Fundación MAPFRE

THE LATIN AMERICAN INSURANCE MARKET IN 2017

MAPFRE Economic Research

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Rufino Tamayo
Hombre sacando la lengua, 1967.
Oil on canvas,
130 x 195 cm

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MAPFRE Economic Research would like to expressly acknowledge and thank the regulatory and supervisory bodies in the different Latin American insurance markets for their valuable contribution to this report. Their involvement and support has made a very significant contribution to the preparation of this report.

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Introduction

Fundación MAPFRE has been engaged in general interest activities and social pursuits since 1975 across different professional and cultural areas. Its actions are aimed at improving the economic and social circumstances and well-being of the most disadvantaged people and sectors of society. Among its many objectives, it seeks to support and raise awareness of the value of insurance and social protection. To achieve this goal, its actions include talks and presentations at schools to explain the importance of insurance and technical reports into pressing issues on the subject of insurance, such as the one we are presenting now.

MAPFRE Economic Research has drawn up this *Latin American insurance market in 2017* report to provide an overview of how the Latin American insurance industry fared in 2017, including an analysis of trends and performance over the last ten years. Fundación MAPFRE has released this study every year since 2002 and it has become a valuable source of information for learning more about the key events to have shaped the insurance industry in the region since that time.

A number of hugely important events have aided in the development of the Latin American insurance markets over the course of the last ten years. Regulatory reforms have played their part in this growth by ensuring up-to-date legislation, opening up the markets to the outside world, gradually adding risk-based capital requirements for insurance firms and helping to fashion new insurance products and make them available to wider segments of the population.

These and other changes have impacted the growth of the Latin American insurance industry, which has witnessed steady improvements in both the penetration index and in per capita expenditure on insurance products. However, the Latin American insurance market still has a long road ahead if it to reach the levels of penetration and density seen in more advanced markets and close the insurance gap.

Fundación MAPFRE hopes that this report will help raise awareness of the importance of insurance activity as a key driver in the process of improving levels of well-being across our society.

Fundación MAPFRE

Introduction

The main aim of this *Latin American insurance market in 2017* is to provide an analysis of the performance of the Latin American insurance industry. The report analyzes the insurance industry's performance from the perspective of the region as a whole, as well as for each of the individual markets, starting with an overview of the economic and demographic backdrop. The report presents information on the main indicators and trends across the Latin American insurance markets, analyzing important issues such as premium growth, the main headings on the aggregate sector-level balance sheet, investment, technical provisions, as well as the technical performance, results and profitability of the insurance industry.

As per the approach seen in previous editions of this report, this year's study includes not only an analysis of the insurance market's performance across the region in 2017 but also a mid-term analysis of the performance of the insurance industry over the last ten years. This report therefore reviews the main structural trends while analyzing changes in indicators relating to insurance penetration, density and depth. It also provides updated estimates of the Insurance Protection Gap and the Market Development Index for the region as a whole and for each individual market.

The report also presents the rankings of the main insurance groups operating in each country in the region in 2017, both for the overall market and for the Life and Non-Life segments. It also features an analysis of trends in concentration in the industry in each country. Last but not least, the report provides a brief overview of the main regulatory changes that took place in 2017, as well as insights into the main amendments to the regulatory landscape planned for this year, for which we were able to count on the invaluable support of the supervisory bodies operating across the region.

We are confident that this report will provide a useful analysis of the development and performance of the Latin American insurance industry and thereby help the sector to continue supporting and improving living conditions and quality of life within the region.

MAPFRE Economic Research

Executive Summary

Economic landscape

Economic growth gained momentum in 2017 and also fell into sync across the globe, while also pushing back expectations of a widely anticipated change in the economic cycle. The global economy posted growth of 3.8%, matching the improvement seen in global trade, which more than doubled the figure reported in 2016. Raw materials were up 13%, providing a major boost to Latin American economies, especially when combined with rising oil prices.

According to the latest estimates, the global insurance market grew by 1.5% in real terms in 2017 to reach a total value of 4.9 trillion dollars in premiums from direct insurance activity. The main driver here was the Non-Life business segment, revealing the healthy state of the global economy. Broadly speaking, insurance premium volume across the globe is set to continue growing over the coming years, driven by strong growth in emerging markets. The global premium volume for the Non-Life segment, which accounts for some 46% of total premiums, was up 2.8% in real terms in 2017. Emerging markets, especially in Asia, were the main growth drivers in this segment. Premium volume in the Life insurance segment, which represents 54% of total premiums, was up slightly in 2017 to gain 0.5% in real terms. The significant growth seen in emerging markets was unable to counter the reduction observed in advanced markets, where ultra lax monetary policies have dragged down Life insurance premiums in overall terms, despite the healthy state of the economy.

Latin America returned to growth in 2017 (1.3% of GDP) following two years of economic recession. This turnaround was due to an increase in global trade and rising raw material prices, which had the effect of strengthening the regional and domestic markets. South America (with Argentina and Brazil shaking off their recessions) posted growth of 0.8%, on the back of raw materials, steady growth in China and helpful international funding conditions. Meanwhile, Central America and Mexico gained 3.3% and 2.3%, respectively, aided by the sound performance of the US economy, given its strong trade, financial and migratory ties with the region. However, the recent turbulence seen in the international financial markets may impact our projections of further regional growth in 2018.

The Latin American insurance market in 2017

In 2017, total premium volume in Latin America and the Caribbean amounted to 159.21 billion dollars, of which 54.6% came from Non-Life insurance and the remaining 45.4% from Life insurance, generating aggregate growth of 8.6% year on year. The economic recovery in 2017 has aided the development of the insurance market, which has now returned to positive growth. The region's share of the global market now stands at 3.4% of total insurance premiums (2.9% for the Life business and 4% for the Non-Life business), though still a far cry from the share enjoyed by the more developed markets in the region, which is a good indicator of the region's market potential.

In aggregate terms, premiums in the Life insurance segment of the Latin American insurance industry grew 9% in 2017 (7% in 2016), while premiums in the Non-Life segment were up 8.2% (-3.1% in 2016). A particular highlight was the improvement of 11.3 percentage points seen in the Non-Life business, a product of the rallying economy and increased spending by both households and businesses within the region. In the Non-Life segment, all lines of business reported growth. The largest business in terms of size, namely Automobile (which accounts for 19.2% of total premiums), gained 9.3% in the year after enduring a 4.9% slump in 2016. Meanwhile, the Life insurance segment saw premiums rise in both individual and group Life insurance, such as Welfare and Pension insurance. Individual and group Life insurance, which account for 39.8% of total premiums, registered 9.8% growth, largely in response to the gains reported in Brazil.

The consolidated net result of the Latin American insurance market came to 8.82 billion dollars in 2017, down 18.7% year on year. Profits in Argentina, Brazil, El Salvador, Honduras, Peru and Venezuela were down year on year, while all the other countries reported growth.

Turning to the competitive landscape, the Latin American insurance industry is characterized by low levels of concentration, especially in the Non-Life segment. This would appear to reflect trends in the development of the insurance industry in the region. These indicate the presence of a more highly developed Non-Life insurance segment (greater competition) and rapid growth in a still nascent Life insurance segment in recent years. That said, certain local markets show a high individual concentration index.

In 2017, the penetration index (premiums/GDP) stood at 2.9%, roughly on par with 2016. Indicators are also unchanged in the Life (1.3%) and Non-Life (1.6%) segments. On an aggregate basis over the last ten years (2007-2017), total penetration in the region has risen by 27.8%. The cumulative increase in penetration in the Life insurance segment came to 58.7%, while the cumulative increase in Non-Life insurance was 10.1% over the same period.

Meanwhile, density (premiums per capita in dollars) grew for the second straight year to reach 259.5 dollars, up 7.5% on the level registered a year earlier as certain local currencies, notably the Brazilian real, made gains against the dollar. The bulk of insurance spending per person remains focused on the Non-Life segment (141.7 dollars), which was up 7.1% year on year. Meanwhile, Life insurance density amounted to 117.8 dollars, up 7.9% on 2016, underscoring the continued dynamism in this sector of the regional market. Total density (all segments) grew 65.1% between 2007 and 2017. The cumulative increase in the Life insurance market over the period amounted to 104.9% (rising from 57.5 to 117.8 dollars), while cumulative growth in Non-Life insurance was 42.1%.

Lastly, the index of insurance depth (Life insurance premiums relative to total

premiums) stood at 45.4% in 2017, up 0.2 percentage points on 2016. On a medium-term horizon (2007-2017), the indicator registered an improvement, with a cumulative increase of 8.8 percentage points and cumulative growth of 24.1% over this period. The development of the Latin American insurance industry has been characterized by a sustained increase in penetration levels (quantitative component of market development) and by a continual rise in depth levels (qualitative dimension reflecting the degree of market progress). This structural trend is an important distinguishing aspect of the Latin American insurance industry relative to other regions, and is an indicator of the future outlook for further insurance development within the region.

The Insurance Protection Gap (IPG) for the Latin American market in 2017 is estimated at 256.2 billion dollars, 5.2% more than the figure estimated for the previous year. The structure of the IPG over the last ten years shows that Life insurance is responsible for the bulk of the gap and therefore shows greater growth potential. As a result, the potential insurance market in Latin American in 2017 (the sum of the actual insurance market plus the IPG) stood at 415.4 billion dollars, 2.6 times larger than the current regional market (159.2 billion dollars).

Over the 2007-2017 period, the region's insurance market registered an average annual growth rate (in dollars) of 6.4%, with average growth of 8.7% in Life insurance and 4.8% in the case of Non-Life. Were the same rate of growth to continue over the next ten years, the combined market growth rate would fall short of closing the IPG in 2017 by -3.7 percentage points. We get the same result whether we analyze the Life insurance segment (short 3.5 percentage points) or the Non-Life Insurance segment (short 3.2 percentage points)

Last but not least, the Market Development Index (MDI) for the Latin American insurance industry (indicator of trends and maturity of insurance markets) has been on a clear upward path to register sustained annual growth over the last ten years, once again showing for the 2005-2017 period the positive and balanced growth achieved by the Latin American insurance market.

Country reports

As in previous editions, this year's report also provides an individual analysis of each of the Latin American insurance markets. These individual reports begin with an initial assessment of the macroeconomic backdrop in each country before turning to the main metrics and trends in their local insurance markets. The individual reports provide a perspective over the 2007-2017 period on premium growth, the main aggregate balance sheet items at a sector level, levels of investment and technical provisions, and the industry's technical performance, results and profitability.

They also include a review of the main structural trends in each market, analyzing developments in insurance penetration, density and depth. In order to provide an accurate reflection of the underlying dynamics behind the main trends, our country analysis is provided in local currency terms, thus eliminating exchange rate effects. Similarly, each of the individual reports includes an estimate of the insurance protection gap (IPG) in terms of size and characteristics, as well as an approximation of the Market Development Index (MDI), which provides a comparison between individual country sector developments and the trend for the wider region.

The individual reports also feature rankings of insurance groups in each market in 2017, at an aggregate level, as well as in the Life and Non-Life segments. They also include an analysis of industry concentration levels based on the Herfindahl index and the market share ratio of the five largest insurance firms operating in each country (CR5).

Lastly, the report offers a brief description of the main regulatory changes in each country in 2017, while also providing some insights into expected regulatory change in 2018, based on information provided by the region's supervisory bodies. Broadly speaking, most Latin American countries have already implemented, or are in the process of implementing, elements relating to prudential supervision, governance and Solvency II style risk-based capital requirements.

1. Economic and demographic context

1.1 Economy

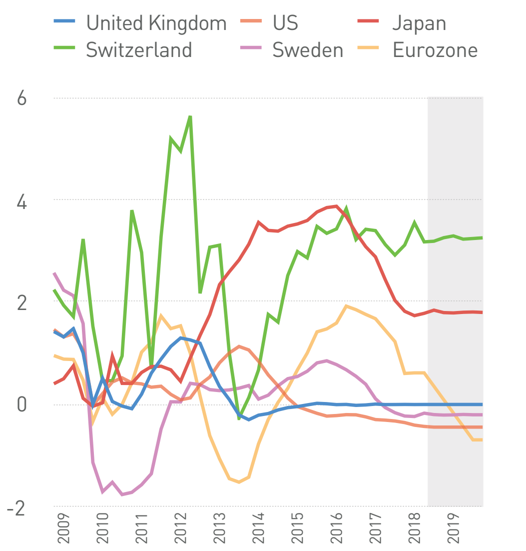
Global environment

Global economic growth gained momentum in 2017 and also fell into sync across the different countries and regions, while pushing back expectations of a widely anticipated change in the economic cycle. The global economy posted growth of 3.8%, matching the improvement seen in global trade, which more than doubled the figure reported in 2016. Raw materials were up 13%, providing a major boost to Latin American economies, especially when combined with rising oil prices.

Both developed and emerging markets made a telling contribution to global growth, with both China and the Eurozone outperforming. Meanwhile, recent events have confirmed that the US economy is where it is expected to be in the economic cycle. This growth was down to two main drivers: an unchanged backdrop of lax monetary policy on a globe scale (particularly in developed markets) plus significant growth in China, both of which are pushing up international trade, coupled with rising prices of raw materials, which are supporting export-oriented economies (especially Latin America). Liquidity remained stable thanks to the absence of any real inflationary pressure, despite the point certain economies have reached in the economic cycle. While this situation is now beginning to change, the ensuing effects on global liquidity remain uncertain.

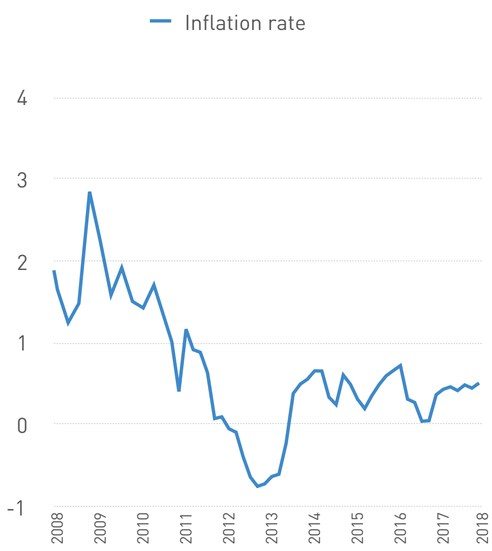
Looking ahead to 2018, we expect to see a continuation of sorts of the situation observed in 2017, albeit with somewhat less in the way of global liquidity against a likely backdrop of calmer economic growth. The global economy is therefore set to grow at around 3.8%, with developed markets growing at some 2% and emerging markets gaining 4.9%.

Chart 1.1-a
Overall: assets on the balance sheet of central banks
(change as a % of GDP)



Source: MAPFRE Economic Research

Chart 1.1-b
United States: inflation
(%)



Source: MAPFRE Economic Research

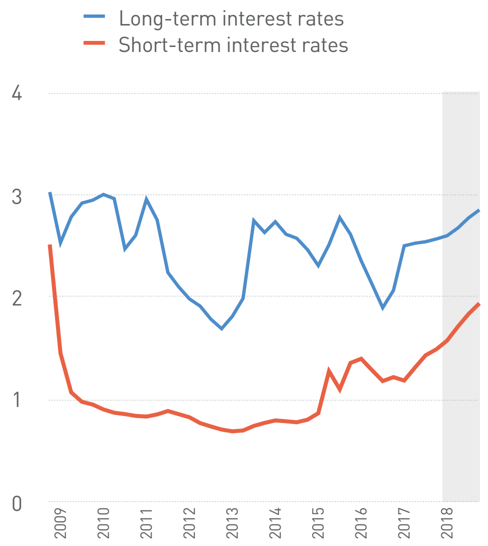
Global economic growth will be accompanied by a certain disparity in monetary policy. While the US Federal Reserve (Fed) will steadily continue to pare back its monetary stimulus measures and gradually raise interest rates, the European Central Bank (ECB) is still pressing on with is quantitative easing (QE), at least throughout 2018 (see Chart 1.1-a). Meanwhile, emerging markets are pursuing different approaches to monetary policy in response to global and local factors.

Inflation will remain in check, while slowly heading toward the targets set by the central banks, with long-term interest rates and premiums creeping upward (Chart 1.1-c). We expect the benchmark interest rate in the United States to remain at around 2% in late 2018, almost twice as high as where it was one year earlier. Meanwhile, the ECB's benchmark rate is likely to remain at 0%, which will lead to further gains for the US rates curve and a very similar outlook to what we saw across the Eurozone in 2017 over the same horizon. The dollar ended 2017 at almost 1.20 USD/EUR and we believe short- and long-term factors may keep the EUR/USD exchange rate within the 1.15-1.25 range during 2018. Moreover, the dollar continued to appreciate against certain emerging market currencies, although this pattern will gradually consolidate and become more widespread as we move through 2018.

Given the strength of the global economy, the balance of risks at the end of 2017 was largely positive, although tail risks had become more of a threat. We did spot, however, emerging risks such as a possible liquidity drain, which might compromise emerging countries with dollar-denominated debt, along with economic policy risks in general (especially in connection with the process of renegotiating the NAFTA) and global geopolitical tensions. We predict that for 2018 some of these risks will become even more of a threat.

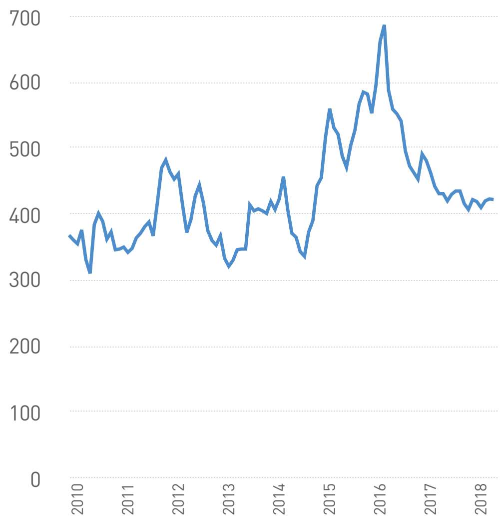
The actions being undertaken by the Fed are widely expected to strengthen the dollar. International trade relations are now having to contend with a surge in protectionist sentiment, notably the Trump administration, while geopolitical risk remains a real cause for concern with rising tensions in the Middle East and North Korea. Meanwhile, the fact that many emerging countries are entering election season is likely to push up volatility further.

Chart 1.1-c
Overall: short- and long-term interest rates
(%)



Source: MAPFRE Economic Research

Chart 1.1-d
Latin America: EMBI sovereign spread
(bp)



Source: MAPFRE Economic Research

Latin America

Latin America returned to growth in 2017 (1.3% of GDP) following two years of economic recession. This turnaround was due to an increase in global trade and rising raw material prices, which had the effect of strengthening regional and domestic markets. With Argentina and Brazil both managing to shake off their recessions, South America posted overall growth of 0.8% on the back of raw materials, steady growth in China and helpful international funding conditions. Meanwhile, Central America and Mexico gained 3.3% and 2.3%, respectively, aided by the sound performance of the US economy, given its strong trade, financial and migratory ties with the region.

Exports from the region gained close to 10% following several years of negative growth, thanks to more buoyant levels of international trade and rising commodity prices. Exports and remittances from migrant workers brought the external current account deficit from 1.9% in 2016 to 1.6% in 2017. Capital flows were down 4% on 2016 but were enough to cover the region's current account deficit while allowing for a 28 billion-dollar increase in international reserves.

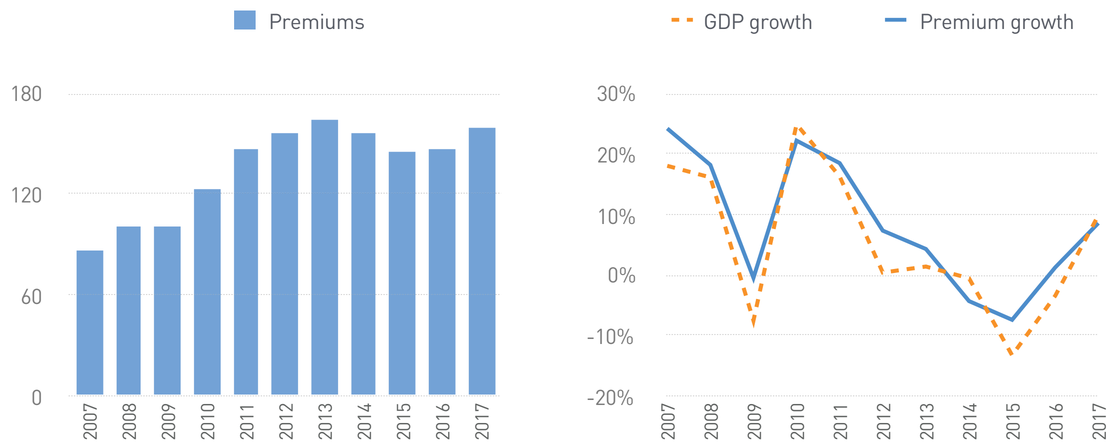
The region's tax effort, as shown by the decline in the average primary deficit (falling from -1% in 2016 to -0.8% in 2017) was offset by the increased yield on sovereign debt, meaning that the overall result for the public sector remained unchanged at 3.1% of GDP for the region. Meanwhile, the region's public debt stood at 38.4% of GDP, but with notable differences between the different countries, ranging from 74% of GDP in the case of Brazil to around 20% of GDP in Paraguay and Peru.

Recent episodes of financial turbulence across the globe may impact the projected outlook for the depth of regional growth in 2018 (Chart 1.1-d). Yet these are not the only uncertainties looming on the horizon. The current political cycle in Latin America and the resulting uncertainties may pose a further downside risk for the region.

Economic landscape and demand for insurance

According to the latest estimates, the global insurance market grew by 1.5% in real terms in 2017, to reach a total value of 4.9 trillion dollars in premiums from direct insurance activity[1]. The main driver here was the Non-Life business

Chart 1.1-e
Latin America: economic growth and the insurance market, 2007-2017
(premiums, billions of USD; nominal annual growth rates (%))



Source: MAPFRE Economic Research (with data from supervisory bodies and IMF) segment, revealing the healthy state of the global economy. In general, global premium volume is set to continue growing over the coming years, driven by strong growth in emerging markets. The global premium volume for the Non-Life segment, which accounts for some 46% of total premiums, was up 2.8% in real terms in 2017. Emerging markets, especially in Asia, have been the main growth drivers in this segment.

Meanwhile, premium volume in the Life insurance segment, which accounts for 54% of total premiums, was up slightly in 2017 to gain 0.5% in real terms. The significant growth seen in emerging markets was unable to counter the reduction observed in advanced markets, where ultra lax monetary policies have dragged down Life insurance premiums in overall terms, despite the healthy state of the economy.

The economic recovery in Latin America in 2017 has aided the performance of the insurance market, which is strongly associated with the economic cycle, as can be seen by comparing developments in insurance premiums over the last ten years with changes in GDP over the same period. This economic improvement is reflected in the performance of insurance premiums, which were up 8.6% in aggregate terms versus growth of 1.2% in 2016 (see Chart 1.1-e).

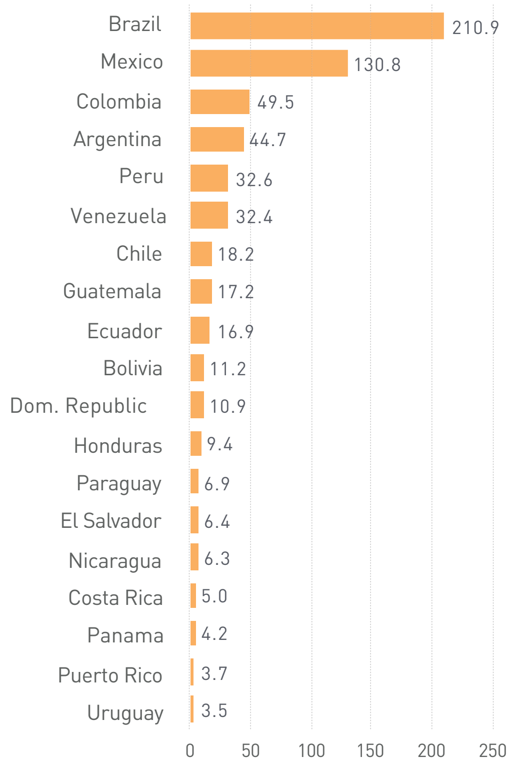
1.2 Demography

According to the latest population data for Latin America released by the United Nations in 20172, the estimated population of the 19 countries featured in this report totaled 620.4 million. Brazil and Mexico account for a significant share of the total, with populations of 210.9 and 130.8 million, respectively. Colombia and Argentina both have populations of over forty million, with 49.5 and 44.7 million inhabitants, respectively These are followed by Peru and Venezuela, each with populations of around 32 million. The remaining countries have populations of below twenty million. Among the latter, Chile, Guatemala and Ecuador have the largest populations, with between 16 and 18 million inhabitants (see Chart 1.2-a.).

In terms of life expectancy, and as for the rest of the world, the UN's projections for Latin America and the Caribbean point toward a trend of increasing population longevity. Life expectancy rose from 51 years in 1950 to 75 years in 2017, showing an increase of 24 years over the period (see Chart 1.2-b). The projections estimate that life expectancy in the region could grow by around two years per decade to reach over eighty years by 2040.

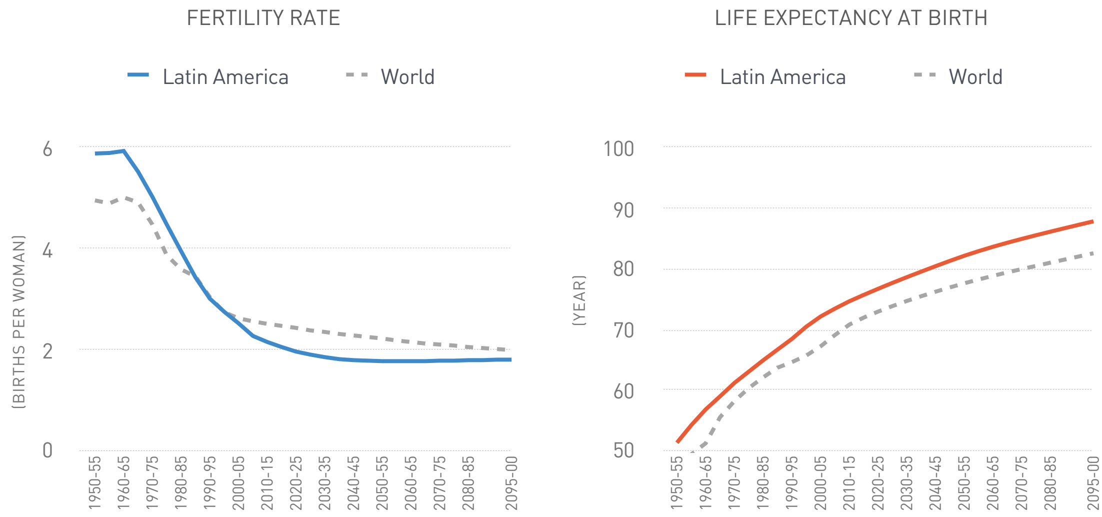
At the same time, the UN's projections have shown a sustained and drastic decline in the birth rate since the 1960s, falling from an average of six births per woman to slightly below two over the rest of the century. Meanwhile, forecasts for the percentage of deaths by age cohort point to a reduction in the proportion of premature deaths, leading to an increasing proportion of the population reaching older ages (see Chart 1.2-c).

Chart 1.2-a
Latin America: population, 2018
(millions)



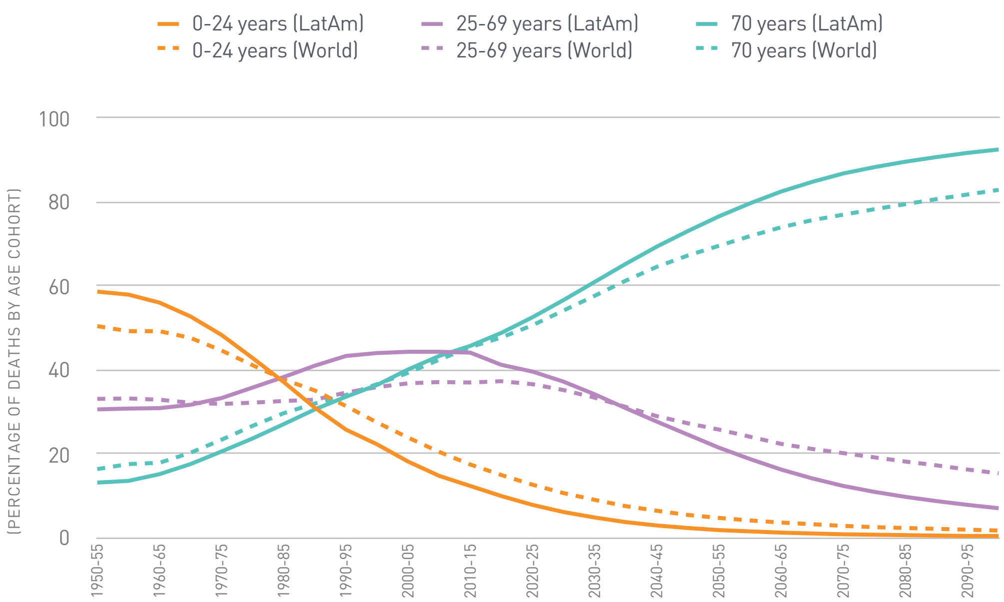
Source: MAPFRE Economic Research (based on UN data)

Chart 1.2-b
Latin America: fertility rate and life expectancy at birth, 1950-2100



Source: MAPFRE Economic Research (based on UN data)

Chart 1.2-c
Latin America: percentage of deaths by age cohort, 1950-2100



Source: MAPFRE Economic Research (based on UN data)

Chart 1.2-d
Latin America: changes in the population pyramid, 1950-2100

Source: MAPFRE Economic Research (based on UN data)

Overall, this combination of factors foreshadows a progressive aging of the population in Latin America and the Caribbean over the coming decades, giving rise to constrictive population pyramids toward the middle of the century, which are then set to converge toward stationary pyramids by around 2100 (see Chart 1.2-d).

2. The Latin American insurance market in 2017

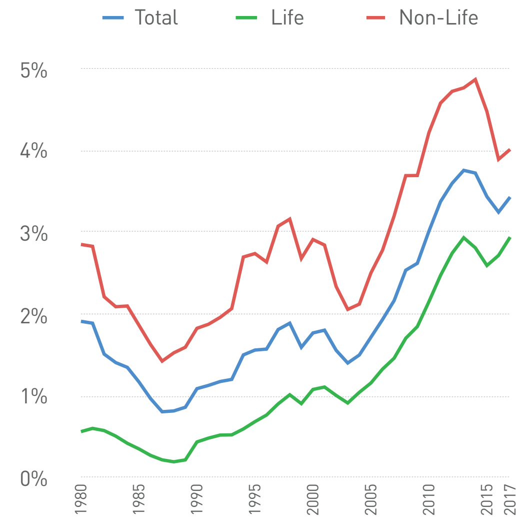
2.1 Insurance market performance

Growth

In 2017, total premium volume in Latin America and the Caribbean amounted to 159.21 billion dollars, of which 54.6% came from Non-Life insurance and the remaining 45.4% from Life insurance (see Chart 2.1-b).

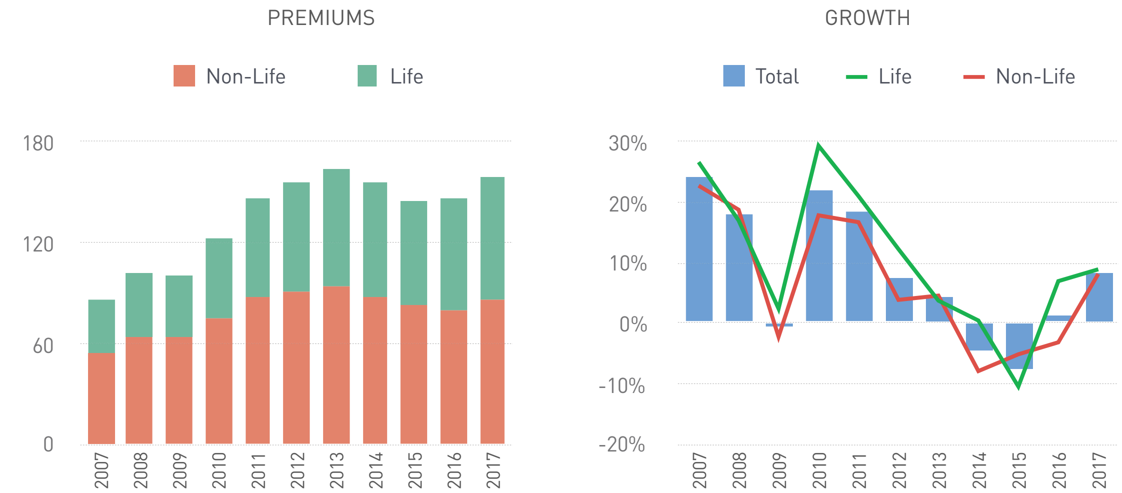
The Latin American insurance market has seen a sustained increase in its presence in the global market over time, both in the Life and Non-Life segments. As illustrated in Chart 2.1-a, this share rose from only 1.9% in 1980 to 3.4% in 2017 (2.9% of the global Life business and 4% of the Non-Life business). The trend toward an increase in the share of the global market has been interrupted only during the periods of economic and financial crises to have affected the region (the debt crisis of the 1980s, the period of volatility at the turn of the century and the recent 2009-2010 financial crisis), amplified by the Latin

Chart 2.1-a
Latin America: share of global premiums, 1980-2017
(%)



Source: MAPFRE Economic Research (based on Swiss Re data)

Chart 2.1-b
Latin America: growth developments in the insurance market, 2007-2017
(premiums, billions of USD; nominal annual growth rates (%))



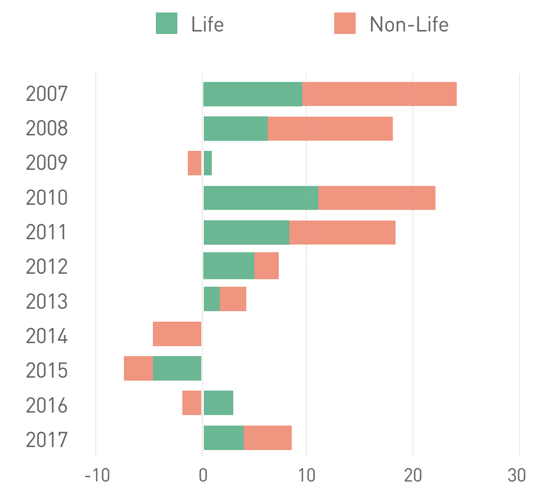
Source: MAPFRE Economic Research (based on data from supervisory bodies)

American currency devaluations that typically accompany such cyclical events. The economic slowdown in the region in 2016, which saw a weakening of domestic demand, also impacted the development of the insurance market — especially the Non-Life insurance business, which is heavily dependent on economic growth and household and corporate consumption capacity— and once again diminished the region's share of the global insurance market.

However, the Latin American insurance industry also showed its considerable strength in 2017, including its resilience to catastrophic events. Over the course of the year, various countries from the region had to cope with natural disasters that killed or injured 1,375 people and caused an estimated 31.6 billion dollars in economic damage, 5.1 billion of which was insured (see Box 2.1).

Even so, the economic recovery in Latin America in 2017 provided a welcome boost to the insurance market, which is now rallying to recoup and increase its share of the global market. This economic improvement is reflected in the performance of insurance premiums within the region, which were up 8.6% in aggregate terms (1.2% in 2016). The Non-Life insurance segment contributed slightly more and the combined ratio

Chart 2.1-c
Latin America: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research
(with data from supervisory bodies in the region)

for the world reinsurance market is an estimated 115% (92% in 2016). Given the situation, we expect with 4.5 percentage points, while the Life business contributed 4.1 percentage points.

Table 2.1-a
Latin America: changes in premium volume, 2016-2017
(growth in local currency, percent)

Country	Nominal growth	Real growth
Argentina	24.1	-1.3
Bolivia	3.5	0.6
Brazil	3.2	-0.2
Chile	-0.4	-2.5
Colombia	9.0	4.5
Costa Rica	14.5	12.6
Ecuador	0.8	0.4
El Salvador	-0.8	-1.8
Guatemala	7.7	3.2
Honduras	8.1	4.1
Mexico	9.6	3.4
Nicaragua	13.2	9.0
Panama	5.4	4.5
Paraguay	7.8	4.1
Peru	0.6	-2.1
Puerto Rico	-0.7	-2.5
Dom. Republic	21.6	17.7
Uruguay	17.3	10.5
Venezuela	339.5	-63.0

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)

Box 2.1
Natural disasters in Latin America in 2017

Natural disasters in Latin America

A total of 19 natural disasters and anthropogenic incidents occurred in 2017 across Latin America and the Caribbean, killing or injuring 1,375 and causing an estimated 31.6 billion dollars in economic damage, of which 5.1 billion was insured.

In September, Hurricane Irma (the costliest storm ever to hit the Caribbean) made landfall as a category 5 hurricane and two weeks later, Hurricane María followed suit in Dominica. Overall, the succession of hurricanes in the North Atlantic (Harvey, Irma and María) killed 200 people and caused an estimated 196 to 342 billion dollars in economic losses (see Table A).

According to the estimates of Swiss Re Institute, the three hurricanes caused total insured losses of some 92 billion dollars, meaning a large part of the damage was uninsured. It should be noted that the difference between insured damage and economic damage is one method of measuring the Insurance Protection Gap (IPG) under ex-post parameters.

The event that caused the greatest insured loss in 2017 was Hurricane María, which struck the islands of the Caribbean and Puerto Rico. According to statistics compiled by the Puerto Rican Office of the Commissioner of Insurance, working alongside the National Association of Insurance Commissioners (NAIC), the number of claims reported in connection with the event totaled 253,299 at 30 April 2018, with incurred losses amounting to 5.48 billion dollars, of which 2.52 billion dollars have been paid (46%). The commercial sector was the hardest hit in absolute terms, with losses of 3.3 billion dollars, while the personal sector endured losses of 768 million dollars. The remainder relates to losses on government policies and other losses.

Other catastrophes to have struck Latin America in 2017 included the earthquakes in Mexico. On September 7 and 19, two earthquakes were reported in Chiapas and Puebla, measuring 8.2 and 7.1 on the Richter scale, respectively, and killing 298 people between them. According to estimates released by AIR Worldwide, economic losses are estimated at 1.3 to 3.7 billion dollars (see Table B).

The Mexican Association of Insurance Institutions (AMIS) reported 42,795 claims for compensation in the wake of the September 2017 earthquakes, with an estimated cost of 25.12 billion pesos (1.32 billion dollars).

Of this total amount, which relates to a total of 8,834 claims, over 9.93 billion pesos (525 million dollars) related to damage caused by the September 7 earthquake, while 33,961 claims were made in the wake of the September 19 event, which caused damage of roughly 15.79 billion pesos (835 million dollars).

Table A
Main Atlantic hurricanes in 2017

	Harvey	Irma	María
Date	Aug 17 - Sep 1	Aug 30 - Sep 12	Sep 16 - 30
Maximum wind speed (km/h)	212	287	278
Deaths	68	44	113
Estimated economic losses (USD billion)	90 -160	40 -65.2	66.4 - 116.4

Source: MAPFRE Economic Research (with data obtained from the National Oceanic and Atmospheric Administration, National Hurricane Center)

Box 2.1 (continued)
Natural disasters in Latin America in 2017

Table B
Main earthquakes in Mexico in 2017

	September 7	September 19
Magnitude (Richter scale)	8.2	7.1
Depth (km)	45	38
Epicenter	140 km to the SW of Pijijiapan, Chiapas	9 km to the NW of Chiautla, Puebla
Deaths	61	237
Estimated economic losses (USD billion)*	1.3 - 3.7	

Source: MAPFRE Economic Research (with data from the National Seismological Service of the National Autonomous University of Mexico)
*Estimates of AIR Worldwide

Last but not least, the El Niño costero flooding caused 162 deaths in Peru. The El Niño meteorological phenomenon causes anomalous warming of sea water off the coast of Peru and Ecuador, triggering heavy rain in both countries, as shown in the information presented in Table C. According to the Sigma report by Swiss Re, insured damage was appraised at 400 million dollars of a total of 3.1 billion in economic damage.

The natural disasters of the last six months are expected to have a notable impact, not only on the combined ratios and profitability of insurers but also on insurance ratings and renewals of reinsurance contracts, in a market which had become fiercely price-competitive in the absence of any significant catastrophes.

Insured damage arising from natural disasters accounted for 8% of direct premiums under all insurance policies arranged in 2017 and the combined ratio for the world reinsurance market is an estimated 115% (92% in 2016). It is likely that insurance companies will be hard pressed to obtain positive technical results in 2018.

Unfortunately, recent evidence suggests that the impact of this type of natural disaster hinges on variables such as global warming, population growth and human and urban development, meaning the ensuing economic damage still has potential to grow further.

Table C
Main effects of the El Niño costero phenomenon in Peru in 2017

Deaths	162
Population affected	1,559,487
Epicenter	
Households destroyed	66,093
Households affected	371,370
Schools affected	3,266
Roads destroyed (km)	4,391
Bridges destroyed	489
Affected crop area (ha)	107,827

Source: MAPFRE Economic Research (based on data from the National Civil Defense Institute of Peru)

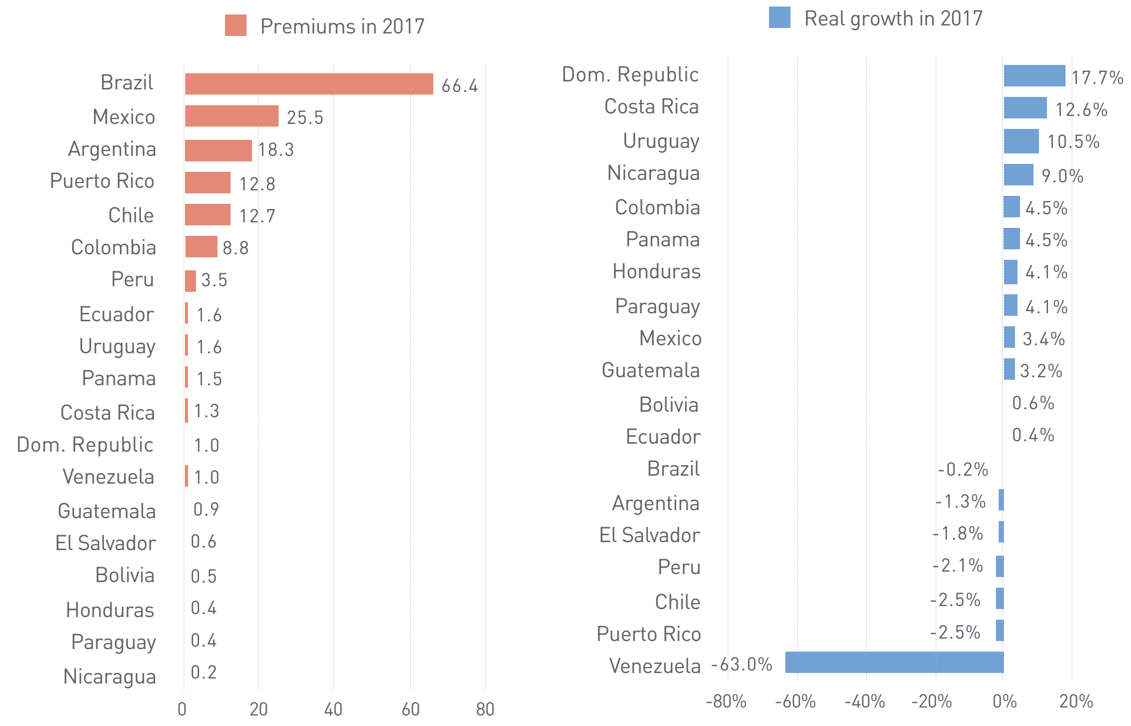
Interestingly, this contrasts with the situation one year earlier, when the Non-Life segment made a negative contribution to growth, which was supported entirely by the Life business (see Chart 2.1-c). This is due to the one-off impact interest rates have had on the Life business, particularly savings products and traditional annuity income.

Volatile interest rates, plus the fact that certain local economies, notably Brazil, have chosen to pursue lax monetary policy in a bid to support economic growth, triggered a 2 percentage-point increase in premium growth in the Life segment when compared with one year earlier; a much more modest gain than that reported by the Non-Life segment, which saw an improvement of 11.3 percentage points.

However, this perspective changes when growth is measured in local currency terms for each of the markets. Our analysis shows that most of the markets posted positive premium growth in local currency and in real terms, except for Argentina, Brazil, Chile, El Salvador, Peru, Puerto Rico and Venezuela (see Chart 2.1-d and Table 2.1-a). The markets in Argentina, Brazil and Venezuela reported growth in nominal terms, but losses when adjusted for inflation.

However, many of these markets reported growth in premium volume in dollar terms, with premium volume declining only in El Salvador, Puerto Rico and Venezuela, due to the positive performance of the currencies of most countries in the region (see Table 2.1-b).

Chart 2.1-d
Latin America: premiums and real insurance market growth, 2017
(billions of USD; real growth in local currency, (%))



Source: MAPFRE Economic Research (with data from supervisory bodies in the region)

Table 2.1-b
Latin America: premium volume by country, 2017
(premiums, millions of USD; growth in USD (%))

Line	Non-Life		Life		Total	
	Premiums	Growth 2016-2017 (%)	Premiums	Growth 2016-2017 (%)	Premiums	Growth 2016-2017 (%)
Argentina	15,683	12.6	2,571	-0.1	18,253	10.6
Bolivia	336	0.2	148	11.5	483	3.4
Brasil	23,943	11.6	42,504	13.3	66,446	12.7
Chile	4,912	9.3	7,832	0.7	12,744	3.8
Colombia	5,955	10.9	2,860	17.0	8,815	12.8
Costa Rica	1,123	10.8	196	4.8	1,318	9.9
Ecuador	1,261	-0.8	370	6.6	1,631	0.8
El Salvador	401	-0.9	215	-0.5	616	-0.8
Guatemala	732	10.5	193	15.4	925	11.4
Honduras	306	11.0	135	-6.0	441	5.1
México	14,243	14.1	11,293	1.9	25,536	8.4
Nicaragua	177	6.8	43	10.8	220	7.6
Panamá	1,093	4.1	378	9.1	1,471	5.4
Paraguay	357	8.5	59	10.9	416	8.8
Perú	1,999	1.2	1,475	8.4	3,474	4.2
Puerto Rico	11,625	0.2	1,153	-8.9	12,778	-0.7
Dom Republic	861	19.6	179	10.4	1,040	17.9
Uruguay	912	15.2	666	36.3	1,578	23.3
Venezuela	1,018	-49.2	11	-54.5	1,028	-49.3
Total	**86,937**	**8.2**	**72,279**	**9.0**	**159,217**	**8.6**

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)

Premiums by line of business

In aggregate terms, premiums in the Life insurance segment of the Latin American insurance industry grew 9.0% in dollar terms in 2017 (7.0% in 2016), while premiums in the Non-Life segment were up 8.2% (-3.1% in 2016). As discussed previously, we would highlight the marked improvement of 11.3 percentage points in the Non-Life business due to the economic recovery and increased consumption capacity of both households and businesses in the region in 2017 (see Table 2.1-b).

For Non-Life business lines, all areas bar none reported positive growth. The largest business in terms of size, namely Automobile (which accounts for 19.2% of total premiums), gained 9.3% in the year after enduring a 4.9% slump in 2016. Meanwhile, the Life insurance segment saw premiums rise in both individual and group Life insurance, such as Welfare and Pension insurance. Individual and group Life insurance, which account for 39.8% of total premiums, registered 9.8% growth, largely in response to the gains reported in Brazil (see Table 2.1-c).

Results and profitability

Table 2.1-d shows the composition of the income statements of Latin American insurance markets in 2017. As can be seen, all countries posted positive aggregate net results.

Table 2.1-c
Latin America: premium volume by insurance line*, 2017
(premiums, millions of USD)

Line of business	2016	2017	Growth (%)	Share (%)
Life	**66,296**	**72,269**		**45.7**
Life - Group and individual	57,497	63,141	9.8 %	39.9
Life - Social protection and/or pensions	8,799	9,128	3.7 %	5.8
Non-Life	**78,328**	**85,919**		**54.3**
Workplace accidents	6,207	7,121	14.7 %	4.5
Personal accident	3,949	4,348	10.1 %	2.7
Automobile	27,810	30,393	9.3 %	19.2
Credit and/or surety	1,802	2,230	23.8 %	1.4
Fire and/or allied lines	7,091	7,685	8.4 %	4.9
Other damage	10,856	12,129	11.7 %	7.7
Third-party liability	2,058	2,290	11.3 %	1.4
Health	15,797	16,607	5.1 %	10.5
Transport	2,759	3,116	12.9 %	2.0
Total	**144,624**	**158,188**	**9.4 %**	**100.0**

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)
*Note: this table does not include the Venezuela market due to the current absence of an available breakdown by business line.

The consolidated net result of the Latin American insurance market amounted to 8.82 billion dollars in 2017 (excluding figures for Panama), down 18.7% year on year (see Table 2.1-e). Profits in Argentina, Brazil, El Salvador, Honduras, Peru and Venezuela were down year on year, while all the other countries reported growth.

Turning to profitability indicators, Table 2.1-f show the return on equity (ROE) and return on assets (ROA) across the different markets. As one can see, Nicaragua (27.4%), Mexico (23.4%), Brazil (19.8%), Guatemala (21%), Dominican Republic (20%) and Honduras (17.5%) posted the highest ROE ratios. By contrast, the insurance markets of El Salvador (9.3%), Costa Rica (7.5%) and Venezuela (3.3%) recorded the lowest ratios; in the case of the latter, amid triple digit inflation.

Capitalization levels

Chart 2.1.-e shows the aggregate capitalization level of the insurance industries in each Latin American country (measured as shareholders' equity over total assets). In general, relatively smaller markets show higher levels of capitalization, while capitalization levels are lower in the relatively more developed markets in the region (Mexico, Chile and Brazil). It is worth noting that in Venezuela (the market with the highest capitalization on this metric), a large part of equity we are counting relates to unrealized gains on property investments and other financial assets, while the average inflation also climbed to 254.9% in 2016 (inflation figure for the ROE shown in the table - latest information available). Meanwhile, Table 2.1-f compares capitalization levels (equity/assets) with two indicators of profitability: return on equity (ROE) and return on assets (ROA).

Table 2.1-d
Latin America: income statement by country, 2017
(millions of USD)

Country	Earned premiums	Operating expenses	Loss	Technical result	Financial result	Other revenues and expenses	Net result
Argentina	21,210.1	-14,297.9	-8,980.7	-2,068.5	4,577.0	-1,508.4	1,000.1
Bolivia	680.7	-262.7	-426.8	-8.8	74.4	1.1	66.7
Brazil	12,840.6	-5,687.3	-6,346.8	806.4	2,403.0	-706.1	2,503.4
Chile	9,804.6	-9,182.9	-2,857.7	-2,236.0	3,464.7	-269.0	959.7
Colombia	6,338.0	-4,047.4	-3,004.2	-713.6	636.7	687.8	610.9
Costa Rica	1,011.4	-563.1	-443.3	5.0	171.6	-51.7	124.8
Ecuador	1,007.6	-431.1	-322.5	254.0	44.2	-228.1	70.1
El Salvador[1]	385.7	-210.6	-165.8	9.2	24.3	-	35.2
Guatemala	615.4	-372.0	-194.9	48.5	55.4	-1.0	102.8
Honduras	203.7	-90.8	-74.9	38.0	24.7	-16.8	45.9
Mexico	17,181.9	-13,281.2	-5,273.7	-1,372.9	4,562.4	-693.9	2,495.6
Nicaragua	139.3	-58.0	-57.3	23.9	14.3	-6.8	31.4
Panama	959.2	-524.4	-350.7	84.1	-	-	-
Paraguay	323.3	-142.6	-171.9	8.7	16.2	5.2	30.2
Peru	1,918.4	-1,166.2	-1,148.3	-396.0	674.8	-21.3	257.4
Puerto Rico	-	-	-	-	-	-	337.8
Dom. Republic	588.6	-342.8	-241.5	4.3	47.1	18.1	69.5
Uruguay	1,441.2	-1,020.1	-505.8	-84.7	236.8	-76.1	75.9
Venezuela	-	-	-	-	-	-	10.6

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)
1/ Data for El Salvador reflect the result before taxes.

Market concentration

The degree of concentration in an industry provides an insight into the level of competition in a market. In general, the lower the concentration, the greater the competitive stimulus, which is an added spur to market development.

