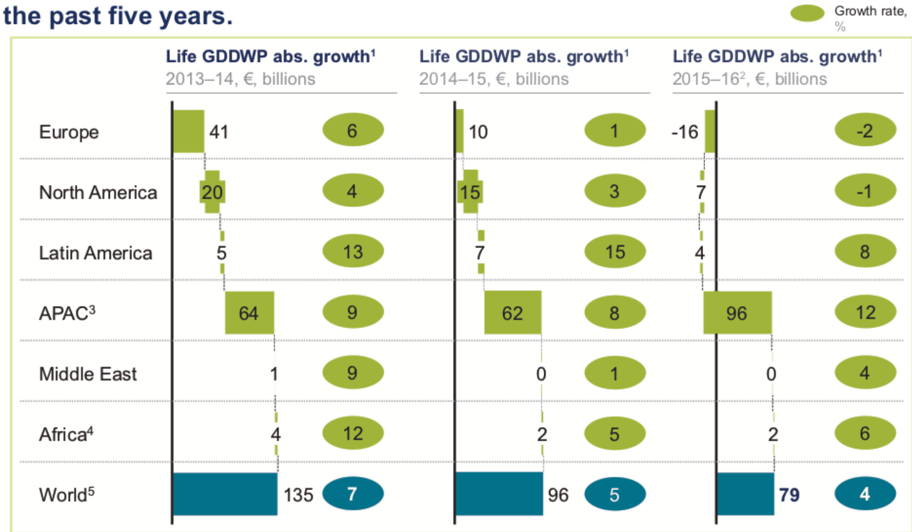


1 After tax profit/gross direct domestic written premiums.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 8

In life, APAC is expected to lead in absolute growth, as it has for the past five years.



1 Gross double-digit written premiums absolute growth.
2 The 2016 figures are estimated based on Q3, H1, and full-year reporting.
3 Asia-Pacific includes Australia, China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, South Taiwan, Thailand, and Vietnam.
4 Africa includes Egypt, Kenya, Morocco, Nigeria, South Africa, and Tunisia.
5 Using yearly floating foreign-exchange rate for Argentina, Ukraine, and Venezuela due to high inflation rates; 2015 year-end foreign-exchange rate for all other geographies.

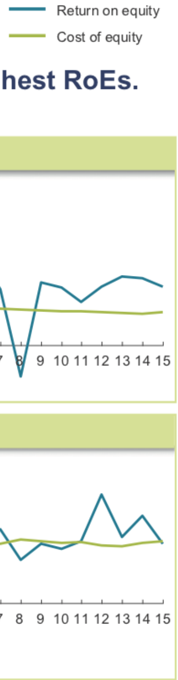
Source: McKinsey Global Insurance Pools

6

Exhibit 11

Return on equity remains above cost of equity for most of the markets; emerging Eastern Europe and Latin America saw highest RoEs.