Costa Rica, Uruguay and Nicaragua presented the most highly concentrated markets in Latin America in 2017, with a Herfindahl index significantly above the threshold associated with a highly-concentrated industry (HHI>1800). Meanwhile, Peru, Honduras, Guatemala, the Dominican Republic, Panama and Bolivia achieved values equating to markets with a moderate level of concentration (1000<HHI<1800). The remaining Latin American markets reported indexes below 1000 points, i.e. below the threshold associated with moderate levels of concentration.

If we analyze concentration based on the market share of the five biggest insurance companies (CR5), our findings confirm the existence of the concentration levels described in this report based on the Herfindahl index (see Chart 2.1-f).

Table 2.1-e
Latin America: net result by country, 2017
(millions of USD)

Country	2016	2017	Growth 2016-2017 (%)
Argentina	1,320.1	1,000.1	-24.2
Bolivia	34.3	66.7	94.7
Brazil	5,119.3	2,503.4	-51.1
Chile	734.7	959.7	30.6
Colombia	545.9	610.9	11.9
Costa Rica	100.1	124.8	24.7
Ecuador	63.6	70.1	10.3
El Salvador[1]	39.9	35.2	-11.9
Guatemala	86.1	102.8	19.5
Honduras	46.1	45.9	-0.4
Mexico	2,070.9	2,495.6	20.5
Nicaragua	20.6	31.4	52.9
Panama[2]	121.0	-	n/a
Paraguay	28.1	30.2	7.4
Peru	303.6	257.4	-15.2
Puerto Rico	170.4	337.8	98.2
Dominican	58.8	69.5	18.2
Uruguay	25.3	75.9	199.6
Venezuela	88.7	10.6	-88.0
Total	10,856.4	8,828.2	-18.7

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)

1/ Data for El Salvador reflect the result before taxes.

2/ Data for Panama in 2017 not included due to lack of available information. To ensure consistency, the result for Panama in 2016 is not included in the total for that year.

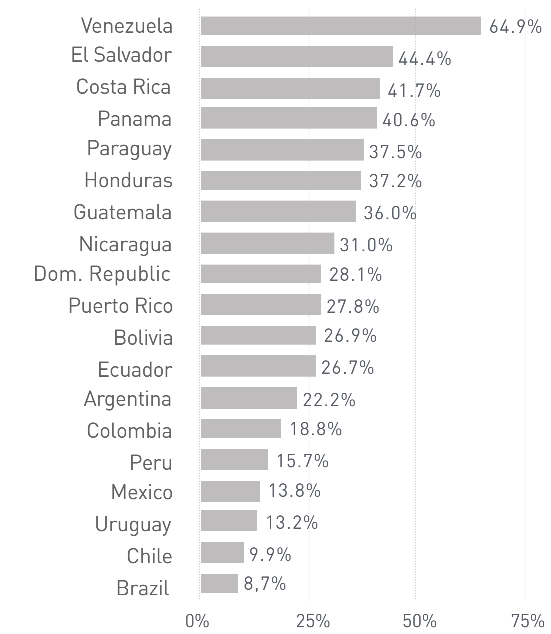
Table 2.1-f
Latin America: profitability by country, 2017
(in local currency)

Country	Equity /assets	ROE	ROA	Average inflation
Argentina	22.2 %	14.9 %	3.3 %	25.7 %
Bolivia	26.9 %	11.3 %	3.1 %	2.8 %
Brazil	8.7 %	19.8 %	1.7 %	3.4 %
Chile	9.9 %	14.4 %	1.4 %	2.2 %
Colombia	18.8 %	14.8 %	2.8 %	4.3 %
Costa Rica	41.7 %	7.5 %	3.1 %	1.6 %
Ecuador	26.7 %	11.7 %	3.1 %	0.4 %
El Salvador	44.4 %	9.3 %	4.1 %	1.0 %
Guatemala	36.0 %	21.0 %	7.6 %	4.4 %
Honduras	37.2 %	17.5 %	6.5 %	3.9 %
Mexico	13.8 %	23.4 %	3.2 %	6.0 %
Nicaragua	31.0 %	27.4 %	8.5 %	3.9 %
Panama[1]	40.6 %	10.3 %	4.2 %	0.7 %
Paraguay	37.5 %	13.4 %	5.0 %	3.6 %
Peru	15.7 %	11.8 %	1.9 %	2.8 %
Puerto Rico	27.8 %	12.9 %	3.6 %	1.9 %
Dominican	28.1 %	20.0 %	5.6 %	3.3 %
Uruguay	13.2 %	11.8 %	1.6 %	6.2 %
Venezuela[1]	64.9 %	3.3 %	2.1 %	254.9 %

Source: MAPFRE Economic Research (based on data from supervisory bodies in the region)

1/ Data for Panama and Venezuela relate to 2016.

Chart 2.1-e
Latin America: level of capitalization, 2017
(equity/assets (%))



Source: MAPFRE Economic Research (with data from supervisory bodies in the region)

* Data for Panama and Venezuela relate to 2016; latest available data.

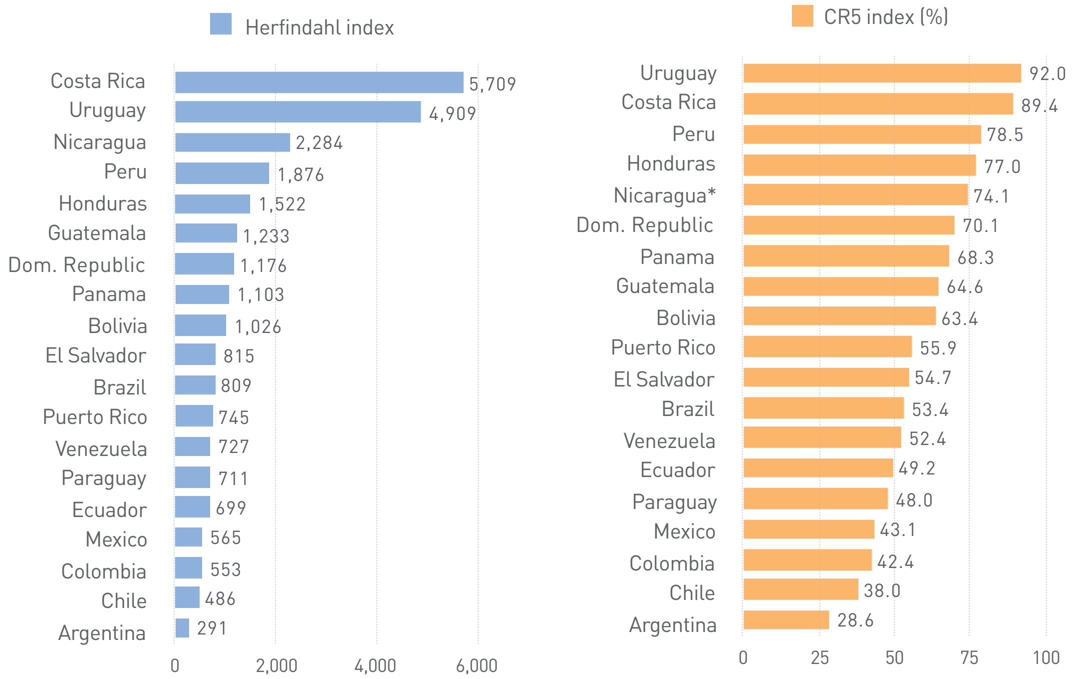
2.2 Structural trends

Penetration, density and depth

Chart 2.2-a summarizes the structural changes in the aggregate Latin American insurance industry over the 2007-20173 period. The penetration index (premiums/GDP) stood at 2.9% in 2017, unchanged on the previous year. The indicator is unchanged in both the Life (1.3%) and Non-Life (1.6%) segments.

As in previous years, Puerto Rico continued to report the highest penetration (premiums/GDP) and density (premiums per capita) indexes in the region, reaching 12.9% and 3,488 dollars, respectively, in 2016. This is because Puerto Rican premium volume includes Health insurance for the poorest populations, which are managed by the private insurance sector but covered by the government's budget (see Chart 2.2-b). After Puerto Rico (12.9%), Chile (4.6%), Brazil (3.2%), Argentina (2.9%) and Colombia (2.9%) were the countries that reported the highest values for penetration indexes in 2017. The markets that managed to improve their score under this indicator in 2017 were Puerto Rico, Colombia, Uruguay, Costa Rica, El Salvador and the

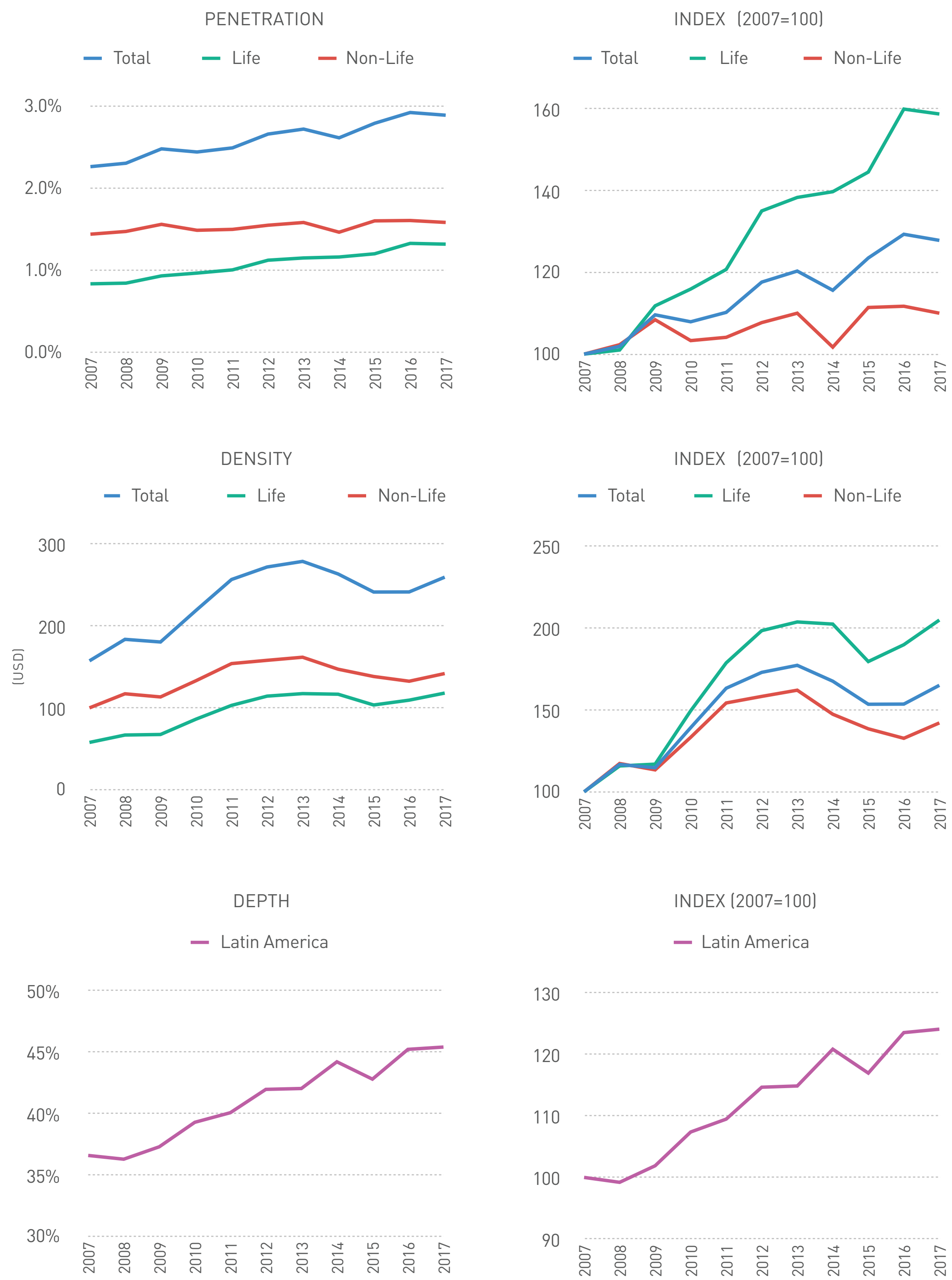
Chart 2.1-f
Latin America: Herfindahl and CR5 indexes, 2017



Source: MAPFRE Economic Research (with data from supervisory bodies in the region)

* Relates to the CR3 estimation.

Chart 2.2-a
Latin America: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, USD; Life insurance premiums/total premiums, percent, index 2007=100)



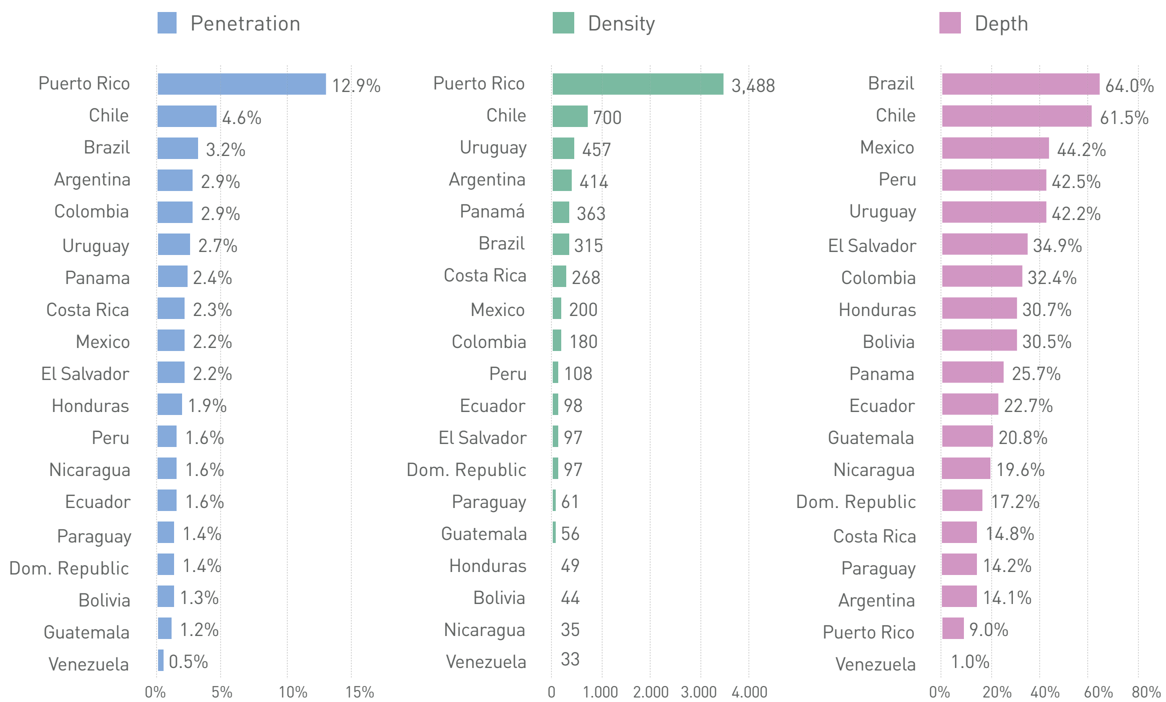
Dominican Republic. Nicaragua, Paraguay and Guatemala maintained the same index as in 2016, while all other countries reported a reduction in their index.

An analysis of the changes in this indicator since 2007 reveals an increase of 0.6 percentage points, confirming for a further year the growing trend we have been witnessing over the last ten years, with the growth of the Life insurance segment making the biggest contribution and Non-Life insurance player a smaller role. On an aggregate basis over the last ten years, total penetration in the region has risen by 27.8%. The cumulative increase in penetration in the Life insurance segment came to 58.7%, while the cumulative increase in Non-Life insurance was 10.1% over the same period. This growth, while undeniably significant, still falls somewhat short of the growth reported between 2006 and 2016.

Meanwhile, density (premiums per capita in dollars) grew for the second straight year in 2017 to reach 259.5 dollars, up 7.5% on the level registered a year earlier as certain local currencies, notably the Brazilian real, made gains against the dollar. The bulk of insurance spending per person remains focused on the Non-Life segment (141.7 dollars), which was up 7.1% year on year. Life insurance density amounted to 117.8 dollars, up 7.9% on 2016, underscoring the continued dynamism in this sector of the regional market.

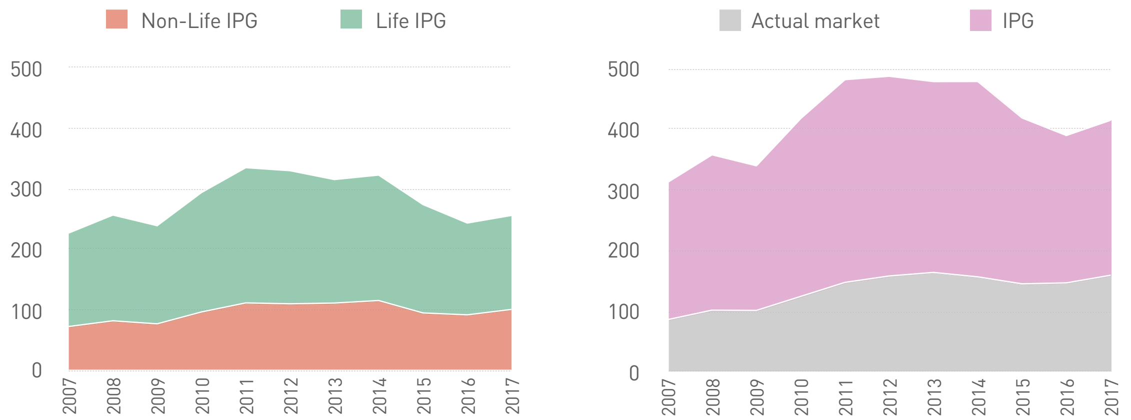
Density has been on a upward path over the medium term in the region. The overall indicator grew by 65.1% between 2007 and 2017. The cumulative increase in the Life insurance market over the period amounted to 104.9% (rising from 57.5 to 117.8 dollars), while cumulative growth in Non-Life insurance was 42.1%. As was also the case with the penetration index over the 2007-2017 period, the density index also shows a certain growth slowdown when compared with the 2006-2016 period.

Chart 2.2-b
Latin America: penetration, density and depth indexes, 2017
(premiums/GDP, percent; premiums per capita, USD; Life insurance premiums/total premiums, percent)



Source: MAPFRE Economic Research (with data from supervisory bodies in the region)

Chart 2.2-c
Latin America: Insurance Protection Gap and potential market, 2007-2017
(billions of USD)



Source: MAPFRE Economic Research

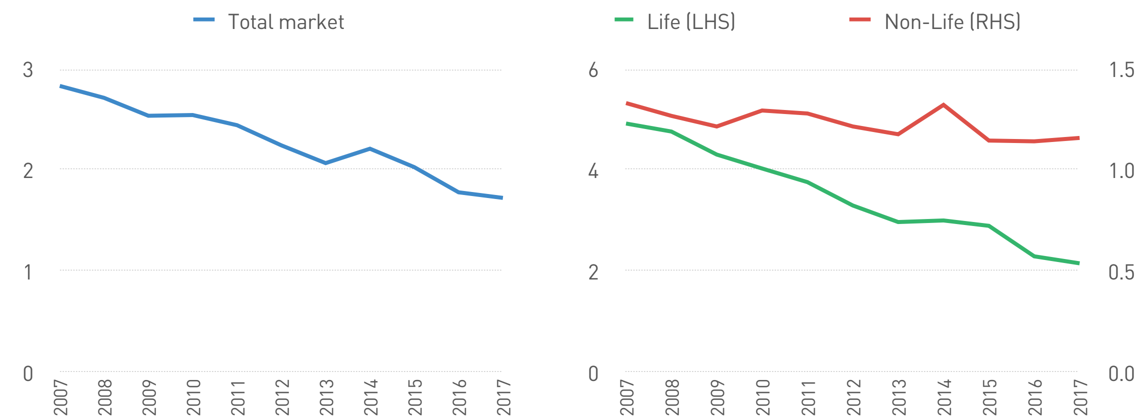
The overall trend in density is confirmed by an individual analysis of each of the markets featured in this report, which points to a trend toward increasing density over recent years when measured on a local currency basis.

Lastly, the index of insurance depth for 2017 (Life insurance premiums relative to total premiums) stood at 45.4% in 2017, up 0.2 percentage points on 2016. On a medium-term horizon (2007-2017), the indicator registered an improvement, with a cumulative increase of 8.8 percentage points and cumulative growth of 24.1% over that period.

Estimation of the Insurance Protection Gap

The Insurance Protection Gap (IPG) represents the difference between the insurance coverage that is economically necessary and beneficial to society and the amount of coverage that is actually acquired. Estimating the IPG not only

Chart 2.2-d
Latin America: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)

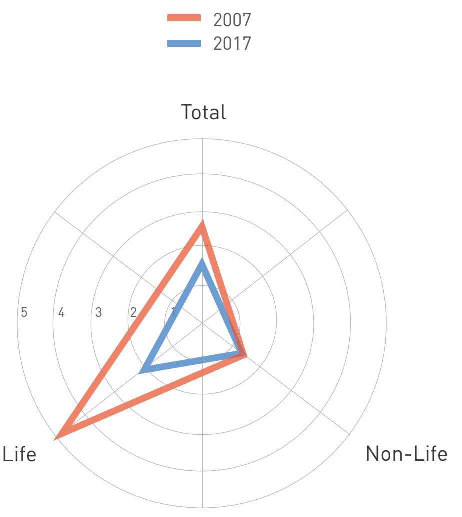


Source: MAPFRE Economic Research

helps to determine the gap in terms of societal under-insurance but also the potential market for insurance, which is the market size that could be achieved were the gap eradicated[4].

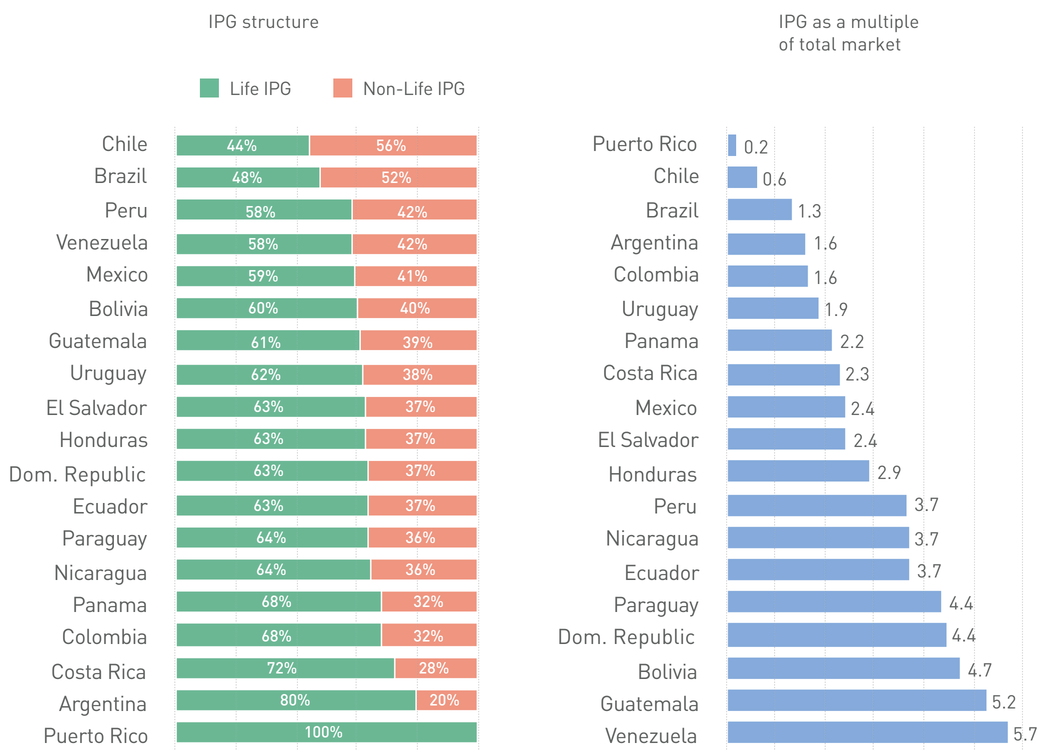
The IPG in the Latin American insurance market is estimated5 at 256.2 billion dollars in 2017, 5.2% higher than the figure estimated for the previous year. There have been no major changes in the structure of the IPG over the last ten years relative to our previous report, confirming that the bulk of the gap lies in Life insurance. In 2017, 60.7% of the IPG related to Life insurance (155.4 billion dollars), while Non-Life insurance accounted for 39.3% of the gap, equivalent to 100.8 billion dollars (see Chart 2.2-c). As a result, the potential insurance market in Latin American in 2017 (the sum of the actual insurance market plus the IPG) stood at

Chart 2.2-e
Latin America: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Chart 2.2-f
Latin America: structure and relative size of the Insurance Protection Gap, 2017
(structure, percent; IPG as a proportion of total market, number of times)



Source: MAPFRE Economic Research (with data from supervisory bodies in the region)

415.4 billion dollars, 2.6 times larger than the current regional market (159.2 billion dollars).

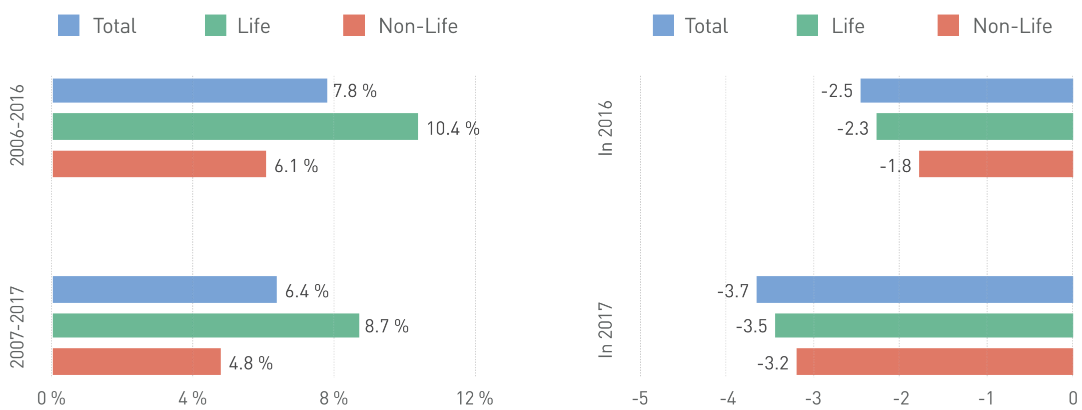
Chart 2.2-d shows a comparison of the IPG as a multiple of the real market between 2007 and 2017. As can be seen, the region's insurance protection gap has been on a downward path over the period, both for the total market and in terms of the Life and Non-Life segments. Thus, while in 2007 the IPG was 2.6 times the actual insurance market in the region, by 2017 it had narrowed to 1.6 times. Similarly, in the Life insurance segment the multiple fell from 4.9 to 2.1, while the Non- Life insurance multiple saw a more modest reduction from 1.3 to 1.2 over the period.

Chart 2.2-e shows the wider change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Latin American insurance markets over the last ten years, comparing the situation in 2017 with the state of the market in 2007. This analysis reveals an improvement in the total market gap thanks largely to the reduction in the gap within the Life segment, while the insurance protection gap in the Non-Life segment as a multiple of the actual market has barely changed.

Meanwhile, Chart 2.2-f shows both the structure of the IPG for each of the countries in the region and the size of the insurance protection gap relative to the total current market. In general, the development of insurance markets - alongside structural dynamics - is associated with the IPG, which can be used to identify areas of underdevelopment. Likewise, the degree of progress in market development is linked to the ratio of the insurance gap to the current market. In addition to the general overview provided by this chart, the next section of this report goes into more detail by addressing the individual IPGs for each Latin American market.

Last but not least, Chart 2.2-g offers an assessment of the capacity of the Latin American insurance industry to close the insurance gap. To do so, we have conducted a comparative analysis of the growth rates observed over the 2006-2017 period relative to the growth rates that would be required to close the 2017 IPG over the next ten years. Over the 2007-2017 period, the region's insurance market posted annual average growth (in dollars) of 6.4%, underpinned by average growth of 8.7% in the

Chart 2.2-g
Latin America: capacity to close the IPG, 2007-2017
(annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Life insurance segment and 4.8% in the Non-Life segment.

Accordingly, if this same growth dynamic were to continue over the next ten years, the market growth rate would fall short of covering the 2017 IPG by 3.7 percentage points. The same is true when analyzing either the Life insurance segment (short 3.5 pp) or the Non-Life Insurance segment (short -3.2 pp). The ability to close the gap appears to have deteriorated over the next ten years when compared with the measurement taken in 2016. Therefore, it seems that if we are to close the insurance gap in the region over the coming years we will need a conducive macroeconomic and financial climate, along with greater efforts in championing and raising financial inclusion (see Box 2.2).

Market Development Index (MDI)

Chart 2.2-h provides an estimate of the Market Development Index (MDI) for the Latin American insurance industry. The MDI aims to summarize trends regarding the development and maturity of insurance markets6. For the purposes of this report, the indicator is also used as a metric for comparison, providing a way to analyze trends in development in each of the insurance markets in the region on an individual basis.

For the region as a whole, the MDI has shown a sustained improvement over the last ten years, despite suffering a slight dip in 2014. This clear positive trend in the industry over the 2007-2017 period provides further proof that the Latin American insurance market has been experiencing positive and well-balanced growth.

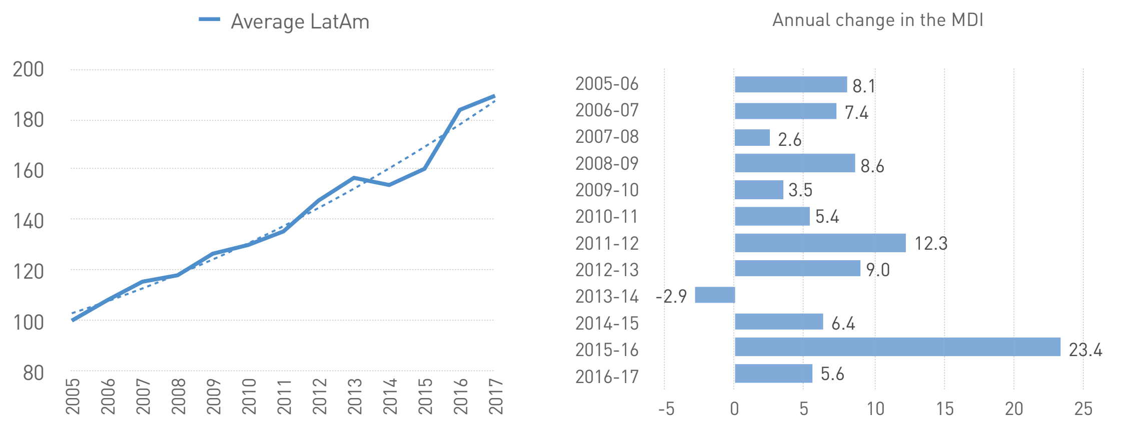
Summary of M&A activity

As in previous reports, this section provides information on the mergers and acquisitions that took place in the Latin American market in 2017. Significantly, the growth posted by insurance groups operating in Latin America in 2017 was mainly organic, since there were no significant mergers or acquisitions.

Shown below are some of the main events relating to M&A activity in 2017.

- In the third quarter of 2017 and early 2018, Canadian group Fairfax Financial Holding received clearance from the supervisory bodies of Argentina, Chile, Colombia and Uruguay to complete the deal it had reached in October 2016 with the AIG group to acquire the latter's subsidiaries in those countries, to which we should also add Venezuela. With the deal now complete, Fairfax has become AIG's main strategic

Chart 2.2-h
Latin America: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Box 2.2
Barriers to financial inclusion in insurance

Financial inclusion in insurance

Broadly speaking, financial inclusion is a process whereby society is granted access to a range of financial services (credit, savings, insurance, payment systems and pensions) and education mechanisms with the aim of improving social well-being.

When it comes to insurance activity, financial inclusion essentially means giving the more socially excluded (or underserved) groups of society products that will afford them protection against basic risks (life, health, accidents, property and liability). Since financial inclusion targets both the excluded and the underserved, inclusive insurance embraces not only micro-insurance (traditionally aimed at low-income groups), but also a type of insurance that is offered under mass selling mechanisms (aimed at numerous echelons of society).

Due to is very nature, inclusive insurance is one of the main weapons when it comes to reducing the Insurance Protection Gap (IPG) within emerging economies by tackling the problem on two fronts. Firstly, on a short-term horizon it raises demand for insurance by bringing new segments of the population (whether excluded or underserved) within the scope of the system of protection and compensation offered by insurance. Meanwhile, and on a more mid- to long-term horizon, inclusive insurance is also a means of financial education that will advance the social and economic development of the population and ultimately push up demand for insurance.

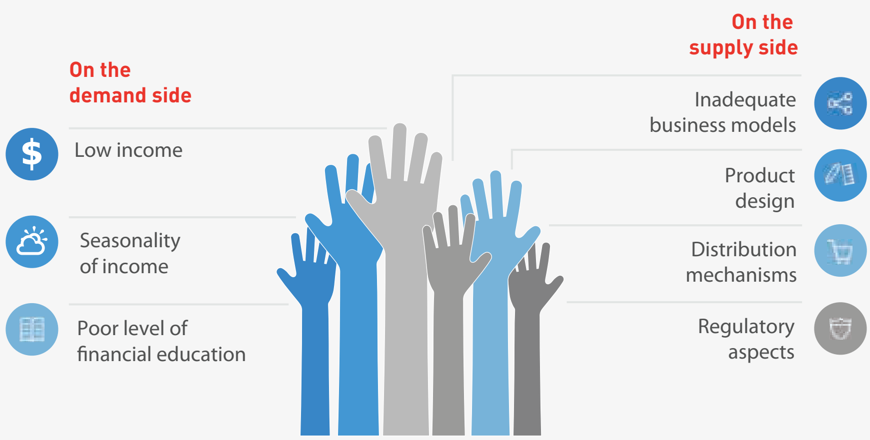
Barriers to financial inclusion in insurance

Financial inclusion faces various obstacles when it comes to insurance. These obstacles can be sorted into two categories for analytical purposes: on the one side those that have to do with constraints affecting demand for insurance and on the other those concerning the supply of assurance services.

On the demand side

On the side of demand, we have three main obstacles blocking the way to greater financial inclusion in insurance. The first of these concerns has to do with the low income of the target population,

Analysis of the barriers to financial inclusion in insurance



Source: MAPFRE Economic Research

Box 2.2 (continued)
Barriers to financial inclusion in insurance

especially the excluded segment (which poses the greatest challenge in reducing the insurance gap). Since the available income of families and households is not even enough to cover basic needs, it can hardly be used for acquiring products offering financial protection.

The second aspect concerns the seasonal nature of available income. Groups excluded from insurance protection in emerging markets typically receive most their income during specific seasons of the year, due to the type of work or job they perform. This often sits uncomfortably with the traditional models of the insurance business, particularly when it comes to premium payments.

And as the last factor on the side of demand we have the poor level of financial education among the target population, which means they are largely unaware of the need to have protection against the risks to which they are exposed and how insurance can raise the level of personal and family well-being.

On the demand side, we are clearly dealing with structural aspects relating to the specific characteristics of a country's economic growth and the distribution of income, as well as possible shortcomings or a lack of depth in the system of formal education in emerging economies.

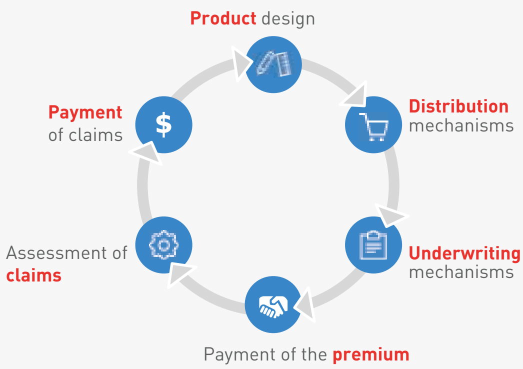
Among other aspects, this adjustment process must factor in: (i) the customer's specific profile (low level of available income, low awareness regarding the risks to which they are exposed and how to protect against them, the nature of their consumption expenses, difficulties in locating them, the informal or precarious nature of their work, irregular sources of income, etc.), which differs significantly from traditional consumers already under the wing of the insurance industry; (ii) the specific context of the country concerned; (iii) the need to employ non-traditional distribution channels; (iv) the specific circumstances of the inclusive insurance product cycle, which again differs from the traditional product cycle; and (v) heavy reliance on digitalization as a means of lowering operating and transaction costs.

The second barrier on the supply side has to do with the product design process. Inclusive insurance products are a breed apart, requiring the following aspects, among others, to be considered: (i) a complex tariff fixing process (because we have insufficient information with to measure the risks of the target population); (ii) ensuring that insurance coverage is well-defined and suitably delimited, while also reducing the number and type of exclusions

On the supply side

Meanwhile, on the supply side of things, we have four relevant aspects to consider when analyzing the obstacles to achieving more rapid progress with financial inclusion across emerging markets. First of all, we have the existence of inadequate models for effectively reaching out to the target population. Business models (of traditional commercial insurers, mutual insurance firms and cooperatives, including micro-insurers and new players in the insurance markets) must be molded and shaped to fit the specific conditions of the markets in which we wish to increase the degree of inclusion.

Product cycle of inclusive insurance



Source: MAPFRE Economic Research

Box 2.2 (continued)
Barriers to financial inclusion in insurance

from the product (allowing insurers to simplify the product and deal with the problem of the poor levels of financial education); (iii) making premium payment systems more flexible (to get around the problem of many workers having available income only during certain periods of the year); and (iv) establishing simple and agile procedures for paying compensation under the product. Here, innovation plays a central role in designing inclusive insurance products. They need not be products adapted or rehashed from other more traditional products, but may actually take new forms suited to the target population and their unique circumstances.

Thirdly, increased financial inclusion demands new distribution mechanisms. Until not that long ago, the insurance industry used to rely on rather traditional distribution channels (agents and brokers). Recently, however, the arrival of new channels (bancassurance, agreements with stores, commercial establishments and providers of non-financial services, as well as the introduction of digital channels) has helped strengthen the multi-channel concept. Yet when it comes to inclusive insurance, we may need to go further. The concept of multi-channel should be expanded to embrace other means of distribution (agreements with micro-financing entities, providers of community services and NGOs, etc.) All this in a bid to lower transaction costs and make inclusive insurance products an accessible proposition.

Last but not least, certain regulatory aspects may also impact the growth of inclusive insurance on the supply side of things. There are four principles which, pursuing the objective of protecting solvency and avoiding any kind of regulatory arbitration, might well be considered essential in order for the regulatory landscape to actually aid in the development and growth of inclusive insurance: (i) creating incentives for product innovation (mechanisms to fast track the development and launch of new products); (ii) adding incentives for reducing transaction costs (flexibility in the use of new distribution channels); (iii) enabling the implementation of pilot projects into new products or distribution mechanisms; and (iv) applying the principle of proportionality aimed at entities and firms that effectively provide service to these new segments of the populace (so as to avoid any build-up of redundant operating costs, which might comprise their ability to offer accessible products).

Overcoming the barriers

Broadly speaking, inclusive insurance products must satisfy the following essential conditions for their classification as such: accessible (offered at an affordable price); sustainable (offered on a regular, ongoing basis); adequate (in that they meet the needs of the target population); and responsible (offering an appropriate price/value relationship considering the circumstances of the target population). We must therefore address and overcome these obstacles on the side of both supply and demand.

On the one side, the existing structural factors on the demand side demand that we raise awareness of the need to implement public policies aimed at increasing the income of these vulnerable groups. There is still a lot of work to be done in developing public-private partnerships between governments and the insurance industry so that together they can address the mid- to long-term factors affecting available income and raise awareness of the risks facing the population.

And on the other side, meaning the work ahead in overcoming supply-side barriers, we are facing a battle on two main fronts. The first of these is down to the insurance industry, which must make the necessary adjustments to existing business models or create new models specifically geared toward inclusive insurance, while creating more innovative products and relying on new distribution mechanisms that will effectively lower transaction costs. The second relates essentially to the much-needed regulatory changes so as to provide incentives for innovation and push through distribution mechanisms that effectively lower transactions costs.

international partner in providing service to its global customers in these markets.

- In April 2017, Prudential de Brasil announced the completion of the acquisition of a portfolio of Life insurance policies from the Itaú Unibanco group, following clearance of the deal by the Superintendency for Private Insurance (SUSEP). The newly acquired business offers group life and personal accident insurance products to corporate customers.

- The Generali group has sold its insurance business in Panama and Colombia. The transaction was announced in the latter half of 2017 and completed in April 2018. Its operations in Panama were sold to ASSA, while its Colombia business was sold to Talanx.

Individual analysis of the Latin American insurance markets

The next section of this report provides a detailed analysis for each of the Latin American insurance markets. These individual reports begin with an initial assessment of the macroeconomic backdrop in each country in 2017, before turning to the main metrics and trends in their insurance markets. Broadly speaking, these individual reports provide a perspective for the 2007-2017 period on premium growth, the main items of the aggregate balance sheet at sector level, technical performance and the results and profitability of the insurance industry.

This is followed by a review of the main structural trends in each market, analyzing developments in insurance penetration, density and depth. In order to appropriately portray the dynamics underlying the main trends in each market, the country analysis uses local currency so as to avoid the distorting effects of currency fluctuations. Furthermore, each of the individual reports includes an estimate of the IPG, in terms of both its magnitude and structure.

3. The Latin American insurance markets: country analysis

3.1 North America, Central America and the Caribbean

3.1.1 Mexico

Macroeconomic environment

The Mexican economy grew by 2.3% in 2017, 0.3 percentage points less than the previous year. This slowdown was mainly down to the drop in investment, especially public investment, and the negative impact of natural disasters, which proved too much, despite an improved showing from the external sector and increased revenues from exports due to rising oil prices (see Chart 3.1.1-a).

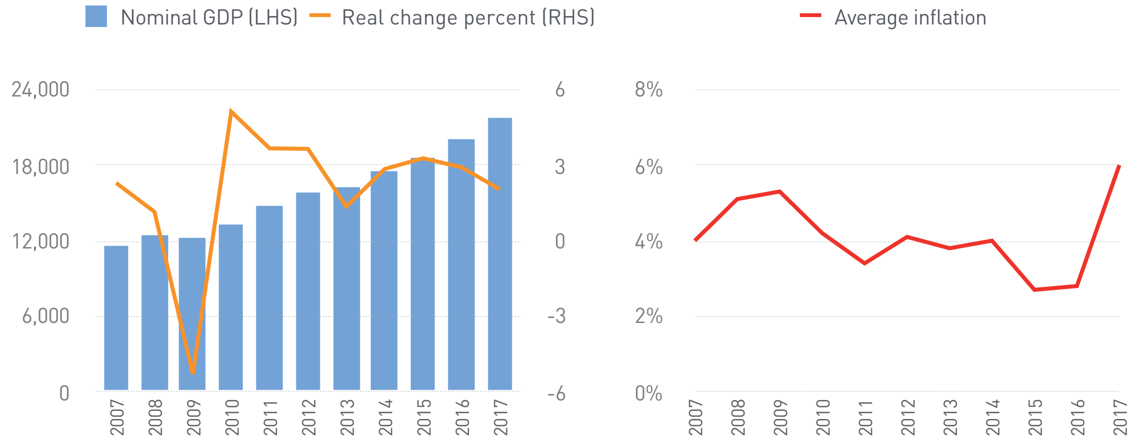
Private consumption was the main growth driver while on the supply side the tertiary sector was the most dynamic segment of the economy, with growth exceeding 3% on average since September. Following closely behind was the primary sector, where growth surpassed 2%, while the secondary sector suffered a 0.5% dip in growth.

The fiscal deficit of the public sector improved to 1% of GDP (versus 2.5% in 2016), while the current account deficit came to 1.7% of GDP at year end (versus 2.2% in 2016). The nation's debt to GDP stood at 47.2% (versus 49.5% in 2016, its highest level since 1990).

Meanwhile, average inflation in 2017 increased sharply to reach 6%, significantly above the target range envisioned by the Bank of Mexico (between 3% and 4%) and well ahead of the rate of 2.8% reported in 2016. The unemployment rate fell to 3.4% (3.9% in 2016).

Turning to exchange rates, in January 2017 we witnessed the biggest nominal depreciation of the Mexican peso to the US dollar in recent history, with the rate falling to 21.9 pesos per dollar. This phenomenon was largely a result of the uncertainty caused protectionist stance taken by the US government and its impact on

Chart 3.1.1-a
Mexico: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

negotiations of the North American Free Trade Agreement (NAFTA). However, this uncertainty gradually abated over the following months through to November 2017, when the currency underwent a nominal appreciation of 10.1% (15.6% in real terms) in relation to year-end 2016. This improvement was down to a slight improvement in the price of Mexican oil mix, as well as the monetary policy and foreign exchange measures rolled out by the Bank of Mexico and a less volatile international financial market. The recovery of the Mexican peso will help curb inflation, as indeed we are already seeing in the latest figures released for 2018.

Looking ahead to the rest of 2018, MAPFRE Economic Research estimates that the Mexican economy will post 2.4% growth due a likely improvement in global trade, an increase in public revenue from oil and the reconstruction work following the natural disasters of 2017. This growth outlook is shared by the Economic Commission for Latin America and the Caribbean (ECLAC), while the International Monetary Fund places growth at 2.3%.

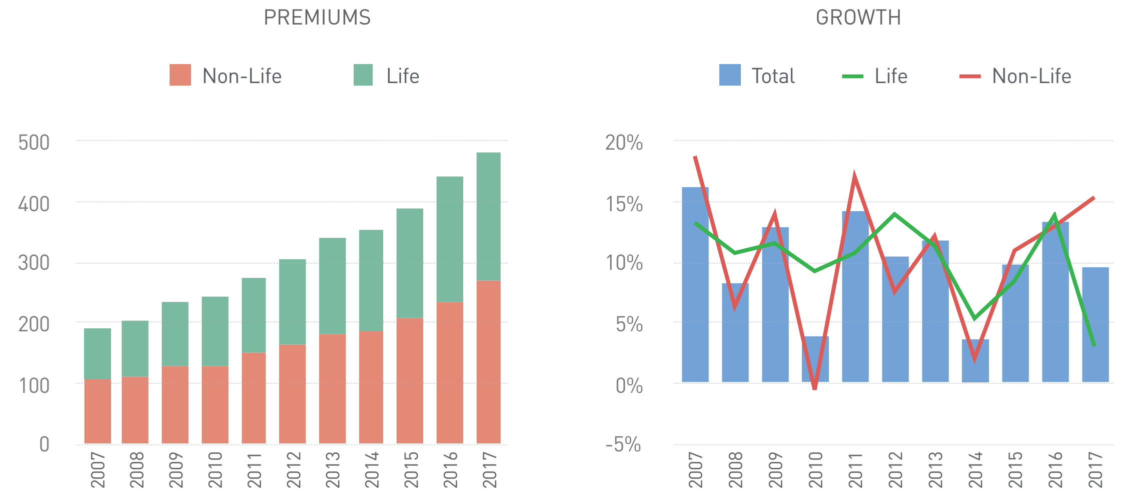
Insurance market

Growth

The Mexican insurance market achieved a premium volume of 482.81 billion pesos (25.53 billion dollars) in 2017, revealing nominal growth of 9.6% and real growth of 3.4% (see Table 3.1.1 and Chart 3.1.1-b). A total of 44% of premiums relate to Life and Pension insurance, with the remaining 56% in Non-Life insurance, whose relative importance has been recovering to the strong position it was in ten years ago. Market growth in 2017 (9.6%) was aided by a larger contribution from the Non-Life insurance segment (notably the renewal of the multi-year PEMEX policy), which contributed 8.2 percentage points, while Life insurance contributed 1.5 percentage points (see Chart 3.1.1-c).

An analysis of the main market segments shows that premiums on Life insurance grew 3.1% in nominal terms (-2.8% in real terms) to reach 213.51 billion pesos (11.29 billion dollars). Significantly, Pension insurance grew in both real

Chart 3.1.1-b
Mexico: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Table 3.1.1
Mexico: premium volume[1] by line of business, 2017

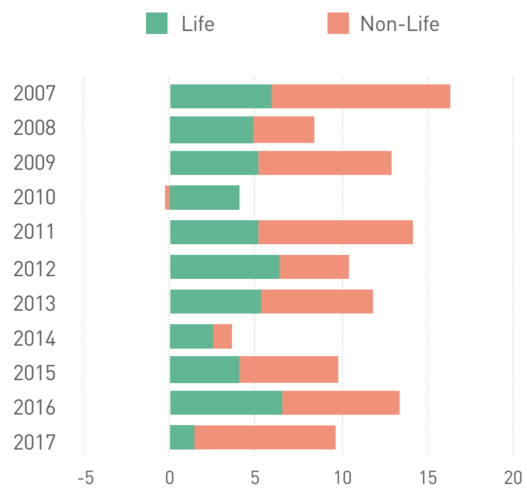
Line	Millions of pesos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**482,816**	**25,536**	**9.6**	**3.4**
Life	**213,518**	**11,293**	**3.1**	**-2.8**
Individual Life	124,944	6,608	4.0	-2.0
Group Life	67,264	3,558	-0.6	-6.3
Pensions	21,310	1,127	10.5	4.2
Non-Life	**269,297**	**14,243**	**15.4**	**8.8**
Automobile	102,686	5,431	12.7	6.3
Health[2]	71,348	3,774	12.3	5.9
Fire	17,067	903	30.0	22.6
Earthquakes and other catastrophic risks	19,221	1,017	22.2	15.3
Miscellaneous	20,250	1,071	12.9	6.5
Transport	16,141	854	48.3	39.8
Third-party liability	11,781	623	27.8	20.5
Personal accident[3]	5,129	271	-15.8	-20.6
Agrarian	4,069	215	0.1	-5.6
Credit	1,604	85	-5.0	-10.4

Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).
1/ Direct premium
2/ Accident and Illness line

and nominal terms (10.5% and 4.2%, respectively) to reach 21.31 billion pesos (1.12 billion dollars). Individual Life insurance premiums gained 4% in nominal terms (-2% in real terms) and group Life shed 0.6% (-6.3% in real terms).

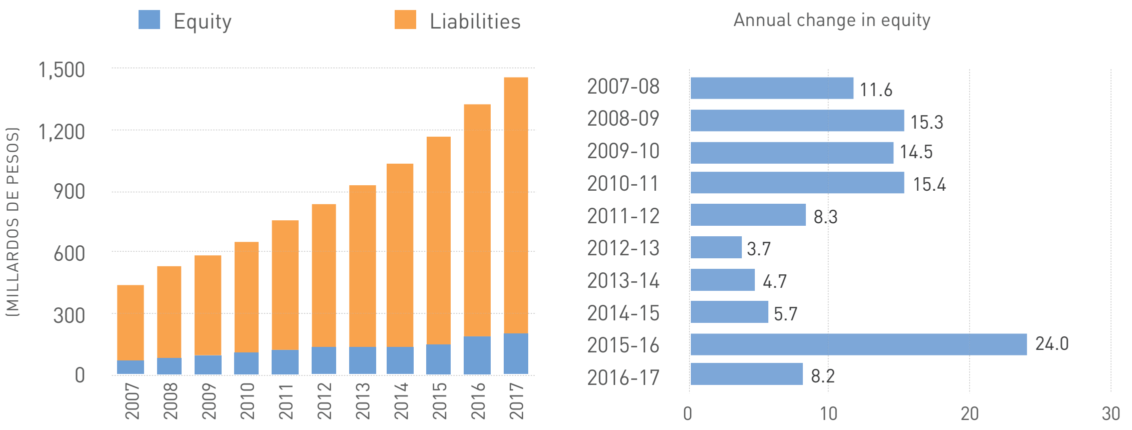
Meanwhile, Non-Life insurance premiums rose by 15.4% in nominal terms in 2017 and 8.8% in real terms, reaching 269.29 billion pesos (14.24 billion dollars). All of the main insurance modalities in this segment posted growth, with the exception of Personal accident and Credit. The two most important Non-Life lines (Automobile and Health) grew by 12.7% and 12.3%, respectively, in nominal terms. Growth in Transport insurance (+48.3%) was particularly noteworthy and was down to an increase in policy prices in response a high loss experience from theft of heavy equipment.

Chart 3.1.1-c
Mexico: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-d
Mexico: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Balance sheet and equity

Chart 3.1.1-d shows developments in the overall balance sheet of the Mexican insurance market at sector level between 2007 and 2017. As can be seen, the Mexican insurance industry had total assets of 1.45 trillion pesos (77.02 billion dollars) in 2017, while equity stood at 201.3 billion pesos (10.64 billion dollars), up 8.2 percentage points on 2016.