Life insurance, %

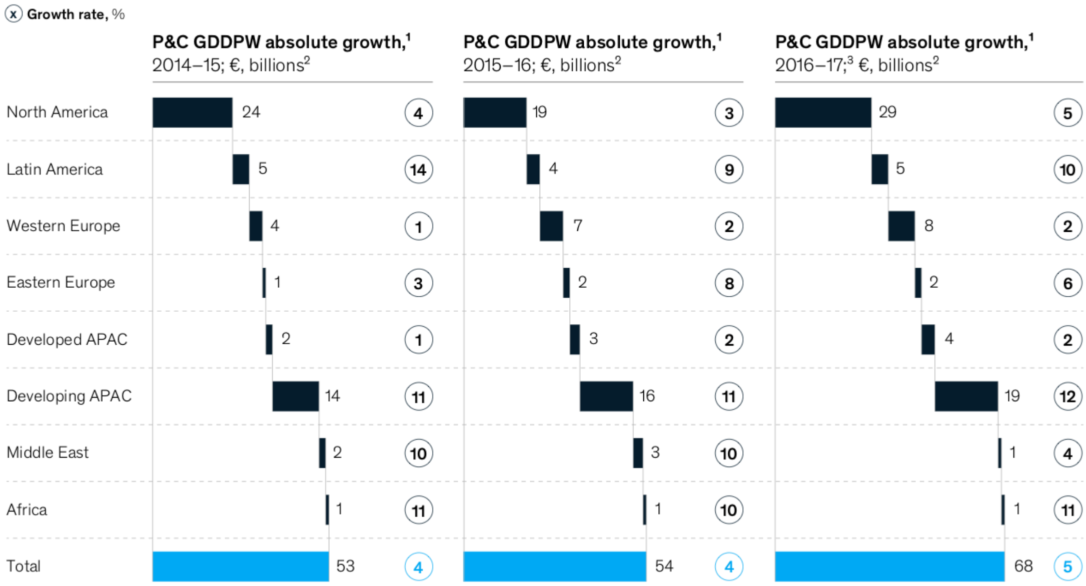


1 Mature Asia includes Australia, Hong Kong, New Zealand, Singapore, South Korea, and Taiwan.
2 Emerging Asia includes China, India, Indonesia, Malaysia, the Middle East, Philippines, Thailand, and Vietnam.
3 Africa includes Egypt, Kenya, Morocco, Nigeria, South Africa, and Tunisia.

Source: McKinsey Global Insurance Pools

Exhibit 1

North America continues to lead the growth in P&C, while developing APAC is the fastest-growing market.

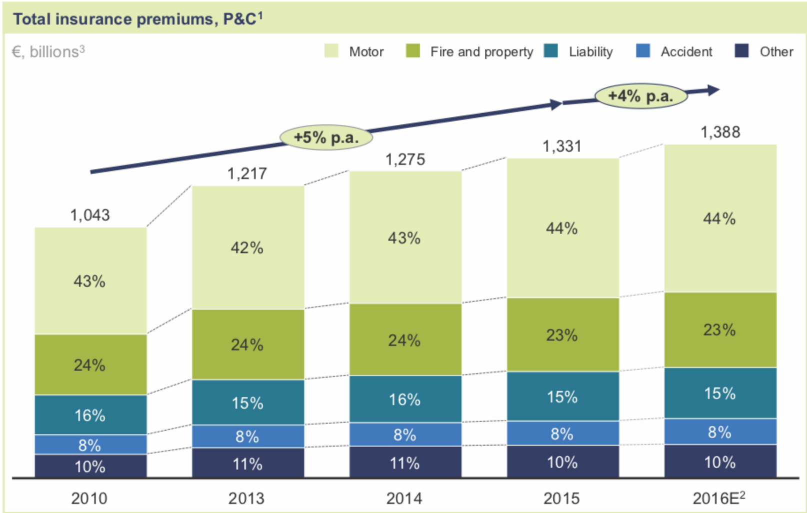


[1] Gross direct domestic premiums written absolute growth.
[2] Average fixed exchange rate for 2016 used.
[3] Estimates for 2017 figures based on Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 13

Motor insurance has been the dominant product in P&C lines and is likely to drive the growth in the future.

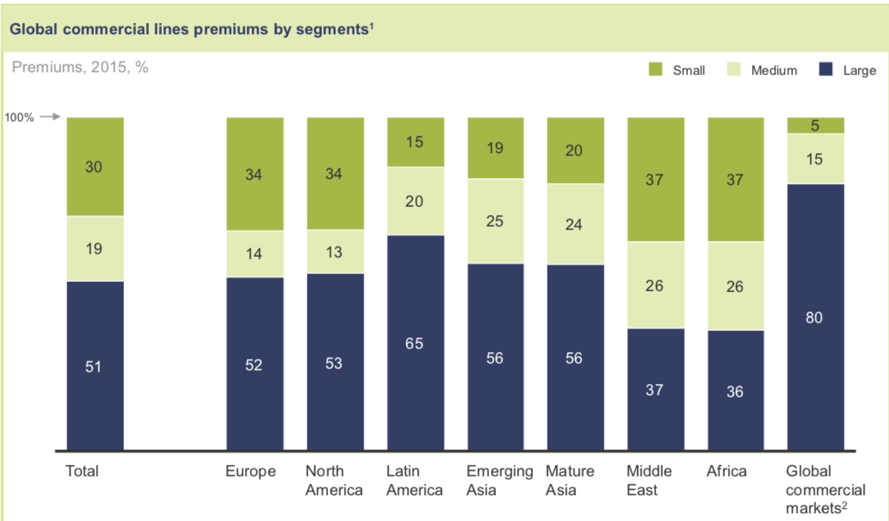


1 Latin American countries Argentina and Venezuela, which have highly inflated markets, have been excluded.
2 Estimated based on Q3, H1, and full-year reporting.
3 Using yearly floating foreign-exchange rate for Argentina, Ukraine, and Venezuela due to high inflation rates; 2015 year-end foreign-exchange rate for all other geographies.

Source: McKinsey Global Insurance Pools

Exhibit 16

Large corporation segment accounts for more than 50 percent of the total commercial insurance business with the largest contribution from North America.



1 Segments are defined as such: small (<$25 million), medium ($25 million–$500 million), large (>$500 million).
2 Includes Lloyd's of London and London companies market.

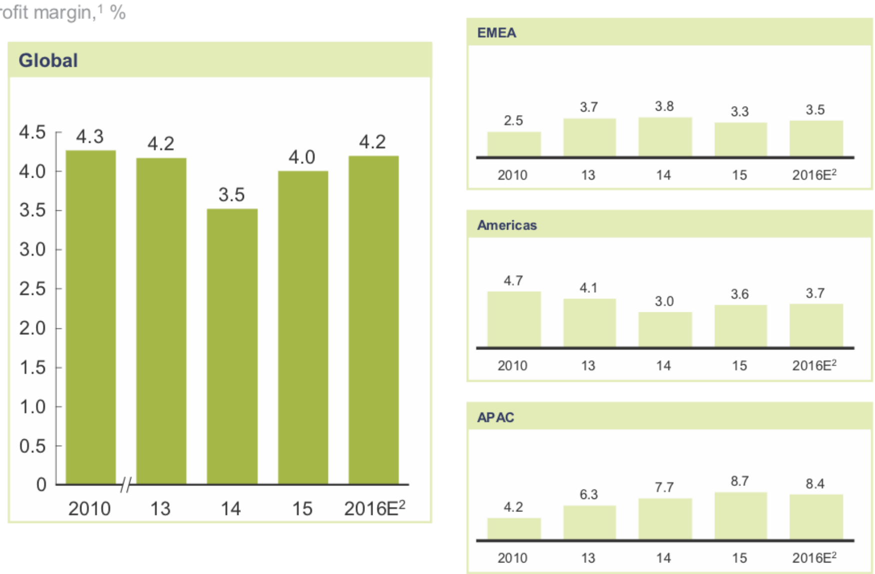
Source: Global Insurance Pools-Commercial Lines Pool

In terms of industries, the three largest contributors to the world's commercial

Exhibit 18

Profit margin for global health insurance industry has been mostly stable.

Net profit margin,[1] %



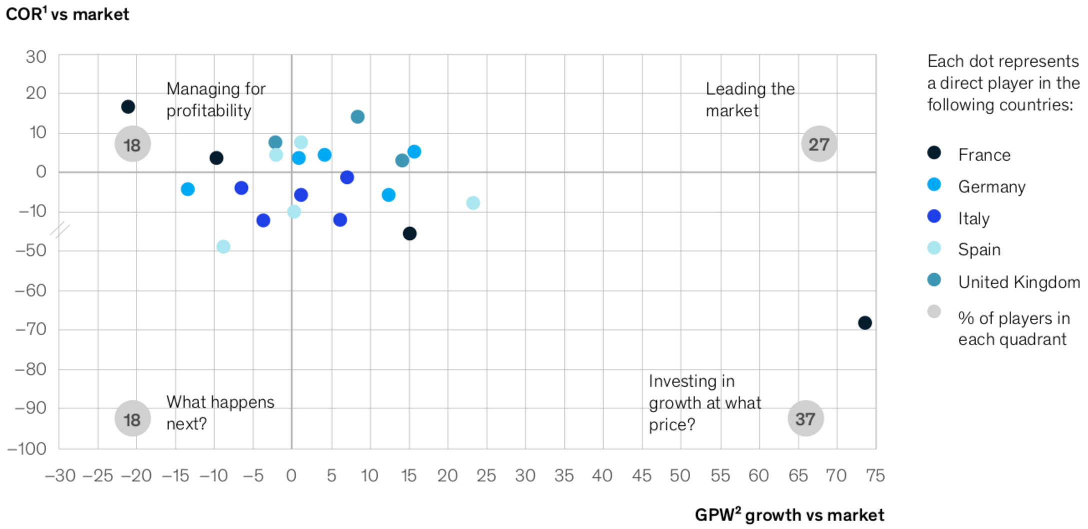
1 Defined as after tax profit/gross direct domestic premiums written.
2 The 2016 figures are based on available Q3, H1, and full-year reporting.