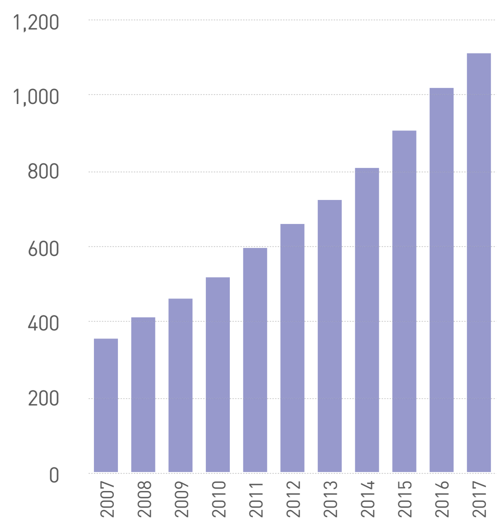
Investment

Chart 3.1.1-e shows developments in total investment, while Charts 3.1.1-f and 3.1.1-g provide a breakdown of the aggregate investment portfolio at sector level of the Mexican insurance market in 2017.

Total investment came to 1.11 trillion pesos (58,79 billion dollars) in 2017, showing a similar distribution to 2016, i.e. concentrated in fixed-income investments (79.5%), with a significantly smaller proportion (12.8%) in equity instruments (see Chart 3.1.1-g).

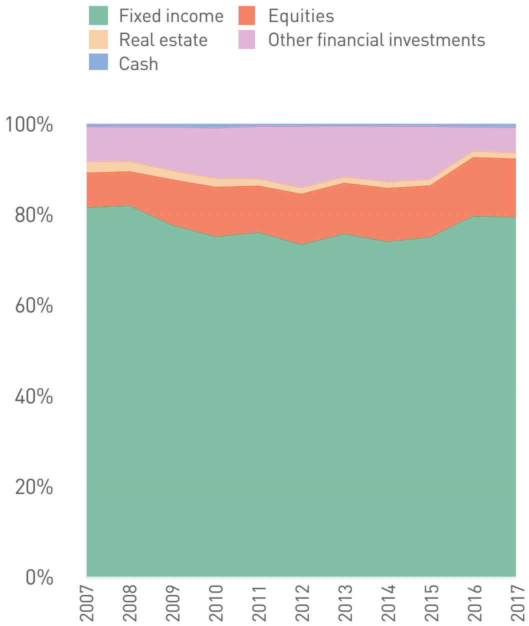
Sovereign debt maintained its relatively high weighting during the year due to the ongoing process of implementing the new Solvency II-style prudential regulation in Mexico. This system favors the matching of assets and liabilities and hence the use of debt instruments.

Chart 3.1.1-e
Mexico: insurance market investment, 2007-2017
(billions of pesos)



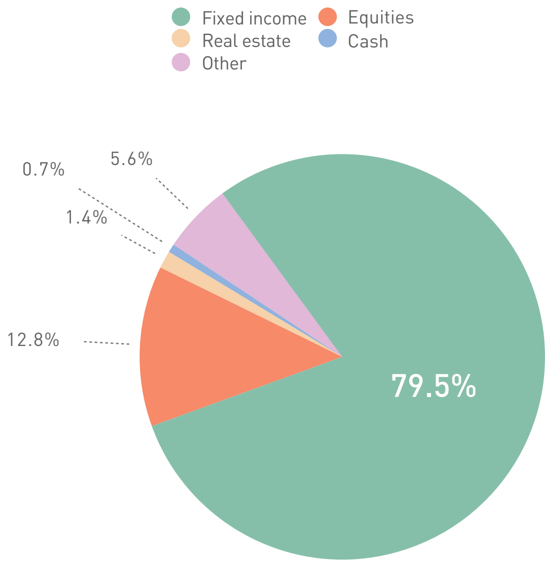
Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-f
Mexico: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-g
Mexico: structure of investment, 2017
(%)



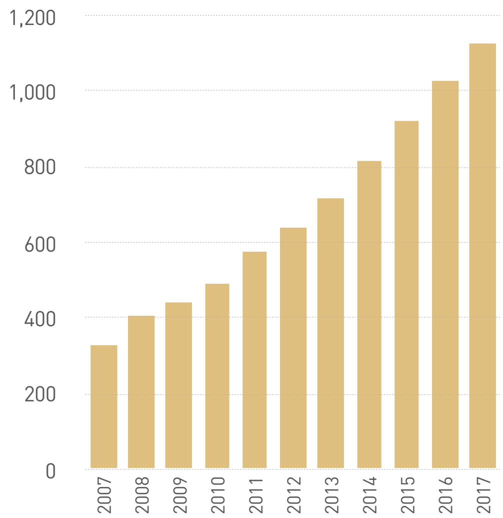
Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Technical provisions

Chart 3.1.1-h shows changes in technical provisions in the Mexican insurance industry. As can be seen, total technical provisions amounted to 1.12 trillion pesos (59.39 billion dollars) in 2017. Meanwhile, and as shown in Charts 3.1.1-i and 3.1.1-j, 68.7% of total technical provisions related to Life insurance, 12.6% to provision for unearned premiums and unexpired risks in Non-Life insurance, 13.3% to technical provision for outstanding benefits, 3.6% to catastrophe reserves and 1.9% to other technical provisions.

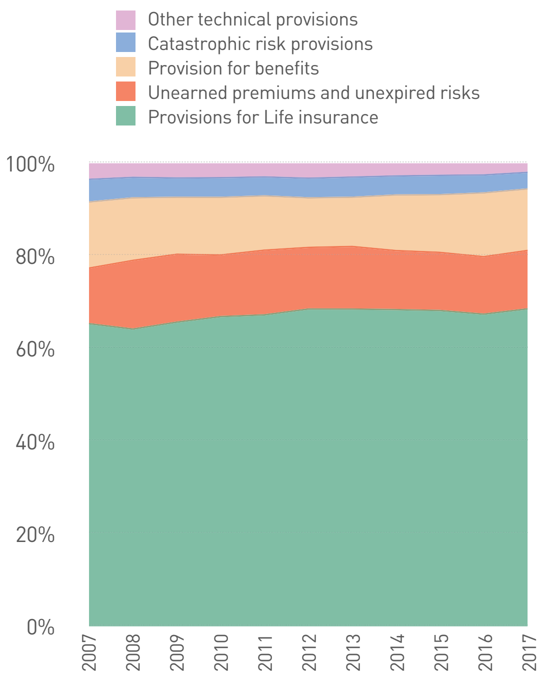
It is worth noting that over the 2007-2017 period there was an increase in the relative weight of Life insurance provisions from 65.5% in 2007 to 68.7% in 2017, although this upward trend flattened from 2012 onward. The share of other provisions in 2017 fell slightly in comparison with the previous year.

Chart 3.1.1-h
Mexico: technical provisions of the insurance market, 2007-2017
(billions of pesos)



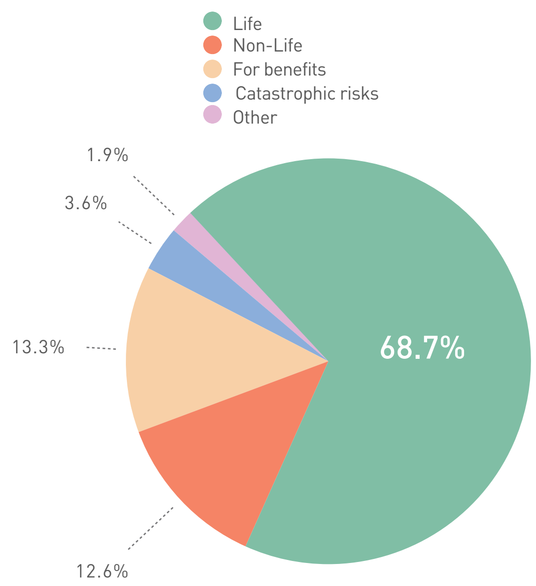
Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-i
Mexico: structure of technical provisions, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-j
Mexico: structure of technical provisions, 2017
(%)



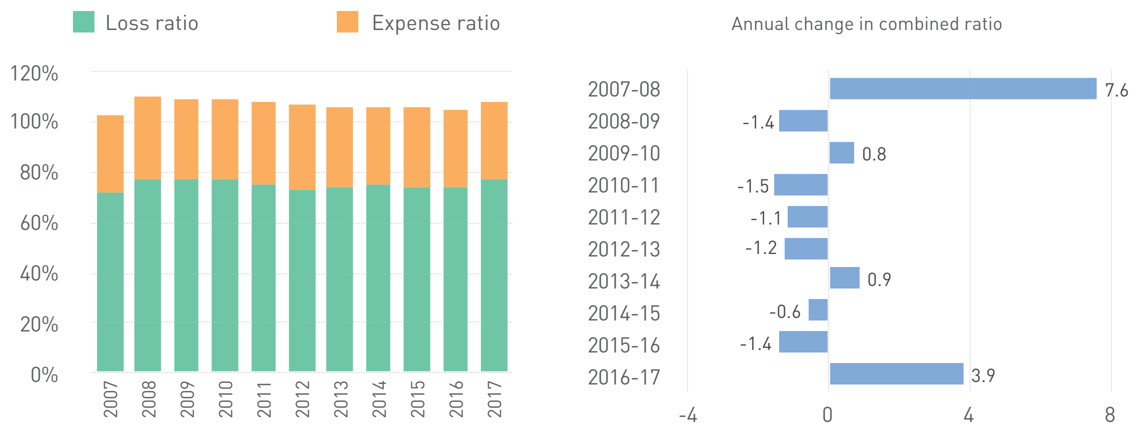
Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Technical performance

Chart 3.1.1-k shows developments in the Mexican insurance industry's technical performance over the 2007-2017 period.

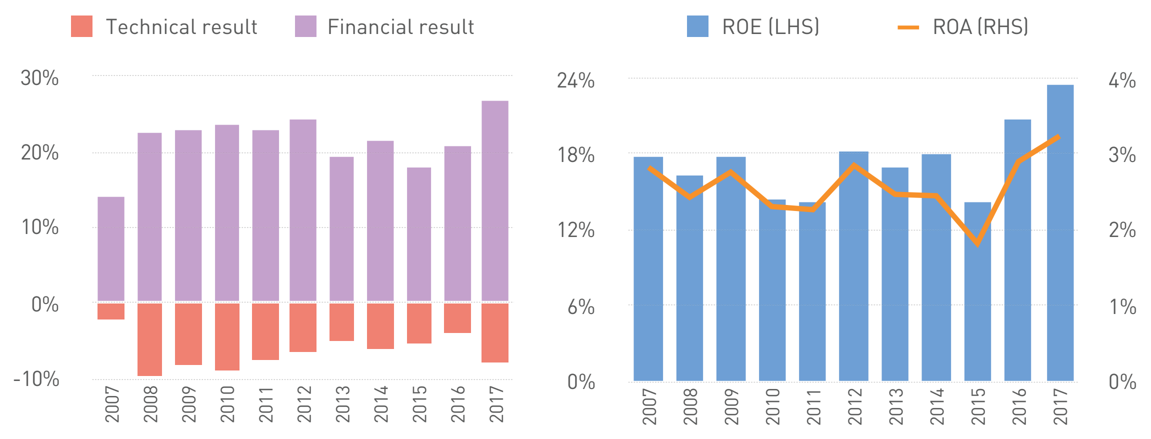
Based on this information, the total combined ratio (calculated relative to net accrued premium) stood at 108% in 2017, showing impairment of 3.9 percentage points on the figure reported in 2016

Chart 3.1.1-k
Mexico: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-l
Mexico: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

(104.1%). The change in 2017 was down to the impact of the increase in the loss ratio (3.9 pp).

Results and profitability

The Mexican insurance industry posted a consolidated net result of 47.18 billion pesos (2.49 billion dollars) in 2017, up 21.9% on the previous year, largely due to a 35.3% improvement in the financial result.

The downward trend of the loss ratio from its peak level in 2009 finally came to a halt in 2017. Similarly, the improvement seen in the combined ratio over recent years reverted in 2017 to the levels seen in 2011. In any case, the indicator has invariably remained above 100% over the period under analysis since it is the ratio for the total market. Meanwhile, the financial result (as a percentage of net earned premium) stood at 26.5% in 2017, 5.6 percentage points clear of the level reached in 2016 (see Chart 3.1.1-l).

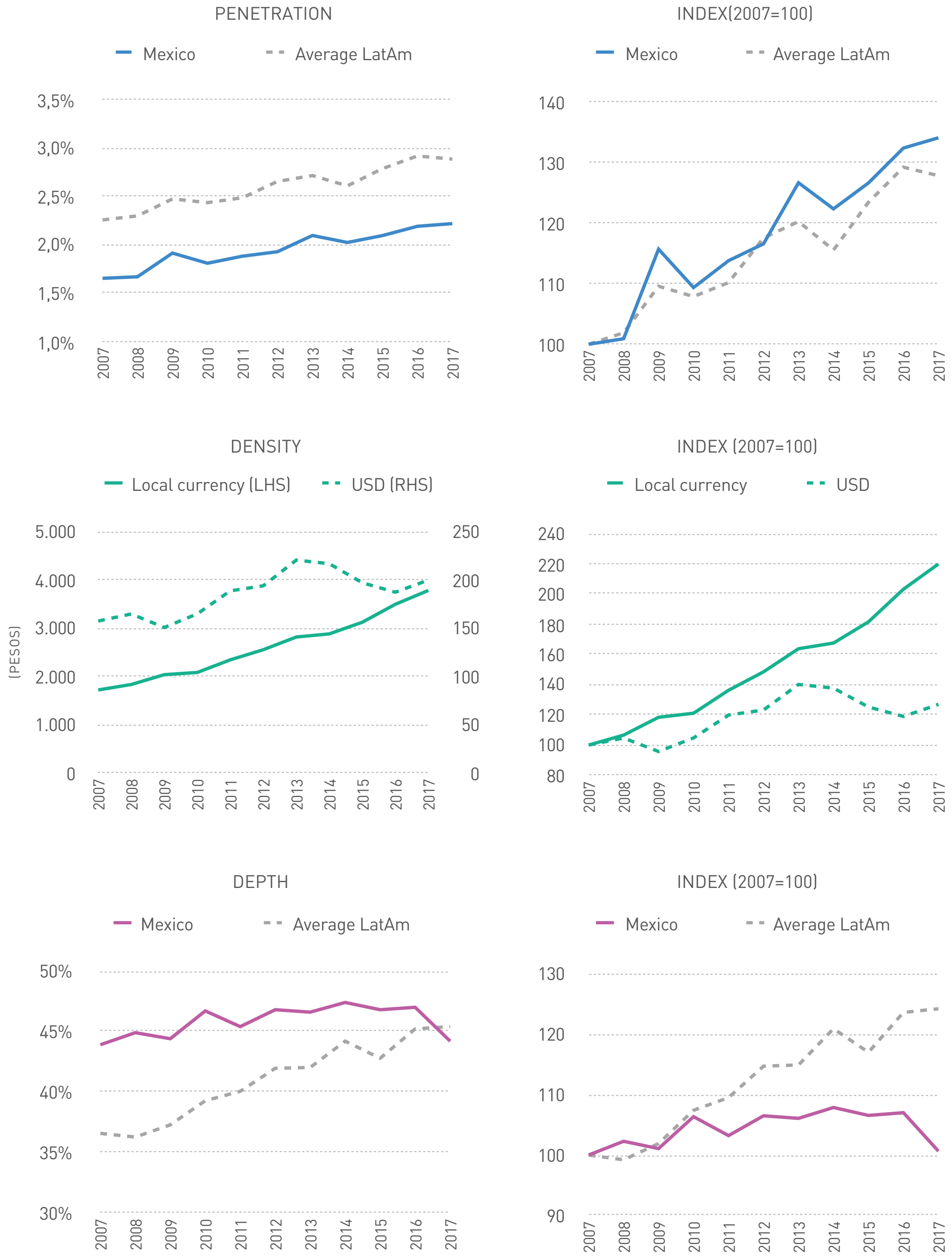
Turning to profitability, the industry achieved a return on equity (ROE) of 23.4% in 2017, revealing a year-on-year improvement of 2.6 percentage points. In a similar vein, return on assets (ROA) reached 3.2% in 2017, showing a slight year-on-year increase of 0.3 percentage points.

Insurance penetration, density and depth

Chart 3.1.1-m shows the main structural trends shaping the development of the insurance industry in Mexico over the 2007-2017 period. The penetration index (premiums/GDP) remained at 2.2% in 2017, an all-time high for the Mexican insurance industry. This indicator has generally been on an upward trend over the 2007-2017 period, in line with the general pattern seen across the wider Latin American region. Nonetheless, the penetration of the Mexican market remains below the absolute average level for Latin America (2.9%).

Insurance density in 2017 (premiums per capita) amounted to 3,776 pesos (200 dollars), up 8.2% on 2016 (3,489 pesos). As in the case of penetration, density has followed an upward path over the last ten years, with cumulative growth in local currency terms of 119.9% over the period under analysis (2007-2017).

Chart 3.1.1-m
Mexico: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD;
Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Depth (measured for the purposes of this report as the ratio of Life insurance premiums to total premiums) stood at 44.2%; 2.8 percentage points below the value reported in 2016 (partly due to the effect of the renewal of the PEMEX policy) and 2 percentage points less than in 2007. The increased share in premiums of the Non-Life segment is down to the reduction in this indicator during the year under review. In contrast to the trend observed through to 2016, the depth of the Mexican insurance market in 2017 fell short of the average for Latin American insurance markets, marking a step back in Mexico's drive to obtain a more mature and developed market.

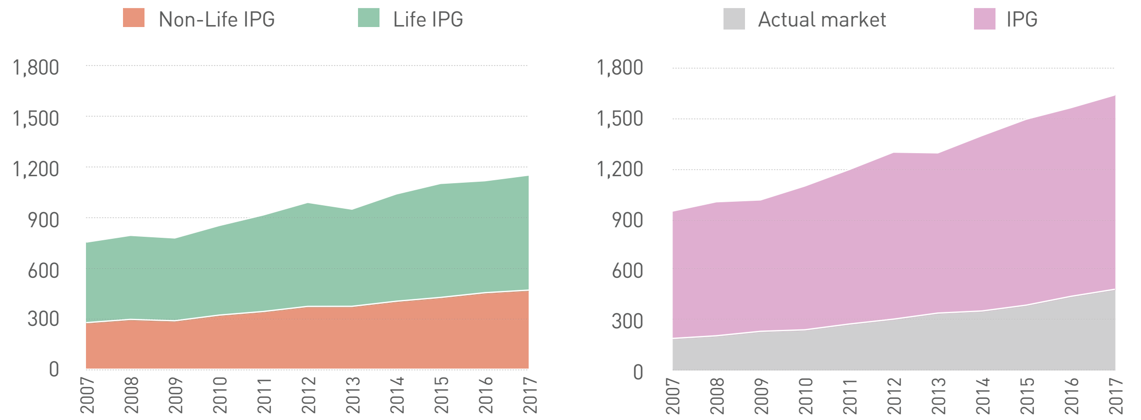
Estimation of the Insurance Protection Gap

Chart 3.1.1-n provides an estimate of the Insurance Protection Gap (IPG) for the Mexican insurance market over the 2007-2017 period. The IPG stood at 1.15 trillion pesos (61.11 billion dollars) in 2017, equivalent to 2.4 times the size of the actual insurance market at the close of that year. Life insurance is the key segment shaping the structure and performance of the IPG over the last ten years. In 2017, 59% of the IPG related to Life insurance, equivalent to 684 billion pesos. By contrast, Non-Life insurance accounted for 41% of the gap, some 471.1 billion pesos.

Accordingly, the potential insurance market in Mexico (the sum of the actual market plus the IPG) amounted to 1.63 trillion pesos (86.64 billion dollars), i.e. 3.4 times the current size of the Mexican market, showing an improvement on the gap of 3.5 times reported one year earlier.

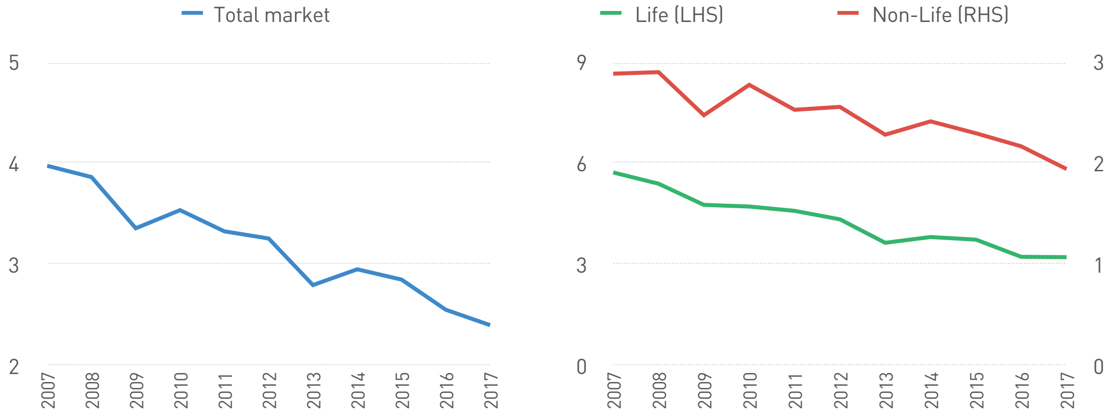
Chart 3.1.1-o shows an estimate of the IPG as a multiple of the actual market in each year. This comparison provides an insight into how the gap has changed over time. As a multiple, the IPG has been on a clear downward trend in the Mexican market over the last ten years, whether looking at the overall market or at the Life and Non-Life segments. While in 2007 the IPG was 4.0 times the size of the real insurance market in Mexico, in 2017 that weight had fallen to 2.4 times. The same holds true for the Life and Non-Life segments. In the case of the former, the multiple fell from 5.7 to 3.2, while for the latter it shrunk from 2.6 to 1.7 over the ten-year period.

Chart 3.1.1-n
Mexico: Insurance Protection Gap and potential market, 2007-2017
(billions of pesos)



Source: MAPFRE Economic Research

Chart 3.1.1-o
Mexico: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)

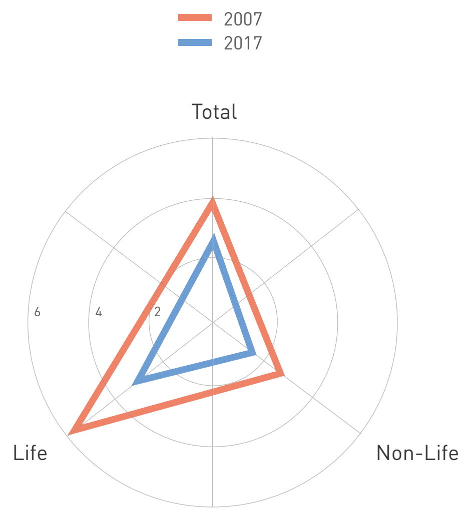


Source: MAPFRE Economic Research

Chart 3.1.1-p summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Mexican insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. The table shows a clear improvement in the Non-Life business and especially in the Life business.

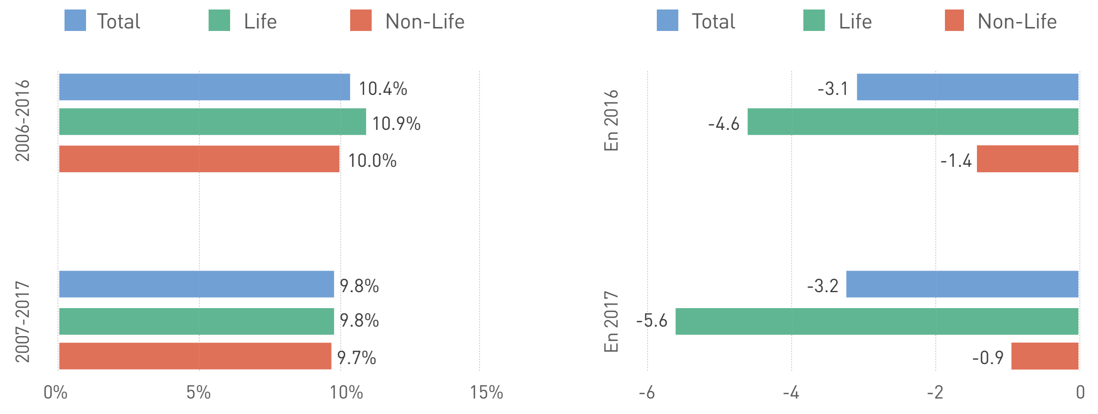
Last but not least, and as is customary of late in our reports for the Latin American market, this year's report includes a comparative analysis between the growth rates observed in the Mexican market over the last ten years and the growth rates that would be required in order to close the IPG calculated for 2017 over the coming ten years. This analysis reveals (see Chart 3.1.1-q) that the Mexican insurance market posted an average growth rate of 9.8% over the 2007-2017 period. This was underpinned by average growth of 9.8% in the Life insurance segment, and of 9.7% in the Non-Life insurance segment. Were the same growth pattern to be maintained over the next ten years, the growth rate for the market as a whole would fall short of covering the IPG established in 2017 by 3.2 percentage points. This means that the Mexican insurance market would need to see average growth of 13.0% over the next ten years in order to close the IPG calculated for 2017. Similar conclusions emerge from an individual analysis of the Life and Non-Life segments. The shortfall for Life insurance would be 5.6 percentage points, while for Non-Life insurance it would be just 0.9 percentage points. To bridge these gaps, the Mexican insurance market would need to achieve annual average growth of 15.4% and 10.6%, respectively, over the next ten years.

Chart 3.1.1-p
Mexico: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Chart 3.1.1-q
Mexico: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



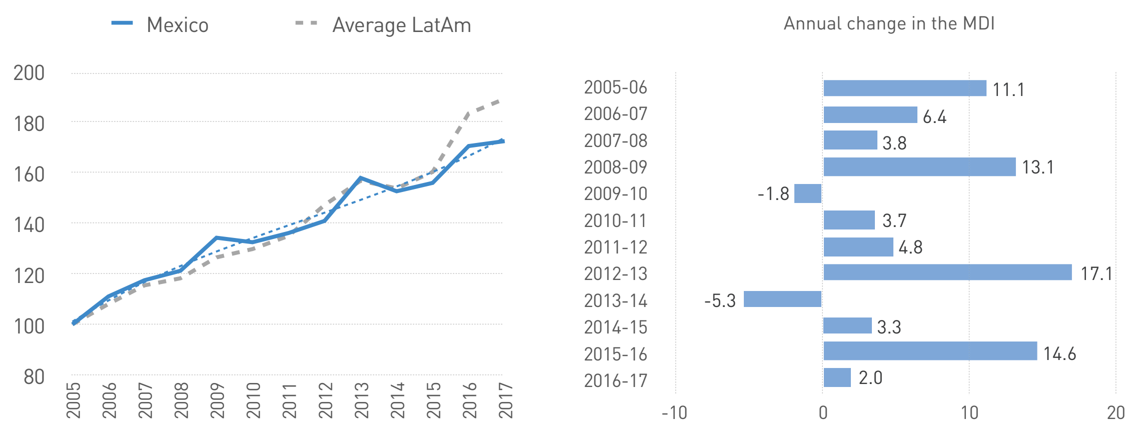
Source: MAPFRE Economic Research

Significantly, the chart reveals that the shortfall in 2017 increased slightly on the same measurement taken in 2016 (-3.2 in 2017 vs. -3.1 in 2016), albeit with a mixed bag of results, with the deficit declining in the case of Non-Life insurance (from -1.4 to -0.9) but rising modestly in the case of Life insurance (from -4.6 to -5.6).

Market Development Index (MDI)

Chart 3.1.1-r provides an estimate of the Market Development Index (MDI) for the Mexican insurance industry. As mentioned previously, the MDI aims to summarize trends in the evolution and maturity of insurance markets.

Chart 3.1.1-r
Mexico: Market Development Index (MDI), 2007-2017
(index 2005=100; annual change)



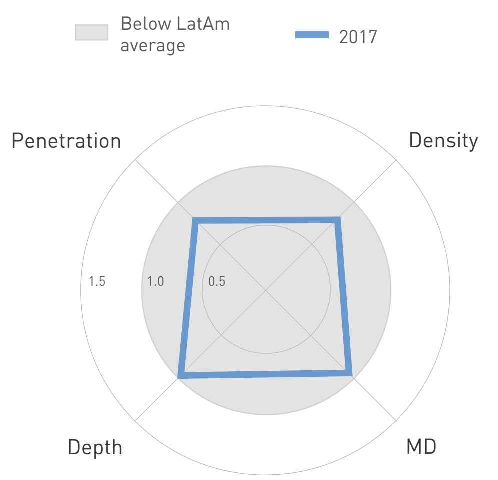
Source: MAPFRE Economic Research

In the particular case of the Mexican insurance market, the indicator performed positively over the last ten years, albeit falling slightly short of the average for the wider region (189.4). The indicator performed positively over all of the last ten years, except for 2010 and 2014.

Comparative analysis of structural ratios

To round things off, Chart 3.1.1-s outlines the state of the Mexican insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report (penetration, density, depth and MDI). The analysis reveals that while the depth and MDI of the Mexican insurance market are practically on par with average levels for the wider region, both penetration and density still fall short of the average levels.

Chart 3.1.1-s
Mexico: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

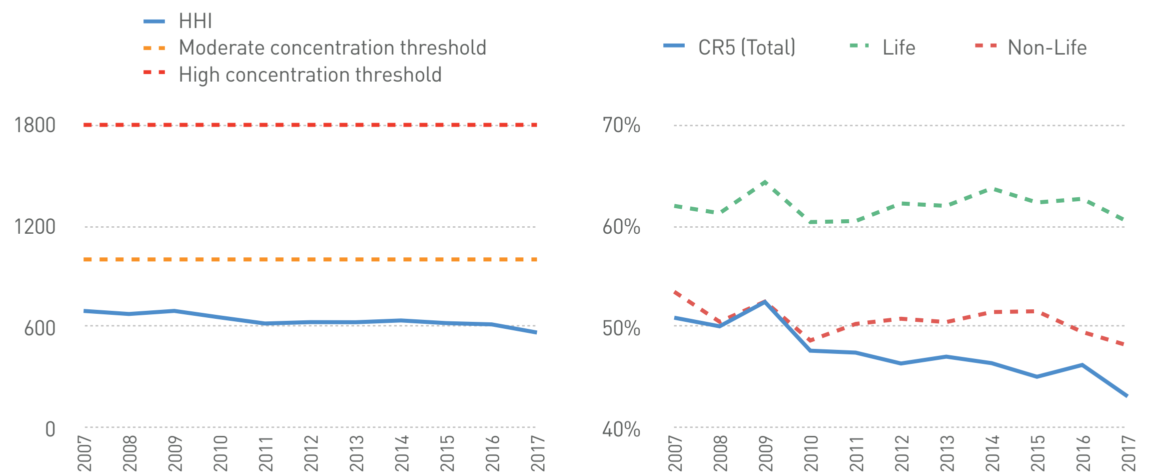
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Insurance market rankings

Overall ranking

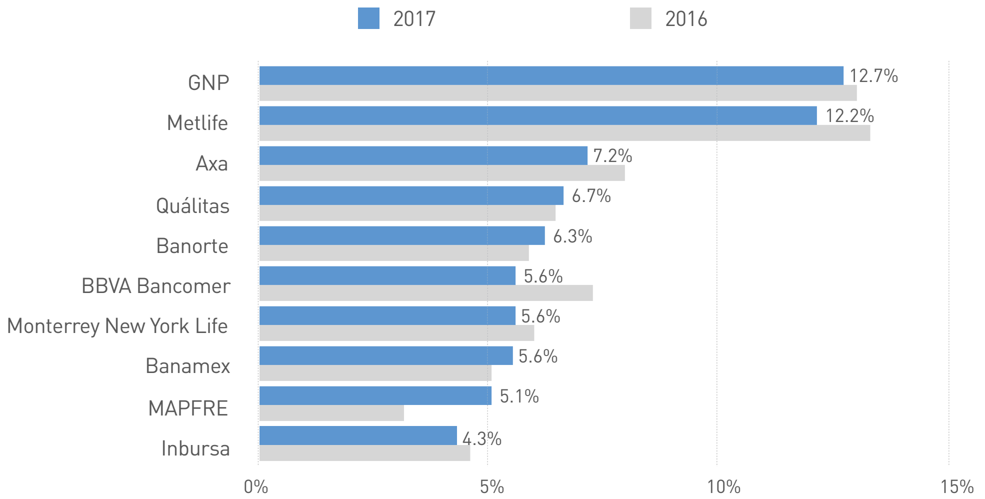
At the end of 2017, the Mexican insurance industry featured 98 institutions, 52 of which were majority foreign-owned. The top five insurers accounted for 43.1% of total premiums, down 3.1 pp on last year. Market concentration has generally tracked downward over the last ten years (albeit with a trend toward stagnation in the Life insurance segment). Despite a few sporadic interruptions, this trend clearly resumed in 2017, as illustrated

Chart 3.1.1-t
Mexico: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

Chart 3.1.1-u
Mexico: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

by the performance of the CR5 index. Overall, levels of competition in the Mexican insurance industry measured through the Herfindahl index are below the thresholds associated with potential competition problems (see Chart 3.1.1-t).

In terms of the overall ranking of insurance groups in 2016, the three leading groups in Mexico in 2017 were the same as in 2016, despite Grupo Nacional Provincial (12.7%) in first place and MetLife in second (12.2%) swapping places. Axa held on to third place, with a market share of 7.2%. Significantly, the three groups saw their market share fall in comparison with the previous year, confirming the gradual shift toward lower levels of market concentration.

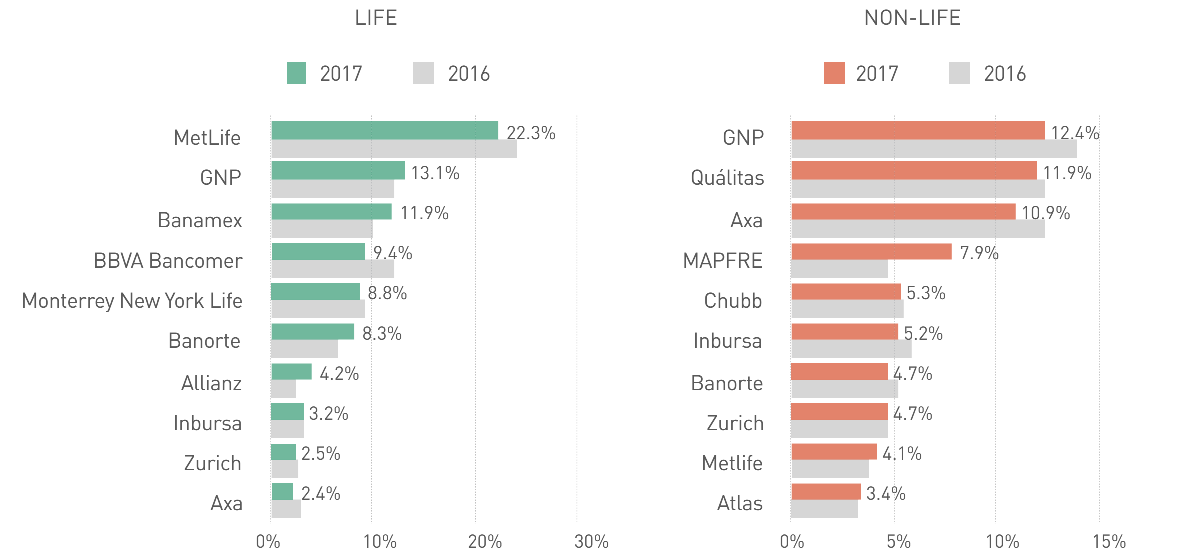
Meanwhile, Quálitas moved up one spot (6.7%), Banorte two (6.3%) and MAPFRE three (5.1%), which once again enters the top 10 following the renewal of the comprehensive insurance policy with Petróleos Mexicanos (see Chart 3.1.1-u).

Non-Life and Life rankings

At the end of 2017, a total of 77 insurance companies were operating in the Mexican Non-Life market. As in 2016, Grupo Nacional Provincial (GNP) topped the table with 12.4% of total premiums, followed by Quálitas (11.9%) and Axa (10.9%). As a general rule, these groups have lost market share when compared with the previous year. Meanwhile, MAPFRE climbed three spots to fourth and Seguros Monterrey New York Life moved up one place to tenth, pushing BBVA out of the top 10 in the process. The other groups held on to their positions, with the exception of Inbursa and Banorte, which slid to sixth and seventh, respectively (see Chart 3.1.1-v).

A total of 51 insurance companies were operating in the Mexican Life market at the end of 2017. For a further year, MetLife leads the Life market with a share of 22.3%, followed by Grupo Nacional Provincial (GNP) with 13.1% and Banamex, which climbs two places with 11.9%. Moving down the Life ranking, BBVA and Axa both drop two places while Inbursa slips one spot on their 2016 standings to rest at 9.4%, 2.4% and 3.2%, respectively.

Chart 3.1.1-v
Mexico: Life and Non-Life ranking, 2016-2017
market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).

A further highlight was Allianz's ascent of three places to reach seventh in the table with 4.2% (see Chart 3.1.1-v).

Key regulatory aspects

Measures were implemented in 2017 to strengthen the regulatory framework governing the insurance and surety industries. These reforms took the form of the Insurance and Surety Institutions Law. The package has toughened the regulatory system in the country, which is now based on the three pillars of the solvency framework (Solvency II). In particular, the Internal Regulations of the National Insurance and Surety Commission (supervisory body) were reformed in order to give it powers of prudential supervision over Agricultural and Rural Assurance Funds.

The Insurance and Bond Circular (CUSF), which embodies the secondary and operational aspects of the regulatory framework in Mexico, underwent 19 amendments through further circulars in 2017, most relating to the following aspects:

- Mechanisms for granting additional liquidity to insurance firms, enabling them to meet their commitments with insured parties and beneficiaries alike, while recovering the risks assigned to reinsurers involved in the claims deriving from the earthquakes that struck the country on September 7 and 19, 2017. The new regulations also provide a degree of regulatory flexibility when it comes to the insurers' solvency in the event that their bylaws and regulations fall short of the mark due to the claims.

- Updating of factors and indexes used within the assurance market for measuring technical reserves.

- Amendments to the procedure for determining the maximum balance of reserves for catastrophic risks in relation to agricultural and livestock, credit, surety, home lending and catastrophic risk insurance.

- Establishing and updating parameters and factors for determining the Solvency Capital Requirement, especially for the Capital Requirement for Risks Based on Maximum Probable Loss, the Capital Requirement for Other Counterparty Risks and the Capital Requirement for mismatch risk between assets and liabilities.

- Updating of catalogs of foreign insurance and reinsurance companies entered on the General Register of Foreign Reinsurers and that satisfy the requirements for reentry on that register for 2018, as well as associated amendments during 2017.

- Provisions to reduce the administrative workloads at insurance undertakings authorized to engage in the pension insurance business under the social security laws and obligated to pay contributions to special funds, including relevant criteria for establishing the cases where the family composition and circumstances of a pensioner may change.

- Further clarification as to the manner and terms of delivery of the report to be drawn up by the head of the actuarial function, the Dynamic Solvency Test, the report of the external auditor and the Solvency and Financial Condition Report.

- Additional measures for carrying out transactions through electronic channels, thus promoting the use of electronic tools so as to afford the population easier access to insurance products. Further progress should be made in incorporating the constant technological advances while safeguarding data security.

As part of the process of implementing the LISF, a series of working sessions were held in 2017 with the Ministry of Finance and Public Credit, the Fiscal Attorney's Office and the Treasury of the Federation. These working groups were set up in 2016 to issue regulations and administrative provisions relating to the regulatory framework. Work continued in 2017 to shape and prepare the following regulation:

- Regulations for Insurance and Surety Agents.

- Regulations on the Inspection and Supervision of the National Insurance and Surety Commission.

- Rules on the establishment of mutual insurance companies.

- Amending circular on the subject of surety insurance.

It should be noted that the National Insurance and Surety Commission intends to continue work in 20189 on the bill governing supervision following deriving from the enactment of the Law regulating fintech institutions, as published in the Official Gazette of the Federation on March 9, 2018.

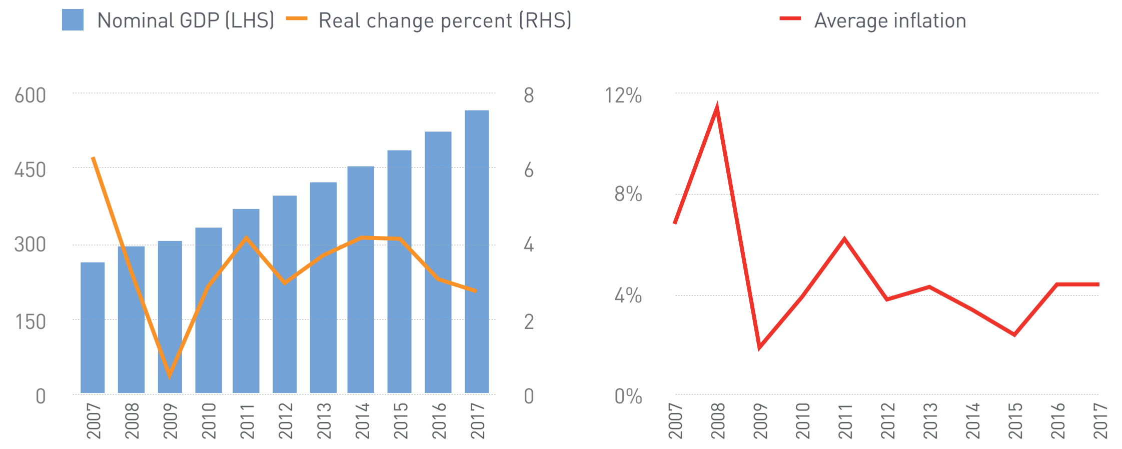
3.1.2 Guatemala

Macroeconomic environment

Guatemala's economy grew by 2.8% in real terms in 2017, down from the 3.1% reported in 2016 (see Chart 3.1.2-a). This slowdown was largely due to weaker public spending, including notably the low budget implementation by the central government and more to the point by certain ministries, such as the Ministry of Communication, Infrastructure and Housing. According to the latest preliminary report released by ECLAC in October 2017, this figure stood at 41.8%. The entry into force of new reforms to the State Procurement Law in a bid to increase transparency during procurement processes also had something to do with the slowdown in implementing public investment. The fiscal deficit of the central government came to 1.3% of GDP in 2017, while public debt totaled 24.7% of GDP[7].

The main growth drivers during the period were private consumption —in turn buoyed by a better showing from remittances— and gross fixed capital formation. Virtually all sectors of the economy saw improvements, except for mining and governmental services. The value of exports rose by 6.5% as traditional exports gained 17.0% and non-traditional exports added 2.8%. Meanwhile, imported goods were up 7.3% following an increase in external purchases of intermediate and capital goods.

Chart 3.1.2-a
Guatemala: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of quetzales; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

Average inflation was roughly on par with the previous year at 4.4%, within the target range established by the Central Bank. In the absence of a final figure, the ECLAC estimates that unemployment remains at around 3%.

Significantly, the customs union between Guatemala and Honduras took effect in May 2016, allowing for the free movement of goods and people. Measures have since been announced in 2017 to speed up the implementation process and get the treaty in full force and effect.

According to ECLAC, the Guatemalan economy is set to grow by 3.5% in 2018 driven by the ongoing momentum in domestic demand, mainly in relation to private consumption and increases in public spending on infrastructure. It also expects the fiscal deficit to remain in a band of 1.6% to 1.8% and the current account to reach 1% of GDP. Meanwhile, the IMF estimates that the Guatemalan economy will post 3.2% growth in 2018.

Insurance market

Growth

The Guatemalan insurance market achieved premiums of 6.80 billion quetzales in 2017 (925 million dollars), representing nominal growth of 7.7% and real growth of 3.2%. The market continued to grow at a similar pace as in 2016, when it expanded by 6%. Premiums were up 6.8% in the Non-Life segment (5.3% in 2016) to reach 5.38 billion quetzales (732 million dollars). This business now accounts for 79.8% of the total market. The two most important lines of business here (Health and Automobile) both grew in nominal terms by 11.9% and 1.0%, respectively, meaning the Automobile business fell by 3.3% in real terms. Meanwhile, the Life business posted impressive growth of 11.5% (8.1% in 2016) to reach 1.41 billion quetzales (193 million dollars), similar to the percentage reported in 2013-2014 (see Table 3.1.2 and Chart 3.1.2-b).

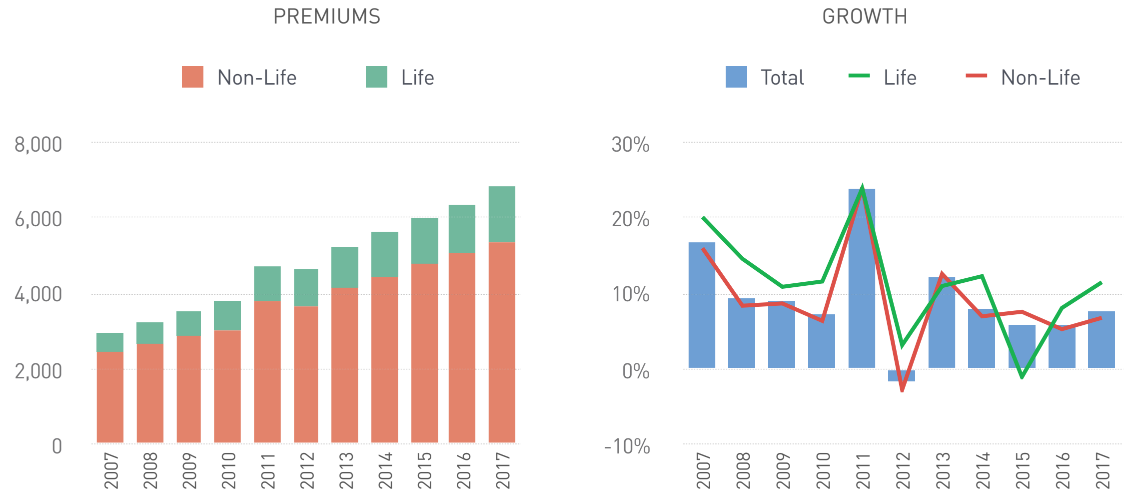
As shown in Chart 3.1.2-c, 5.4 percentage points of the total 7.7% nominal growth reported for the Guatemalan insurance market in 2017 was generated by the Non-Life insurance segment, while the Life business contributed the remaining

Table 3.1.2
Guatemala: premium volume[1] by line of business, 2017

Line	Millions of quetzales	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**6,802**	**925**	**7.7**	**3.2**
Life	**1,418**	**193**	**11.5**	**6.8**
Individual Life	199	27	0.2	-4.0
Group Life	1,210	165	13.0	8.2
Pensions	8	1	667.9	635.4
Non-Life	**5,384**	**732**	**6.8**	**2.3**
Health	1,761	240	11.9	7.1
Automobile	1,343	183	1.0	-3.3
Fire and allied lines	438	60	12.9	8.1
Earthquake	517	70	10.7	6.0
Other lines	438	60	4.7	0.3
Transport	220	30	-7.3	-11.2
Surety	247	34	25.6	20.3
Technical risks	141	19	-18.9	-22.3
Personal accident	176	24	12.2	7.4
Third-party liability	103	14	3.1	-1.3

Source: MAPFRE Economic Research (based on data from the Banking Superintendency)
1/ Net direct reinsurance premium

Chart 3.1.2-b
Guatemala: growth developments in the insurance market, 2007-2017
(premiums, millions of quetzales; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

2.3 percentage points. This is consistent with the balanced growth profile seen in 2016, with positive contributions from both insurance businesses.

Balance sheet and equity

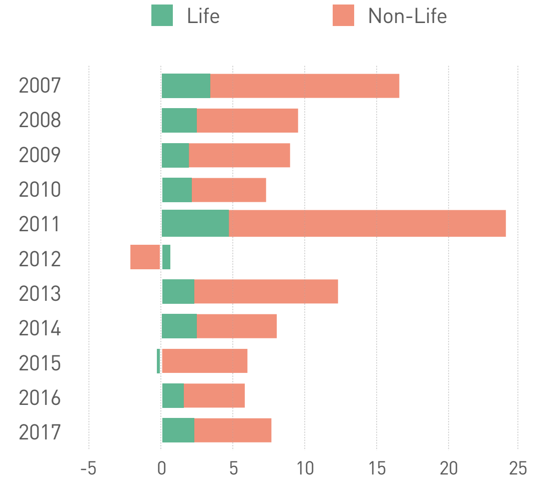
Chart 3.1.2-d shows developments in the overall balance sheet at sector level of the Guatemalan insurance market over the 2007-2017 period. As can be seen, the Guatemalan insurance industry had total assets of 9.97 billion quetzales (1.35 billion dollars) in 2017, while equity stood at 3.59 billion quetzales (489 million dollars), up 8.4 percentage points on the previous year.

Capitalization levels are high in the Guatemalan insurance industry (measured in relation to total assets), exceeding 27% in 2007, 2008 and 2011 and surpassing the 30% mark in the other years. At the end of 2017, capitalization accounted for 36.0% of total assets.

Investment

Charts 3.1.2-e, 3.1.2-f and 3.1.2-g show changes in investment over the 2007-2017 horizon, as well as the composition of the aggregate investment portfolio at sector level over the period. In 2017, investment totaled 6.38 billion quetzales (868 million dollars), mainly in fixed-income investments (59.2%).

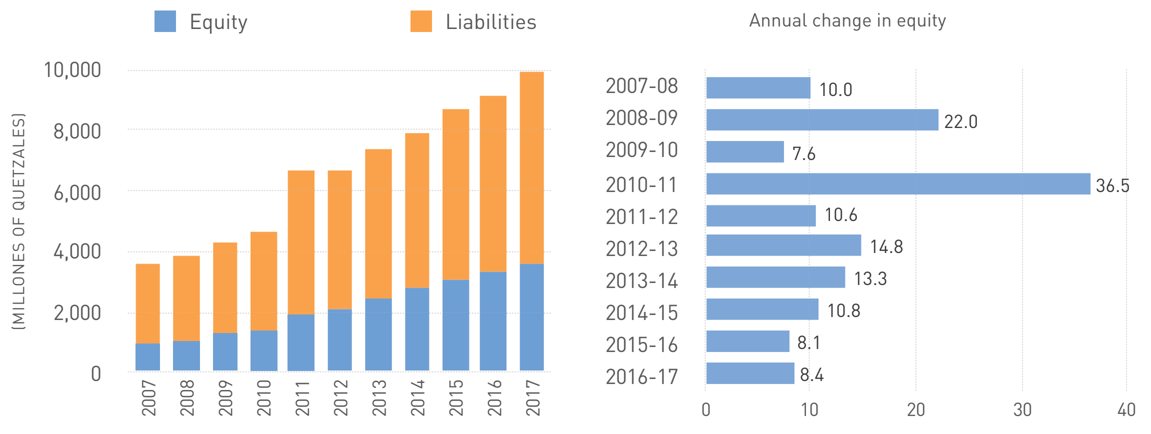
Chart 3.1.2-c
Guatemala: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Other financial investment also accounted for a significant proportion (formed primarily of bank deposits), representing 31.3% of the portfolio.

Chart 3.1.2-d
Guatemala: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

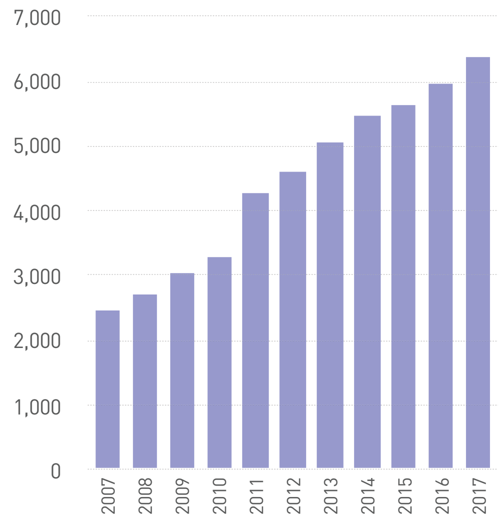
Investment in debt instruments therefore dominates, with aggregate investment in equity playing only a minor role (1.9%), mirroring the situation in 2016.

The weight of sovereign fixed-income investment increased over the 2007-2017 period, climbing from 47.5% in 2007 to 59.2% in 2017 (see Charts 3.1.2-f and 3.1.2-g). Meanwhile, the percentage of other financial investments (essentially bank deposits) increased from 36.2% in 2007 to 41.2% in 2010. This trend has since reversed, with other financial investment gradually falling to reach 31.3% at the end of 2017.