Source: McKinsey Global Insurance Pools

Exhibit 4

Especially in Germany and the United Kingdom, direct players are increasingly able to outperform their markets.

Motor direct positioning vs local market, advantage vs local market, 2015–16



[1] Combined operating ratio.
[2] Gross written premiums.

Source: National statistics, McKinsey Global Insurance Pools

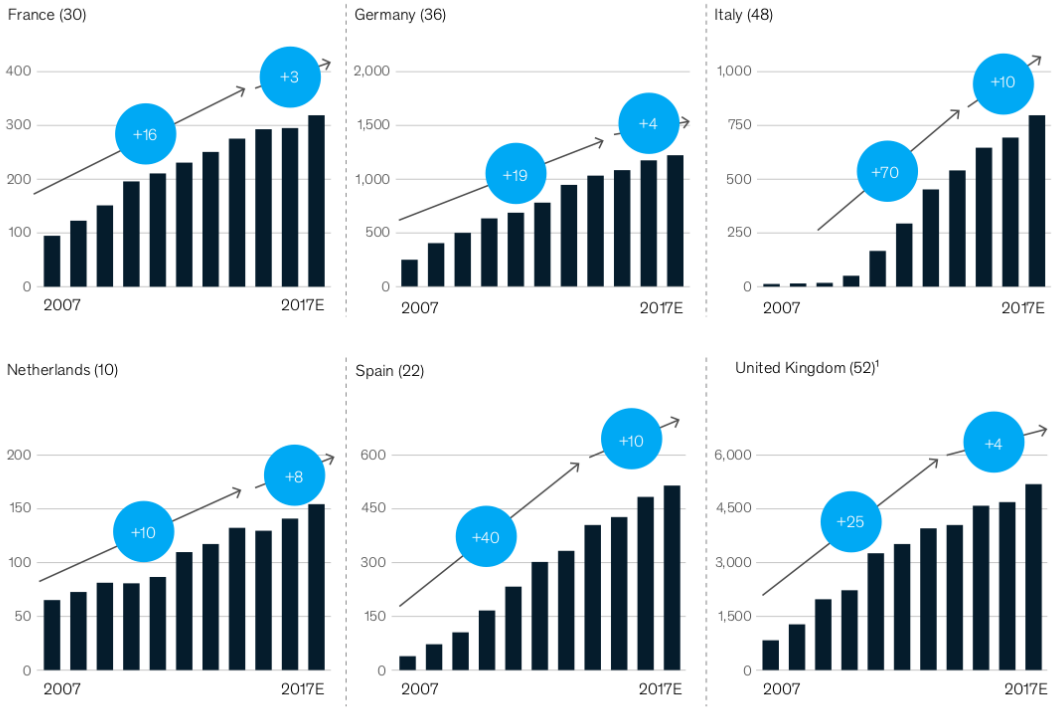
Aggregators - comparison sites

Exhibit 5

Aggregators—growth in revenues is slowing down.

Aggregator market share in direct motor, €, millions

● CAGR, % per annum

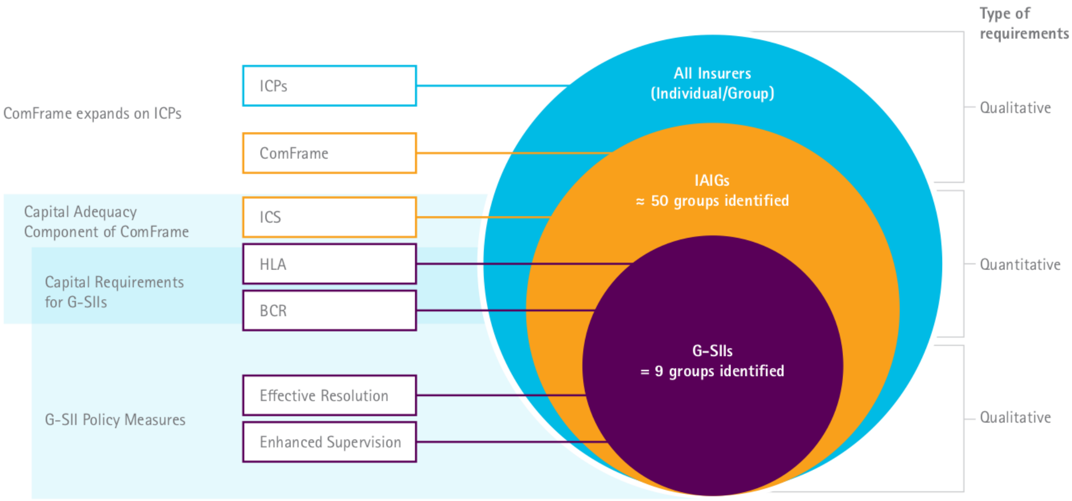


[1] UK numbers are in £ due to foreign exchange volatility across years.

Source: McKinsey Global Insurance Pools

Global Regulatory Framework

Figure 2. Global regulatory framework affecting insurers, specifically G-SIIs and IAIGs

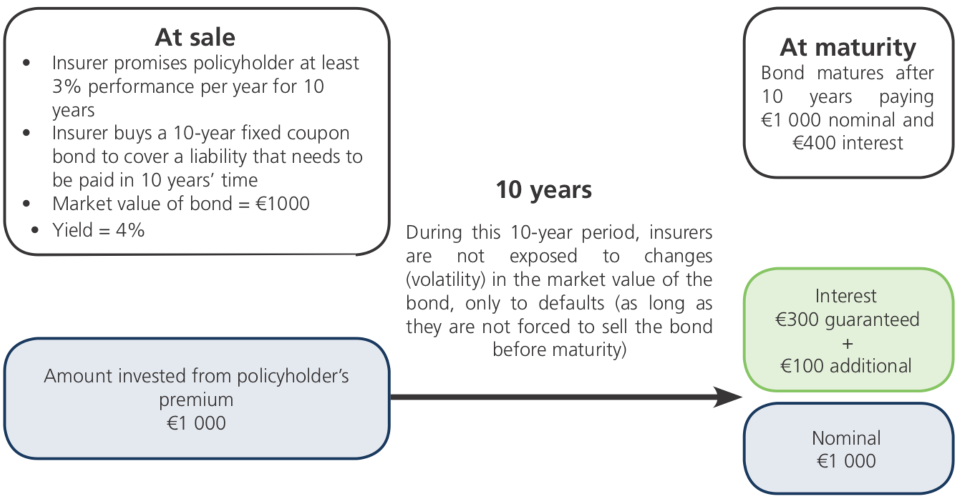


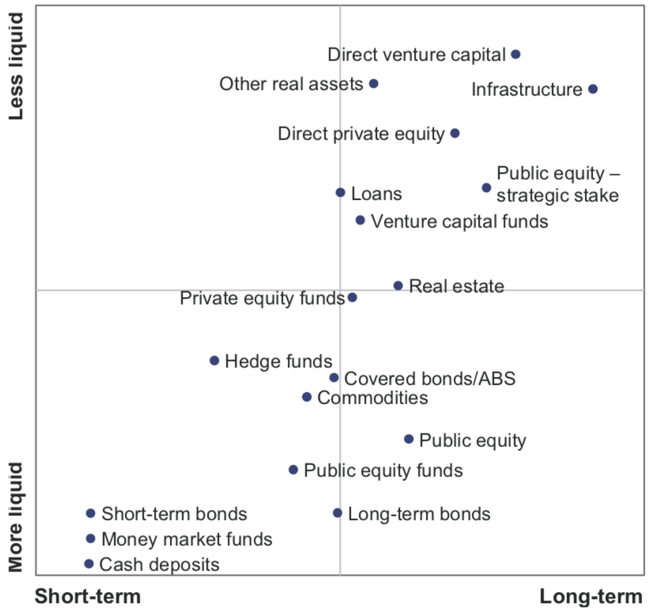
G-SII Global Systemically Important Insurer
IAIG Internationally Active Insurance Group
BCR Basic Capital Requirement
HLA Higher Loss Absorbency
ICS Insurance Capital Standard
ICPs Insurance Core Principles

Source: "10th Annual Insurance Public Policy Summit, Confronting New Challenges in U.S. and International Regulation," Institute of International Finance, March 12, 2014. Access at: http://indstate.edu/business/NFI/events/10AIPPS/docs/Insurance%20Portilla%20IIF.pptx

way that expected returns exceed what is guaranteed (see Figure 3).