Technical provisions

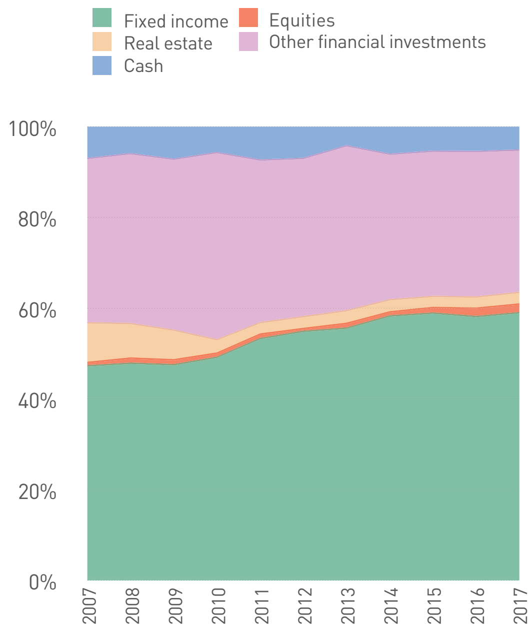
The evolution and relative composition of the Guatemalan insurance industry's technical provisions over the 2007-2017 period are shown in Charts 3.1.2-h, 3.1.2-i and 3.1.2-j. In 2017, technical provisions amounted to 4.77 billion quetzales

Chart 3.1.2-e
Guatemala: insurance market investment, 2007-2017
(millions of quetzales)



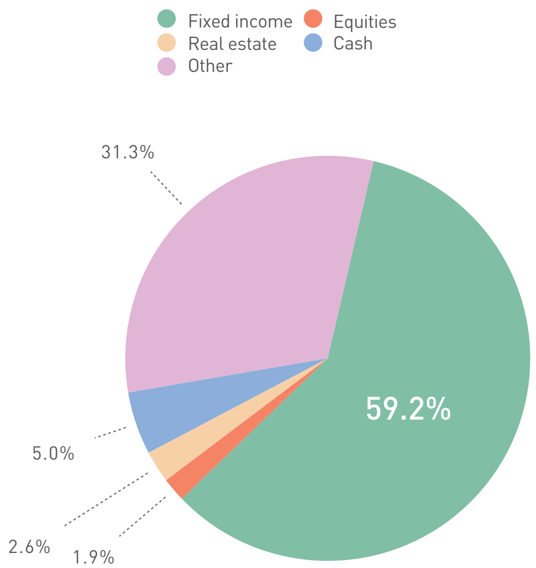
Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Chart 3.1.2-f
Guatemala: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Chart 3.1.2-g
Guatemala: structure of investment, 2017
(%)

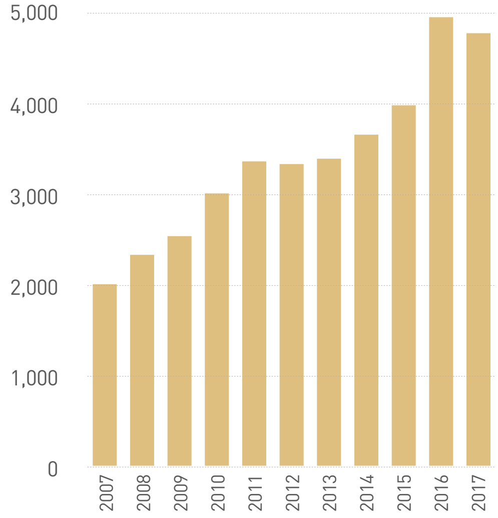


Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

(650 million dollars). Of these total technical provisions, 36.7% related to Life insurance, 28.5% to provisions for unearned premiums and unexpired risks in Non-Life insurance, 29.5% to technical provisions for benefits, 5.2% to provisions for catastrophic risks and 0.2% to other technical provisions.

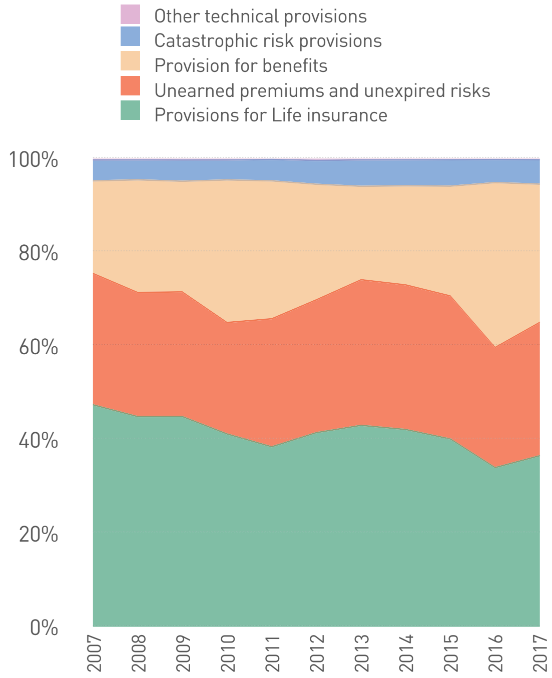
The volume of technical provisions has seen sustained growth in absolute terms over the 2007-2017 period, both in Life and Non-Life insurance. However, in the last year of the period under analysis this trend was cut short as provision for outstanding benefits was down 338 million on the previous year. Looking at the relative weight of Life insurance provisions to total technical provisions, we can observe a general decline over the last ten years, with the sharpest dips seen in 2010 and 2016 (Chart 3.1.2-i).

Chart 3.1.2-h
Guatemala: technical provisions of the insurance market, 2007-2017
(millions of quetzales)



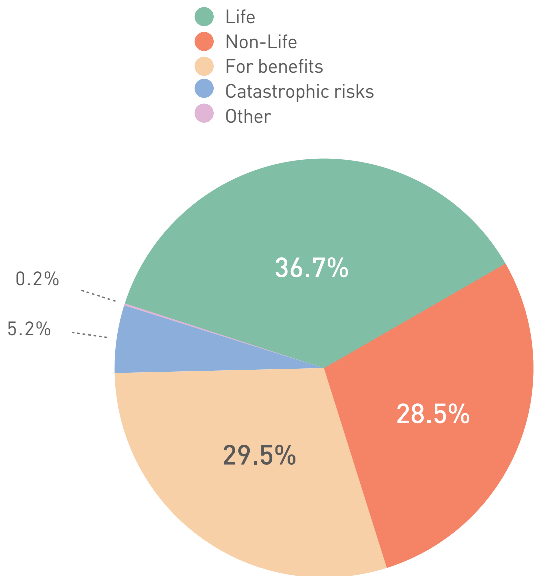
Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Chart 3.1.2-i
Guatemala: structure of technical provisions, 2007-2017
(%)



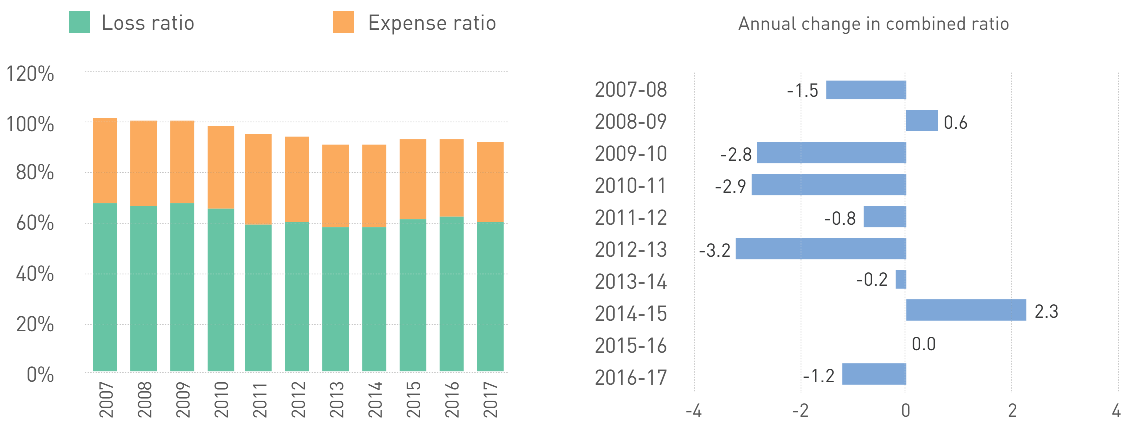
Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Chart 3.1.2-j
Guatemala: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Chart 3.1.2-k
Guatemala: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

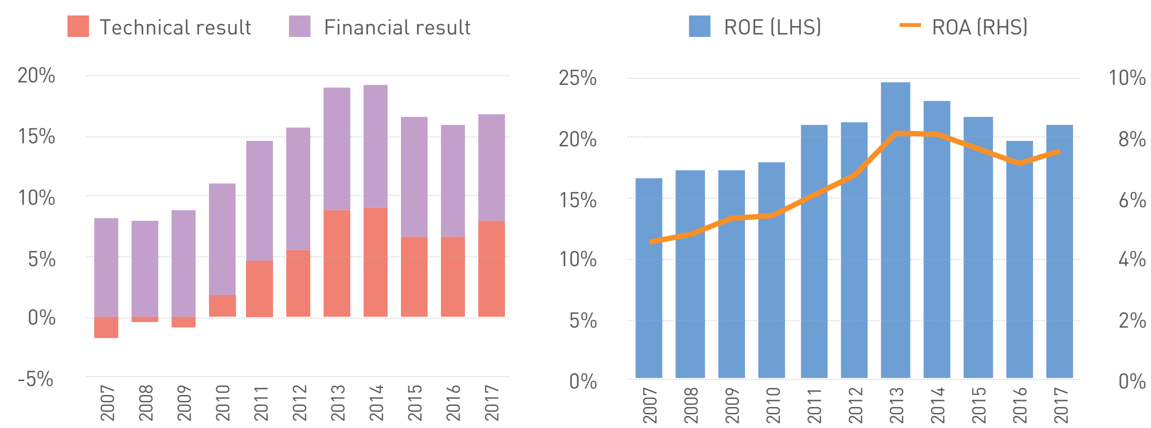
Technical performance

Chart 3.1.2-k shows the positive technical performance of the Guatemalan insurance industry between 2007 and 2017. As can be seen, the combined ratio fell to 92.1% in 2017 (down 1.2 pp year on year). This improvement came largely in response to the reduction in the loss ratio, along with a tighter expense ratio, which was up by just 0.6% year on year.

Results and profitability

The Guatemalan insurance business posted a net result of 756 million quetzales (103 million dollars) in 2017, up 15.5% on the previous year

Chart 3.1.2-l
Guatemala: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

due to the healthy performance of the loss ratio and the industry's financial result, which gained 5% year on year (see Chart 3.1.2-l). Turning to profitability, return on equity (ROE) came to 21%, up 1.3 percentage points on the value reported a year earlier. Return on assets (ROA) also fared well by gaining 0.4 percentage points year on year to reach 7.6%.

Insurance penetration, density and depth

Chart 3.1.2-m shows the performance of the main structural growth indicators for the Guatemalan insurance industry, as well as the pattern observed over the 2007-2017 period. Despite the positive growth seen across the country's insurance industry, the penetration index (premiums/GDP) stood still at 1.2% in 2017. Significantly, this indicator remained relatively stable over the 2007-2017 period, meaning that penetration in 2017 was barely 6.5% higher than the level reported back in 2007. As a result, the country's penetration is well below the average for Latin American insurance markets. It has gradually diverged over the last ten years relative to the rest of the countries in the region, where penetration rose by an average of 27.8% over the same period.

Meanwhile, insurance density (premiums per capita) amounted to 411 quetzales (56 dollars), 85.4% above the value observed in 2007 (222 quetzales). In contrast to penetration, density has increased over the last ten years, meaning that while per capita purchases of insurance have grown at a sustained rate (a very significant increase given the relatively small base), the pace of growth has been insufficient to enable insurance to gain a greater weight among total economic activity in the country.

Depth (relationship of Life insurance premiums to total premiums) stood at 20.8%, 0.7 percentage points above the 2016 value, albeit some 3.2 percentage points above the depth level in 2007. As is the case for the penetration index, the depth level of the Guatemalan insurance market is below the average for Latin America.

Estimation of the Insurance Protection Gap

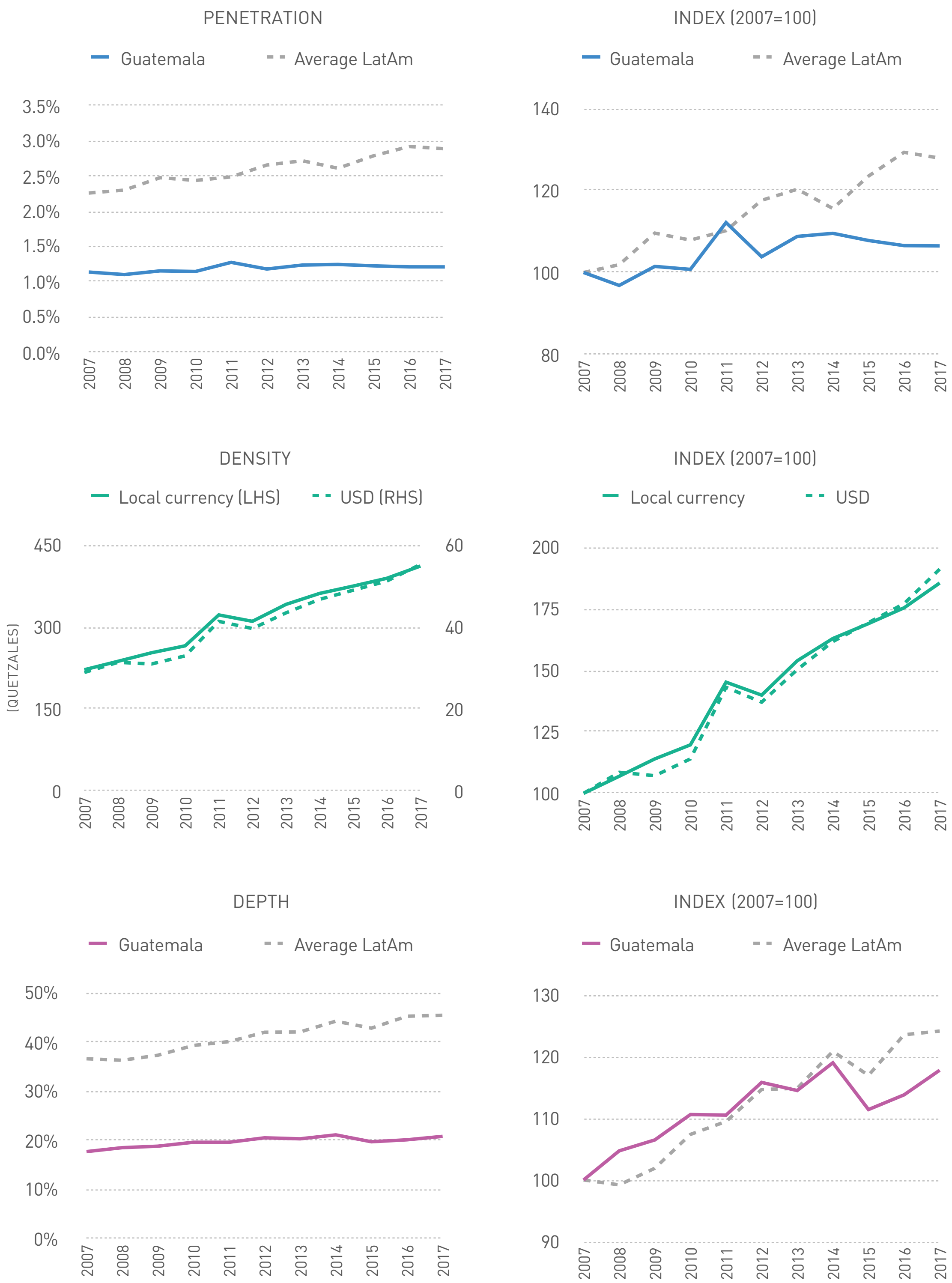
Chart 3.1.2-n provides an estimate of the IPG for the Guatemalan insurance market over the 2007-2017 period. The IPG stood at 35.63 billion quetzales in 2017 (4.84 billion dollars), equivalent to 5.2 times the actual insurance market at the end of 2017.

As is the case for most Latin American insurance markets, the structure and performance of the IPG are shaped mainly by the Life insurance segment. In 2017, 61% of the gap related to Life insurance, equivalent to 21.84 billion quetzales. Meanwhile, Non-Life insurance accounted for 39% of the IPG (13.79 billion quetzales). The potential insurance market in Guatemala in 2017 (measured as the sum of the actual market plus the IPG) stood at 42.43 billion quetzales (5.77 billion dollars), i.e. 6.2 times the size of the current market.

Chart 3.1.2-o shows an estimate of the IPG as a multiple of the actual market in each year of the period under analysis. The IPG (measured as a multiple) for the Guatemalan insurance market has been on a gentle downward path over the 2007-2017 period, both in terms of the overall market and the Life segment. While in 2007 the IPG was 6.3 times the size of the real insurance market in Guatemala, in 2017 that weight had fallen to 5.2 times. The same is true in the Life segment, where the multiple fell from 23.4 to 15.4 times. However, the IPG has stagnated in relative terms in the Non-Life insurance segment, standing at 2.6 times both in 2016 and 2017.

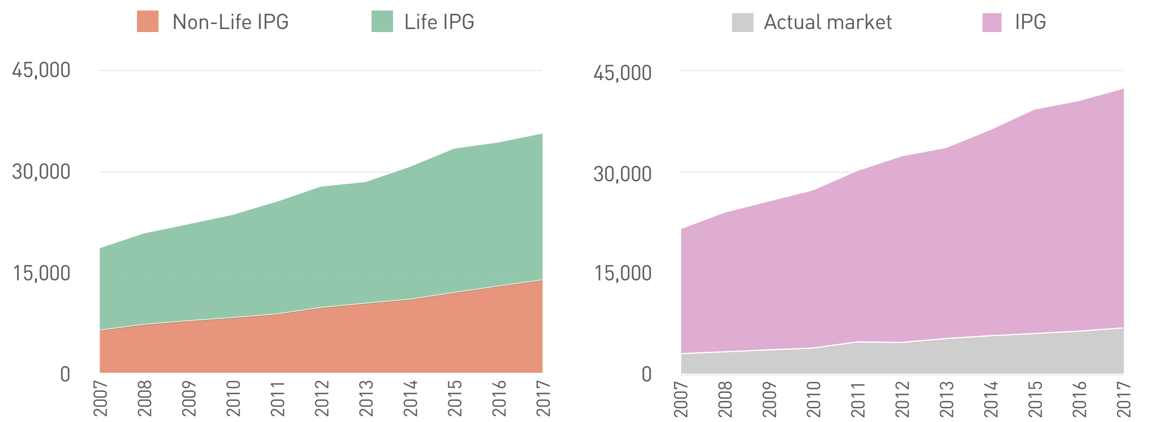
Chart 3.1.2-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Guatemalan insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. We can observe a mild improvement in terms of the gap as a multiple of the real market, albeit mainly in the Life insurance segment.

Chart 3.1.2-m
Guatemala: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, quetzales and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

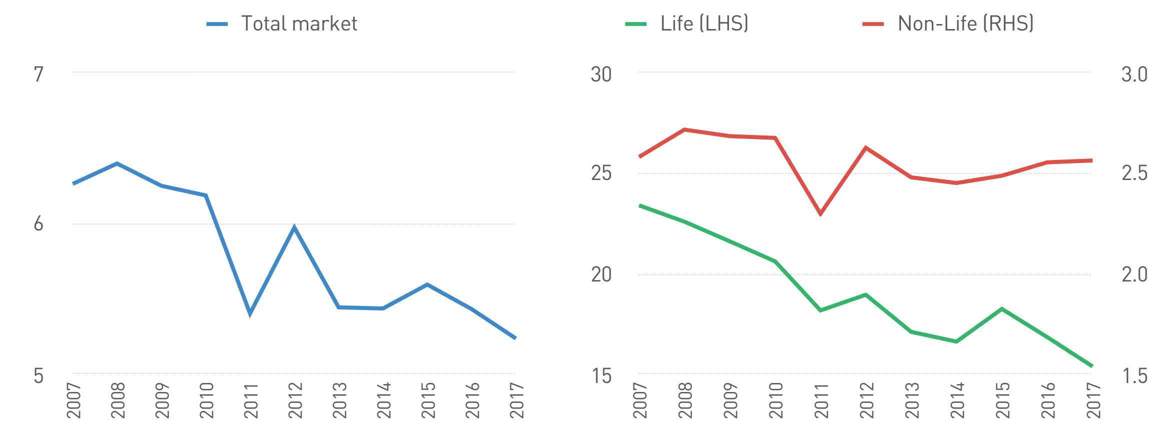
Chart 3.1.2-n
Guatemala: Insurance Protection Gap and potential market, 2007-2017
(millions of quetzales)



Source: MAPFRE Economic Research

Lastly, Chart 3.1.2-q provides an overview of the capacity of the Guatemalan insurance market to close the IPG. As with our 2016 report, this year's report includes a comparative analysis between the growth rates observed in the market over the last ten years and the growth rates that would be needed in order to close the IPG calculated for 2017 over the coming ten years. Our analysis shows that the Guatemalan insurance market posted average annual growth of 8.6% over the 2007-2017 period. This was underpinned by average growth of 10.4% in the Life insurance segment, and of 8.2% in the Non-Life insurance segment. Where the same growth profile to be maintained over the next ten years, the growth rate for the market as a whole would fall short of the rate needed to cover the IPG established in 2017 by 11.4 percentage points; this means that the insurance market would need an average growth rate of 20.1% over the next ten years in order to close the estimated IPG for 2017.

Chart 3.1.2-o
Guatemala: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

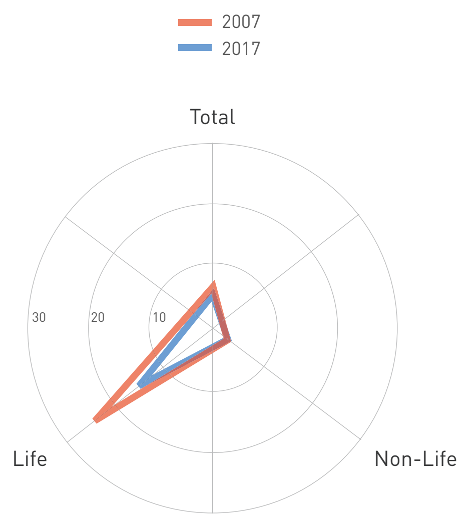
The same holds true for the Life and Non-Life segments analyzed individually. The shortfall for Life insurance would be 21.8 percentage points and 5.3 percentage points for Non-Life insurance. Thus, in order to bridge these two gaps the Guatemalan insurance market would need to achieve annual average growth of 32.3% and 13.5%, respectively, over the next ten years. A comparative analysis between 2017 and 2016 for the Guatemalan insurance market reveals that the shortfalls for the total market and for the Non-Life insurance segment have actually increased, while improving only very slightly in the Life segment.

Market Development Index (MDI)

Chart 3.1.2-r provides an estimation of the Market Development Index (MDI) for the Guatemalan insurance industry.

Overall the indicator has been on a positive path over the last ten years, with annual declines in 2011-12 and 2014-15. However, the MDI at its current level (128.3) is below the average for the Latin American market (189.4), with the growth trend stagnating over the 2011-2015 period and then rallying over the final stretch through to 2017.

Chart 3.1.2-p
Guatemala: the IPG as a multiple of the actual market, 2007 and 2017

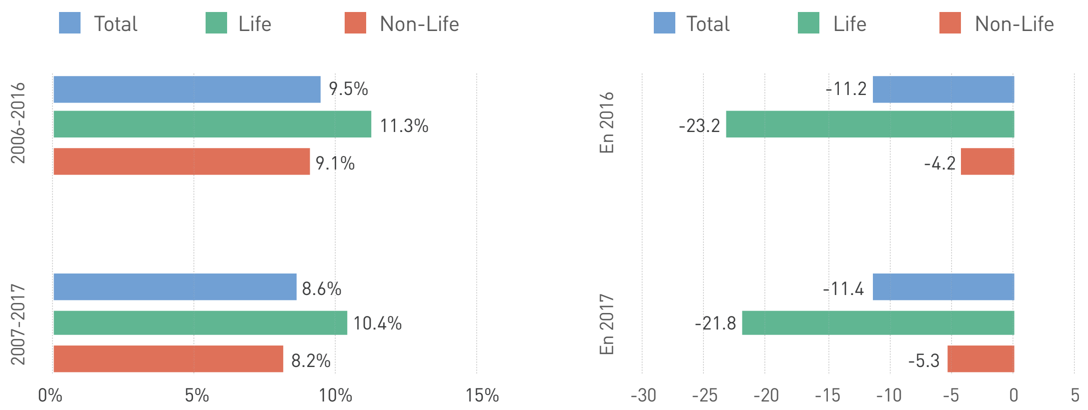


Source: MAPFRE Economic Research

Combined analysis of structural ratios

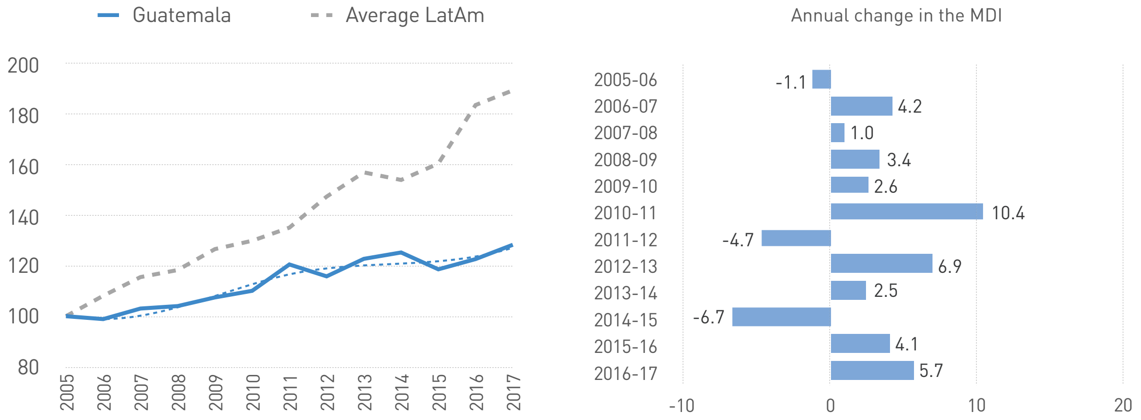
To round things off, Chart 3.1.2-s outlines the state of the Guatemalan insurance market when compared with the average for Latin America, measured in terms of the various structural indicators analyzed in this report. As can be seen,

Chart 3.1.2-q
Guatemala: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.1.2-r
Guatemala: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

they all fall well short of the average for Latin America, especially density, strongly suggesting relatively poor levels of local development when compared with the wider region.

Insurance market rankings

Overall ranking

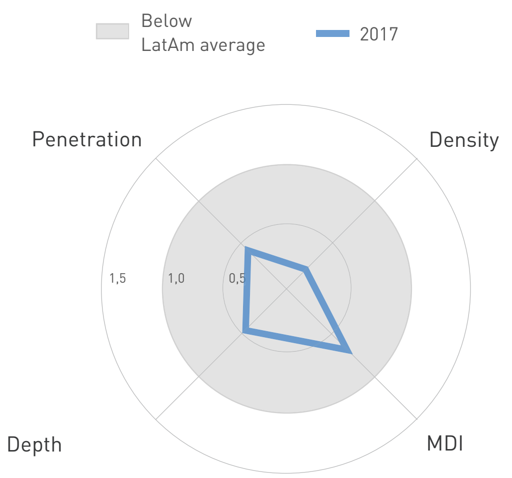
The Guatemalan insurance industry featured 22 insurance companies in 2017. The top five institutions accounted for 64.6% of total premiums, 1.5% less than in 2016.

Levels of concentration within the Guatemalan insurance market have fallen slightly over the last ten years. The Herfindahl index for the country shows that concentration levels have remained above the theoretical threshold associated with moderate levels of concentration.

The same conclusion can be drawn from the CR5 index, which fell from 69.8% in 2007 to 64.6% in 2017 (see Chart 3.1.2-t).

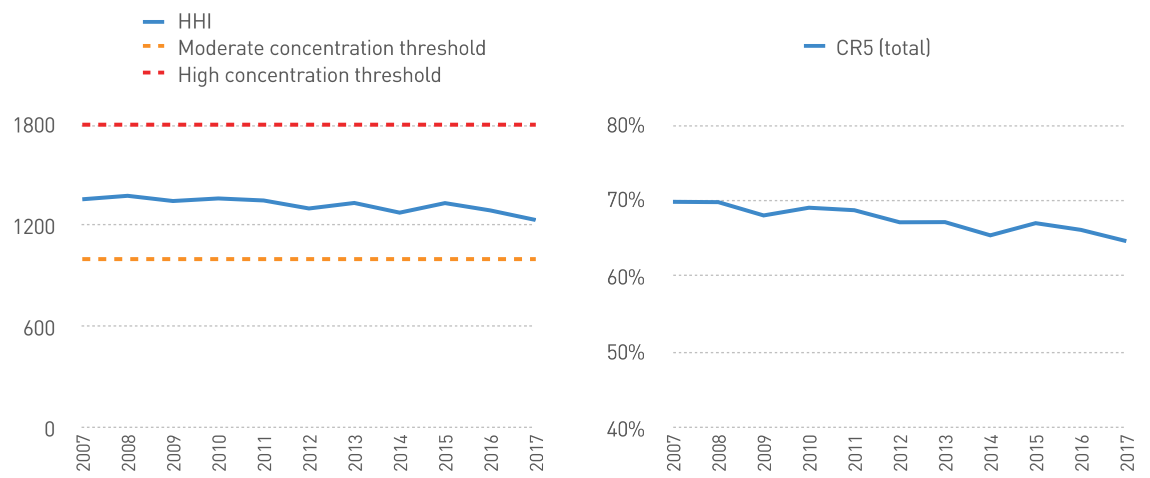
As illustrated in Chart 3.1.2-u, the two most important insurance groups in the Guatemalan market were once again El Roble, with 26.0% of market premiums (falling 0.8 pp in 2017) and G&T, with a market share of 18.3%. Following some distance behind we have Aseguradora General with 7.8% (falling 0.8 pp on 2016), MAPFRE, which with 7.4% has improved its share in year-on-year terms, and Aseguradora Rural (7.0%).

Chart 3.1.2-s
Guatemala: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Chart 3.1.2-t
Guatemala: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)

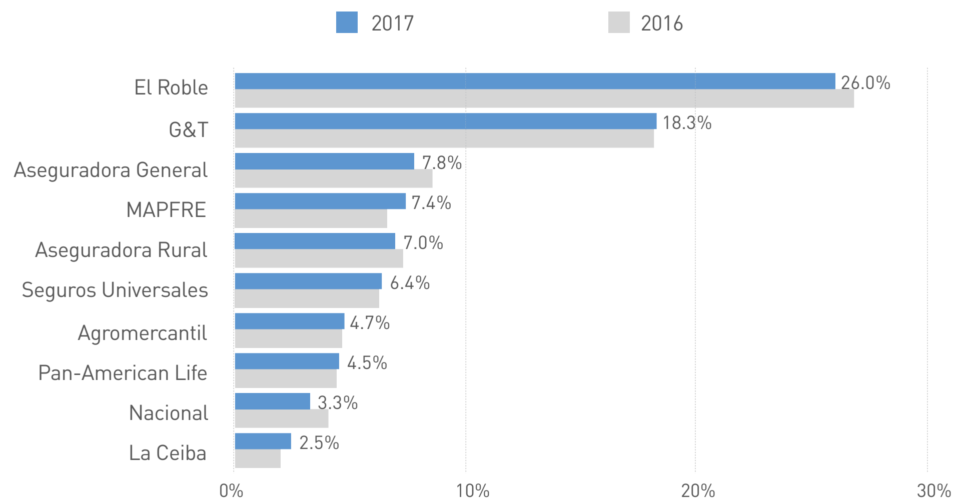


Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

Key regulatory aspects

The Superintendency of Banks, which is tasked with the prudential supervision of the Guatemalan insurance industry, released Circular 4544-2017 for insurance firms, in view of recent technological advances and international trends regarding the use of electronic communication channels. The Circular imposes a set of minimum rules governing the delivery of insurance policies through electronic channels. Among other aspects, it requires the consent of the insured or contracting parties, along with processes to confirm delivery of insurance policies. It also requires insurers to adopt security measures to guarantee the integrity, availability and confidentiality of the information

Chart 3.1.2-u
Guatemala: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

and to prevent its transfer or disclosure to unauthorized persons.

Meanwhile, and to streamline and expedite the process of filing insurance plans, the Superintendency issued Resolution Number 7-2017 (Procedures for Filing Insurance Plans), which introduces new rules on the information and documentation that insurers must present when filing insurance plans and their technical terms and conditions, as well as any amendments, before those plans may take effect. The Resolution also regulates matters relating to the cancellation or suspension of the filing process.

Meanwhile, the Monetary Board issued Resolution JM-98-2017, modifying the Regulations on the Registration of Foreign Reinsurance and Insurance Firms, Reinsurance Agreements and determining Risk Retention Limits, so as to allow Guatemalan insurers to engage in reinsurance operations with Central American insurers that have been assigned a local risk rating.

Last but not least, the Regulations on Corporate Governance for Insurers and Reinsurers were drawn up in 2017 and released in the form of Resolution JM-3-2018 on January 10, 2018. The Regulations contain mandatory rules for insurers and reinsurers when adapting to best corporate government practices as a key part of the end-to-end risk management processes and to ensure an effective system of internal control. This includes the proper implementation, organization and functioning of corporate governance, along with support committees for the board of directors, internal control and internal audit functions and the Corporate Governance Manual.

3.1.3 Honduras

Macroeconomic environment

The Honduran economy grew by 4.8% in real terms in 2017, versus 3.8% in 2016. This growth pick-up was supported by expanding private consumption and investment in the country, along with conducive external economic conditions (see Chart 3.1.3-a).

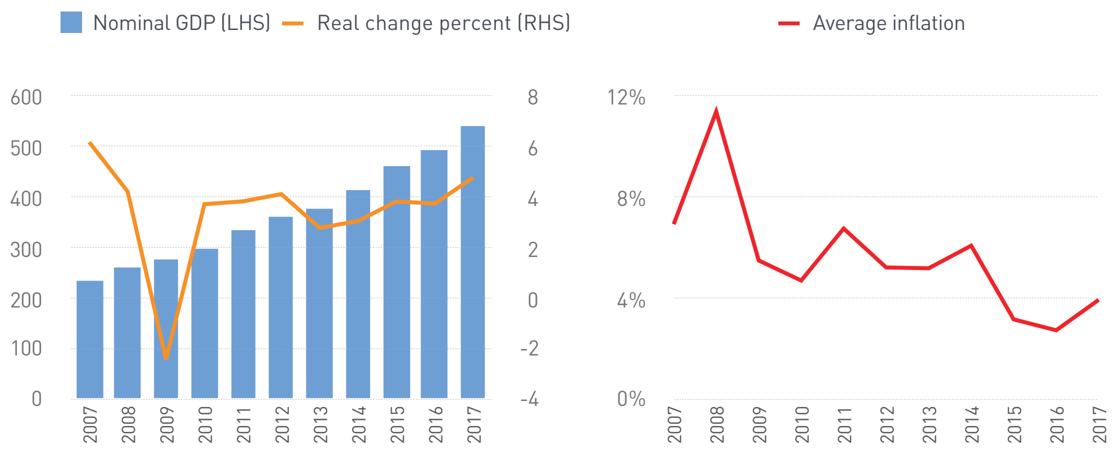
The increase in remittances among family members and healthy export activity was enough to offset the increase in imports while helping to keep the current account deficit in check. Further highlights included ongoing efforts to control the deficit, which, after enduring three straight years of fiscal adjustments, fell from 7.9% in 2013 to 2.8% in 2016. According to the provisional estimates released by ECLAC in February 2018, the deficit is expected to reach 3.2% in 2017.

Based on these indicators, quarterly GDP showed a year-on-year increase of 5.1% in the first half of the year. On the supply side, highlights in the second quarter included the solid performance of the finance sector (4.6%), transport (2.3%) and construction (2.9%). Moving to the side of demand, growth came on the back of domestic demand, which gained 5.0% in the first half of the year, compared with the same period of the previous year. Zooming in on the components of domestic demand, final consumption expenditure stood at 3.1% in 2017, aided by a solid showing from remittances (outpacing the level reported in the first half of 2016), while gross domestic investment was up 1.6%.

The value of total exports and imports of goods saw a year-on-year increase of 12.3% and 8.6%, respectively. On the subject of exports, the value of coffee shipments was up 57.9% year on year in response to increased production and higher international prices for the commodity. Meanwhile, the increase in imports of base metals and articles of base metals (18.9%) and electrical machinery, apparatus and supplies (9.3%) at August 2017 was down to the increase in investment and reinvestment of utilities operating within the country.

The increase in tariffs on electrical power combined with rising local fuel prices brought average inflation to 3.9% in 2017 (2.7% in 2016). According to the latest estimate released by ECLAC, open unemployment is likely to be 6.7% of the economically active population (EAP) in 2017, down 0.7% on 2016.

Chart 3.1.3-a
Honduras: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of lempiras; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

Looking ahead to next year, ECLAC estimates that the Honduran economy will grow at around 3.9% thanks to the ongoing expansion of the United States, Honduras' main trade partner, domestic demand and investment in infrastructure projects, among other factors. The fiscal deficit is also likely to increase due to the increase in public investment. For its part, the IMF estimates that the economy will post 3.5% growth in 2018.

Insurance market

Growth

The Honduran insurance market achieved a premium volume of 10.36 billion lempiras (441 million dollars) in 2017, revealing nominal growth of 8.1% and real growth of 4.1% relative to the previous year (see Table 3.1.3 and Chart 3.1.3-b).

Growth within the insurance industry was down on the previous year, when premiums rose by 9.8% in nominal terms.

Taking a closer look, Life insurance premiums were down 3.3% in 2017 (versus 17.8% growth in 2016) to reach 3.17 billion lempiras (135 million dollars). Meanwhile, Non-Life insurance premiums were up 14.1% (versus growth of 6.1% in 2016) to reach 7.18 billion lempiras (306 million dollars).

Within the Life insurance segment, individual and group Life insurance were down 2.3% and 3.2%, respectively, in nominal terms, while the three three most important modalities of Non-Life insurance (Fire, Health and Automobile) were up 11.9%, 13.6% and 7.7%, respectively.

Accordingly, Life insurance contributed a negative 1.1 percentage points to the overall market growth of 8.1%, while the Non-Life segment contributed 9.3 percentage points (see Chart 3.1.3-c).

Balance sheet and equity

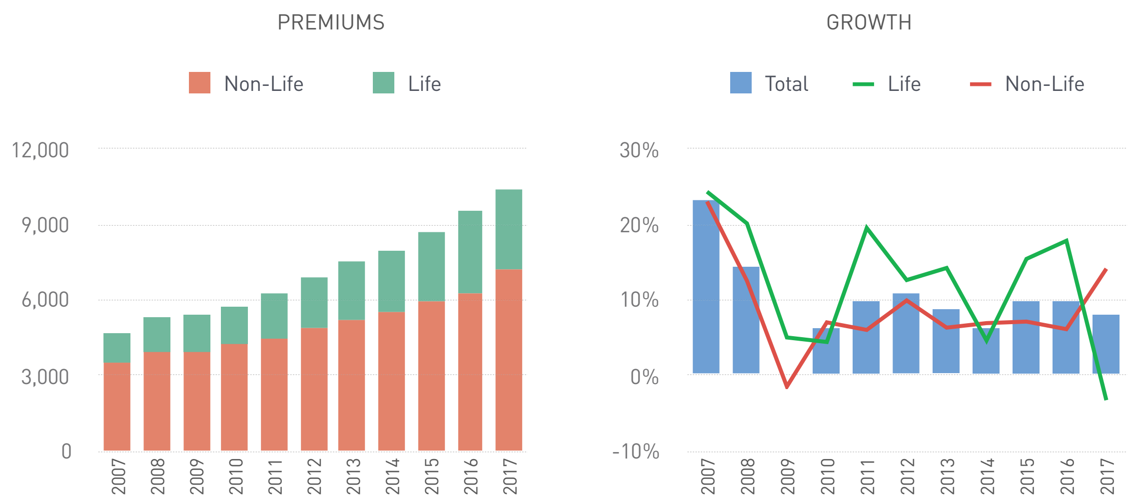
Chart 3.1.3-d shows developments in the aggregate balance sheet of the Honduran insurance industry over the 2007-2017 period. The sector's total assets amounted to 16.56 billion lempiras (705 million dollars), while equity stood at 6.15 billion lempiras (262 million dollars), rising consistently over the period, except in 2013. A highlight of the Honduran insurance industry is the high level of aggregate capitalization (measured in relation to total assets), which hovered around 40% over

Table 3.1.3
Honduras: premium volume[1] by line of business, 2017

Line of business	Millions of lempiras	Millions of USD	Increase Nominal (%)	Increase Real (%)
Total	**10,362**	**441**	**8.1**	**4.1**
Life	**3,179**	**135**	**-3.3**	**-7.0**
Individual Life	565	24	-2.3	-4.9
Group Life	2,597	111	-3.2	-5.8
Pensions	17	1	-38.7	-40.4
Non-Life	**7,184**	**306**	**14.1**	**9.8**
Fire and allied lines	2,106	90	11.9	7.6
Automobile	1,578	67	7.7	3.6
Health	1,960	83	13.6	9.3
Other lines	528	22	12.8	8.6
Transport	243	10	8.6	4.5
Surety	197	8	38.3	33.0
Personal accident	384	16	56.2	50.3
Third-party liability	143	6	51.3	45.6
Professional Risks	43	2	-4.1	-7.7

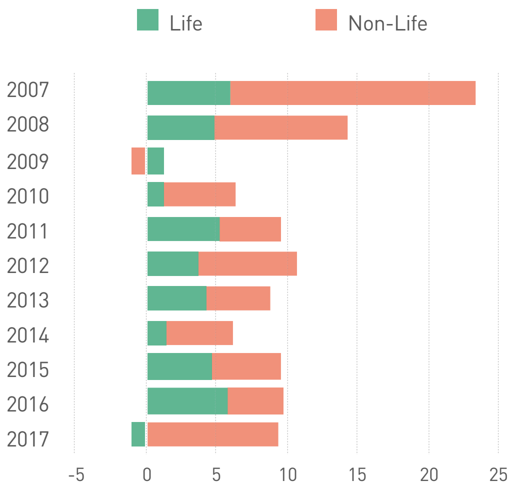
Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)
1/ Premiums net of returns and cancellations

Chart 3.1.3-b
Honduras: growth developments in the insurance market, 2007-2017
(premiums, millions of lempiras; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-c
Honduras: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

the 2007-2012 period. Since then, capitalization has stagnated somewhat to reach roughly 37% of total assets.

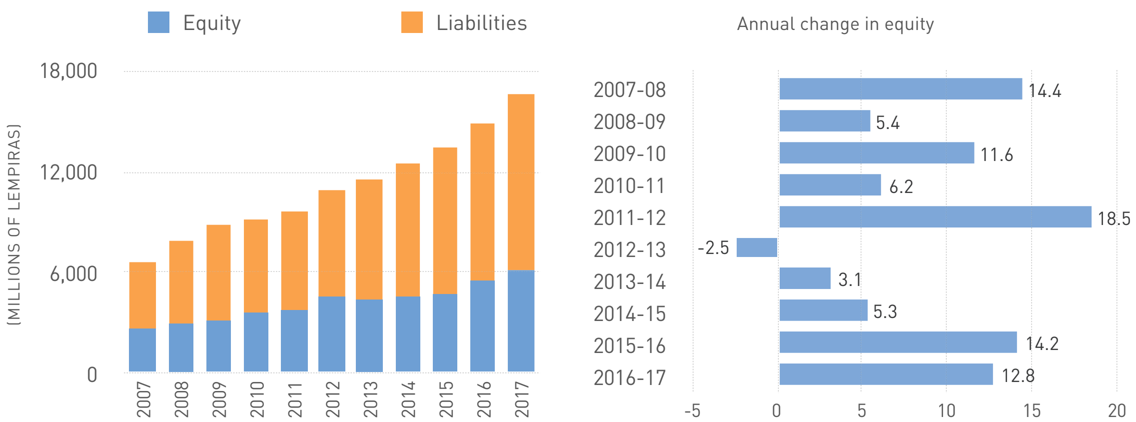
Investment

Chart 3.1.3-e shows developments in the Honduran insurance industry's investment over the 2007-2017 period, while Charts 3.1.3-f and 3.1.3-g show the composition of the aggregate sector-level investment portfolio over that period and also in 2017.

Total investment by insurance companies operating in the Honduran market came to 10.05 billion lempiras (428 million dollars) in 2017, with 83.3% concentrated in debt and equity instruments, 9.9% in cash, 2.5% in real estate and the remaining 4.3% in other financial investment. Notably, investment in cash followed an upward trend over the period under analysis, while reverting from 2015 onward.

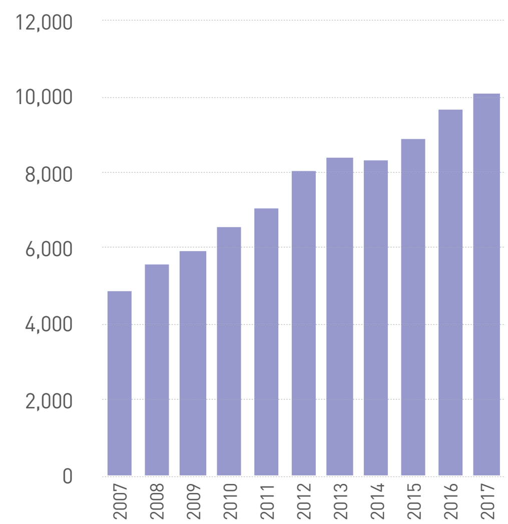
In general, the trend over the period has been toward an increase in the share of debt and equity investment (which appeared to have stagnated from 2014 onward), peaking at its highest value of the last ten years in 2017. The growth of cash investment over the period is also plain to see.

Chart 3.1.3-d
Honduras: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-e
Honduras: insurance market investment, 2007-2017
(millions of lempiras)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Technical provisions

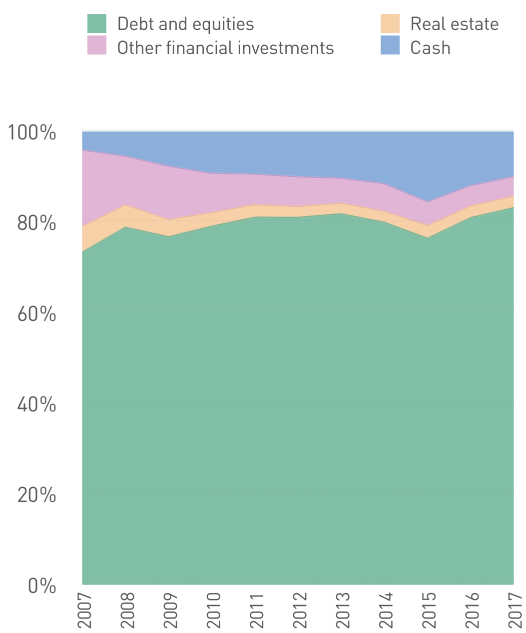
Chart 3.1.3-h shows changes in technical provisions in the Honduran insurance industry.

It is not currently possible with the data available to us to conduct a more detailed analysis of the composition of technical provisions at a sector level. However, in aggregate terms technical provisions experienced sustained absolute growth over the 2007-2017 period, save for a slight dip in 2010, to reach 7.18 billion lempiras in 2017 (306 million dollars).

Technical performance

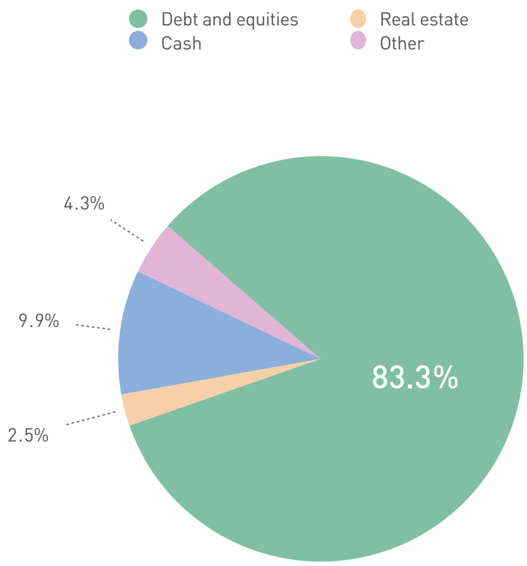
Chart 3.1.3-i shows the technical performance of the Honduran insurance industry over the 2007-2017 period, based on an analysis of the market's combined ratio.

Chart 3.1.3-f
Honduras: structure of investment, 2007-2017
(%)



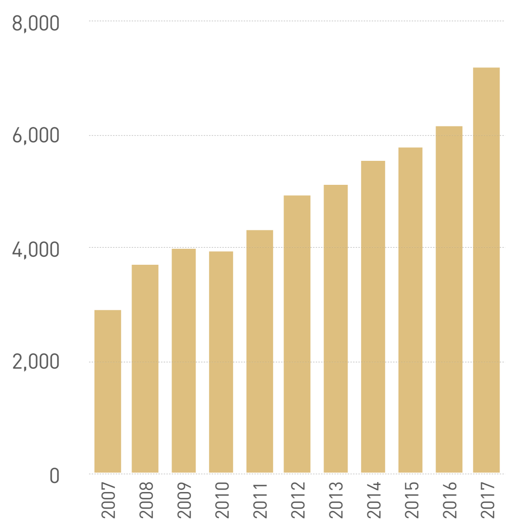
Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-g
Honduras: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-h
technical provisions of the insurance market, 2007-2017
(millions of lempiras)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

In 2017, this technical ratio came to 81.3%, 3.1 percentage points below the level attained in 2016 (84.5%), thus continuing the cost-to-income improvement process initiated in 2015. This improvement was largely down to the reduction in the loss ratio, which fell from 48.9% in 2016 to 44.5% in 2017. Meanwhile, the expense ratio was 36.8%, slightly above the levels reported over the previous two years.

Results and profitability

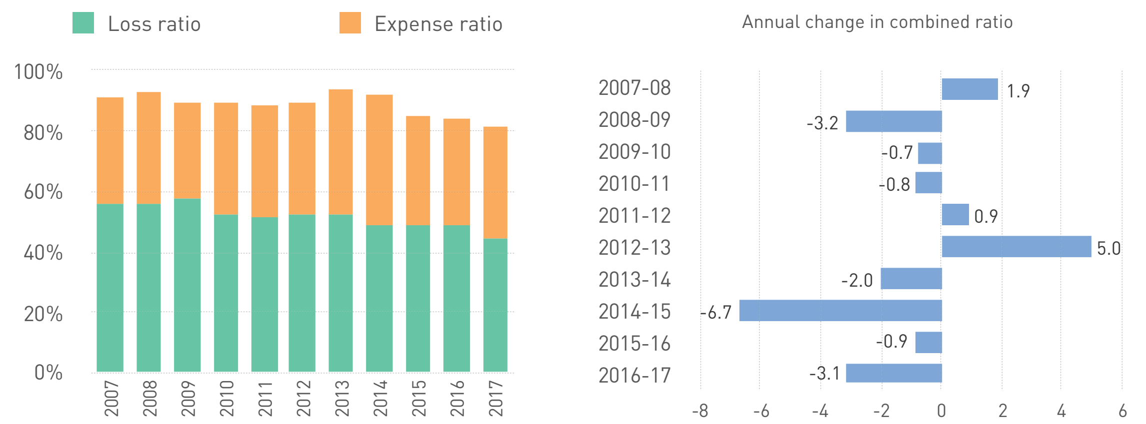
The Honduran insurance industry posted a net result of 1.07 billion lempiras (45.9 million dollars) in 2017, up 2.4% on the previous year. The net result obtained in 2017 by the Honduran insurance industry was mainly a product of the improvement in the sector's technical result thanks to the major improvement seen in the loss ratio.

Turning to profitability, the industry achieved a return on equity (ROE) of 17.5% in 2017, down 1.8 percentage points year on year. In a similar vein, return on assets (ROA) amounted to 6.5% in 2017, down 0.5 percentage points year on year (see Chart 3.1.3-j).

Insurance penetration, density and depth

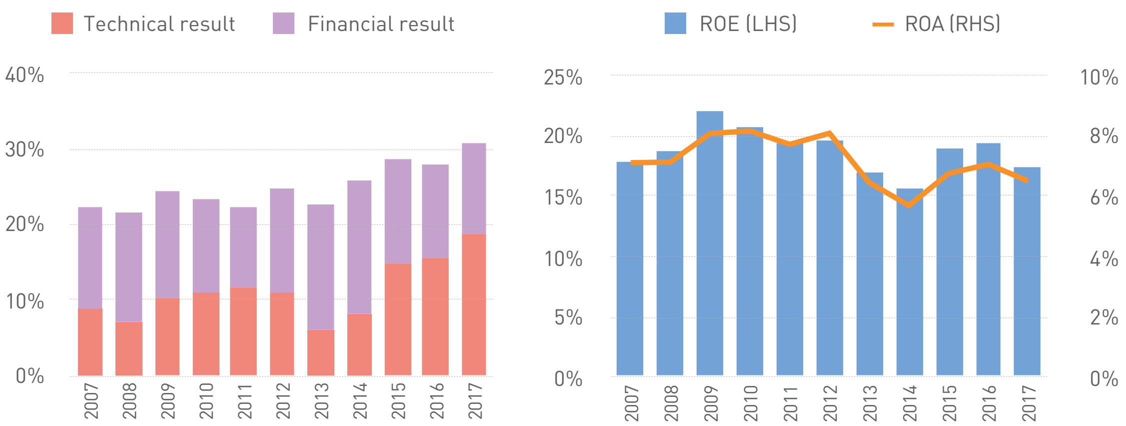
Chart 3.1.3-k shows the main structural trends shaping the development of the insurance industry in Honduras over the 2007-2017 period.

Chart 3.1.3-i
Honduras: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-j
Honduras: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

The penetration index (premiums/GDP) came to 1.9% in 2017, barely 0.1 percentage points below the level reported in 2007. The penetration index for Honduras has stagnated over the course of the last ten years, in contrast to the average growth in penetration seen across the wider Latin American insurance market.

Insurance density in Honduras (premiums per capita) amounted to 1,142 lempiras (48 dollars), up 6.6% on 2016 (1,071.2 lempiras). Density has been on an upward trend, registering cumulative growth of 86.9% over the period 2007-2017 period.

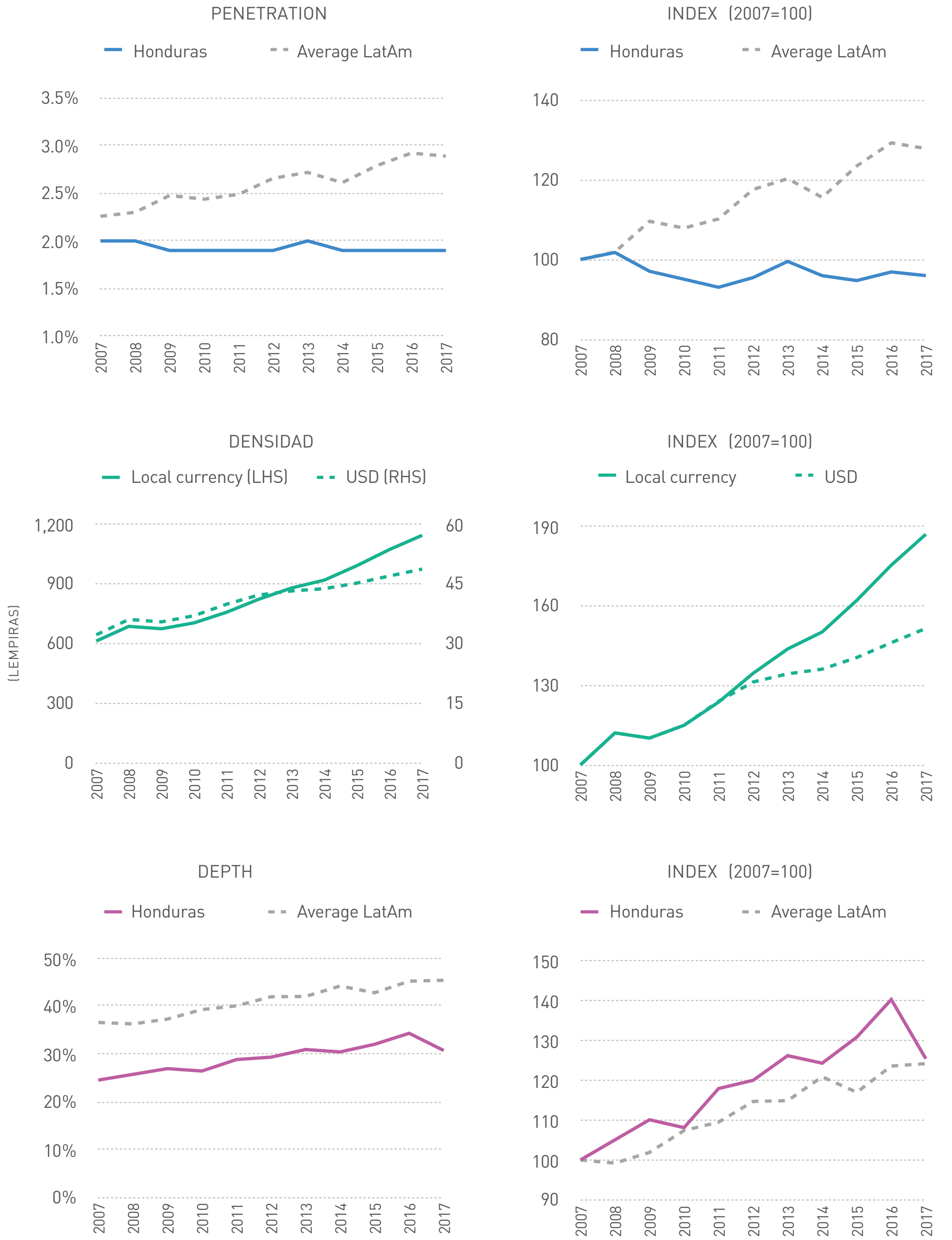
Meanwhile, depth (measured in terms of the relationship of Life insurance premiums to total premiums) stood at 30.7% in 2017, some 6 percentage points above the level reported in 2007 but 3.6% less than in the previous year. This year round, the figure is slightly out of line with the average for Latin American markets and remains below the absolute depth value for the average of countries in the region (45.4%).

Estimation of the Insurance Protection Gap

Chart 3.1.3-l provides an estimate of the IPG for the Honduran insurance market between 2007 and 2017. It shows that the insurance gap amounted to 30.28 billion lempiras in 2017, some 2.9 times the size of the actual insurance market in Honduras at the end of that year.

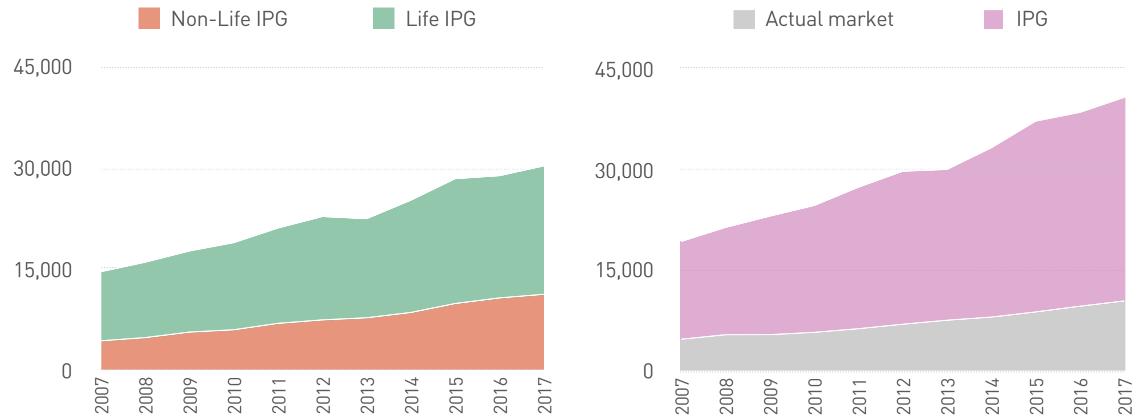
As is the case for most Latin American insurance markets, the structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. Indeed, Life insurance accounted for 63.1% of the IPG at the end of 2017 (19.09 billion lempiras), 7.6 percentage points below the share for this segment in 2007. The remaining 36.9% of the gap is a product of the Non-Life insurance segment (11.18 billion lempiras). Accordingly, the potential insurance market in Honduras at the end of 2017 (sum of the actual market plus the IPG) is estimated at 40.64 billion lempiras (1.73 billion dollars), some 2.9 times the size of the total insurance market in Honduras that year.

Chart 3.1.3-k
Honduras: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, lempiras and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

Chart 3.1.3-l
Honduras: Insurance Protection Gap and potential market, 2007-2017
(millions of lempiras)

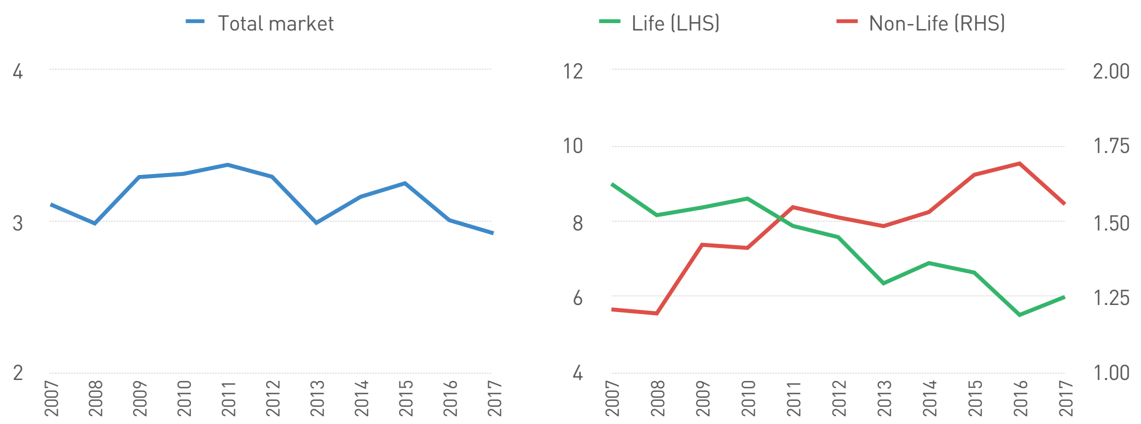


Source: MAPFRE Economic Research

Chart 3.1.3-m provides an estimate of the IPG as a multiple of the actual insurance market in Honduras. The insurance gap as a multiple increased over the 2008-2011, before falling from 2012 onward. While in the Life insurance segment the gap has been narrowing (falling from 9 to 6 times) over the period spanning 2007 to 2017, the same cannot be said for the Non-Life insurance segment, where the insurance gap has displayed a positive trend over the period under analysis by climbing from 1.2 to 1.6 times.

Chart 3.1.3-n summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Honduran insurance market over the last ten years. Only the Life insurance business saw an improvement,

Chart 3.1.3-m
Honduras: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

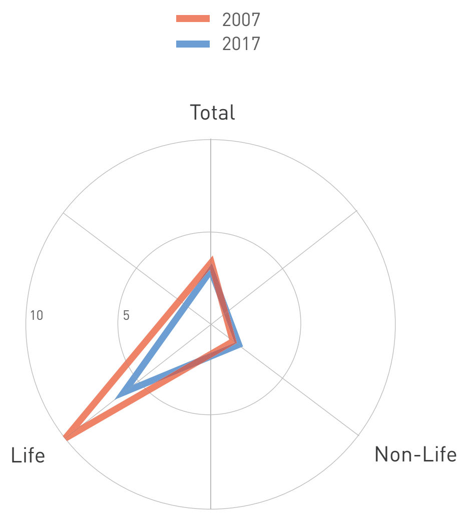
while in the case of the Non-Life segment the IPG as a multiple of the real market has deteriorated.

Last but not least, Chart 3.1-o provides an overview of the capacity of the Latin American insurance industry to close the insurance gap. It relies on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the 2017 gap over the coming ten years. The analysis reveals that the Honduran insurance market posted an average growth rate of 8.3% over the 2007-2017 period; the product of an annual growth rate of 10.8% in the Life insurance segment and of 7.4% in the Non-Life segment.

The analysis reveals that were the Honduran insurance market to maintain, over the next ten years, the same rates of growth as seen over the last ten years, then market growth would prove insufficient to close the IPG.

The shortfall would be 10.7 percentage points for the Life insurance segment and 2.5 percentage points for Non-Life insurance. However, in both cases it is worth noting that this deficit has actually worsened when compared with the analysis conducted in our 2016 report.

Chart 3.1.3-n
Honduras: the IPG as a multiple of the actual market, 2007 and 2017

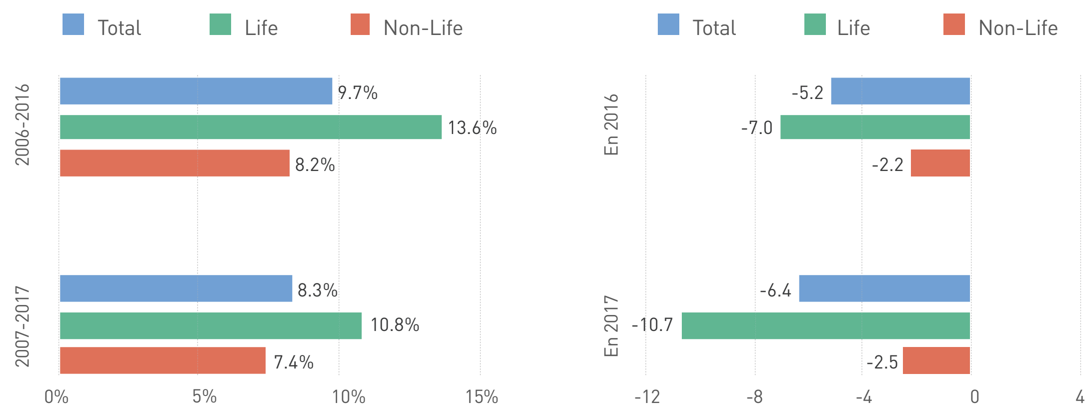


Source: MAPFRE Economic Research

Market Development Index (MDI)

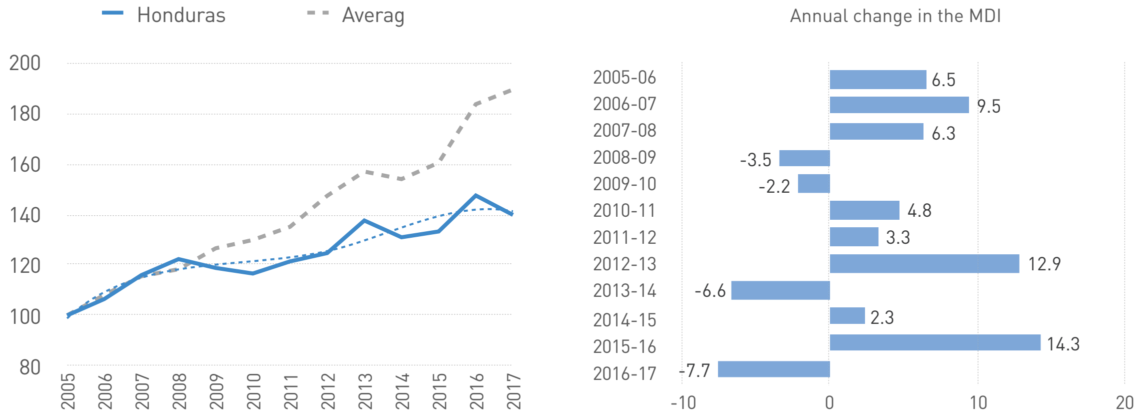
Chart 3.1.3-p provides an estimate of the Market Development Index (MDI) for the Honduran insurance industry. In general terms, the MDI (which is used in this report as an indicator of general trends in the evolution and maturity of the

Chart 3.1.3-o
Honduras: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.1.3-p
Honduras: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

insurance market) has performed positively over the period under analysis. This trend is broadly similar to the average performance across Latin American insurance markets through to 2015, albeit with setbacks in certain years (2009, 2010 and 2014). However, since 2016 the index has been gradually veering away from the average index for the wider Latin America region.

Combined analysis of structural ratios

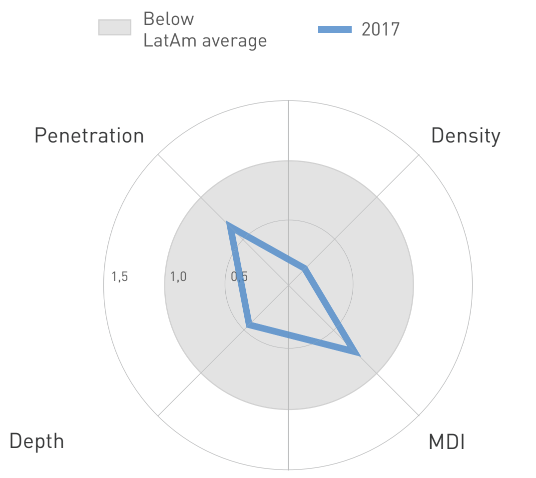
To round things off, Chart 3.1.3-q outlines the state of the Honduran insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, they all fall short of the average for Latin America, especially density, strongly suggesting relatively poor levels of local development when compared with the wider region.

Insurance market rankings

Overall ranking

Twelve insurance companies were operating in the Honduran insurance market in 2017, the same number as in 2016. A key highlight in the period was ASSA's acquisition of AIG's business in Guatemala. The market share of the top five insurers (CR5) represented 77% of total premiums in 2017, slightly down on the concentration level reported in 2016 (78.4%).

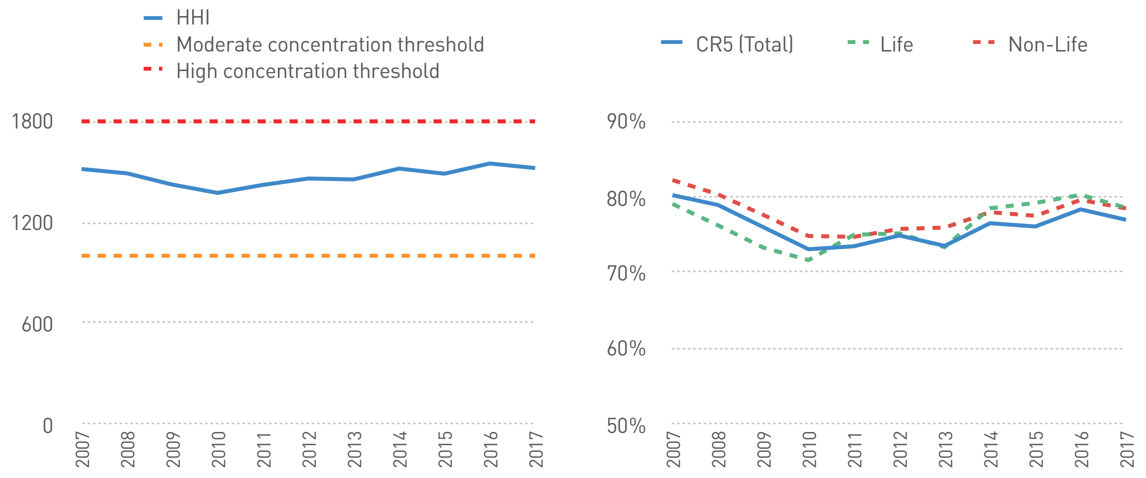
Chart 3.1.3-q
Honduras: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Chart 3.1.3-r
Honduras: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)

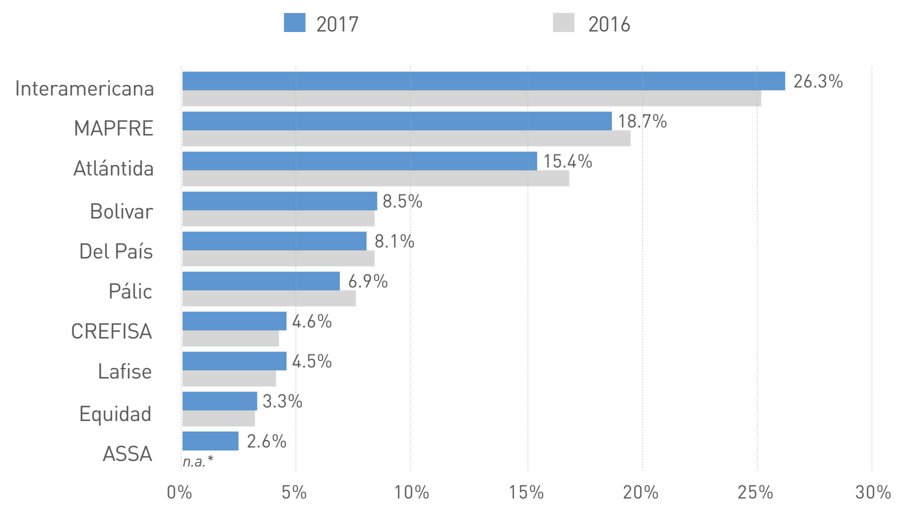


Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)

While concentration levels have remained relatively stable in recent years, they are considered relevant and have certainly been rising from 2010 onward. The Herfindahl index has remained above the threshold for moderate concentration over the last ten years (see Chart 3.1.3-r).

Chart 3.1.3-r ranks the insurance groups operating in the Honduran market in 2017. Sitting at the top of the table once again is Interamericana. With 26.3% of total premiums, the insurer saw its market share increase by a further 1.1 percentage point in the period. Following behind is MAPFRE (18.7%), which shed 1.2 percentage points of its market share year on year, and Atlántida (15.4%), which also slid 1.5 percentage points.

Chart 3.1.3-s
Honduras: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)
* Does not include ASSA's market share in 2016 since it was not comparable at that time, having acquired AIG's business in 2017.

Non-Life and Life rankings

Starting with the Non-Life ranking, Interamericana once again topped the table with a share of 28.8% of total premiums. In second spot we have MAPFRE (17.9%), which this year has leapfrogged Atlántida with 16.3% of the market (see Chart 3.1.3-t).

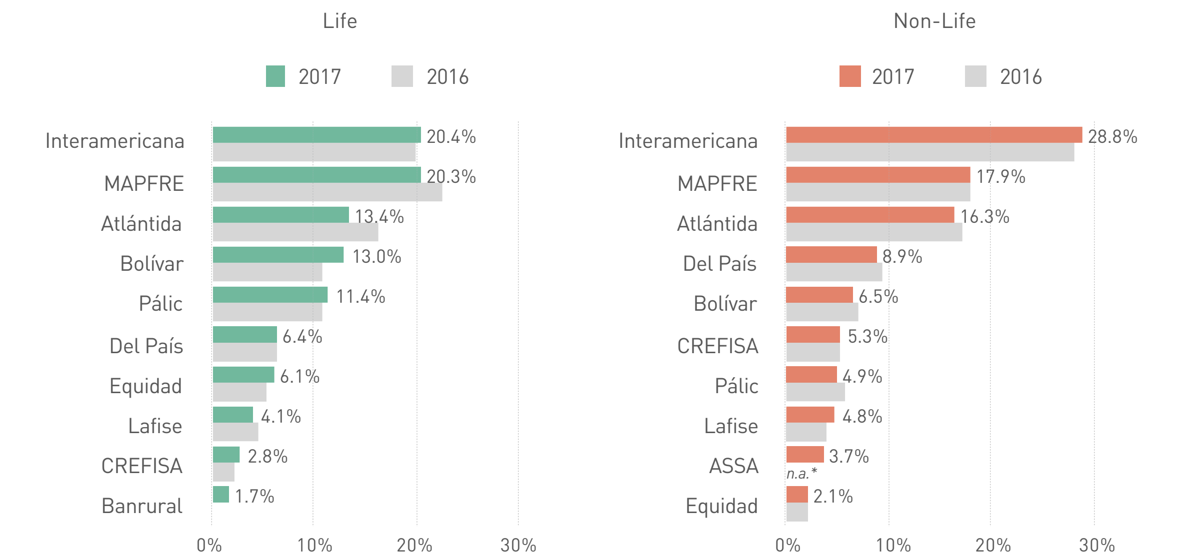
Moving the Life ranking, MAPFRE (20.3%) was edged out of first spot by Interamericana (20.4%). Rounding off the top three, Atlántida held on to its third spot with 13.4% of total premiums in this segment of the market (see Chart 3.1.3-t).

Key regulatory aspects

Moving to key regulatory developments in 2017, we would highlight the following resolutions issued by the National Honduran Commission on Banking and Insurance (CNBS):

- CNBS Circular No. 001/2017: Approval of "Rules governing the filing of standard contracts or policies for insurance and sureties".
- CNBS Circular No. 006/2017: Reform of articles 6, 7e), 9 and Annex No.1 of the Rules on the Capital Adequacy, Conservation Buffer and Leverage Ratio of Financial Institutions.
- CNBS Circular No. 008/2017: Approval of reporting requirements for financial institutions and insurance firms in relation to the functioning of the system of corporate governance.
- CNBS Circular No. 017/2017: Reform of the reporting requirements for financial institutions and insurance firms in relation to the functioning of the system of corporate governance, as issued by this Commission by virtue of Resolution GES No. 163/02-03-2017.
- CNBS Circular No. 019/2017: Requirement for insurance firms to post provisions for contingent liabilities in their financial statements.
- CNBS Circular No. 028/2017: Supplementary rules on the posting and release of technical reserves in order to resolve the issue of how to apply the Regulations on the posting of

Chart 3.1.3-t
Honduras: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)
* Does not include ASSA's market share in 2016 since it was not comparable at that time, having acquired AIG's business in 2017.

Technical Reserves and to unify criteria with the Supervisory Body.

- CNBS Circular No. 032/2017: Approval of the release of back-up reserves at September 30, 2017 for the sole purpose of paying compensation under claims made by policy holders, insured parties or beneficiaries affected by events unfolding after November 26, 2017 (damage suffered by third parties) in relation to the general elections held in the country on November 26, 2017.

3.1.4 El Salvador

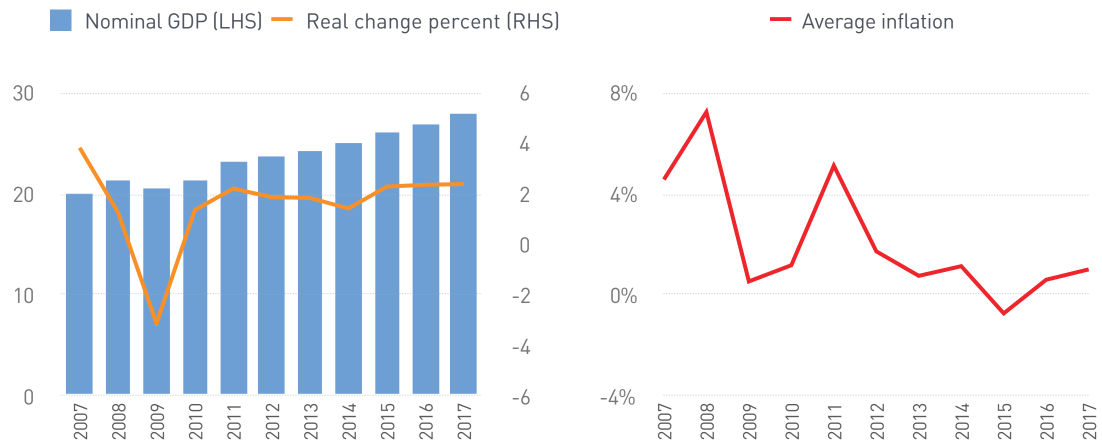
Macroeconomic environment

El Salvador's economy grew by 2.4% in real terms in 2017, roughly matching its performance in 2016 (see Chart 3.1.4-a). This growth was down to the expansion of the export sector and stronger domestic demand, particularly private consumption, which was driven by low levels of inflation, lower remittance income and increased levels of lending within the commercial banking segment. According to the preliminary report issued by ECLAC in February 2018, average GDP growth in real terms in the first half of the year was 2.3%, mainly on the back of real estate and business services (4.5%), social and community services (3.4%) and agriculture (3.4%).

Significantly in 2017 a lack of political consensus at the Legislative Assembly caused the government to run up arrears of 56.6 million dollars (1.1% of the total budget) on liabilities associated with Pension Investment Certificates (*certificados de inversión previsional, or CIP for short*). This situation prompted the rating agencies to place the country in selective default owing to the non-payment. However, after the government acted to address the issue, they upgraded its sovereign risk rating (currently CCC+, B- and B3 according to S&P, Fitch and Moody's, respectively). Against this backdrop, the fiscal deficit of the central government, including the pension system costs, ended the period at 2.6% of GDP, slightly below the previous year's 2.7% thanks to the fiscal policy in place of containing public spending. Public debt to GDP stood at 65.5% at year-end 2016, this being the most recent available information.

Salvadoran exports grew 5.7% year on year between January and September 2017 as export volume gained 14.4% over the period. By sector, agricultural exports (+8.9% and manufacturing exports (+5.7%) both outperformed, the latter

Chart 3.1.4-a
El Salvador: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of dollars; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

driven by clothing and by machinery, equipment and supplies. Meanwhile, imports grew by some 5.1% in value, although import volume was down 3.4%. Significantly, rising prices for oil and its derivatives had a negative impact, leading to a year-on-year increase of 9.4% in the country's oil bill. Average inflation in 2017 came to 1%, compared with 0.6% in 2016.

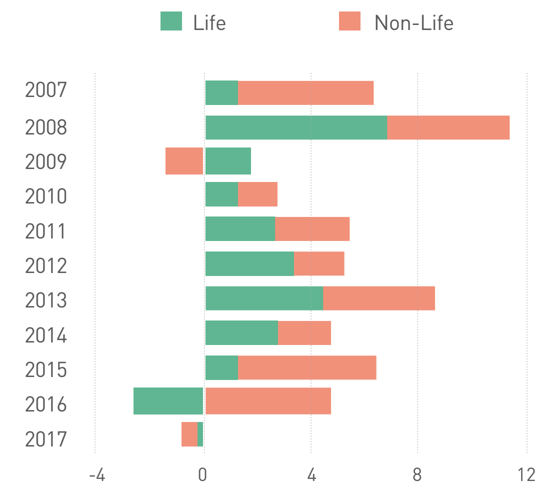
For 2018, ECLAC expects the Salvadoran economy to grow by 2.4%, driven by private investment, remittance flows and exports. For its part, the IMF estimates that the Salvadoran economy will post 2.3% growth in 2018.

Insurance market

Growth

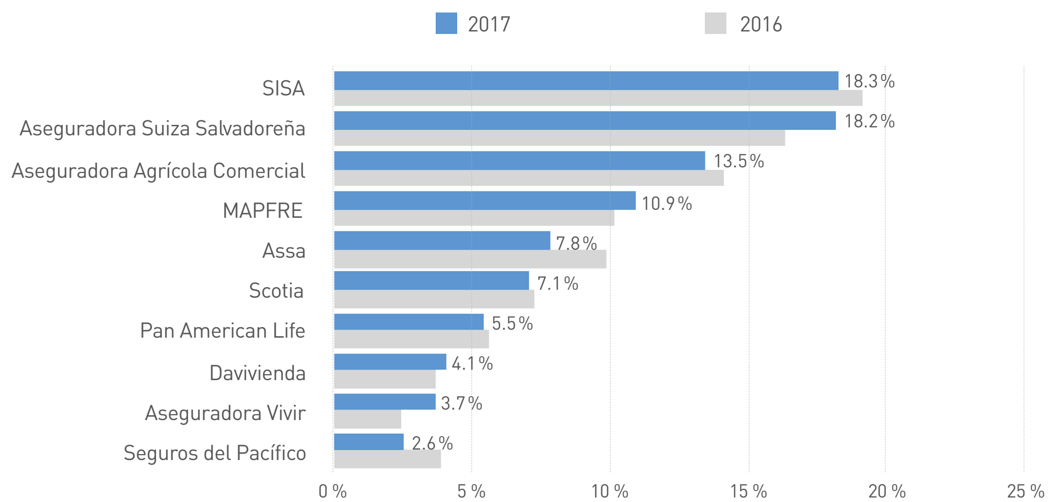
The Salvadoran insurance market shed 0.8% in nominal terms (-1.8% in real terms) to reach 616 million dollars, falling short of the 2% growth reported a year earlier (see Table 3.1.4-a and Chart 3.1.4-b). As in 2016, the Life insurance premiums accounted for 34.9% of the total market. Life premiums were down 0.5% in nominal terms to reach 215 million dollars in 2017. Non-Life premiums were also down, falling 0.9% to 401 million dollars. By modality, individual and group Life grew 4.1%, while welfare and pensions Life shrunk by 11.8%. Moving to the Non-Life segment, Automobile (+7.5%) and Credit and surety (+9.3%) both registered heavy growth, while Accidents and illness saw the sharpest drop (-6.2%).

Chart 3.1.4-c
El Salvador: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-u
El Salvador: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Table 3.1.4-a
El Salvador: premium volume[1] by line of business, 2017

Line of business	Millions of USD	Increase	
		Nominal (%)	Real (%)
Total	**616**	**-0.8**	**-1.8**
Life	**215**	**-0.5**	**-1.5**
Individual and group	159	4.1	3.1
Protection and pension	56	-11.8	-12.7
Non-Life	**401**	**-0.9**	**-1.9**
Accident and illness	111	-6.2	-7.1
Fire and/or allied lines	97	1.5	0.5
Automobile	90	7.5	6.4
Other lines	89	-5.4	-6.4
Credit and/or surety	14	9.3	8.2

Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)
1/ Premiums net of returns and cancellations

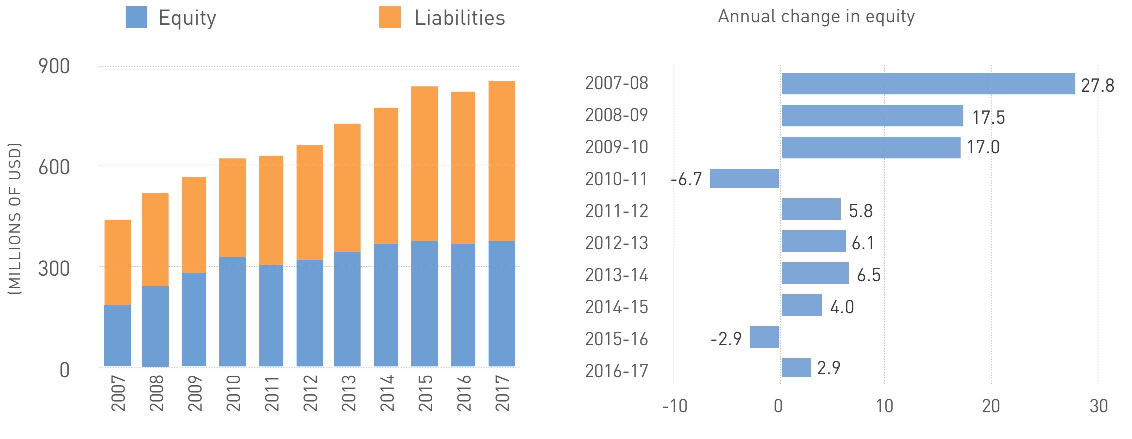
Accordingly, Life insurance made a negative contribution of just under -0.2 percentage points to the overall -0.8% decline in the Salvadoran insurance market, while Non-Life insurance was the biggest culprit with a negative 0.6 percentage points, mainly due to the poor performance of the Accidents and Illness line, as just mentioned (see Chart 3.1.4-c).

Balance sheet and equity

Changes in the Salvadoran insurance industry's aggregate balance sheet over the 2007-2017 period are shown in Chart 3.1.4-d. It shows that the sector's total assets amounted to 855 million dollars in 2017, up 4.7% year on year.

High levels of aggregate capitalization over total assets are one of the highlights of the balance

Chart 3.1.4-d
El Salvador: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

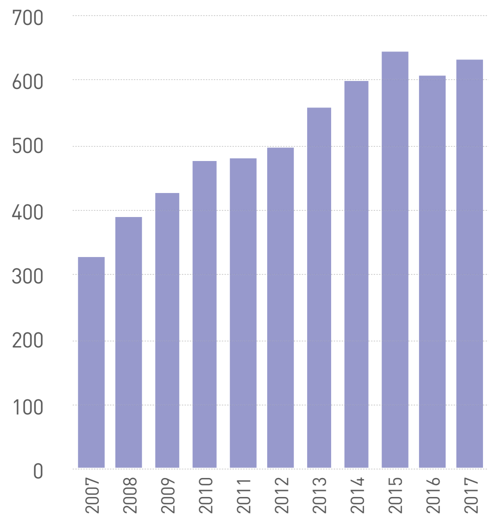
sheet. Capitalization has remained above 40% throughout the 2007-2017 period, reaching a peak of 52.3% in 2010, but falling slightly thereafter to 45.1% of total assets in 2017.

Investment

Chart 3.1.4-e shows developments in total investment, while Charts 3.1.4-f and 3.1.4-g provide a breakdown of the aggregate investment portfolio at sector level of the Salvadoran insurance market over the 2007-2017 period. As can be seen, investment totaled 632.1 million dollars in 2017, up 4.2% on 2016. Chart 3.1.4-g shows that 78.6% of total investment in 2017 was focused on debt and equity instruments, 11.6% in cash, 3.4% in real estate and the remaining 6.4% in other financial investments.

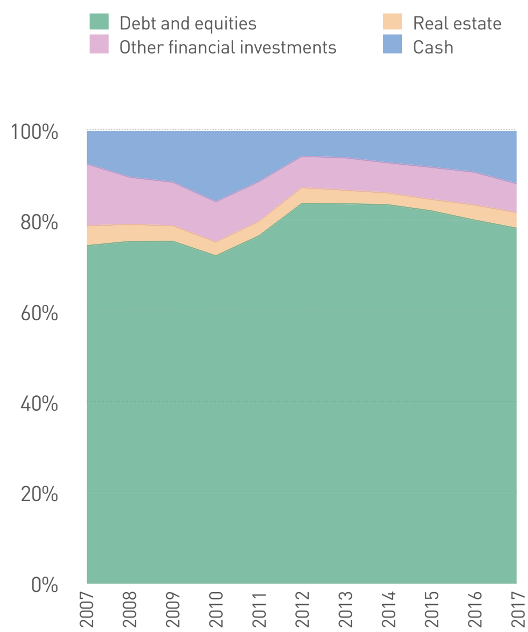
If we pause to examine changes in the sectoral investment patterns over the last ten years, we can observe a sharp decline in 2012 in the percentage of assets held as cash and equivalents, although

Chart 3.1.4-e
insurance market
investment, 2007-2017
(millions of USD)



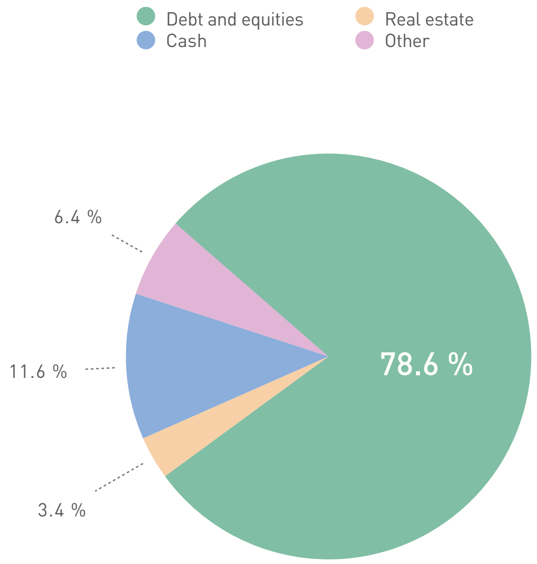
Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-f
El Salvador: structure of
investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-g
El Salvador: structure of
investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

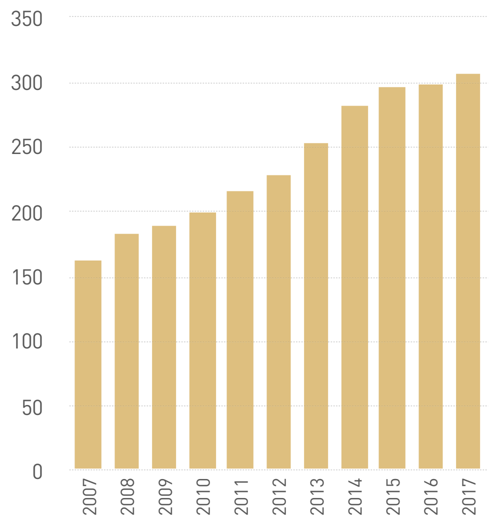
this weighting steadily increased thereafter to reach a similar percentage in 2017 to the level reported in 2011 (over 11%), at the expense of a lower percentage of investment in debt and equities (see Chart 3.1.4-f).

Technical provisions

Charts 3.1.4-h, 3.1.4-i and 3.1.4-j show the relative composition and performance of the Salvadoran insurance industry's technical provisions over the period under analysis (2007-2017). Technical provisions amounted to 307.2 million dollars in 2017. Of the total provisions, 38.2% related to Life insurance, 30.1% to provisions for unearned premiums and unexpired risks in Non-Life insurance, 29.0% to provision for outstanding benefits and the remaining 2.6% to provisions for catastrophic risks.

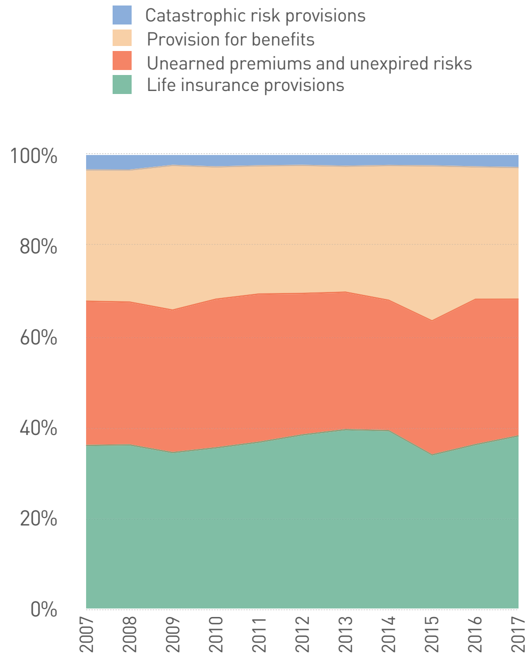
Broadly speaking, all technical provisions experienced sustained absolute growth over the 2007-2017 period, although provisions for catastrophic risks fell slightly from 2009 to

Chart 3.1.4-h
El Salvador: technical provisions of the insurance market, 2007-2017
(millions of USD)



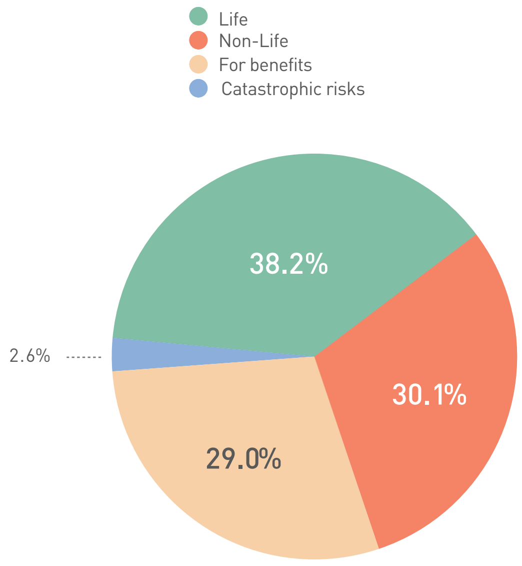
Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-i
El Salvador: structure of technical provisions, 2007-2017
(%)



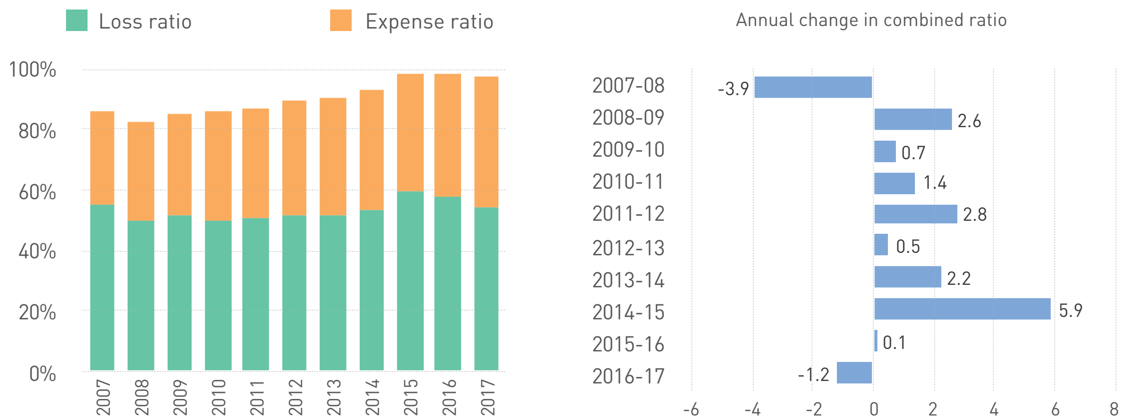
Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-j
El Salvador: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-k
El Salvador: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

2012. Otherwise, there have been no particularly significant changes in the composition of technical provisions over the last ten years.

Technical performance

Chart 3.1.4-k shows the technical performance of the Salvadoran insurance industry over the 2007-2017 period, based on an analysis of the market's combined ratio. The chart reveals an ongoing decline in the indicator from 2008 onward, with the combined ratio shifting from 82.5% in that year to 97.6% in 2017, in which the ratio finally saw an improvement on the previous year (98.8%).

It should be noted that the reduction in the technical indicator for 2017 was largely the product of an improved loss ratio, which fell by 3 percentage points, although this gain was offset by an increase of 1.8 percentage points in the expense ratio.

Results and profitability

The Salvadoran insurance industry posted a before-tax result of 35.2 million dollars in 2017 (versus 30 million in 2016), mainly due to the improvement in the technical result, while the financial result was largely unchanged in comparison with the previous year, falling slightly by 0.6% to 24.3 million dollars. As can be seen in Chart 3.1.4-l and with the exception of 2017, the technical result has been on a sustained downward path since 2008, which has been affecting the insurance industry's profitability.

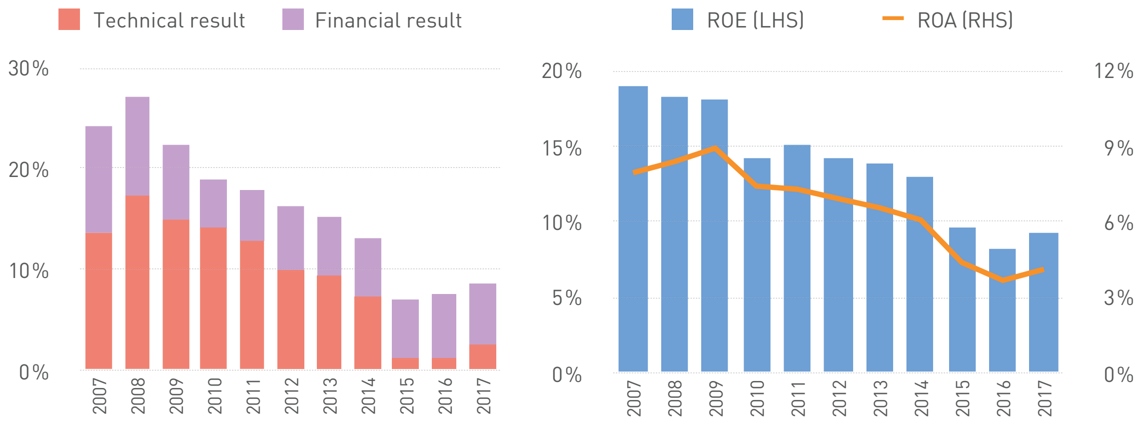
In this regard, the Salvadoran insurance market delivered a return on equity (ROE) of 9.3% in 2017, up 1.1 percentage points relative to 2016 but down 9.6 percentage points on 2007. The same pattern emerges when it comes to return on assets (ROA). In 2017, ROA amounted to 4.1%, up 0.5 percentage points on 2016.

Insurance penetration, density and depth

Chart 3.1.4-m shows the main structural trends shaping the development of the insurance industry in El Salvador over the 2007-2017 period. The penetration index (premiums/GDP) stood at 2.2% in 2017, 0.2 percentage points down on the level observed in 2007. The penetration index in El Salvador has been on a sustained upward path (albeit with slight dips in 2011 and 2017), but is gradually slipping further behind the average for Latin American markets (2.9%).

Meanwhile, the density indicator (premiums per capita) stood at 97 dollars in 2017, down on the level reported a year earlier (98.2 dollars).

Chart 3.1.4-l
El Salvador: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

The density of the Salvadoran insurance market has been steadily increasing over the period, registering cumulative growth of 50.1% between 2007 and 2017.

The depth of the Salvadoran market (measured as the relationship of Life insurance premiums to total premiums) reached 34.9% in 2017, practically the same as in 2016 and showing an upward path through to 2014, when it began to stagnate.

El Salvador's divergence from the average for Latin American countries has therefore been increasing over time. Average absolute depth values for all Latin American countries (45.4% in 2017) has always remained ahead of the Salvadoran insurance market.

Estimation of the Insurance Protection Gap

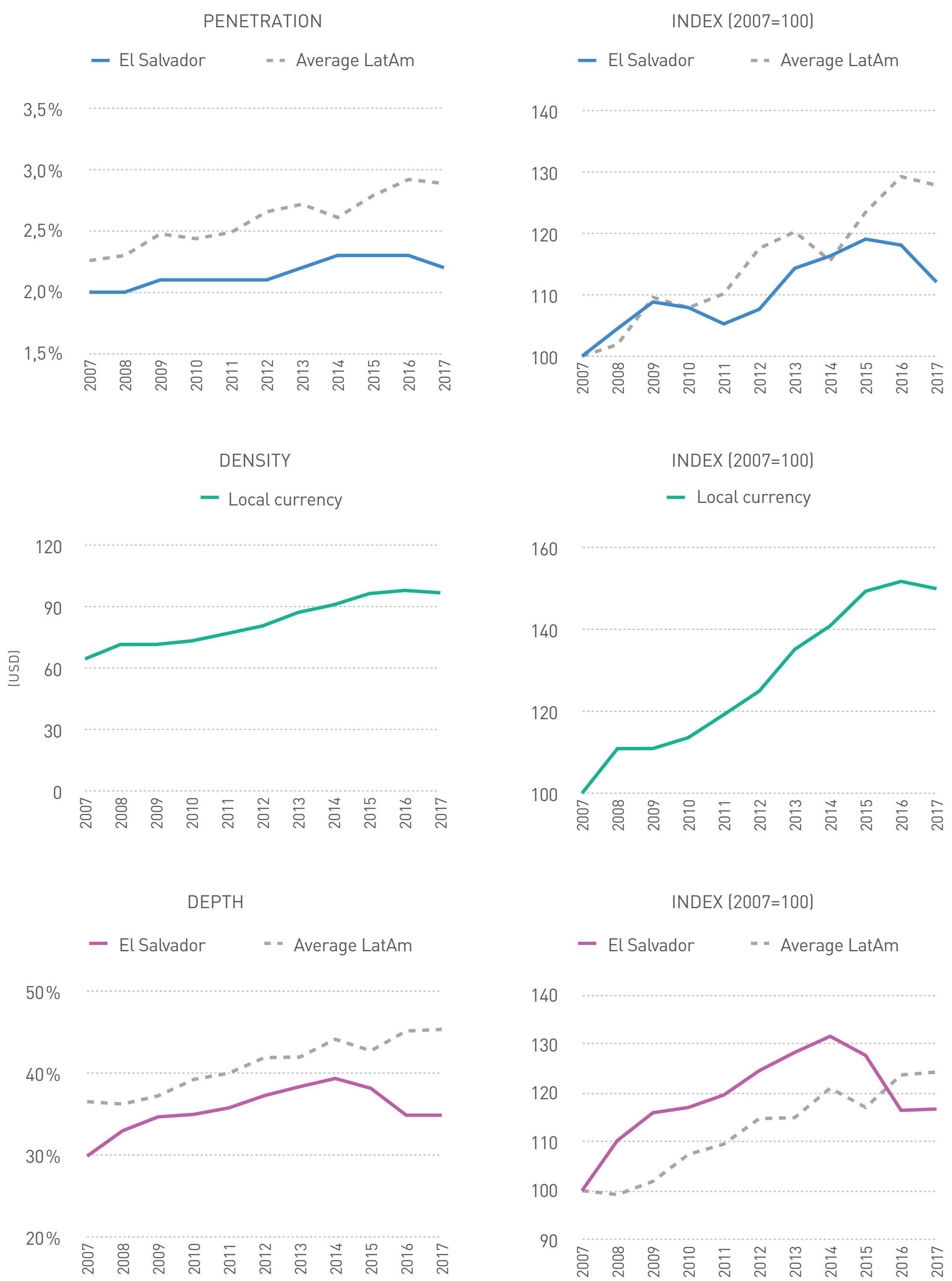
Chart 3.1.4-n provides an estimate of the IPG for the Salvadoran insurance market between 2007 and 2017. The IPG stood at 1.49 billion dollars in 2017, equivalent to 2.4 times the actual insurance market at the end of the year (a similar figure to 2016).

The structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. Indeed, Life insurance accounted for 63.0% of the insurance gap at the end of 2017 (941.6 million dollars), down 1.8 percentage points on the share for this segment in 2016 and 5.6% less than in 2007. The remaining 37.0% of the IPG is a product of the Non-Life insurance segment (553 million dollars). Accordingly, the potential insurance market in El Salvador at the end of 2017 (sum of the actual market plus the IPG) is estimated at 2.10 billion dollars, some 3.4 times the size of the total insurance market in El Salvador that year.

Chart 3.1.4-o provides an estimation of the IPG as a multiple of the actual insurance market over the 2007-2017 period. As a multiple, the IPG for the Life insurance segment has tracked downward on a sustained basis over the period under analysis (from 7.3 to 4.4 times), though this trend can be seen to slow down from 2013 onward. The mid-term trend has also followed a downward path in the case of Non-Life insurance, falling from 1.43 to 1.38 times over the same period.

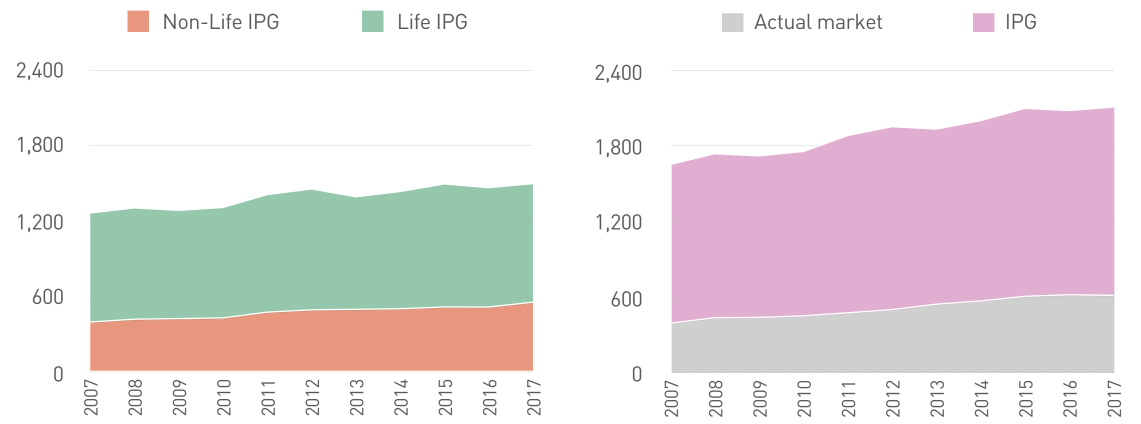
Chart 3.1.4-p summarizes changes in the IPG as a multiple of the actual market for the

Chart 3.1.4-m
El Salvador: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-n
El Salvador: Insurance Protection Gap and potential market, 2007-2017
(millions of dollars)



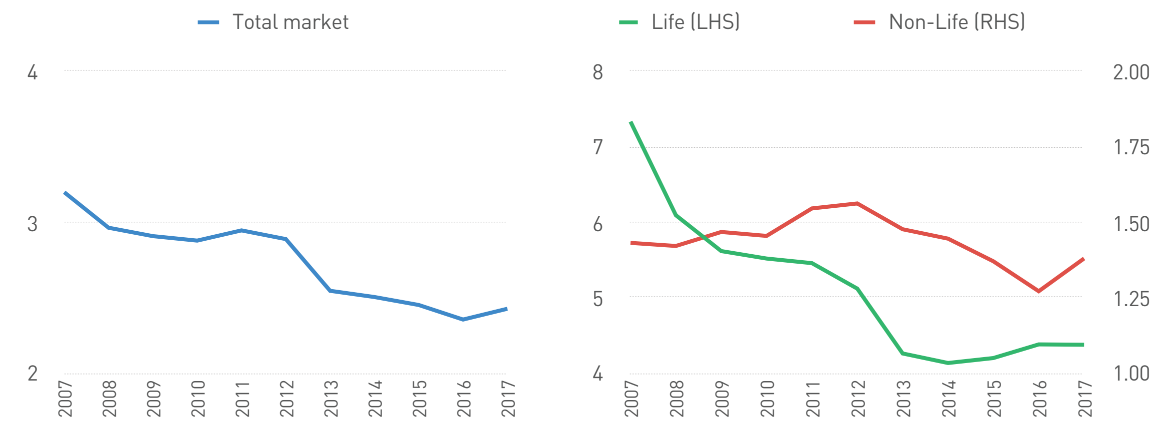
Source: MAPFRE Economic Research

Life and Non-Life segments and for the total Salvadoran insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. Only the Life insurance business has shown an improvement over time within the larger insurance market of El Salvador.

Chart 3.1.4-q provides an overview of the capacity of the Salvadoran insurance market to close the IPG, based on a comparison between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG for 2017 over the coming ten years.

The Salvadoran insurance market grew at an average annual rate of 4.6% between 2007 and 2017, underpinned by average annual growth of 6.2% in the Life insurance segment and of 3.8% in the Non-Life segment. Were the same

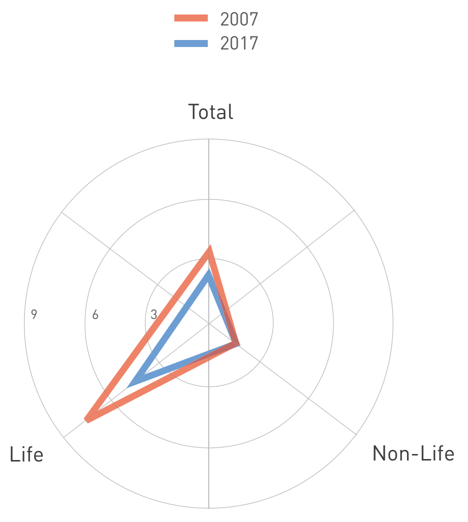
Chart 3.1.4-o
El Salvador: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

rate of growth seen over the last ten years to continue over the next ten years, the growth rate of the Salvadoran insurance market would not be enough to seal the IPG for both the Life segment (short 12.1 pp) and the Non-Life segment (short 5.3 pp). Significantly, the shortfall for both the Life and Non-Life segments increased year on year.

Chart 3.1.4-p
El Salvador: the IPG as a multiple of the actual market, 2007 and 2017



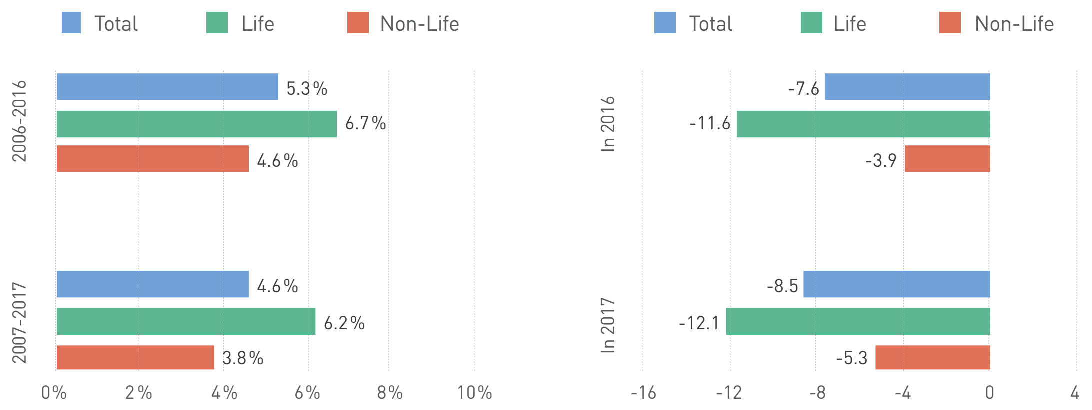
Source: MAPFRE Economic Research

Market Development Index (MDI)

As discussed previously, the Market Development Index (MDI) is used as an indicator of general trends in the performance and maturity of the insurance market. Chart 3.1.4-r shows the calculation for the Salvadoran insurance industry.

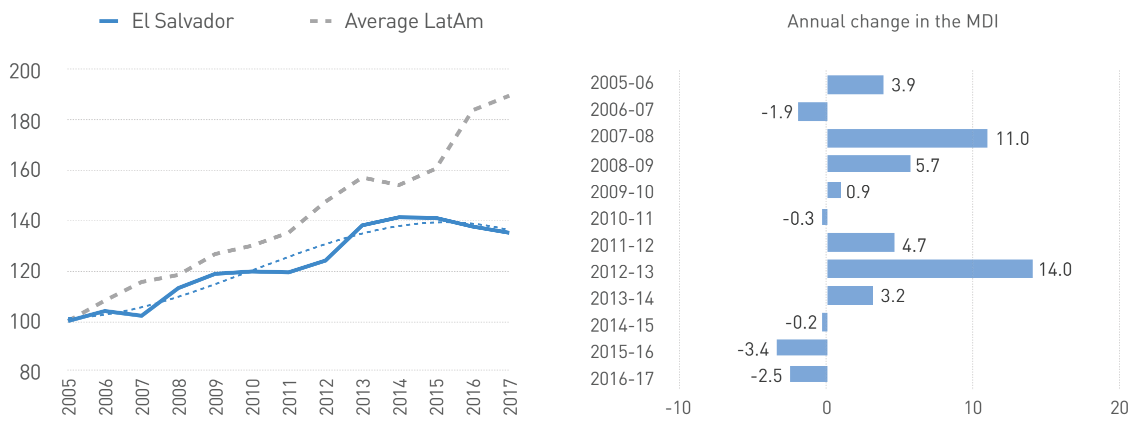
In broad terms, the MDI has been on positive and upward path over the 2007-2017 period, albeit falling back from 2015 onward. Either way, the MDI has been steadily falling behind the average for Latin American insurance markets since 2010.

Chart 3.1.4-q
El Salvador: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.1.4-r
El Salvador: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Combined analysis of structural ratios

To round things off, Chart 3.1.4-s outlines the state of the Salvadoran insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, they all fall short of the average for Latin America, especially density, strongly suggesting relatively poor levels of local development when compared with the wider region.

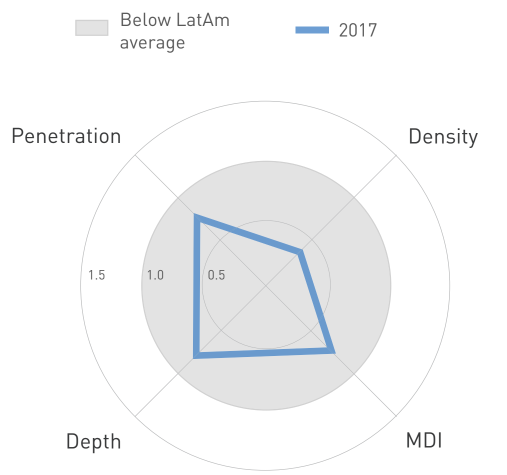
Insurance market rankings

Overall ranking

A total of 21 insurance companies were operating in El Salvador in 2017, two less than a year earlier. The Herfindahl and CR5 indexes both point to a slight decline in the degree of market concentration in El Salvador from 2013 onward.

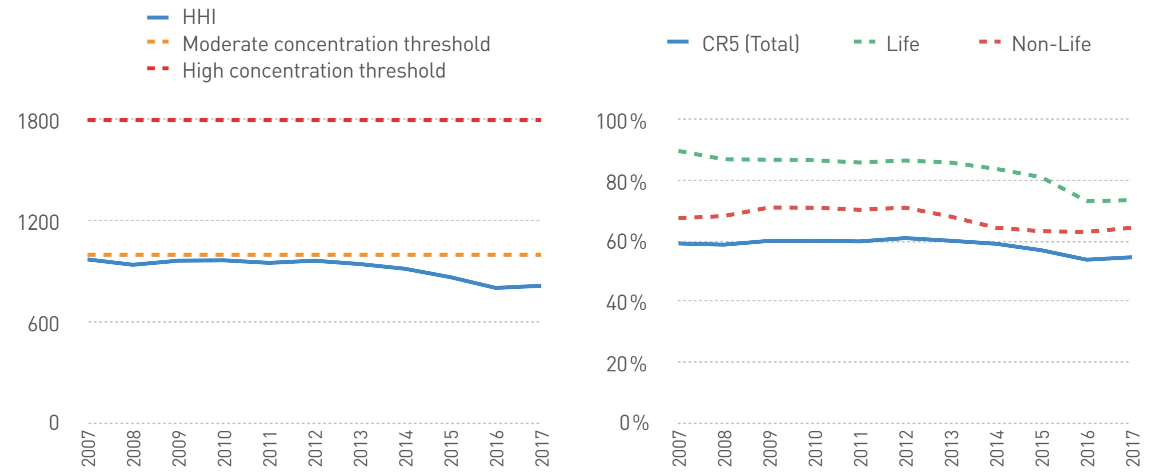
The market share of the top five insurers (CR5) represented 54.7% of total premiums in 2017, slightly up on the level of concentration reported in 2016 (53.9%). Interestingly, the Herfindahl index has remained practically in line with the theoretical threshold consistent with moderate levels of concentration in the insurance industry, diverging positively from this trend only from 2013 onward (see Chart 3.1.4-t).

Chart 3.1.4-s
El Salvador: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Chart 3.1.4-t
El Salvador: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



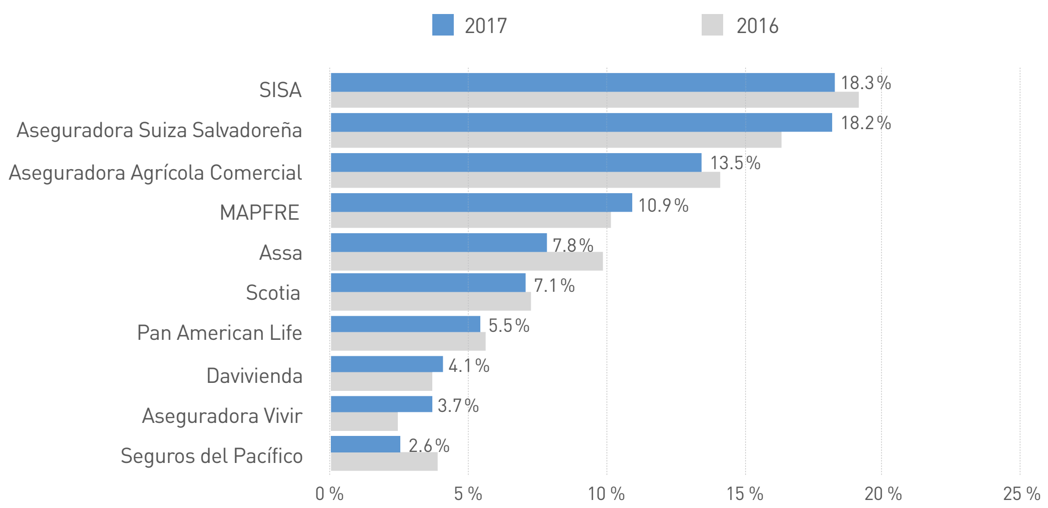
Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

In the overall ranking of insurance groups in 2017 (Chart 3.1.4-u), the top three spots are taken by the same insurance groups as in 2016. Seguros e Inversiones (SISA) takes top spot, with a market share of 18.3% (-0.8 pp), followed closely by Aseguradora Suiza Salvadoreña with 18.2% (gaining 2.1 pp following the success of its health and hospitalization insurance, group insurance and bancassurance) and by Aseguradora Agrícola Comercial (13.5%, which lost 0.6 pp of market share in 2017 when compared with the previous year).

Non-Life and Life rankings

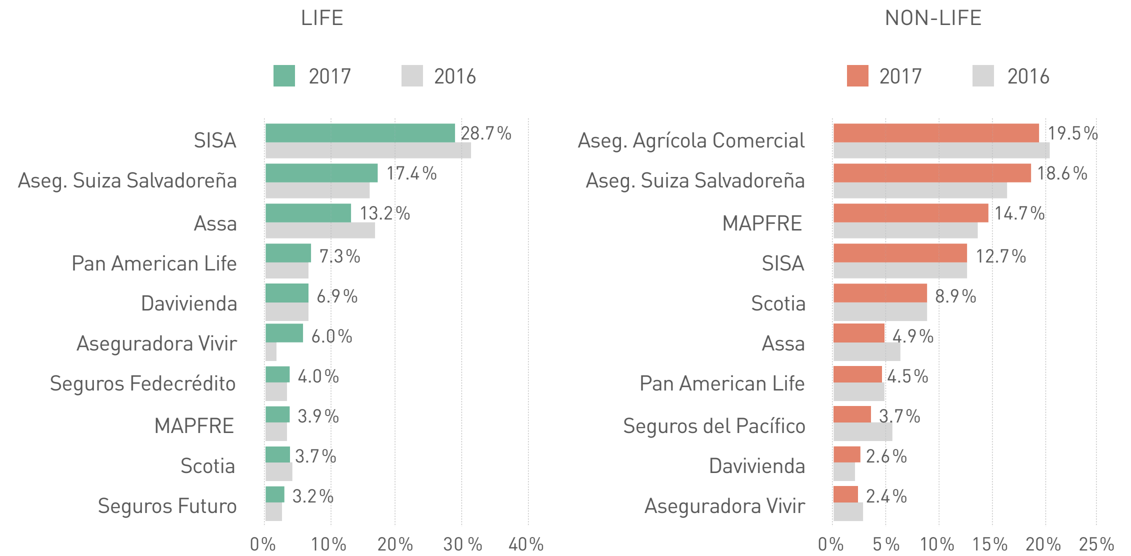
The top three spots in the Non-Life table for El Salvador were taken by Aseguradora Agrícola Comercial, with a share of 19.5%, followed by

Chart 3.1.4-u
El Salvador: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Chart 3.1.4-v
El Salvador: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

Aseguradora Suiza Salvadoreña with 18.6% and then MAPFRE, with a share of 14.7% (see Chart 3.1.4-v).

Moving to the ranking of insurance groups in the Life segment in the Salvadoran market, Seguros e Inversiones (SISA) tops the table with 28.7% of premiums. Meanwhile, Assa, with a market share of 13.2%, yields its second spot to Aseguradora Suiza Salvadoreña, with its 17.4% of the market (see Chart 3.1.4-v).

Key regulatory aspects

Key regulatory developments in the Salvadoran insurance market in 2017 and in the year to date include the following:

- In accordance with articles 14, 48, 68 and 98 of the Insurance Companies Act and article 35.5 of the Regulations further implementing that Act, the Governing Board of the Superintendency of the Financial System of El Salvador, at meeting no. CD-55/2017 held on December 14, 2017, approved a set of updates to the minimum amount of share capital of insurance firms and brokerages, as shown in Table 3.1.4-b. The new values took effect on January 1, 2018, giving non-compliant insurers until June 30 of that year in which to comply with the new minimum capital requirements.

Table 3.1.4-b
El Salvador: updated amounts of minimum share capital at insurance firms and brokerages
(USD)

Minimum share capital	Previous minimum	New values
General P&C	1,359,658	1,367,083
Personal insurance	960,883	966,130
Surety business	779,548	783,805
Reinsurance and counter guarantee companies	3,860,821	3,881,905
All insurance lines	2,320,032	2,332,702
Cooperatives	960,883	966,130
Minimum value for policy registration	9,866	9,920
Value for payment of mathematical reserves	7,832	7,875
Minimum amount of share capital for insurance brokerages	17,290	17,384

Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)

- On the subject of social protection, it should be noted that in September 2017 the government of El Salvador enacted legislative decree no. 7878, ushering in significant changes to the Law on the Pension Savings System. Among other changes, the technical rate of interest used to calculate the present value of pensions has been adjusted to reflect the historical rates of return obtained by pension funds, thus falling from 6% to 4% from January 1, 2018 onward. Another major development is the increase in the contributions employees pay to the pension savings system, which rise from 6.25% to 7.25%, while for employers the rate climbs from 6.75% to 7.75%.

3.1.5 Nicaragua

Macroeconomic environment

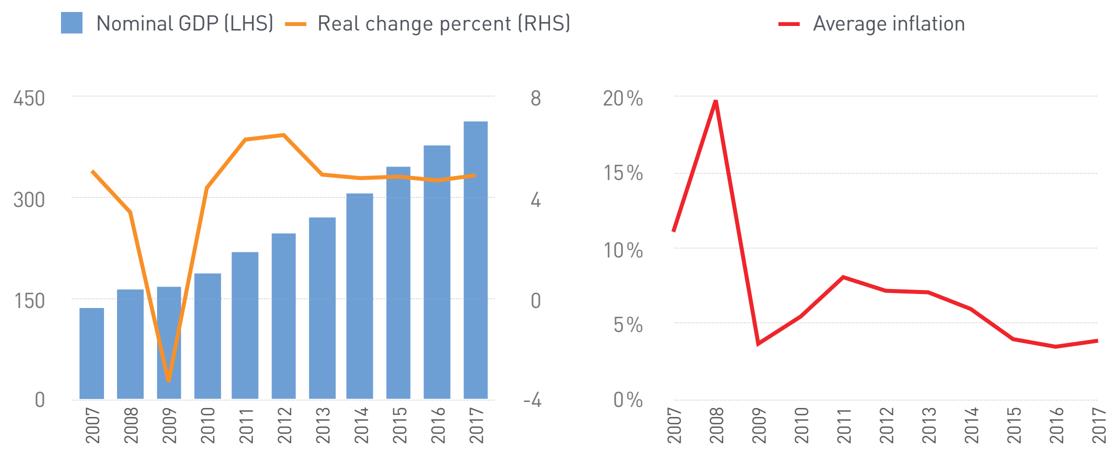
The Nicaraguan economy grew by 4.9% in real terms in 2017, down two tenths of a percentage point year on year (see Chart 3.1.5-a).

This growth was driven by an increase in agricultural production as the construction trade and the food industry gradually recover, coupled with stronger external demand alongside slower public consumption. Meanwhile, a lively exports sector and a reduction in import activity and the flow of family remittances helped the current account deficit improve to 5% at year-end 2017 (8.6% in 2016). The ratio of public debt to GDP stood at 46.8% at the end of 2017, with a fiscal deficit of 1.9% for the year as a whole.

Average inflation came to 3.9% in 2017, compared with 3.5% in 2016, largely a product of rising prices for oil and its derivatives. Meanwhile, the unemployment rate ended the year at 3.3%.

According to the ECLAC report just mentioned, Nicaragua is facing various challenges in the short to mid term when it comes to international funding, having endured a reduction in funds under its arrangement with Venezuela. It must also contend with the likely enactment by the US Congress of new law imposing restrictions on investment in Nicaragua (NICA Act), which would make it much harder for the Nicaraguan government to secure lending from multilateral bodies.

Chart 3.1.5-a
Nicaragua: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of cordobas; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

As we move through 2018, ECLAC estimates that the Nicaraguan economy will grow at around 5% on the back of exports from the agriculture and food sectors, as well as the existing inertia in the construction industry, which it is believed will counter the slowdown in both public and private consumption. For its part, the IMF estimates that the economy will post 4.7% growth in 2018.

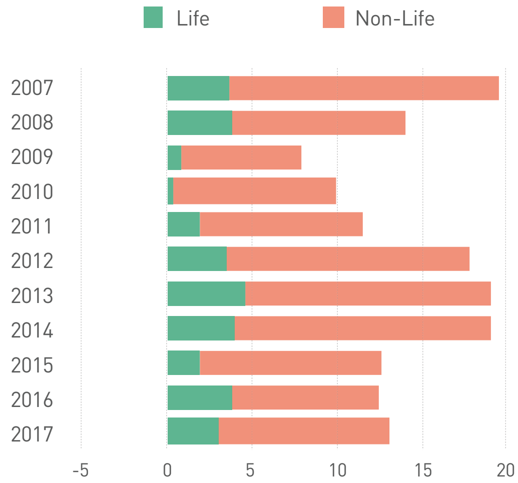
Insurance market

Growth

The Nicaraguan insurance market achieved premiums of 6.61 billion cordobas (220 million dollars) in 2017, revealing a nominal increase of 13.2% and real growth of 9% year on year (see Table 3.1.5). As can be seen in Chart 3.1.5-c, the Nicaraguan insurance market grew at a similar rate to 2016, though still well short of the growth reported in the three previous years (2012-2014).

If we zoom in on the different market segments, Life insurance accounted for 19.6% of total premiums and posted growth of 16.5% (4.8 pp less than in 2016) to reach 1.29 billion cordobas (43 million dollars). Meanwhile, Non-Life insurance premiums grew 12.4% (versus 10.6% in 2016) to reach 5.32 billion cordobas (177 million dollars). The two most important modalities, namely Automobile and Fire, posted nominal growth of 10.9% and 17.1%, respectively, with only Transport losing ground (-4.7%).

Chart 3.1.5-b
Nicaragua: contribution to insurance market growth, 2007-2017
(percentage points, pp)



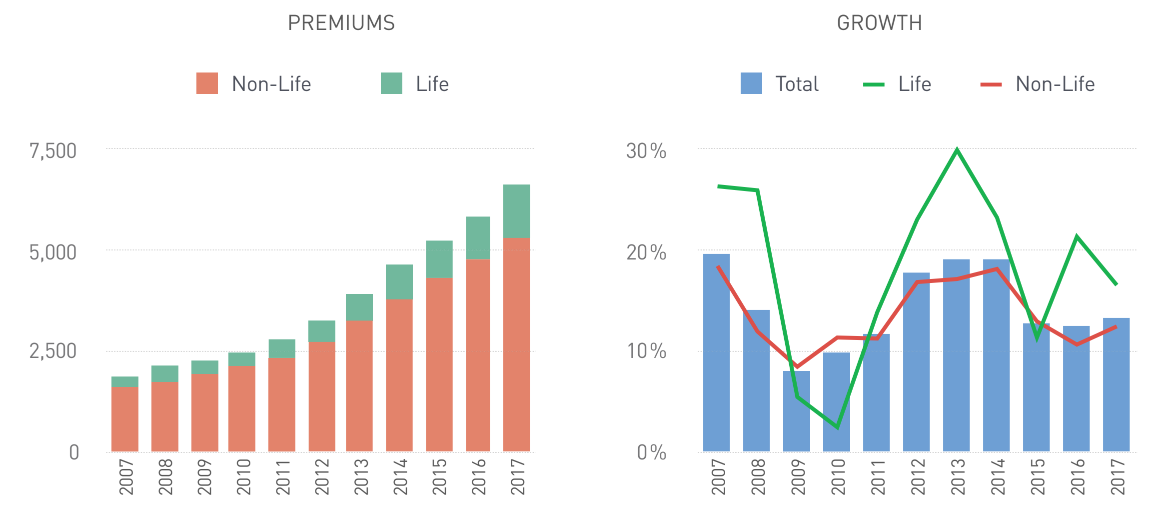
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Table 3.1.5
Nicaragua: premium volume[1] by line of business, 2017

Line of business	Millions of cordobas	Millions of USD	Increase Nominal (%)	Real (%)
Total	**6,618**	**220**	**13.2**	**9.0**
Life	**1,295**	**43**	**16.5**	**12.2**
Non-Life	**5,324**	**177**	**12.4**	**8.2**
Automobile	1,561	52	10.9	6.7
Fire and allied lines	1,625	54	17.1	12.8
Other lines	1,095	36	6.9	3.0
Health	446	15	14.6	10.4
Personal accident	210	7	25.6	21.0
Credit and/or surety	132	4	7.3	3.3
Transport	115	4	-4.7	-8.3
Third-party liability	141	5	19.1	14.7

Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)
1/ Premiums net of returns and cancellations

Chart 3.1.5-c
Nicaragua: growth developments in the insurance market, 2007-2017
(premiums, millions of cordobas; nominal annual growth rates, percent)



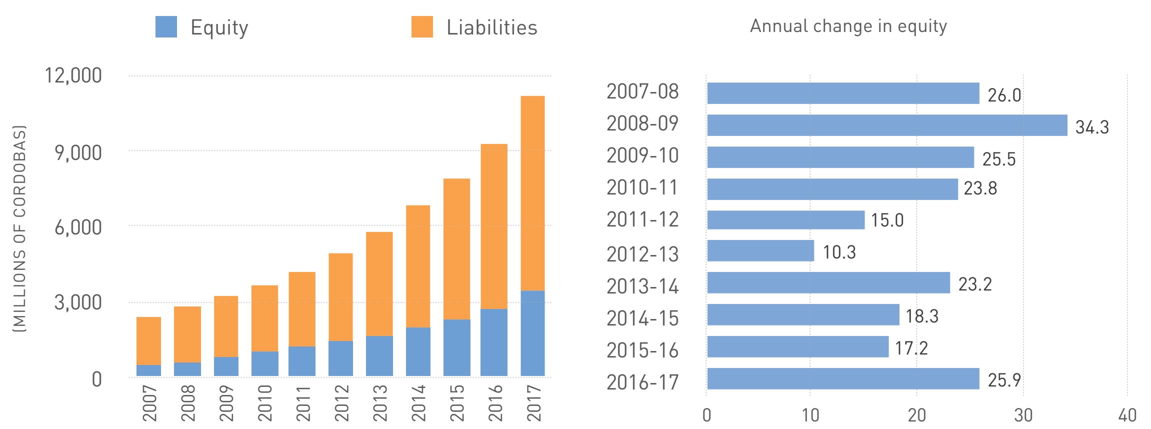
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

This mixed bag of results —with a recovery in Non-Life insurance coupled with a slowdown in Life— meant that the Life segment contributed only 3.2 percentage points to the overall 13.2% premium growth reported by the Nicaraguan insurance market. The remaining 10 percentage points came from growth in Non-Life insurance (see Chart 3.1.5-b).

Balance sheet and equity

Chart 3.1.5-d shows changes in the Nicaraguan insurance industry's aggregate balance sheet between 2007 and 2017. Total assets stood at 11.13 billion cordobas in 2017, while equity amounted to 3.44 billion cordobas (up 25.9% on 2016).

Chart 3.1.5-d
Nicaragua: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



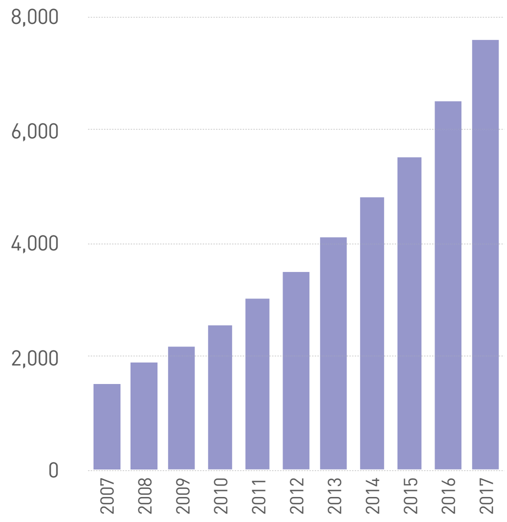
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Aggregate levels of capitalization within the Nicaraguan insurance industry have increased relative to total assets. Capitalization stood at 20.3% in 2007, rising gradually over the 2007-2017 period to reach 31.0% of total assets by the end of 2017.

Investment

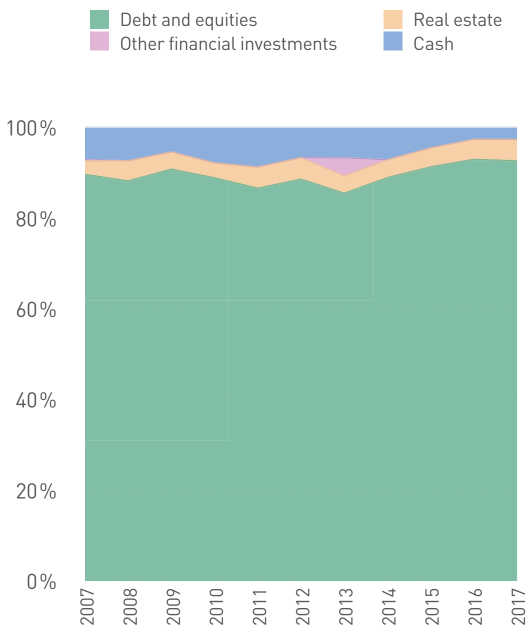
Chart 3.1.5-e shows developments in total investment, while Charts 3.1.5-f and 3.1.5-g provide a breakdown of the aggregate portfolio at sector level over the 2007-2017 period. As is plain to see, investment in 2017 totaled 7.59 billion cordobas (253 million dollars), mainly in debt instruments and equities (92.8%), with 2.6% invested in cash and the remaining 4.7% in real estate. Debt and equity instruments have traditionally accounted for the bulk of the insurance industry's investment portfolio over the last ten years.

Chart 3.1.5-e
Nicaragua: insurance market investment, 2007-2017
(millions of cordobas)



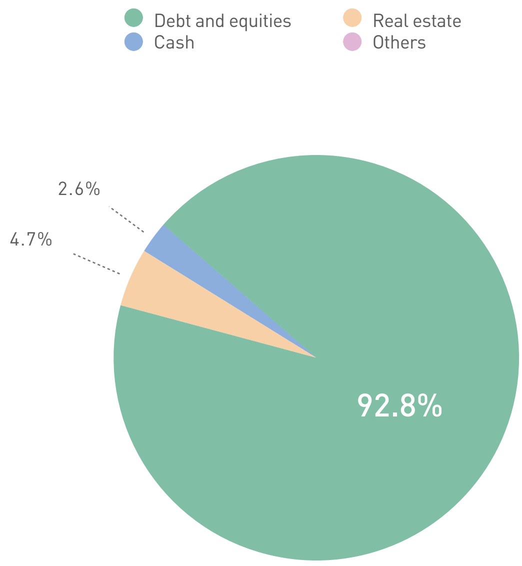
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-f
Nicaragua: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-g
Nicaragua: structure of investment, 2017
(%)



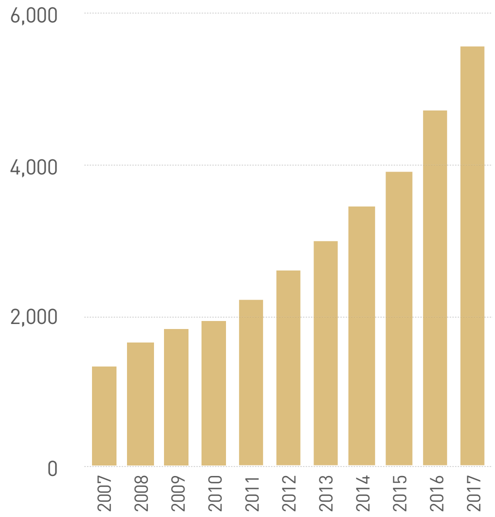
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Technical provisions

Charts 3.1.5-h, 3-1-5-i and 3.1.5-j show the evolution and relative composition of the Nicaraguan insurance industry's technical provisions over the period under analysis. In 2017, technical provisions amounted to 5.57 billion cordobas (186 million dollars). Of these total technical provisions, 18.7% related to Life insurance, 31.8% to provisions for unearned premiums and unexpired risks in Non-Life insurance, 31.8% to technical provision for outstanding benefits, 17.6% to provisions for catastrophic risks and 0.1% to other technical provisions.

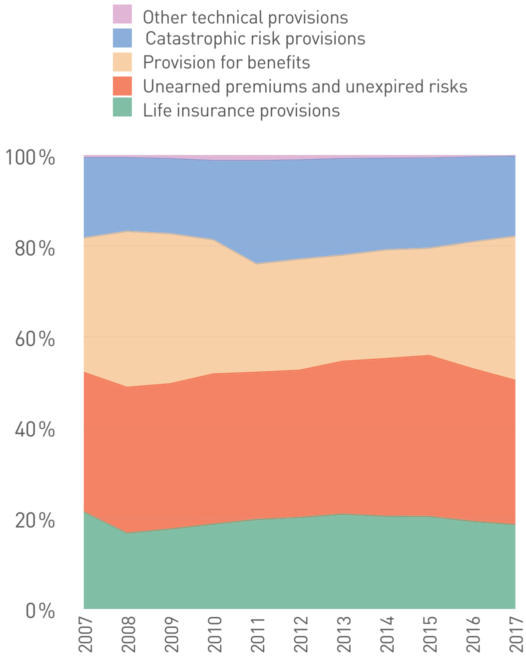
The volume of technical provisions has grown on a sustained basis in absolute terms between 2007 and 2017, both for Life and Non-Life insurance. The relative weightings remained stable over the entire time series. We would also highlight the significant percentage of provisions for catastrophic risks, which accounted for 17.6% of total provisions.

Chart 3.1.5-h
Nicaragua: insurance market technical provisions, 2007-2017
(millions of cordobas)



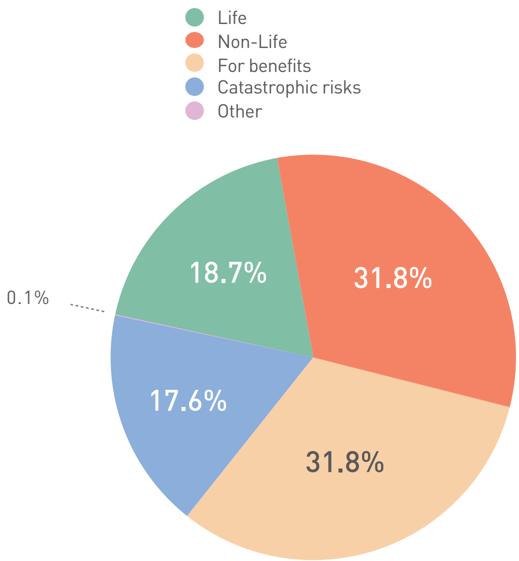
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-i
Nicaragua: structure of technical provisions, 2007-2017
(%)



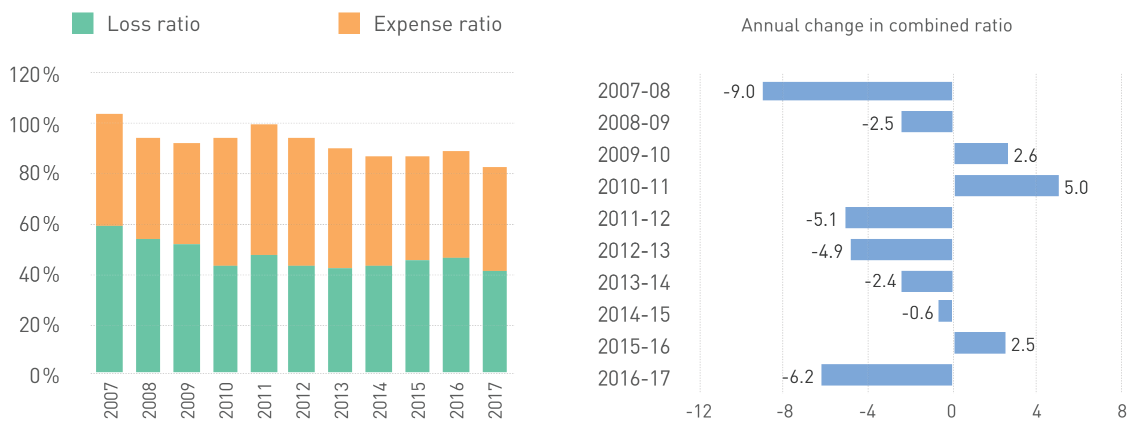
Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Gráfica 3.1.5-j
Nicaragua: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-k
Nicaragua: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

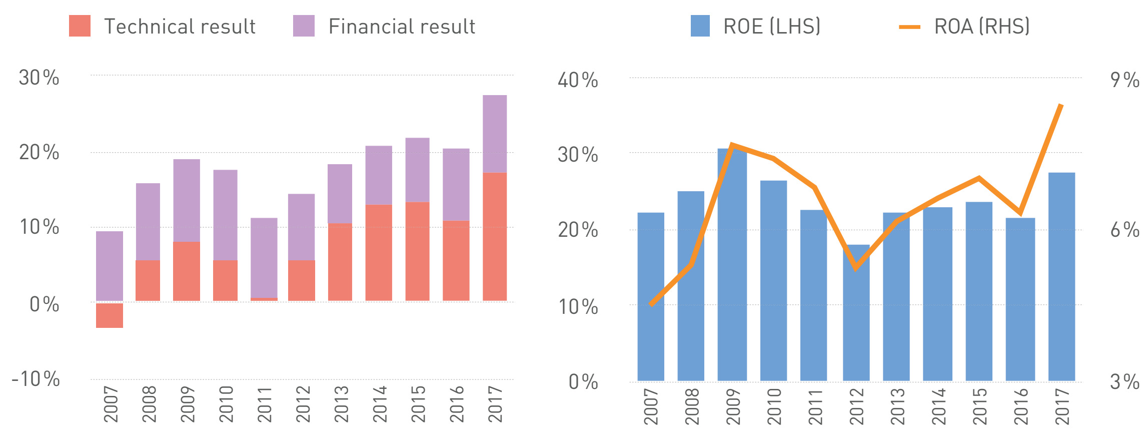
Technical performance

Chart 3.1.5-k shows the technical performance, or total combined ratio, of the Nicaraguan insurance industry between 2007 and 2017. As can be seen, the combined ratio improved by losing 6.2 percentage points in 2017 to reach 82.8%, largely due to a 5.2 percentage point reduction in the loss ratio to reach 41.7%. The expense ratio was also down, falling 1.05 percentage points to 41.1%.

Results and profitability

The Nicaraguan insurance industry posted a net result of 944 million cordobas (31 million dollars)

Chart 3.1.5-l
Nicaragua: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

in 2017, up 60.8% on the figure reported a year earlier, underpinned by a positive set of technical and financial results (see Chart 3.1.5-l).

Turning to profitability, the industry achieved a return on equity (ROE) of 27.4% in 2017, up 5.9 percentage points year on year. In similar fashion, return on assets (ROA) reached 8.4% in 2017, up 2.1 percentage points year on year. Broadly speaking, the profitability of the Nicaraguan insurance industry has steadily increased from 2013 onward in response to an improved technical performance starting that year.

Insurance penetration, density and depth

Chart 3.1.5-n shows the main structural trends shaping the development of the insurance industry in Nicaragua between 2007 and 2017. The penetration index (premiums/GDP) came to 1.6% in 2017, barely 0.3 percentage points above the level reported in 2007. As can be observed, the penetration index for the Nicaraguan insurance market stagnated until 2013, thereafter rising roughly in line with the penetration trend observed for the wider Latin American insurance market.

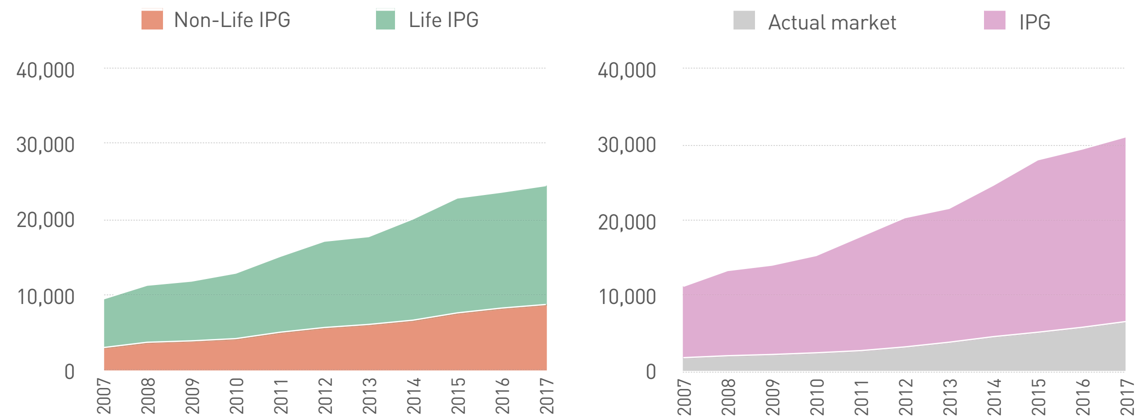
Meanwhile, insurance density in Nicaragua (premiums per capita) amounted to 1,064 cordobas (35 dollars), up 12% year on year (951 cordobas). In contrast to penetration, insurance density (measured in local currency) has followed an upward path, showing a cumulative increase of 220.6% between 2007 and 2017.

The depth (Life insurance premiums to total premiums) of the Nicaraguan insurance market came to 19.6% in 2017, 4.8 percentage points above the level reported in 2007. This is broadly in line with the overall trend across Latin American markets, albeit with significant variations in some years (2008 and 2013) due to growth in the Life insurance segment and at absolute levels still well below the average for the wider region (45.4% in 2017).

Estimation of the Insurance Protection Gap

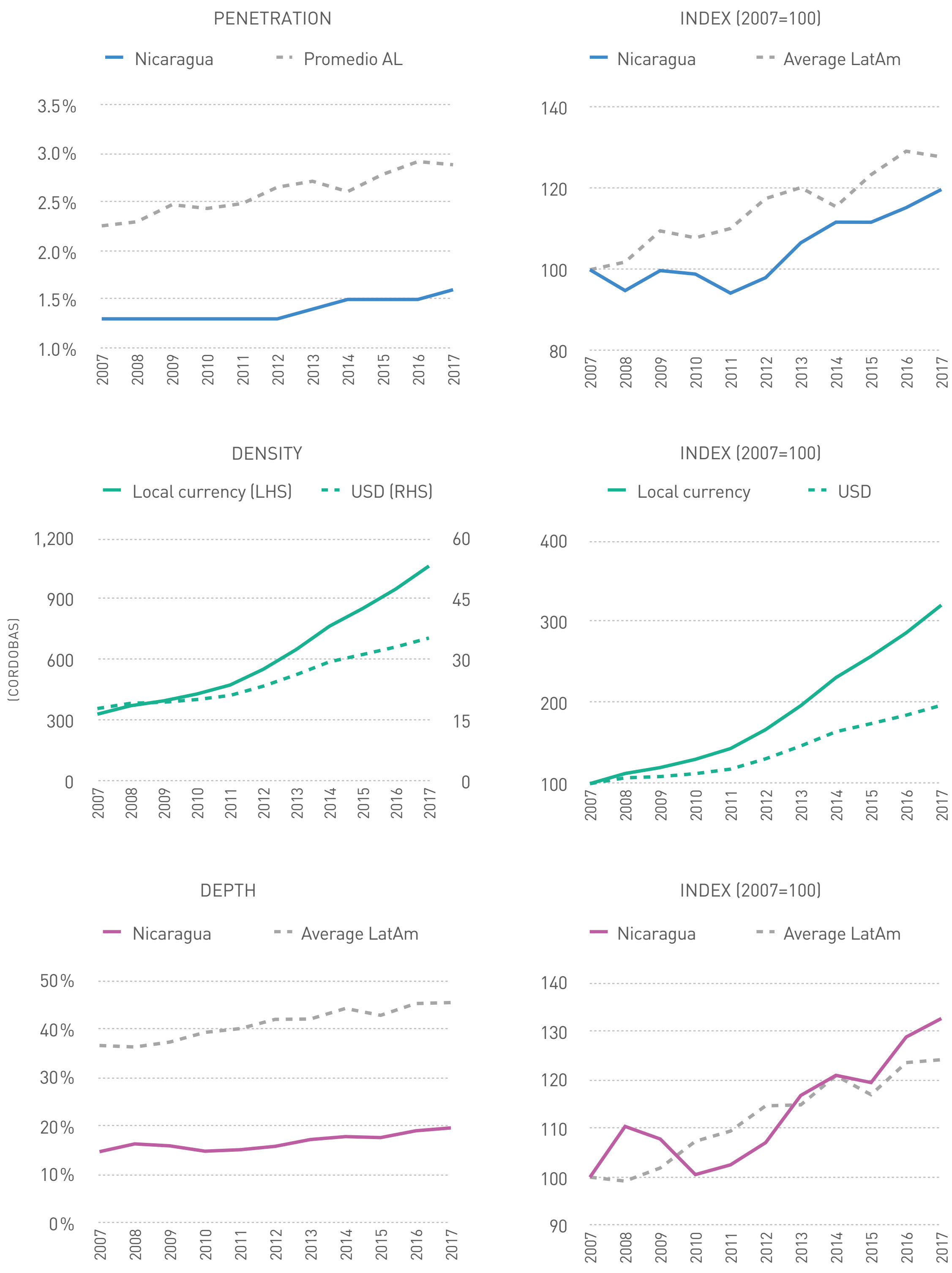
Chart 3.1.5-m provides an estimate of the IPG for the Nicaraguan insurance market between 2007 and 2017, revealing that the insurance gap stood at 24.45 billion cordobas (814 million dollars) in 2017, 3.7 times the size of the actual insurance market in Nicaragua at the end of that year.

Chart 3.1.5-m
Nicaragua: Insurance Protection Gap and potential market, 2007-2017
(millions of cordobas)



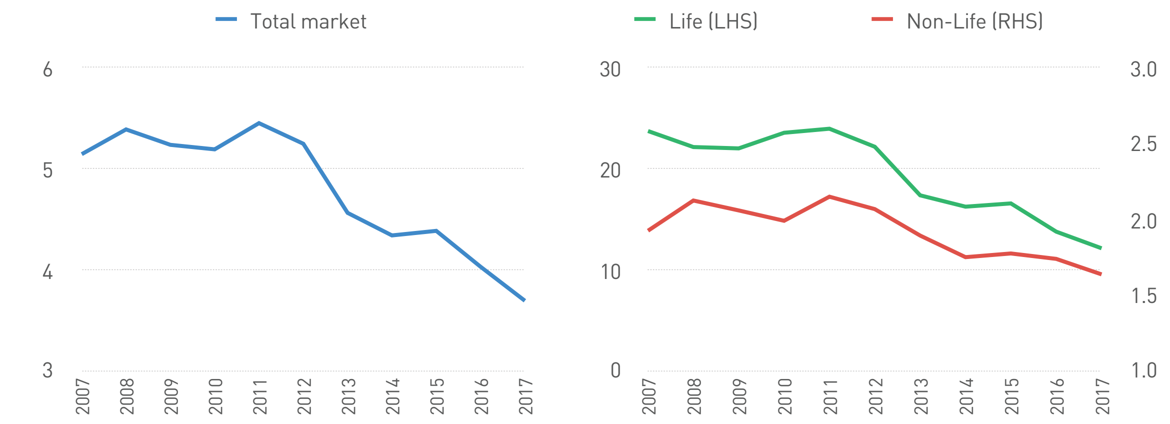
Source: MAPFRE Economic Research

Chart 3.1.5-n
Nicaragua: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, cordobas and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-o
Nicaragua: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



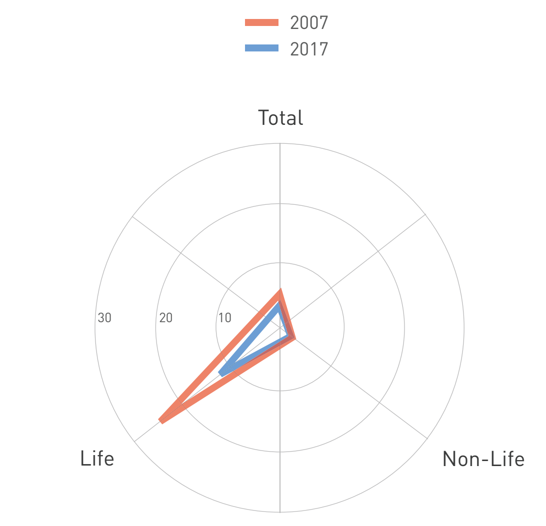
Source: MAPFRE Economic Research

As is the case for most Latin American insurance markets, the structure and performance of the IPG between 2007 and 2017 are shaped mainly by the Life insurance segment. Indeed, Life insurance accounted for 64% of the insurance gap at the end of 2017 (15.77 billion cordobas), 4 percentage points below the share for this segment in 2007. The remaining 36% of the gap is a product of the Non-Life insurance segment (8.71 billion cordobas). Therefore, the potential insurance market in Nicaragua at the close of 2017 (the sum of the actual insurance market plus the IPG) was estimated at 31.70 billion cordobas (1.03 billion dollars), 4.7 times the size of the total insurance market in that year.

Chart 3.1.5-o provides an estimate of the IPG as a multiple of the actual insurance market in Nicaragua. Its shows that as a multiple the IPG has continually declined between 2007 and 2017, both for the Life insurance segment (falling from 23.8 to 12.2 times) and Non-Life insurance (falling from 1.9 to 1.6 times).