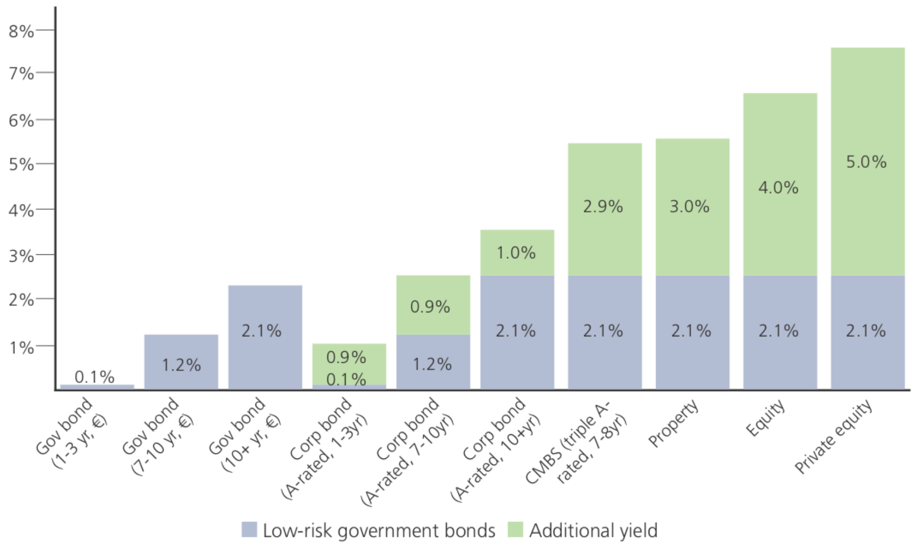
Figure 3: Illustration of a long-term guarantee product





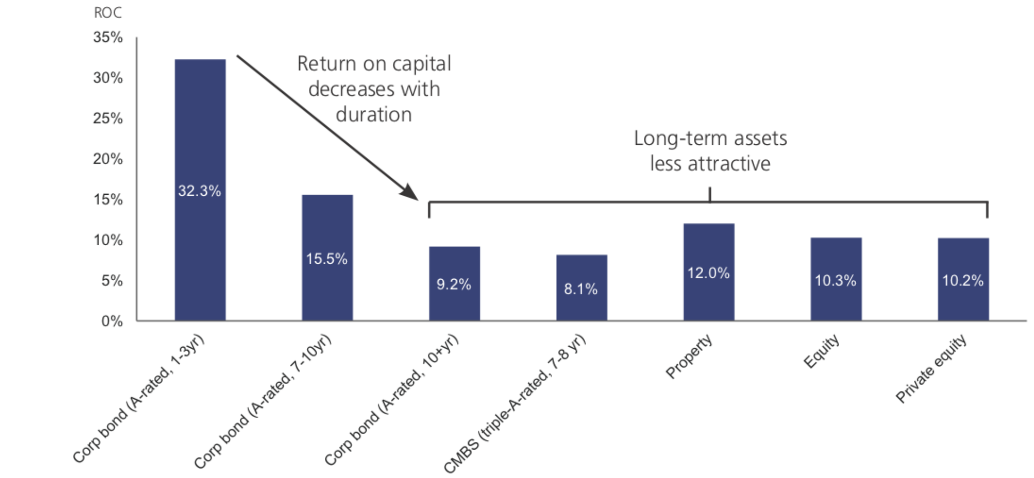
Note: Liquidity in this context means assets that can quickly be converted to cash with minimal impact on the price received
Sources: "The Future of Long-term Investing", WEF in collaboration with Oliver Wyman, 2011; Oliver Wyman analysis

Illustrative comparison of expected returns on long-term assets v. returns on low-risk government bonds



CMBS = commercial mortgage-backed securities
Sources: Bank of America Merrill Lynch government index; MSCI EMU corporate bond index; JP Morgan CMBS index; Morgan Stanley; Oliver Wyman analysis

Figure 13: Return on capital (ROC) as a measure of assets' attractiveness



Return over risk-free rate	0.9%	1.3%	1%	2.9%	3%	4%	5%
Solvency II capital	2.8%	8.4%	11%	35%	25%	39%	49%

Notes:
Return on capital is calculated as the expected spread over the relevant risk-free rate (ie, expected yield minus corresponding government bond yield) divided by the Solvency II standard formula solvency capital requirement.
Capital requirement is based on the Solvency II standard formula provided in "Draft implementing measures Solvency II", EC, October 2011, excluding any allowance for diversification
Sources: Bank of America Merrill Lynch government index; MSCI EMU corporate bond index; JP Morgan CMBS index; Morgan Stanley; Oliver Wyman analysis

/man

.