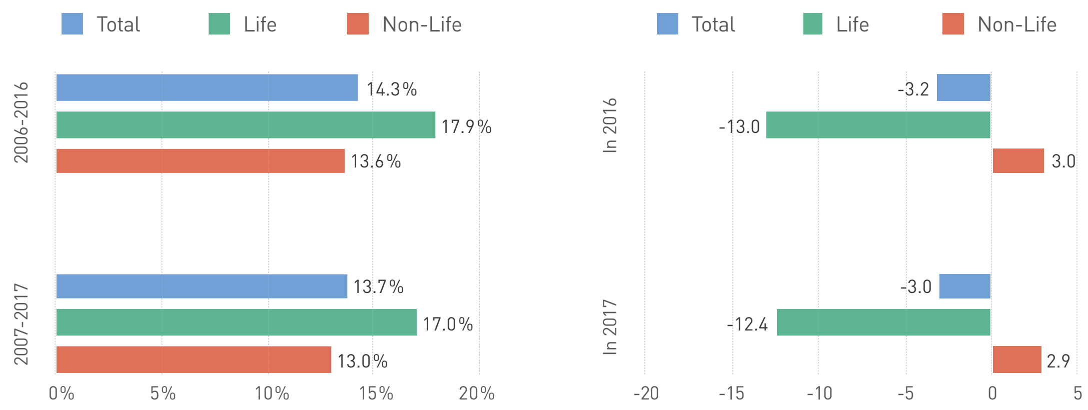
Chart 3.1.5-p summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total insurance market in Nicaragua over the last ten years, comparing the situation in 2017 with the state of the market in 2007. It reveals that only the Life insurance business has improved in terms of the IPG as a multiple of the actual market.

Chart 3.1.5-p
Nicaragua: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Chart 3.1.5-q
Nicaragua: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Lastly, Chart 3.1.5-q provides an overview of the capacity of the Nicaraguan insurance market to close the IPG, based on a comparison between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years. The analysis reveals that the Nicaraguan insurance market posted an average annual growth rate of 13.7%; the product of an annual growth rate of 17% in the Life insurance segment and of 13% in the Non-Life segment.

The analysis reveals that were the Nicaraguan insurance market to maintain, over the next ten years, the same rates of growth as seen over the last ten years, then market growth would effectively be enough to meet the objective (i.e. close the IPG) but only in the Non-Life insurance segment. For the Life segment, the observed growth rate would fall short by 12.4 percentage points. When compared with our 2016 analysis, however, one can observe a slight improvement in the Nicaraguan insurance market's capacity to seal the IPG.

Market Development Index (MDI)

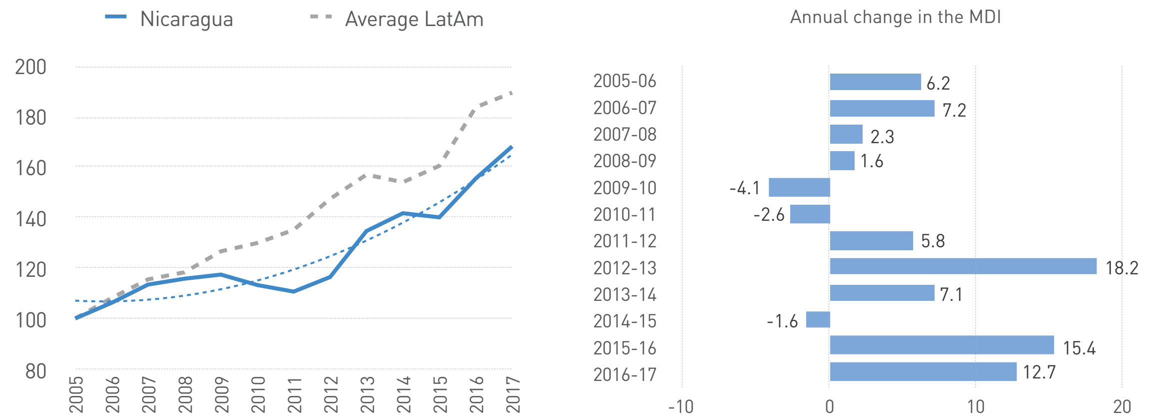
Chart 3.1.5-r provides an estimation of the Market Development Index (MDI) for the Nicaraguan insurance industry. In the case of Nicaragua, the MDI (which is used as an indicator of general patterns shaping the performance and maturity of the insurance market) performed positively between 2007 and 2017. As can be seen from the chart, the trend is broadly in line with the average of Latin American insurance markets, showing a deterioration in 2009-2012 followed by a resumption of the positive trend from that point onward. In 2017, it manages to recover some of the lost ground (with the indicator rising 12.7%) in respect of the average for Latin America (which climbed 5.7%).

Combined analysis of structural ratios

To round things off, Chart 3.1.5-s outlines the state of the Nicaraguan insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report.

As can be seen, the Nicaraguan insurance market falls short of the average for Latin America, especially when it comes to density and depth, although the market development indicator is closer to the average for the wider region.

Chart 3.1.5-r
Nicaragua: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Insurance market rankings

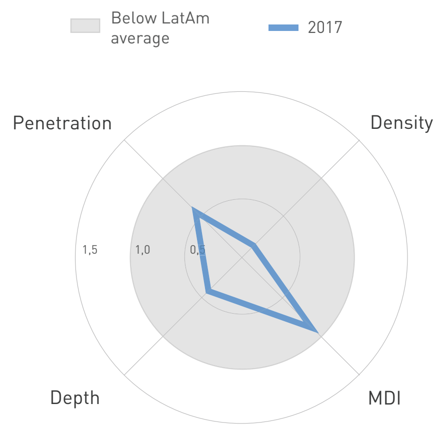
Overall ranking

In 2017, the Nicaraguan insurance industry was made up of only five insurance companies operating in the market. Over the last ten years there has been a mild trend toward a decrease in market concentration levels (see Chart 3.1.5-t).

Over the entire period from 2007 to 2017, the Herfindahl index has remained above the theoretical threshold associated with high levels of concentration. The same applies when looking at the CR3 index (the market concentration of the three biggest companies) for the Nicaraguan market. While showing a steady reduction in industry concentration levels over the period, concentration remains very high.

América topped the overall ranking of the Nicaraguan insurance market in 2017 with a market share of 30.3%. The following spots in the table were held by Lafise, with a share of 23.7%, and INISER, with 20.1%, both swapping positions in comparison with 2016 (see Chart 3.1.5-u).

Chart 3.1.5-s
Nicaragua: comparative analysis of structural ratios* vs. average for Latin America, 2017

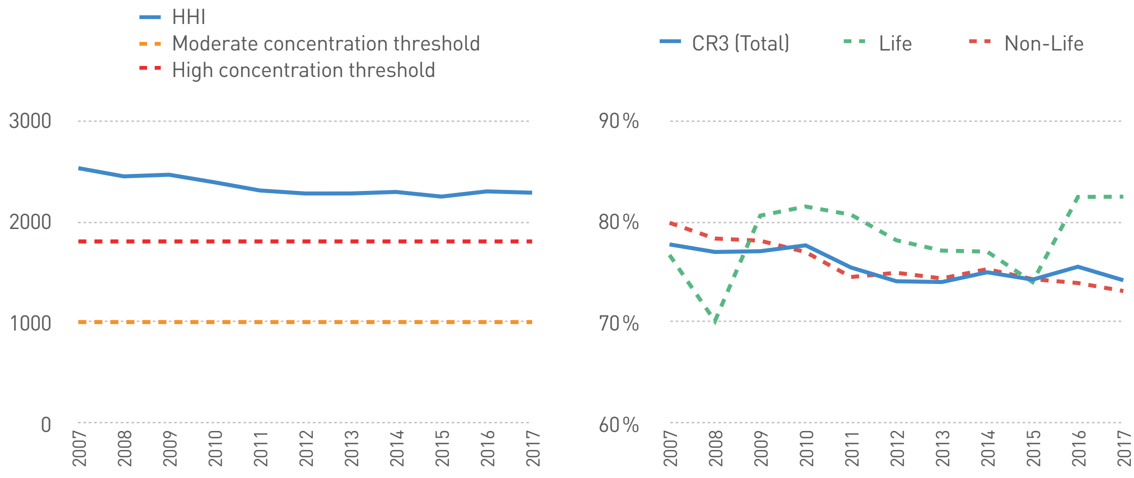


Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Non-Life and Life rankings

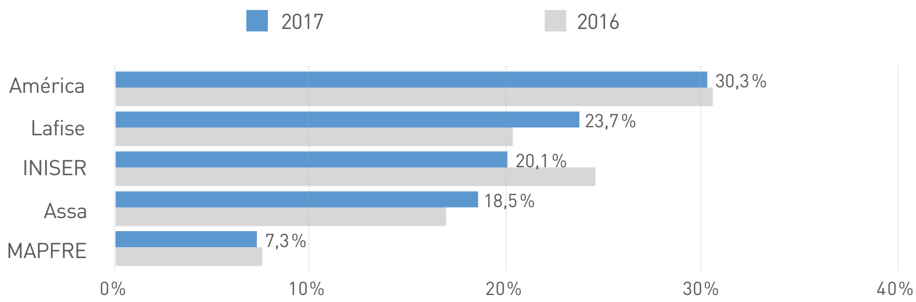
América was also the leader in the Non-Life insurance market with a share of 29.6%, while second and third places went to Lafise (23.9%), which overtook Assa, the latter now holding a 19.6% market share (see Chart 3.1.5-v).

Chart 3.1.5-t
Nicaragua: insurance industry concentration, 2007-2017
(Herfindahl index; CR3 index, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

Chart 3.1.5-u
Nicaragua: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

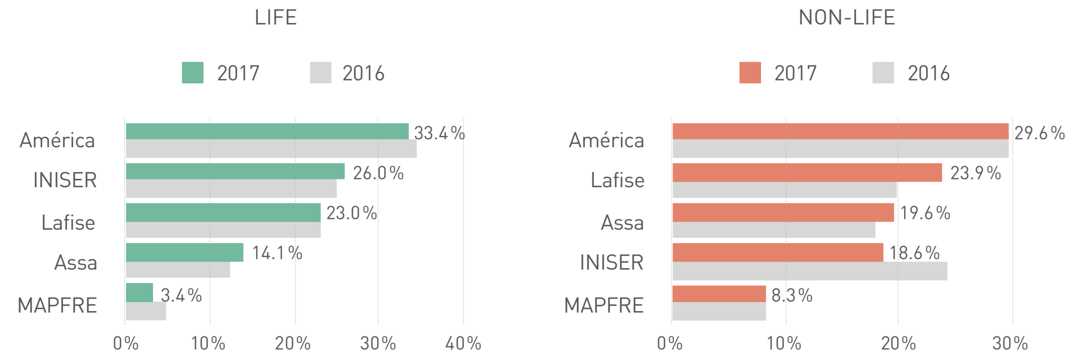
Meanwhile, the Life ranking in 2017 was unchanged year on year, with América once again topping the table with 33.4% of the market.

Key regulatory aspects

Key regulatory changes in 2017 within the Nicaraguan insurance market included the release of the following rules and regulations by the Superintendency of Banks and other Financial Institutions, which is tasked with supervising insurance activity in the country:

- Rules on the Marketing and Sale of Mass Insurance.
- Annex to the Rules on the Implementation of the Accounting Framework for Insurance, Reinsurance and Surety Companies.
- Rule amending Article 50 of the Regulations on the Management of Credit Risk.

Chart 3.1.5-v
Nicaragua: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)

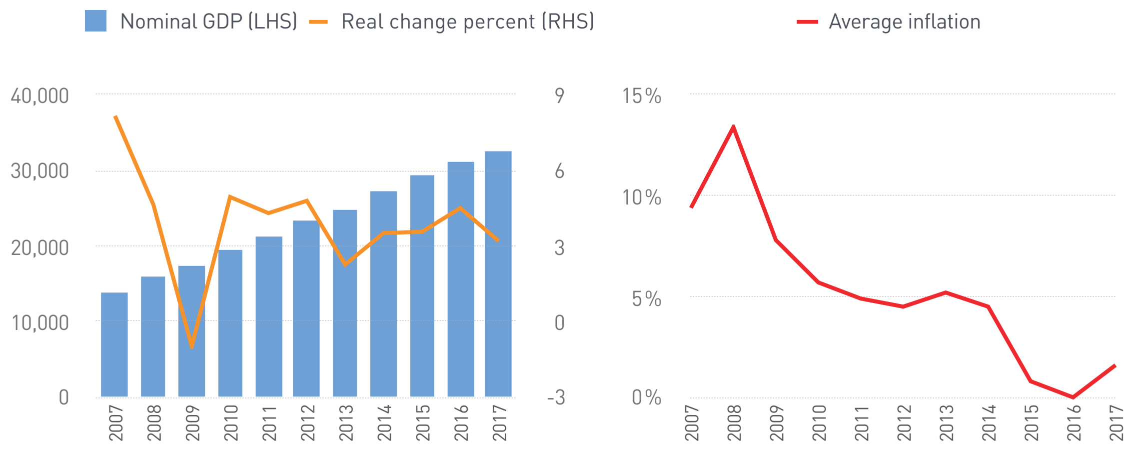
- Rule amending Article 33 of the Regulations on External Auditing.
- Rule amending Article 40 of the Regulations on Counter Terrorist Financing and on Counter Financing the Proliferation of Weapons of Mass Destruction.
- Rule amending Article 12 of the Regulations on the Authorization of Insurance Policies.
- Rule amending Article 6 of the Regulations on the Preprinting of Signatures in Contracts containing Financial Transactions.
- Rule amending Articles 5, 14, 23 and 27 of the Regulations on the Management of Credit Risk.
- Meanwhile, key regulatory developments and reforms in 2018 to date include the following:
- Rule on the Distribution of Profit at Insurance, Reinsurance and Surety Companies.
- Rule prescribing Special Terms and Conditions on the Renegotiation of Debt.
- Rule amending Article 7 and Annex B of the Regulations on Investment Limits for Insurance, Reinsurance and Surety Companies.
- Rule amending Articles 5, 6, 7, 11, 13, 19, 36, 37, 38, 39, 40, 41, 43 and 52 and Annex 3 of the Regulations on Reinsurance, Fronting and Co-insurance.
- Rule amending Article 7 of the Regulations prescribing Special Terms and Conditions on the Renegotiation of Debt.
- Rule amending Articles 1 and 3 of the Regulations prescribing Special Terms and Conditions on the Renegotiation of Debt.

3.1.6 Costa Rica

Macroeconomic environment

The Costa Rican economy grew by 3.2% in real terms in 2017, down on the 4.5% reported a year earlier. This slowdown was due to the impact of various adverse meteorological events, coupled with a downturn in private consumption and in exports of services. Growth was also hindered by the government's restrictive monetary policy, with interest rate hikes and pressures on the nation's exchange rate due to increased demand for dollars by the Costa Rican financial system (see Chart 3.1.6-a).

Chart 3.1.6-a
Costa Rica: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of colones; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

Meanwhile, the average inflation rate climbed to 1.6% in 2017 (versus 0% in 2016), below but at least heading toward the central bank's target of 3% (with a tolerance range of one percentage point either side). Public debt stood at 65% of GDP at year-end 2017. According to the provisional report released by ECLAC in February 2018, the fiscal deficit is estimated to be around 6% at the close of 2017, compared with 5.2% a year earlier. The current account deficit looks likely to be around 4% of GDP.

By economic sector, services —particularly professional services, business support and financial and insurance services— was the main outperformer, offsetting the heavy slump in the construction and agriculture sectors, which were impacted by a series of adverse climatological events. Average unemployment through to September 2017 stood at 9%, compared with 9.5% in the same period of 2016.

Looking ahead to 2018, ECLAC expects to see a slight pick-up in the Costa Rican economy, with real growth set to reach approximately 4%. Investment is also expected to be a more lively affair thanks to the ongoing efforts to repair the damage caused by the adverse climatological events of 2017. The IMF estimates that the economy will post 3.6% growth in 2018.

Insurance market

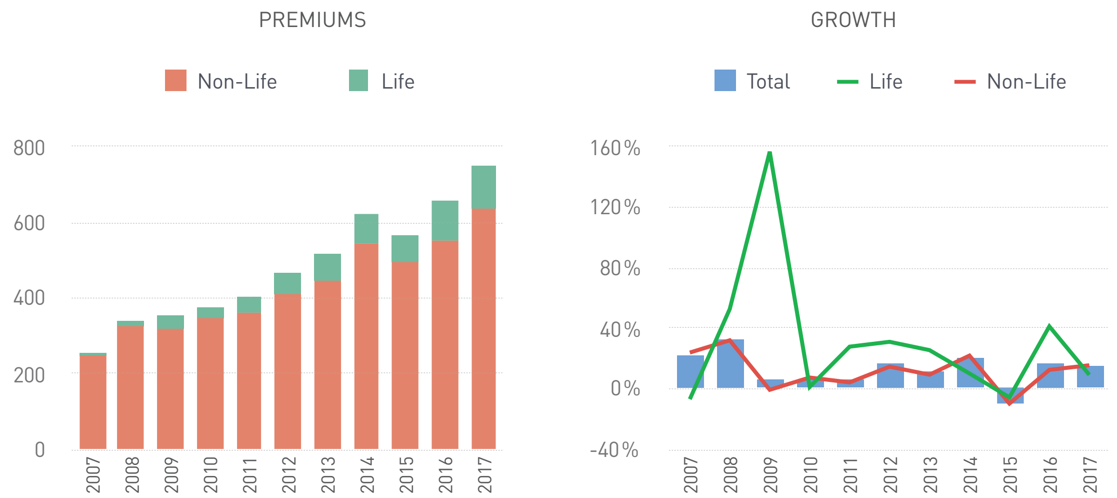
Growth

Premium volume in the Costa Rican insurance market climbed to 749.33 billion colones (1.31 billion dollars) in 2017, revealing nominal growth of 14.5% and real growth of 12.6% year on year (see Table 3.1.6 and Chart 3.1.6-b).

This growth contrasts with the sharp slowdown seen in 2015 (-9.4%), which coincided with a change in premium accounting criteria implemented in 2015 by Instituto Nacional de Seguros de Costa Rica (the insurance company with the largest market share) in order to bring its approach in line with current regulations. However, the changes make it more difficult to compare statistical data for 2015 onward with data for previous years, both in terms of revenue per premium and the balance sheet and income statements.

Chart 3.1.6-b shows that Life insurance premiums, which accounted for 14.8% of total premiums, grew by 9.1% in nominal terms in 2017 to reach 111.18 billion colones (196 million dollars), while Non-Life premiums were up 15.4% to 638.14 billion colones (1.12 billion dollars). All lines of insurance posted growth in 2017 apart from Agriculture and Livestock (-53.3%).

Chart 3.1.6-b
Costa Rica: growth developments in the insurance market, 2007-2017
(premiums, billions of colones; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

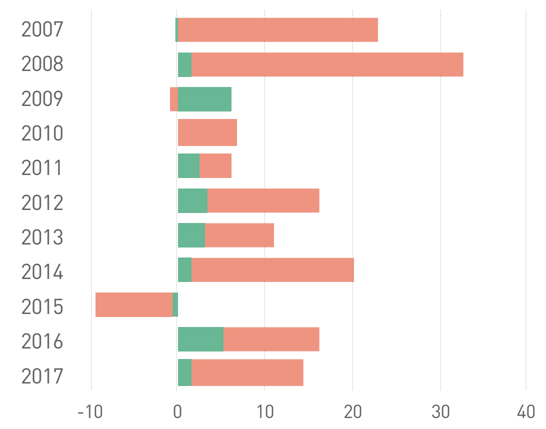
Table 3.1.6
Costa Rica: premium volume[1] by line of business, 2017

Line of business	Millions of colones	Millions of USD	Increase Nominal (%)	Increase Real (%)
Total	**749,330**	**1,318**	**14.5**	**12.6**
Life	**111,184**	**196**	**9.1**	**7.4**
Non-Life	**638,146**	**1,123**	**15.4**	**13.6**
Automobile	216,750	381	7.9	6.1
Fire and allied lines	86,894	153	6.2	4.5
Accident and health	101,308	178	17.0	15.1
Other lines	53,821	95	18.5	16.6
Transport	10,126	18	10.4	8.6
Third-party liability	15,973	28	55.6	53.1
Credit and surety	14,466	25	82.0	79.1
Agriculture and livestock	220	0	-53.3	-54.1
Workplace accidents	138,587	244	25.8	23.8

Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)
1/ Premiums net of returns and cancellations

As was the case in the years prior to 2016, Non-Life insurance made the biggest contribution to growth within the Costa Rican insurance industry. This segment accounted for 13.1 percentage points of the overall sector growth of 14.5% in 2017, meaning that Life insurance contributed only 1.4 percentage points to the total (see Chart 3.1.6-c).

Chart 3.1.6-c
Costa Rica: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Balance sheet and equity

Chart 3.1.6-d shows the aggregate balance sheet of the Costa Rican insurance industry over the 2010-20179 period. Total assets came to 2.26 trillion colons (3.98 billion dollars) in 2017, while equity for the year stood at 943.02 billion colones (1.65 billion dollars), up 10.3 percentage points year on year.

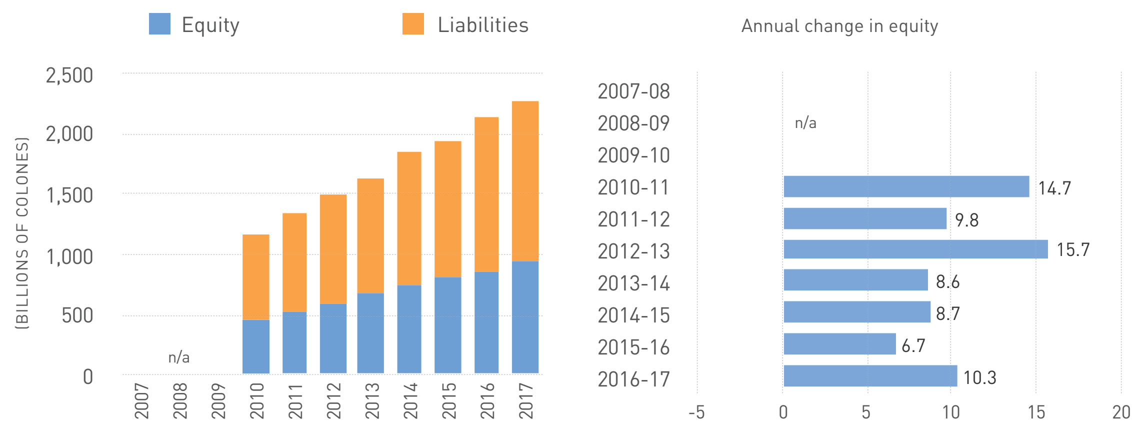
The Costa Rican insurance industry maintained capitalization levels (measured over total assets) of around 40% between 2011 and 2017, reaching 41.6% of total assets in 2017.

Investment

Chart 3.1.6-e shows developments in total investment by the Costa Rican insurance industry, while Charts 3.1.6-f and 3.1.6-g provide a breakdown of the aggregate investment portfolio at sector level of the insurance industry between 2011 and 2017. Investment totaled 1.64 trillion colones (2.89 billion dollars) in 2017, with 87.7% concentrated in financial instruments, 6.5% in cash and 5.8% in real estate.

There has been no substantial change in the structure of insurance industry investment

Chart 3.1.6-d
Costa Rica: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

between 2011 and 2017, with financial instruments remaining the main instrument ahead of cash and real estate investment.

Technical provisions

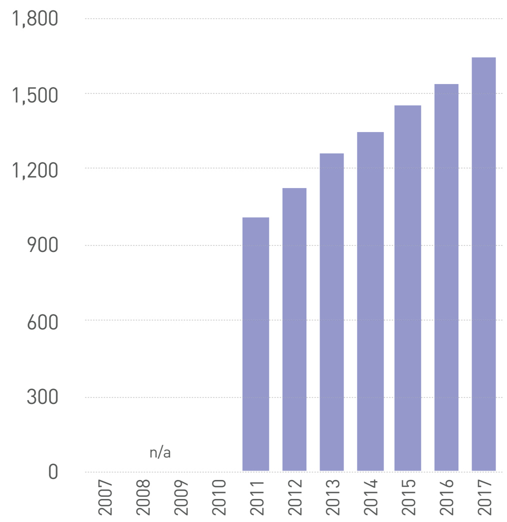
Chart 3.1.6-h shows the performance of technical provisions in the Costa Rican insurance industry between 2010 and 2017.

It shows that technical provisions amounted to 864 billion colones (1.52 billion dollars) in 2017, compared to 546 billion colones (960 million dollars) in 2010. Significantly, technical provisions within the Costa Rican insurance industry grew consistently over the 2010-2017 period in aggregate terms.

Technical performance

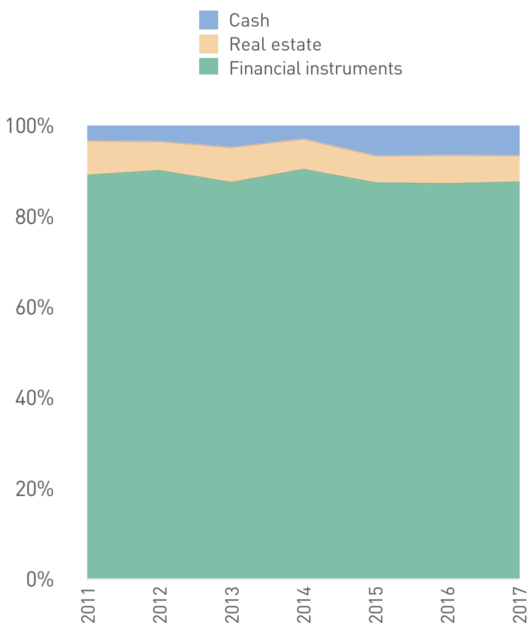
Graph 3.1.6-i shows the performance of the Costa Rican insurance industry between 2010 and 2017. During this period there was a marked increase in the loss ratio in 2014 and 2015. However, in 2017 the loss ratio fell 8.2 percentage points to 55.7% (63.9% in 2016). Meanwhile, the expense ratio

Chart 3.1.6-e
Costa Rica: insurance market investment, 2007-2017
(billions of colones)



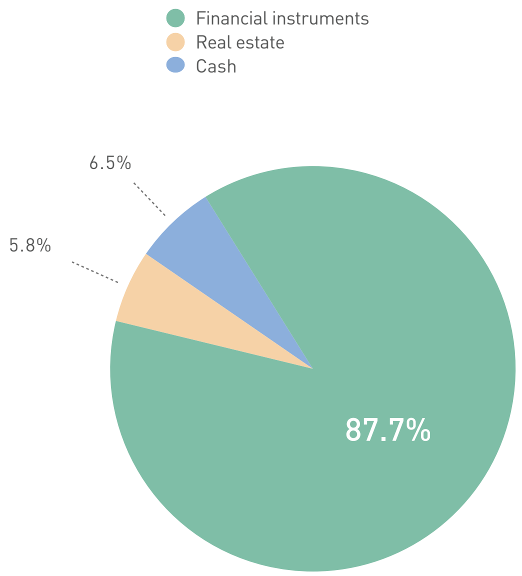
Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-f
Costa Rica: structure of investment, 2011-2017
(%)



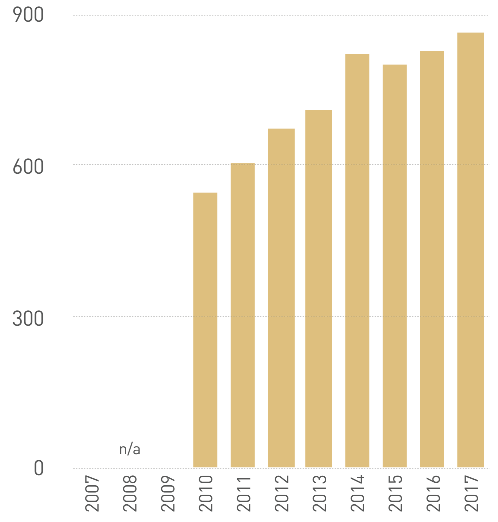
Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-g
Costa Rica: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-h
Costa Rica: technical provisions of the insurance market, 2007-2017
(billions of colones)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

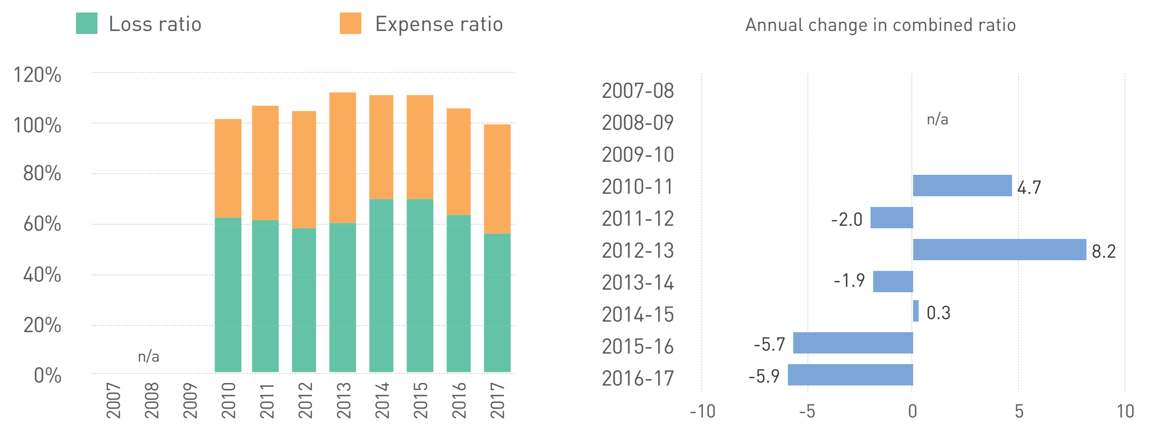
gained 2.3% to reach 43.8%. As a result, 2017 is the first year since the Costa Rican insurance market was opened up in which the combined ratio has not exceeded 100% and in which the technical result has been positive.

Results and profitability

The Costa Rican insurance industry posted a net result of 70.93 billion colones in 2017 (125 million dollars). Meanwhile, the financial result remained very strong at 17.0% of premiums and the technical result turned in a positive performance for the first time in 2017, reaching 0.5% of accrued premiums (see Chart 3.1.6-j).

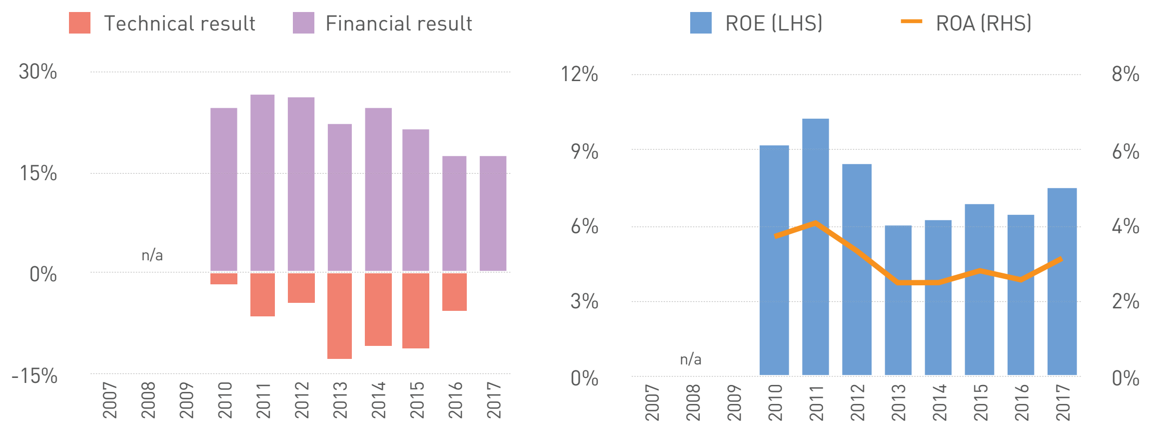
Turning to profitability, indicators have shown a growing trend since 2013. The industry achieved a return on equity (ROE) of 7.5% in 2017, up 1.1 percentage points year on year. The same applies to return on assets (ROA), which reached 3.1% in 2017, showing a year-on-year increase of 0.6 percentage points.

Chart 3.1.6-i
Costa Rica: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-j
Costa Rica: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Fuente: Servicio de Estudios de MAPFRE (con datos de la Superintendencia General de Seguros)

Insurance penetration, density and depth

Chart 3.1.6-k shows the main structural trends shaping the development of the Costa Rican insurance industry between 2007 and 2017. The penetration index (premiums/GDP) stood at 2.3% in 2017, showing an increase of 0.5 percentage points over the last ten years and up also on the figure reported in 2016. The penetration index for the Costa Rican has followed an upward path over the period, though proving to be somewhat less dynamic than the average for all Latin American insurance markets and falling short of the average absolute penetration across all of Latin America. However, this pattern appears to have changed direction over the last two years and penetration now looks to be heading toward the average value for the wider region.

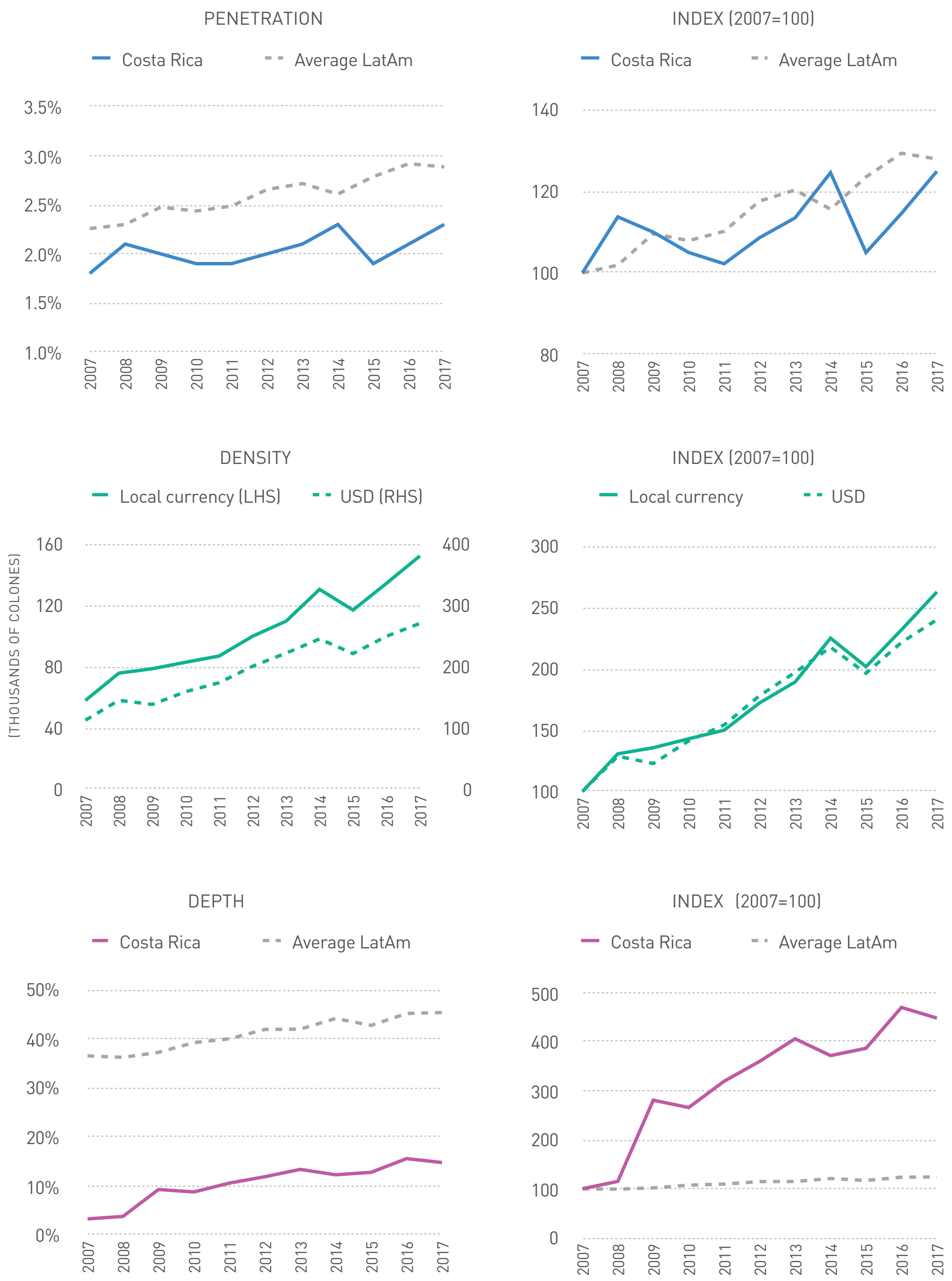
Meanwhile, insurance density in Costa Rica (premiums per capita) amounted to 152,377 colones (268 dollars), up 13.3% on 2016 (134,443 colones). The density of the Costa Rican market (measured in local currency) has generally been on an upward path between 2007 and 2017, with the exception of a 9.4% dip in market premium volume in 2015, essentially resulting from the changes in the accounting treatment of premiums, as discussed previously in this section of the report.

Depth (Life insurance premiums to total premiums) stood at 14.8% in 2017, 0.7 percentage points below the level reported in 2007. Depth has grown over the entire period under analysis, despite remaining consistently below the absolute values for the average of all Latin American countries.

Estimation of the Insurance Protection Gap

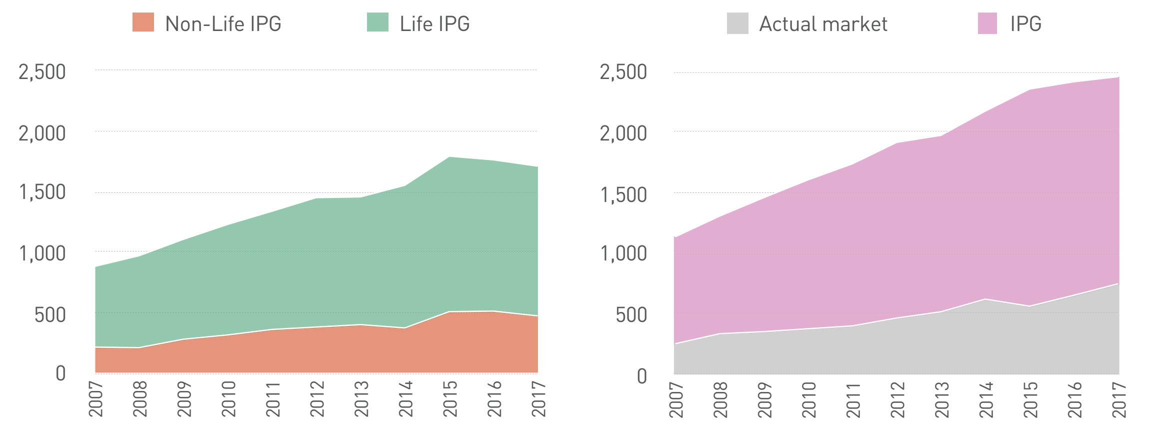
Chart 3.1.6-l provides an estimate of the IPG for the Costa Rican insurance market between 2007 and 2017. The insurance gap in Costa Rica stood at 1.71 trillion colons in 2017 (3.01 billion dollars). The structure and performance of the IPG between 2007 and 2017 are shaped mainly by the Life insurance segment. At the end of 2017, Life insurance accounted for 72.3% of the IPG

Chart 3.1.6-k
Costa Rica: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, colones and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-l
Costa Rica: Insurance Protection Gap and potential market, 2007-2017
(billions of colones)



Source: MAPFRE Economic Research

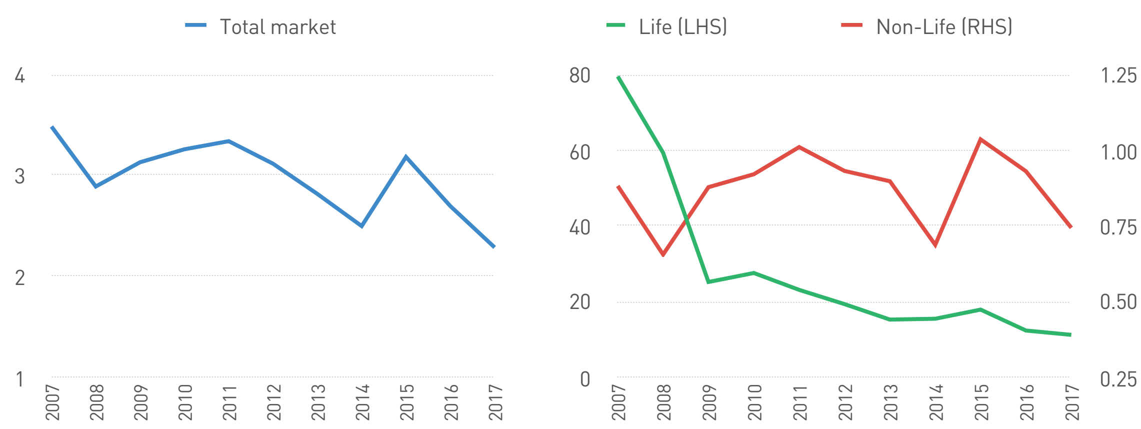
(1.23 trillion colones), albeit 3.2 percentage points down on the contribution made by the Life segment in 2007. The remaining 27.7% of the IPG is a product of the Non-Life insurance segment (474.21 billion colones).

Accordingly, the potential insurance market in Costa Rica at the end of 2017 (calculated as the sum of the actual market plus the insurance gap) came to an estimated 2.46 trillion colones (4.33 billion dollars), equivalent to 3.3 times the total insurance market in Costa Rica in 2017, compared to 3.7 times in 2016.

Meanwhile, Chart 3.1.6-m provides an estimate of the IPG as a multiple of the actual market in Costa Rica between 2007 and 2017.

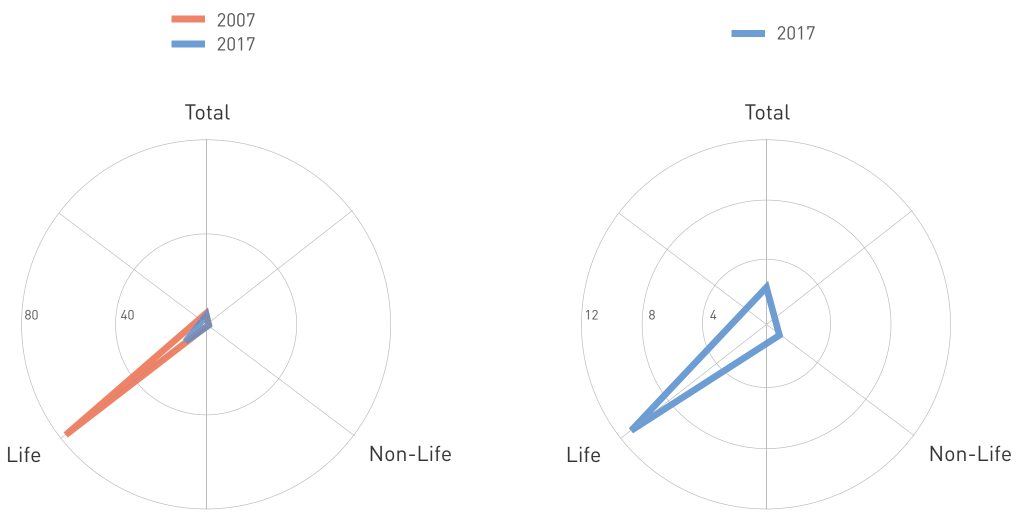
The gap, measured as a multiple of the actual market, has remained stable over time for the Non-Life insurance segment (at around 1), while the IPG for the Life insurance segment has declined over the period under analysis (falling from 79.5 to 11.1 times the actual market).

Chart 3.1.6-m
Costa Rica: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.1.6-n
Costa Rica: the IPG as a multiple of the actual market, 2007 and 2017

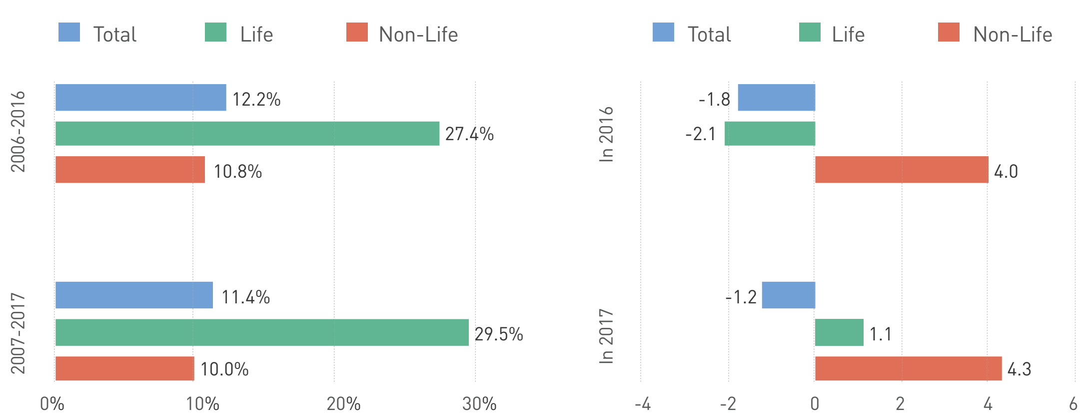


Source: MAPFRE Economic Research

Chart 3.1.6-n summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total insurance market in Costa Rica over the last ten years, comparing the situation in 2017 with the state of the market in 2007. It clearly shows that the Life segment has seen the biggest improvement in the gap.

Last but not least, Chart 3.1.6-o outlines the capacity of Costa Rica's insurance market to close the insurance gap. As mentioned previously, this is based on a comparison between the growth rates observed over the last ten years and the growth rates that would be required in order to

Chart 3.1.6-o
Costa Rica: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

close the IPG set for 2017 over the coming ten years.

Our analysis reveals that the Costa Rican insurance market posted an average annual growth rate of 11.4% over the period under analysis; the product of an annual growth rate of 29.5% in the Life insurance segment and of 10% in the Non-Life segment. Were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Costa Rican insurance market would be sufficient to close the IPG for both the Life segment (surplus of 4.3 pp) and the Non-Life segment (surplus of 1.1 pp).

Market Development Index (MDI)

Chart 3.1.6-p provides an estimate of the Market Development Index (MDI) for the Costa Rican insurance industry. As discussed previously, the MDI is used in this report as an indicator of general trends shaping the performance and maturity of the insurance markets. In the particular case of the Costa Rican insurance industry, the MDI has shown a positive trend over the period under analysis. However, it is important to note that this trend may be overestimated due to the rapid growth in the Life insurance market, which started from a very small base in 2005. Therefore, Chart 3.1.6-p also shows an adjusted MDI in order to eliminate this overestimation and thus provide a more reliable picture of the underlying trend in market performance. After making this adjustment, the Costa Rican insurance market has clearly developed in line with the average level seen across all markets in the region.

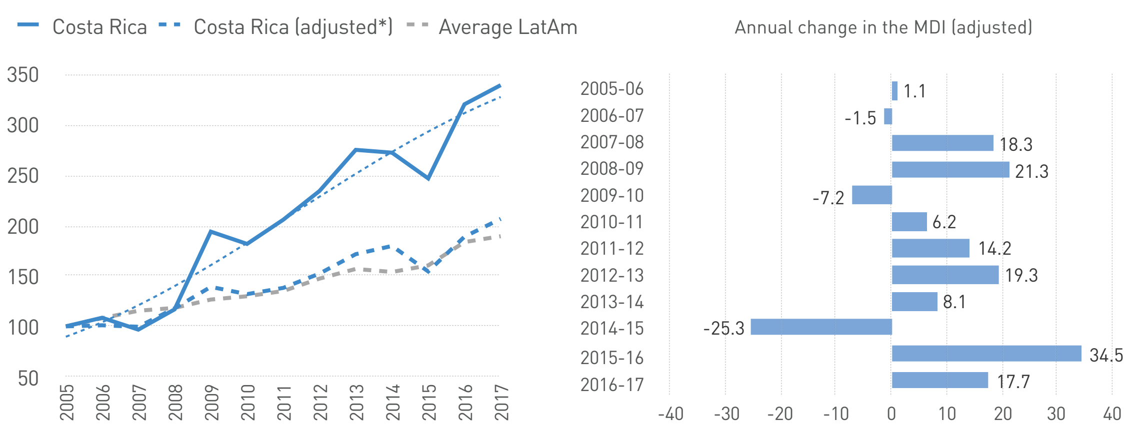
Combined analysis of structural ratios

To round things off, Chart 3.1.6-q outlines the state of the Costa Rican insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report.

As can be seen, the market falls short of the average for Latin America when it comes to penetration and especially depth, but not in the case of density and market development, which are actually slightly above the regional average.

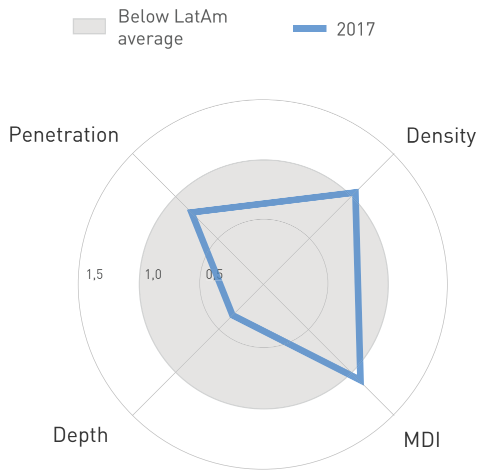
This comparison reveals the relatively poor level of development of the Life segment within the

Chart 3.1.6-p
Costa Rica: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research
* Adjusted accordingly to eliminate the overestimate as to the speed at which the Life BPS will close

Chart 3.1.6-q
Costa Rica: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Costa Rican market when compared with the wider region, while also showing the growth potential of this segment of the country's insurance industry.

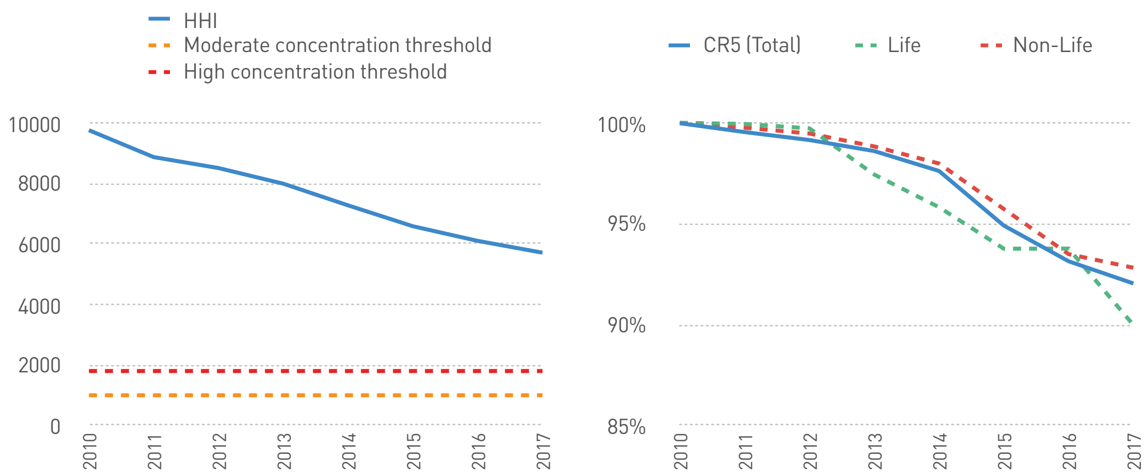
Insurance market rankings

Overall ranking

In 2017, there were 13 insurance companies operating in Costa Rica, the same as in 2016. The market, which was opened up to competition only as far back as 2008, remains highly concentrated, with a single company (Instituto Nacional de Seguros, or INS for short) accounting for the bulk of all premiums. Chart 3.1.6-r shows the Herfindahl and CR5 indexes for the Costa Rican insurance industry. As can be seen, levels of concentration are well above the theoretical threshold associated with a high degree of market concentration, although concentration levels are steadily decreasing. In the mid-term, this pattern could lead to more competition within the insurance market.

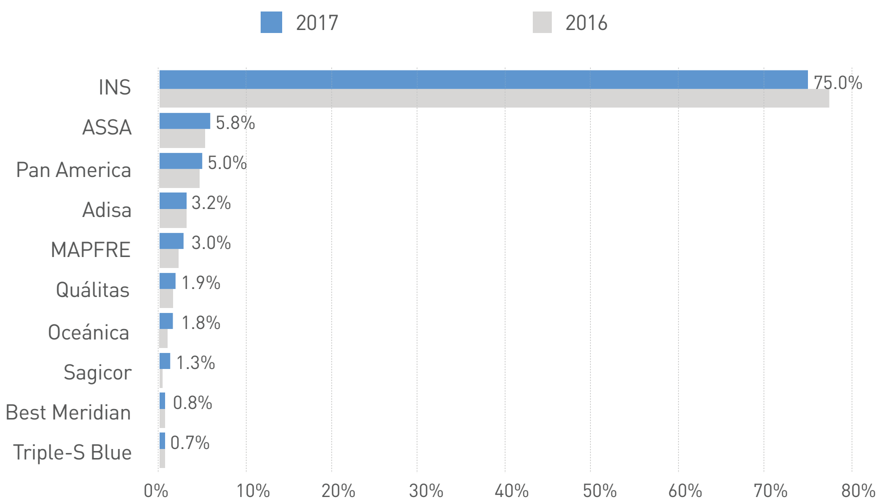
The top five insurance groups in 2017 were the same as in 2016, with only a few changes in relative positions. As shown in Chart 3.1.6-s, topping the table we have INS, with a 75% market share, followed in the far distance by ASSA (5.8%), Pan American (5%), Adisa (3.2%) and MAPFRE (3%).

Chart 3.1.6-r
Costa Rica: insurance industry concentration, 2010-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Chart 3.1.6-s
Costa Rica: overall ranking, 2016-2017
(market shares, percent)

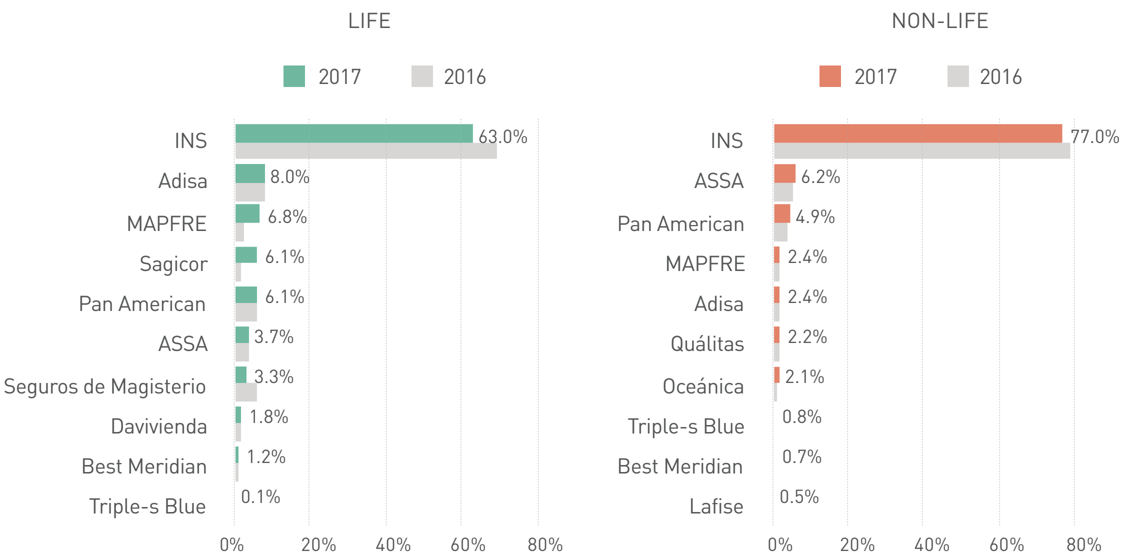


Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Non-Life and Life rankings

INS also leads the Non-Life ranking with a market share of 77.0% (see Chart 3.1.6-t). Trailing a long way behind we have ASSA (6.2%), followed by Pan American (4.9%), and MAPFRE (2.4%). INS is also the leading insurance company in the Costa Rican Life market, with a market share of 63%, followed by ADISA (8%), which moves up from third to second spot in the table, and MAPFRE (6.8%).

Chart 3.1.6-t
Costa Rica: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

Key regulatory aspects

In 2016 the General Superintendency of Insurance of Costa Rica (SUGESE) focused its efforts on developing and pushing through a risk-based supervision model. This process culminated with the enactment in 2017 of rules to ensure legal certainty when applying the model within the insurance industry.

For the 2014-2018 horizon, the Superintendency's Strategic Plan envisions a Solvency II-type framework in place within the country. To achieve this, it aims to overhaul existing regulations on capital adequacy and provisions starting in 2018. A number of additional actions have also been planned to address specific key risks to the Costa Rican market, such as catastrophic risks and the risks associated with surety insurance.

With these objectives firmly in mind, the National Supervisory Council for the Financial System approved the following regulations in 2017:

- SUGESE 09-17 Regulation on Risk Management and Internal Control Systems of May 19, 2017: the rule lays out the principles that insurers must observe when designing their risk management system and implementing control functions. It also defines the supervisor's expectations as regards the role the governing body and senior management should play when setting up an effective risk management system.

- These provisions complement the corporate governance framework approved by the National Supervisory Council for the Financial System in December 2016, which is to be applied across the entire financial system and addresses specific matters of interest when it comes to the supervision of insurance companies, including the actuarial function.

- SUGESE 10-17 Integrated Framework for Insurance Supervision of May 19, 2017: the regulation sheds light on the methodology used by the Superintendency when building the risk matrix employed in the Risk-Based Supervision (RBS) model, thus making it more transparent. It also establishes a set of actions to be undertaken by the supervisor in response to the risk level determined to exist at insurers and reinsurers, within the context of a flexible framework that allows the supervisor to apply preventive measures, regardless of the rating assigned to the company.

- SUGESE 02-13 Regulation on Solvency at Insurance and Reinsurance Companies. Amendment of October 3, 2017: revised treatment of catastrophic risk associated with earthquakes and volcanic eruptions under the solvency framework. The amendment envisions a technical provision for catastrophic events, comprising part of the risk premium for covering the risk of earthquake and volcanic eruption. It also modifies the capital requirement for that risk, which is now to be determined on the basis of the location and type of insured asset, while also factoring in the terms of the reinsurance arrangement in respect of the portion of those risks that is assigned.

- SUGESE 08-14 Regulation on Product Registration. Amendment of October 3, 2017: the reform makes changes to the minimum content of the contractual and technical documentation on products offering coverage of earthquakes and volcanic eruption, enabling the new solvency regulations for those risks to apply, particularly the reporting requirements when arranging such coverage. The amendment also requires companies to include, in the general terms and conditions of products covering catastrophic events, a specific procedure for responding to claims in situations of national emergency.

- Work is continuing in 2018 on reform processes relating to: a) amendments to capital requirements for surety insurance, specifically for determining the technical provisions and capital requirements for that type of insurance; b) updates to accounting regulations to bring them in line with the latest International Financial Reporting Standards (IFRS), which are to take effect from 2020 onward across the entire Costa Rican financial system.

This reform includes a mechanism to ensure full adoption of the standards as per the timelines prescribed by international bodies with next to no exception; and c) review of the regulations to govern the insurance industry in order to promote the marketing and sale of self-issue insurance10 so as to encourage and stimulate inclusion.

Last but not least, and as part of the process of Costa Rica's adherence to the Organization for Economic Cooperation and Development (OECD), a number of regulatory reforms have been proposed in relation to the action plan for the insurance industry. These reforms should help improve compliance with the organization's codes of liberalization while stimulating competition within the sector.

3.1.7 Panama

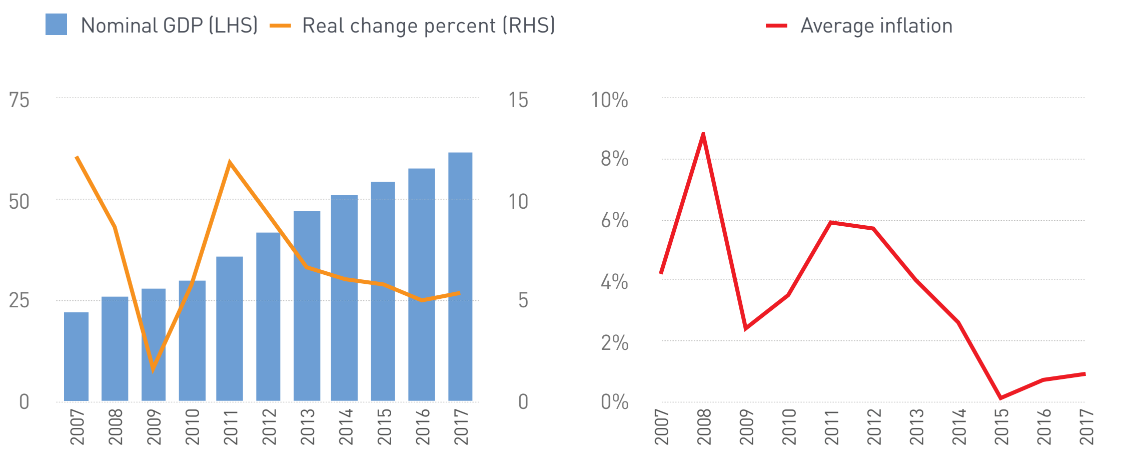
Macroeconomic environment

The Panamanian economy grew by 5.4% in real terms in 2017, after reporting 5% growth in 2016 (see Chart 3.1.7-a). The country has been posting high real growth rates since 2010, with a slight pick-up in 2017 when compared with the previous year.

Driving this performance are the transport, storage, communications and construction sectors, along with strong mining and quarrying operations. Average inflation stood at 0.9% in 2017, compared with 0.7% a year earlier, while unemployment came to 5.7%, slightly above the 5.5% reported in 2016.

According to ECLAC, the current account deficit in the first six months of 2017 stood at 1.6% of GDP, significantly down on the same period of 2016. This is down to strong exports of services following the increase in air transport, maritime transport and activity in the Panama Canal as deeper draft ships are now able to pass through. ECLAC expects the Panamanian economy to grow 5.5% in 2018, with the construction sector one of the most lively growth drivers as it benefits from ongoing investment in infrastructure, mainly public, including the construction of the fourth bridge over the Panama Canal. It is also confidant the contracts signed with China will have a positive impact on economic activity and will be a catalyst for various projects sure to benefit the Panamanian economy. For its part, the IMF estimates that the economy will post 5.6% growth in 2018.

Chart 3.1.7-a
Panama: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of balboas; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

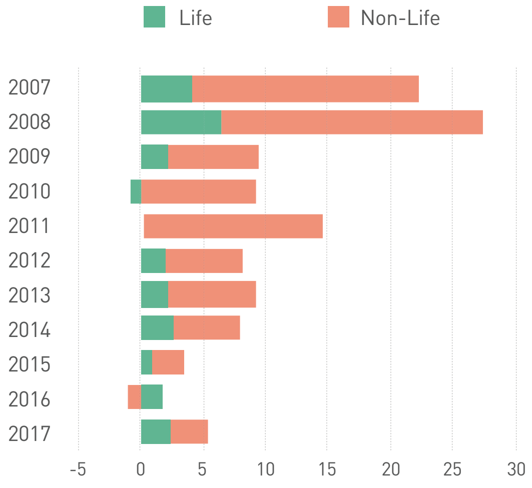
Insurance market

Growth

In 2017, the Panamanian insurance market posted a premium volume of 1.47 billion balboas (exchange rate pegged to the US dollar). As shown in Table 3.1.7 and Chart 3.1.7-c, nominal growth came to 5.4% in 2017, revealing a year-on-year increase in real terms of 4.5% and rallying from the slump reported in 2016, when premiums fell -1.1% in real terms.

Life insurance premiums, which account for 25.7% of the total market, were up 9.1% in 2017 (8.1% in term terms) to reach 378 million balboas. Meanwhile, Non-Life insurance premiums (74.3% of the portfolio) grew 4.1% (3.3% in real terms) to 1.09 billion balboas. The Automobile line remains the most important business in the Panamanian market, although Health is catching up. Both reported growth in 2017 (3.7% nominal (2.8% real) and 10.4% nominal (9.4% real), respectively), thus boosting the real growth of the wider sector. Aside from Surety (14.5% real), Fire (12.0% real) and Multirisk (3.9% real), all other insurance lines shrunk over

Chart 3.1.7-b
Panama: contribution to insurance market growth, 2007-2017
(percentage points, pp)



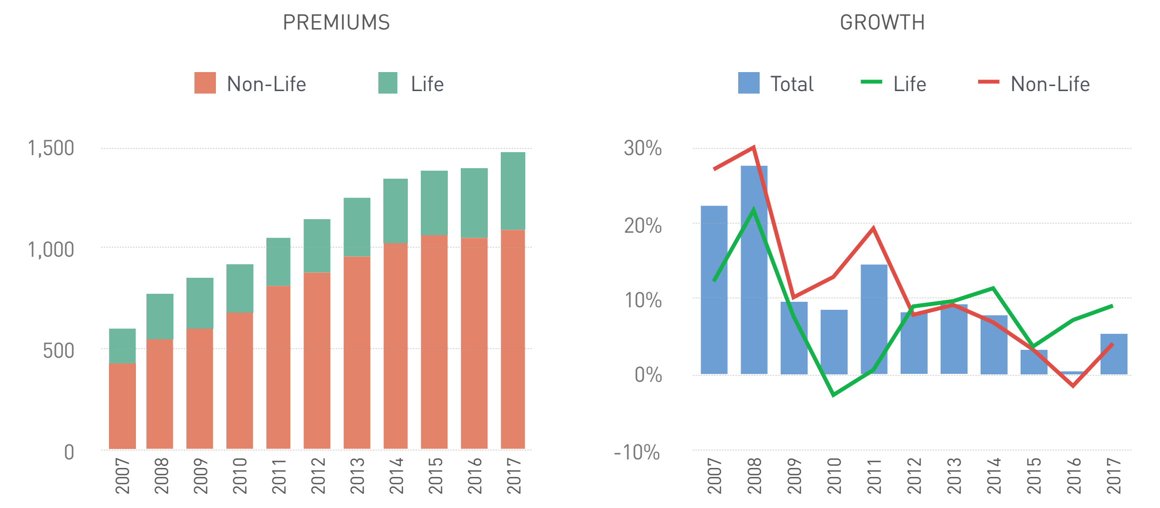
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Table 3.1.7
Panama: premium volume[1] by line of business, 2017

Line of business	Millions of balboas (= USD)	Increase Nominal (%)	Increase Real (%)
Total	**1,471**	**5.4**	**4.5**
Life	**378**	**9.1**	**8.1**
Non-Life	**1,093**	**4.1**	**3.3**
Automobile	294	3.7	2.8
Health	289	10.4	9.4
Other lines	83	-14.8	-15.6
Surety	134	15.5	14.5
Fire and allied lines	139	12.9	12.0
Third-party liability	46	-7.7	-8.5
Transport	45	-11.6	-12.4
Technical risks	31	-8.6	-9.4
Personal accident	25	-4.7	-5.5
Multirisk	8	4.8	3.9

Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)
1/ Premiums net of returns and cancellations

Chart 3.1.7-c
Panama: growth developments in the insurance market, 2007-2017
(premiums, millions of balboas; nominal annual growth rates, percent)

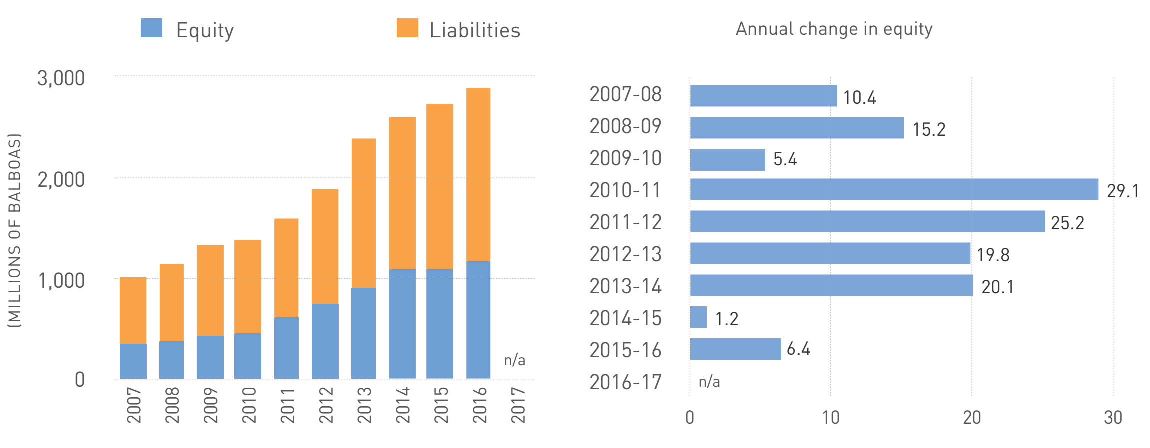


Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

the period, possibly because they are all highly reliant on public investment. Meanwhile, the Health insurance line continues to perform well, on the back of dental insurance and company insurance offering this cover. This particular line of business also promises a high degree of potential market penetration.

Accordingly, of the total nominal growth of 5.4% registered by the Panamanian insurance market in 2017, 2.23 percentage point came from the Life insurance segment, while the Non-Life segment made a larger contribution of 3.2 percentage points (see Chart 3.1.7-b).

Chart 3.1.7-d
Panama: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Balance sheet and equity

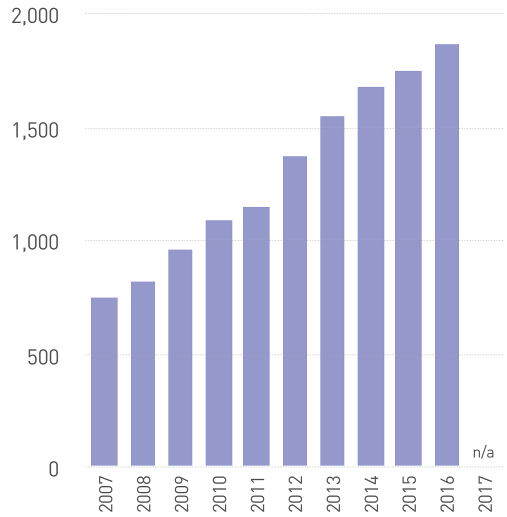
Chart 3.1.7-d shows the aggregate balance sheet of the Panamanian insurance industry between 2007 and 2016. It shows that total assets in 2016 (based on the latest information available) amounted to 2.88 billion balboas, while equity for the same year came to 1.17 billion balboas (up 6.4 pp year on year).

The insurance industry's aggregate capitalization levels (measured over total assets) have increased notably, climbing from a relatively stagnant 34% in 2007, the year in which capitalization levels began to grow, to reach 40.6% of total assets in 2016.

Investment

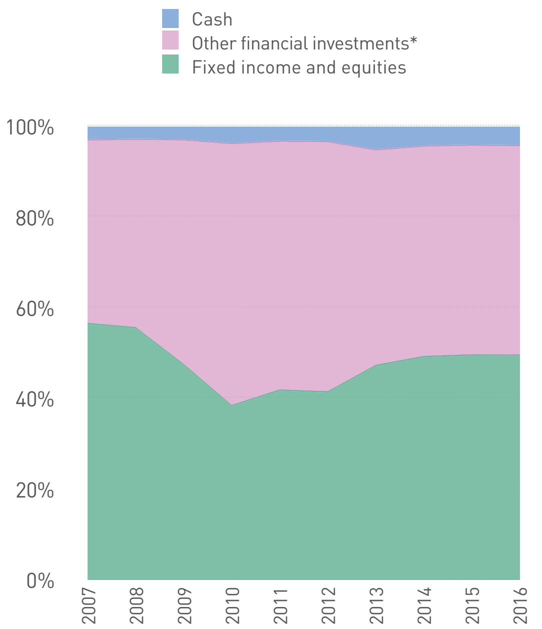
It should be noted that information on 2017 is not included in this section (or in our analysis of investment, technical provisions and profitability) as the statistical bulletin for 2017 had yet to be released by the Superintendency for Insurance and Reinsurance of Panama at the time this report was drawn up.

Chart 3.1.7-e
Panama: insurance market investment, 2007-2017
(millions of balboas)



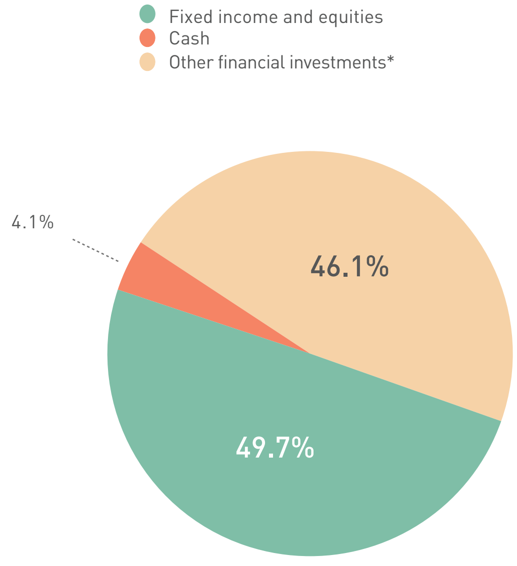
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Chart 3.1.7-f
Panama: structure of investment, 2007-2016
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)
*Includes bank deposits

Chart 3.1.7-g
Panama: structure of investment, 2016
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)
*Includes bank deposits

However, Charts 3.1.7-e, 3.1.7-f and 3.1.7-g have been included to illustrate the main trends in Panama's insurance market in recent years, showing the performance and structure of aggregate investment at sector level over the 2007-2016 period, in which fixed income and equities have accounted for a sizable percentage of total investment.

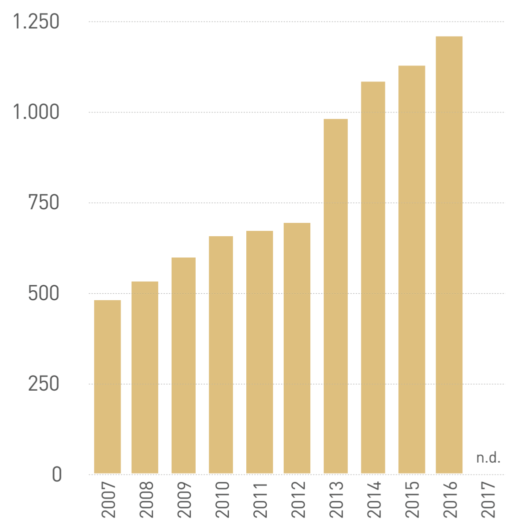
Technical provisions

Meanwhile, Charts 3.1.7-h, 3.1.7-i and 3.1.7-j include information on the performance and structure of the Panamanian sector's technical provisions between 2007 and 2016. In this case, technical provisions associated with Life insurance accounted for a significant percentage (48.2% in 2016).

Technical performance

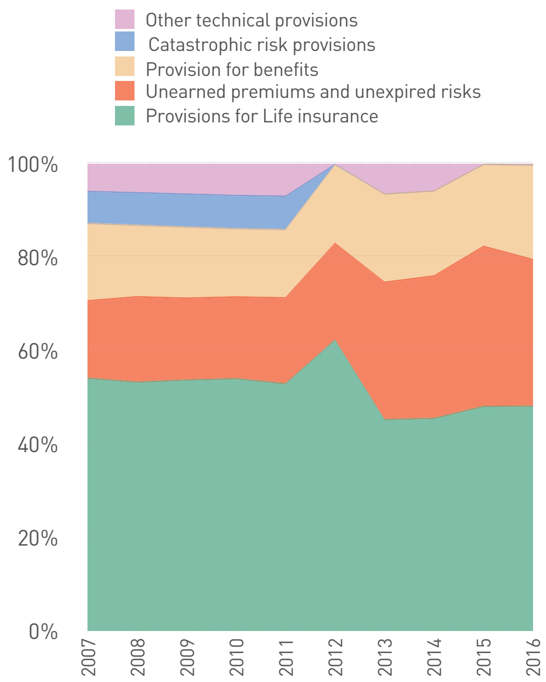
The aggregate combined ratio of Panama's insurance industry fell by 1.2 percentage points in 2017 to reach 91.2%, thus recovering from the lows of 2013 and 2014 and now showing the

Chart 3.1.7-h
Panama: technical provisions of the insurance market, 2007-2017
(millions of balboas)



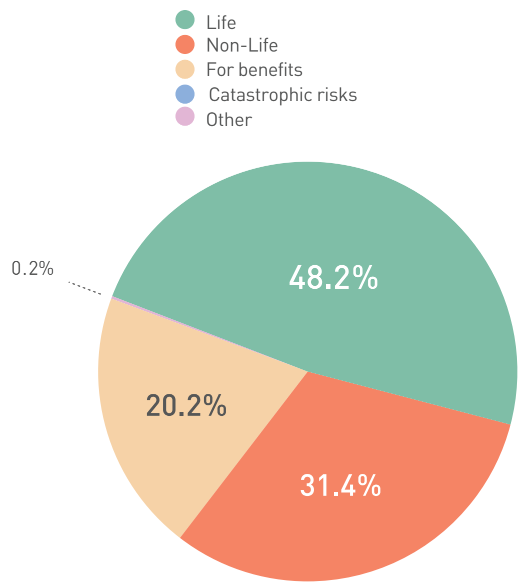
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Chart 3.1.7-i
Panama: structure of technical provisions, 2007-2016
(%)



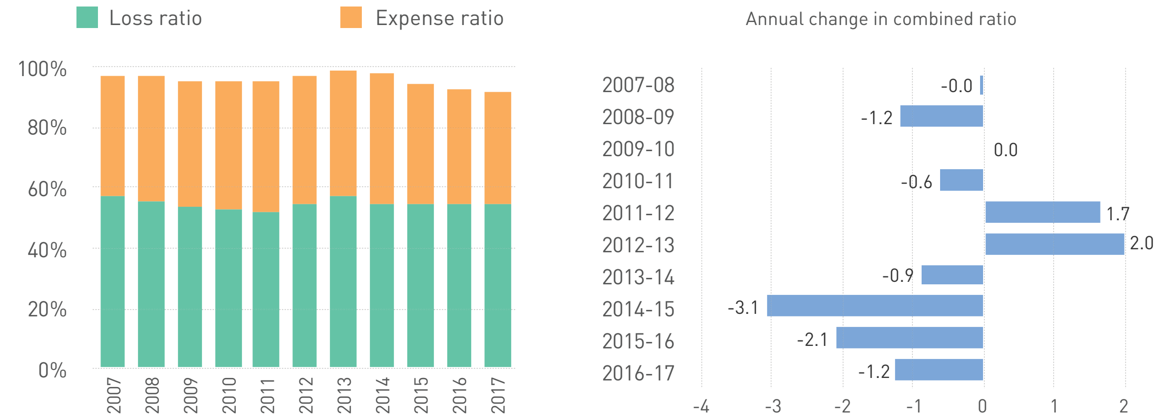
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Chart 3.1.7-j
Panama: structure of technical provisions, 2016
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Chart 3.1.7-k
Panama: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



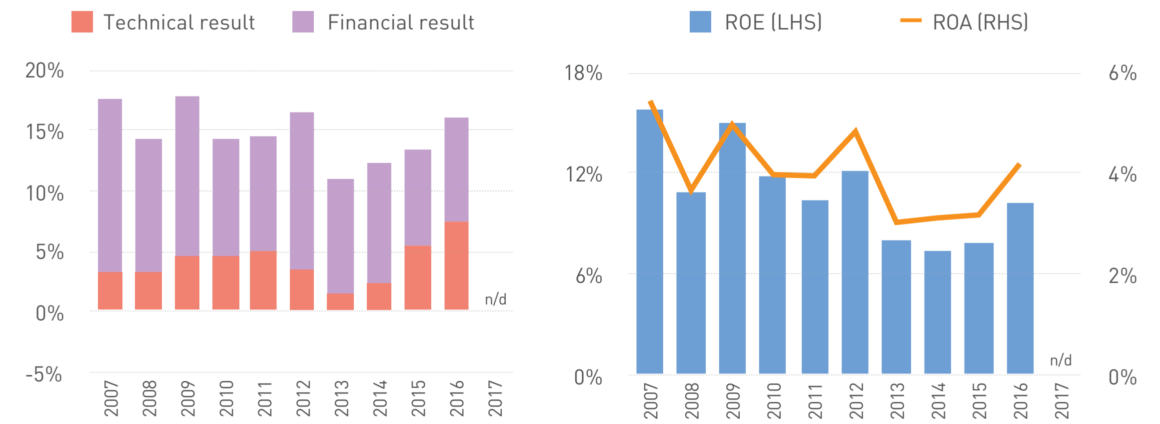
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

best combined ratio of the last ten years. The improvement in the combined ratio was largely down to a reduction in the expense ratio, which is now 36.6% (38.2% in 2016), down 1.6 percentage points on the previous year. Meanwhile, the loss ratio was largely unchanged year on year at 54.7%, having stagnated in the last few years of the period now under analysis (see Chart 3.1.7-k).

Results and profitability

The financial result of the Panamanian insurance industry in 2016 (last available information) was 74.5 million balboas, while the industry's technical result came to 65.7 million balboas. Significantly, the technical result for 2017 was also positive at 84.1 million balboas, up 28% year on year.

Chart 3.1.7-l
Panama: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Turning to profitability, indicators have shown a growing trend since 2014. In 2016 (last available information), the industry achieved a return on equity (ROE) of 10.3% in 2017, up 2.4 percentage points year on year. The same holds true for return on assets (ROA), which reached 4.2% in 2016, showing a year-on-year increase of 1 percentage point (see Chart 3.1.7-l).

Insurance penetration, density and depth

Chart 3.1.7-m shows the main structural trends shaping the development of the insurance industry in Panama between 2007 and 2017. The penetration index (premiums/GDP) stood at 2.4% in 2017, 4 basis points (bp) below the level reported in 2016 and 40 bp less than in 2007. As can be observed, Panama's penetration index grew until 2010, only to stagnate from that point on. This trend contrasts with the average performance of the overall Latin American insurance market.

Insurance density in Panama (premiums per capita) amounted to 363 balboas (1:1 with the USD), up 3.7% year on year (350 balboas). In contrast to the penetration index, density has followed an upward path over the period, showing a cumulative increase of 105.6% between 2007 and 2017, and is above the average for Latin America.

Meanwhile, the depth of the Panamanian market (measured as the relationship of Life insurance premiums to total premiums) stood at 25.7% in 2017, revealing a significant slump of 21.5 percentage points between 2007 and 2017, in sharp contrast to the average depth for all Latin American insurance markets.

Estimation of the Insurance Protection Gap

Chart 3.1.7-n provides an estimate of the IPG for the Panamanian insurance market between 2007 and 2017. As can be seen, the insurance gap in 2017 stood at 3.18 billion balboas, 2.2 times the size of the actual insurance market in Panama that year.

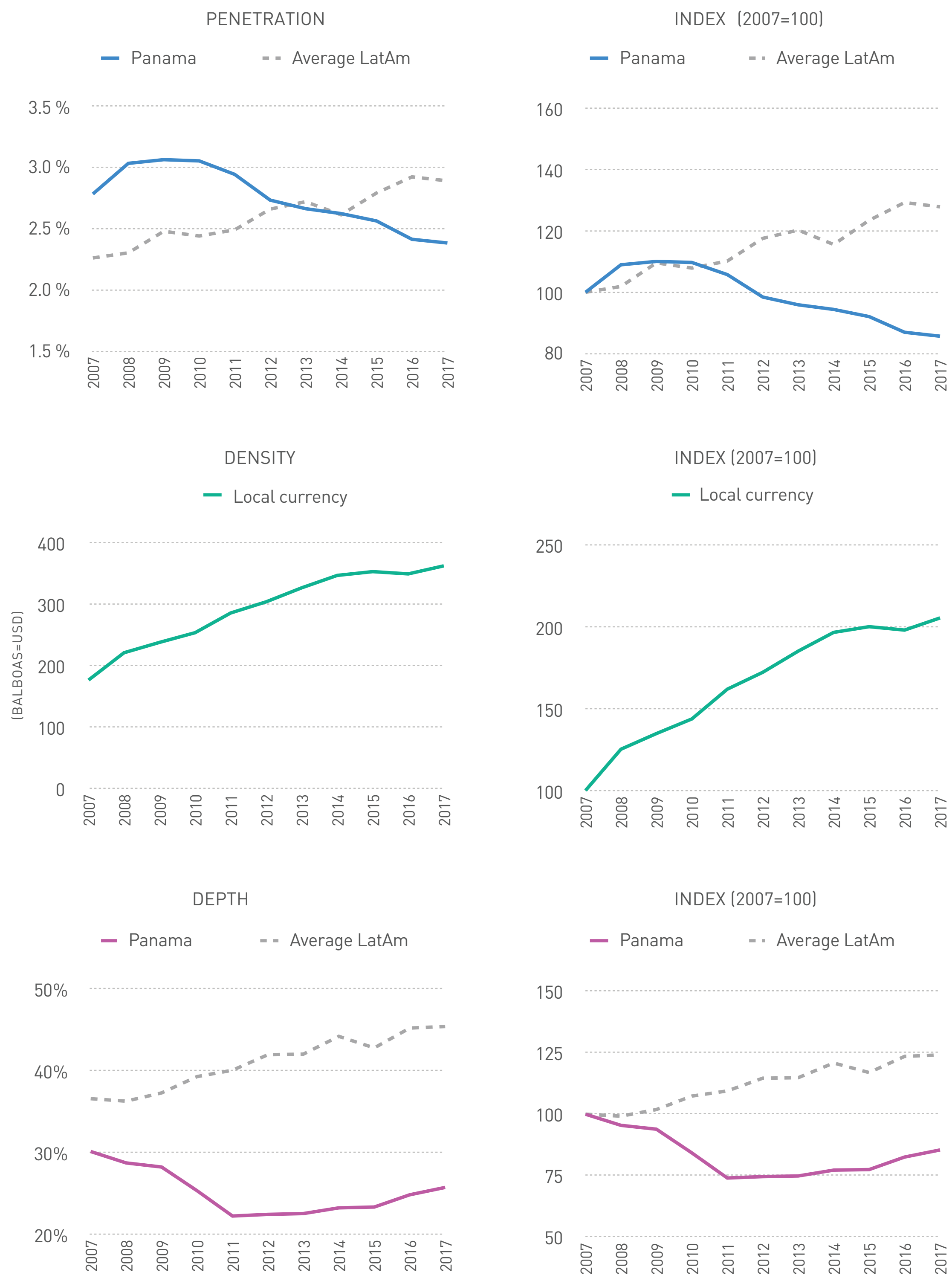
The structure and performance of the IPG between 2007 and 2017 (as in most Latin American insurance markets) was largely a product of the Life insurance segment. At the end of 2017, 68.3% of the IPG related to Life insurance (2.17 billion balboas), which was 0.6 percentage points down on the share of this segment in 2007 and 6.1% less than in 2016. The remaining 31.7% of the IPG is a product of the Non-Life insurance segment (1.01 billion balboas). Accordingly, the potential insurance market in Panama at the end of 2017 (sum of the actual market plus the IPG) is estimated at 4.65 billion balboas, some 3.1 times the size of the total insurance market that year.

Chart 3.1.7-o provides an estimation of the IPG as a multiple of the actual insurance market in Panama over the 2007-2017 period. As a multiple of the real market, the IPG remained relatively flat through to 2010, only to start growing from that year on through to 2017. The indicator showed a mixed bag of results for the Life and Non-Life segments between 2008 and 2011, with the former growing but the latter declining, thus leading to the flat performance just mentioned. While the IPG for both segments grew roughly in sync from that point forward through to 2015, they once again diverged in the two following years. This time round, however, the Life segment decreased while the Non-Life segment increased, thus generating a weaker growth pattern in overall terms.

Chart 3.1.7-p summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Panamanian insurance market over the last ten years. As can be seen, the IPG as a multiple of the real market experienced growth in both segments between 2007 and 2017, effectively meaning that the situation has worsened in terms of the gap. Once again, this is at odds with the general trend observed across the wider region of Latin America.

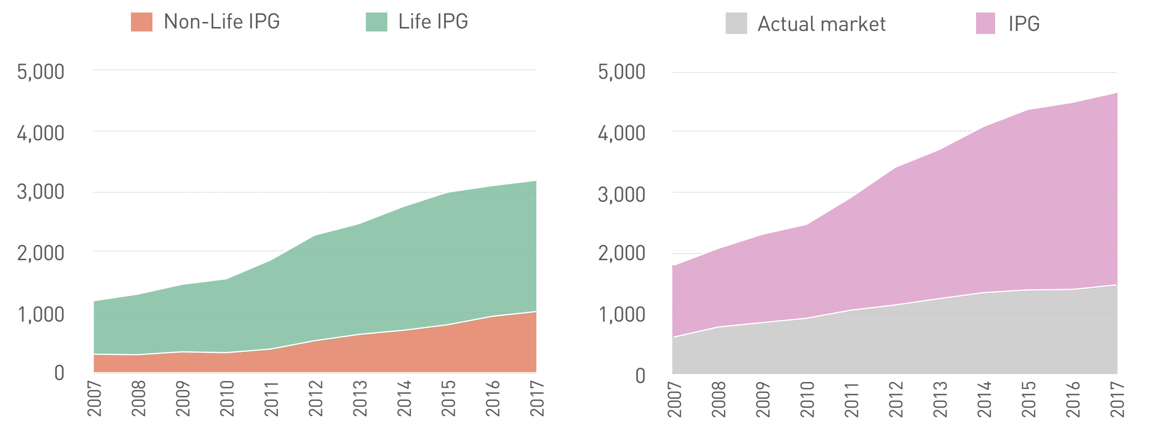
Chart 3.1.7-q outlines the capacity of the Panamanian insurance market to close the insurance gap. It relies on a comparative

Chart 3.1.7-m
Panama: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, balboas; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

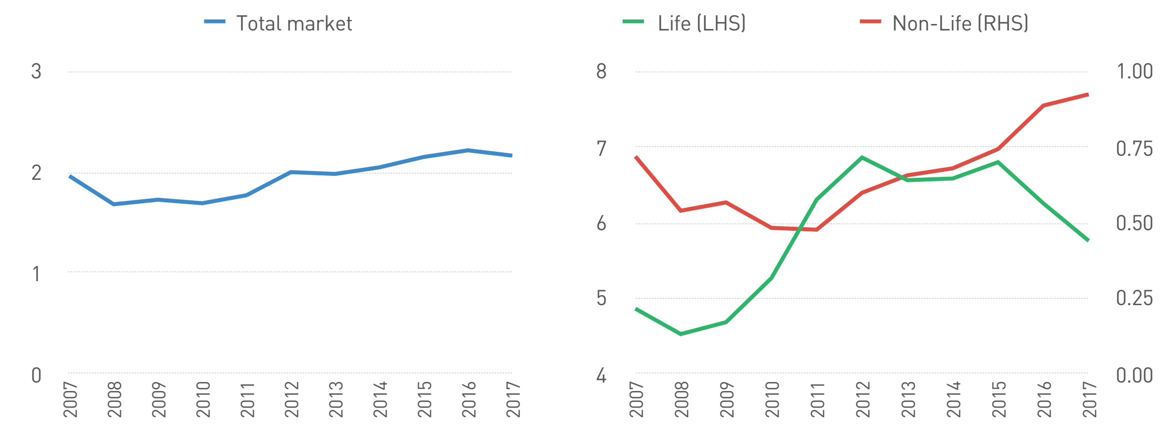
Chart 3.1.7-n
Panama: Insurance Protection Gap and potential market, 2007-2017
(millions of balboas)



Source: MAPFRE Economic Research

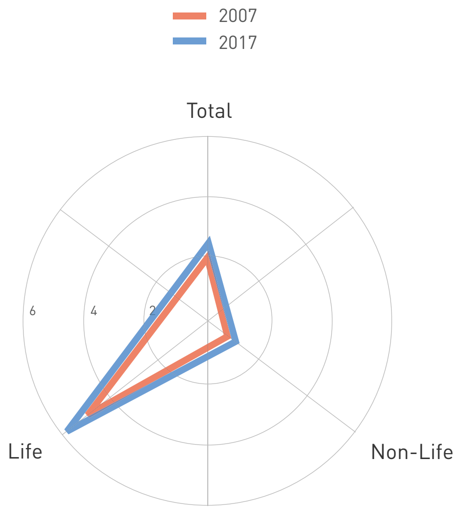
analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the insurance gap in 2017 gap over the coming ten years. Panama's insurance market posted annual average growth of 9.3%, underpinned by average growth of 7.5% in Life insurance and of 9.9% in Non-Life insurance. Were the same rate of growth to be sustained over the next ten years, growth in the Panamanian insurance market would be sufficient to close the gap only in the case of the Non-Life insurance segment, while falling 13.5 percentage points short in the case of the Life insurance segment.

Chart 3.1.7-o
Panama: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.1.7-p
Panama: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Market Development Index (MDI)

Chart 3.1.7-r provides an estimate of the Market Development Index (MDI) for the Panamanian insurance industry between 2005 and 2017. In 2017, the indicator was up 2.4% year on year, marking the second straight year of positive growth. As explained at various points of this report, the MDI is used to gauge general trends shaping the performance and maturity of insurance markets.

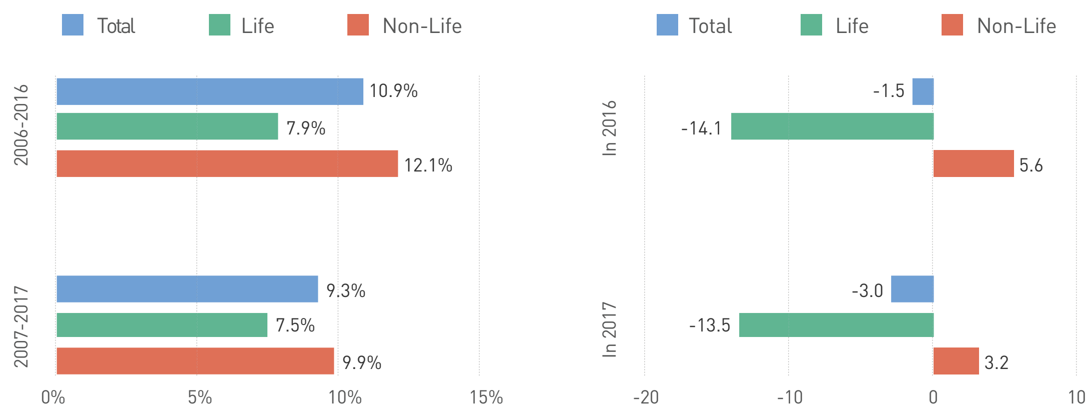
In the case of Panama, the MDI followed roughly the same pattern as the Latin American insurance market but only through to 2008 (though always remaining below that average), thereafter breaking away from the average trend seen across the wider region.

Combined analysis of structural ratios

To round things off, Chart 3.1.7-s outlines the state of the Panamanian market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report.

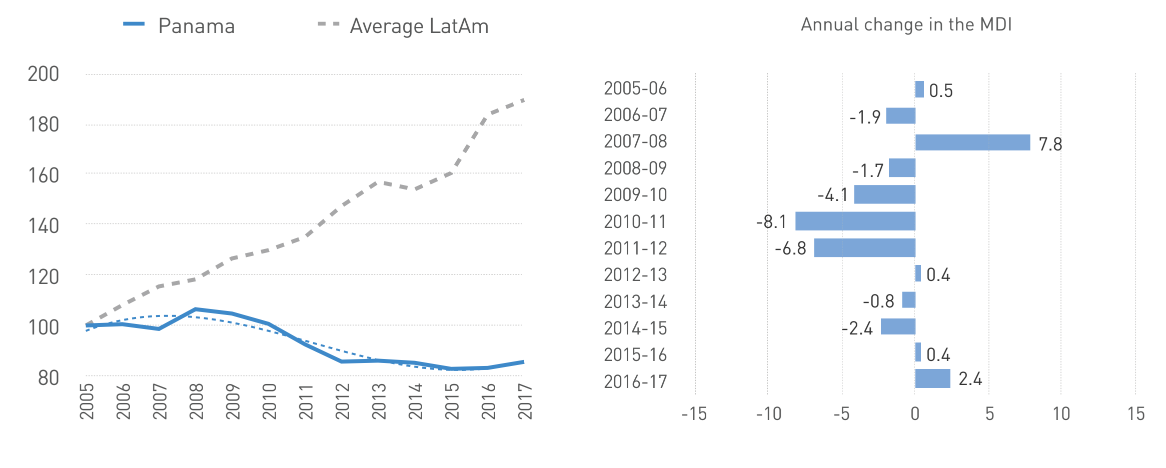
As is plain to see, the Panamanian market sits below the average level for all Latin American insurance markets when it comes to the structural indicators featured in this report, with the notable exception of density.

Chart 3.1.7-q
Panama: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



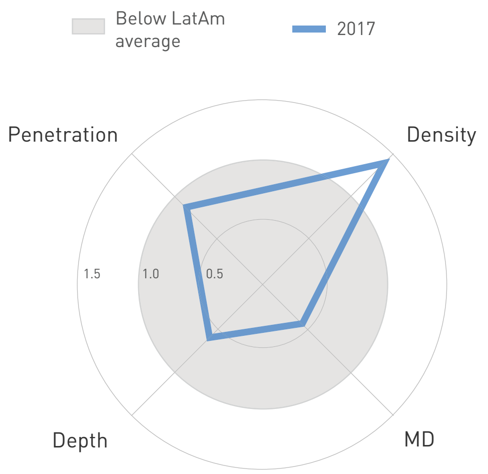
Source: MAPFRE Economic Research

Chart 3.1.7-r
Panama: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economics Research

Chart 3.1.7-s
Panama: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Insurance market rankings

Overall ranking

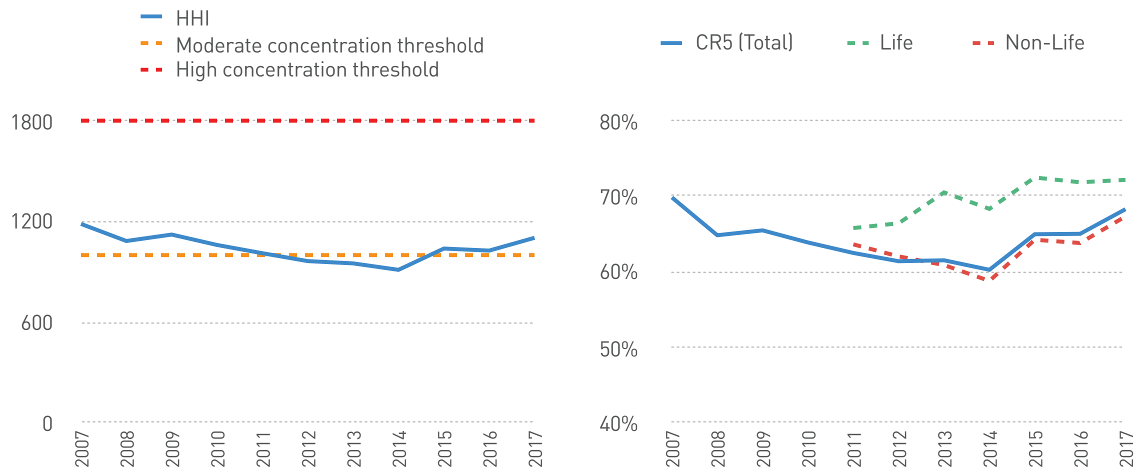
A total of 26 insurance companies were operating in Panama at year-end 2017, two less than in 2016.

While concentration in the Panamanian insurance generally declined through to 2014, the Herfindahl and CR5 indexes both show an increase in the degree of market concentration from that point forward, especially in 2017.

The CR5 index (market share of the five largest companies operating in the market) in 2017 came to 68.3% (72.2% for the Life segment and 67.3% for Non-Life). Meanwhile, the Herfindahl index remains above the theoretical threshold associated with moderate levels of industry concentration; a point the Panamanian market had exceeded back in 2015 (see Chart 3.1.7-t).

ASSA retained its number one spot in the overall ranking of insurance groups in 2017, with a market share of 25.2%, strengthening its grip on the market when compared with the situation a year earlier by gaining a further 6.3 percentage points of the total market. Following behind we have Compañía Internacional de Seguros, with 16.7% of premiums (+1.5 pp on 2016). MAPFRE came third in the ranking with a market share of 15.2%, a slight improvement on the previous year (14.7%). The positions of the top three are largely the product of the results obtained in the Non-Life ranking (see Chart 3.1.7-u).

Chart 3.1.7-t
Panama: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



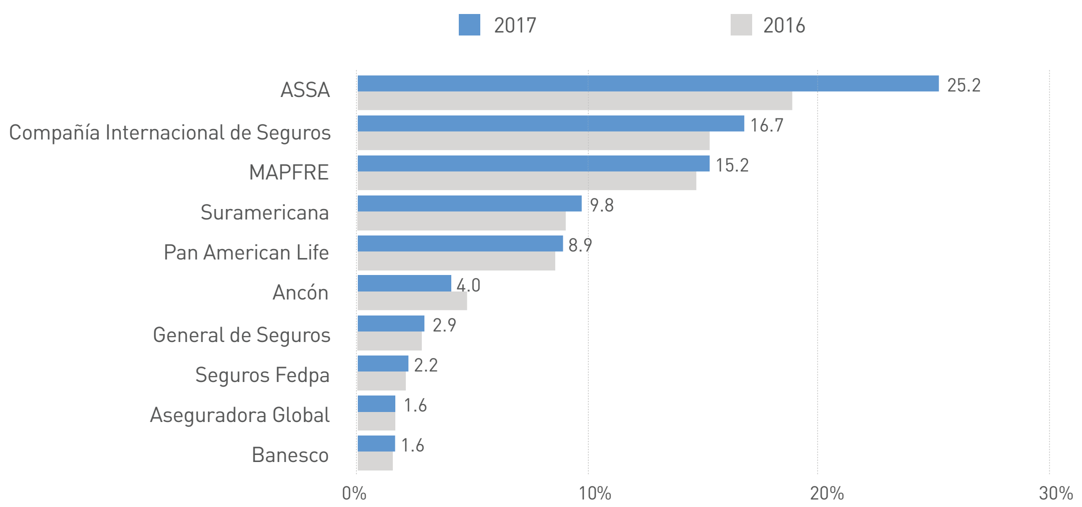
Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Non-Life and Life rankings

The top three insurance groups in the overall ranking also occupied the top three spots in the Non-Life ranking of the Panamanian insurance market in 2017, as was the case in 2016: ASSA, with a market share of 25.2% (19.5% in 2016), followed by Compañía Internacional de Seguros, with 17.5% (15.6% in 2016) and then MAPFRE, with a market share of 15.5% (15.1% in 2016).

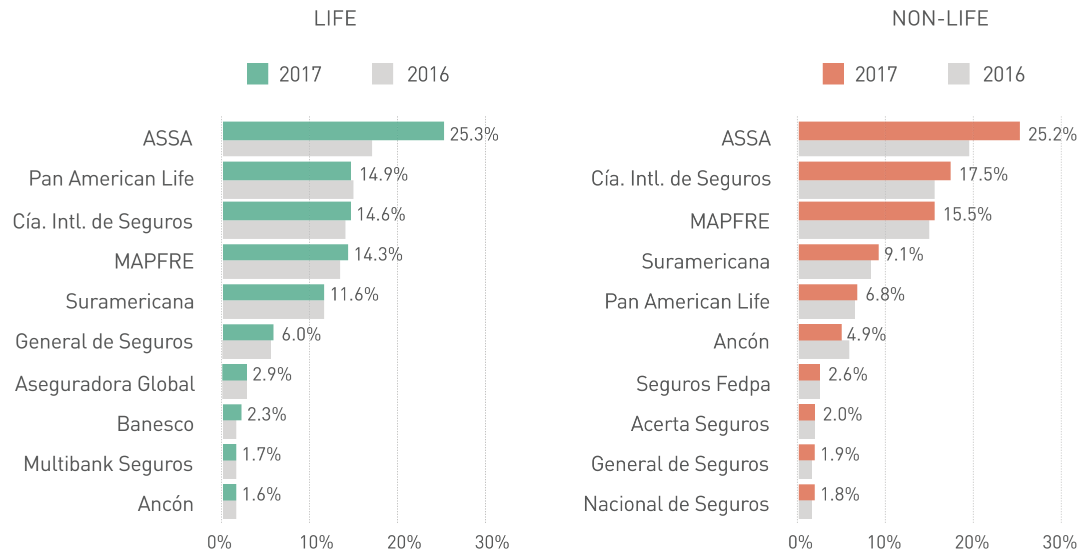
Moving to the ranking of the Life insurance market in 2017, the top two spots are held by ASSA, with a share of 25.3% (up 8.1 pp on year on year) and Pan American Life, which, with a market share of 14.9%, has ceded 0.3 percentage points to

Chart 3.1.7-u
Panama: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Chart 3.1.7-v
Panama: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)

Compañía Internacional de Seguros, which gains 0.4 percentage points this year round to reach a share of 14.6%.

Key regulatory aspects

Turning our attention to key regulatory changes and developments, we would highlight the following legislation and prudential regulations released by the Panamanian Superintendency of Insurance and Reinsurance in 2017:

- Law No. 28277, published in the Official Digital Gazette of Friday, May 12, 2017, establishing rules governing and supervising trustees and the business of trusts, among other provisions.

- Circular No. SSRP-DO/12-2017: requests for information from Panamanian insurers ahead of the fourth round of mutual assessment process to be conducted by the Financial Action Task Force of Latin America (GAFILAT), the Ministry of Economy and Finance and financial supervisors so as to implement a system of risk-based supervision.

- Circular No. SSRP-DES-050-2017: start of implementation of the Strategic Framework for the Financial Management of the Risk of Disaster, as adopted by Executive Decree No. 578 of November 13, 2014.

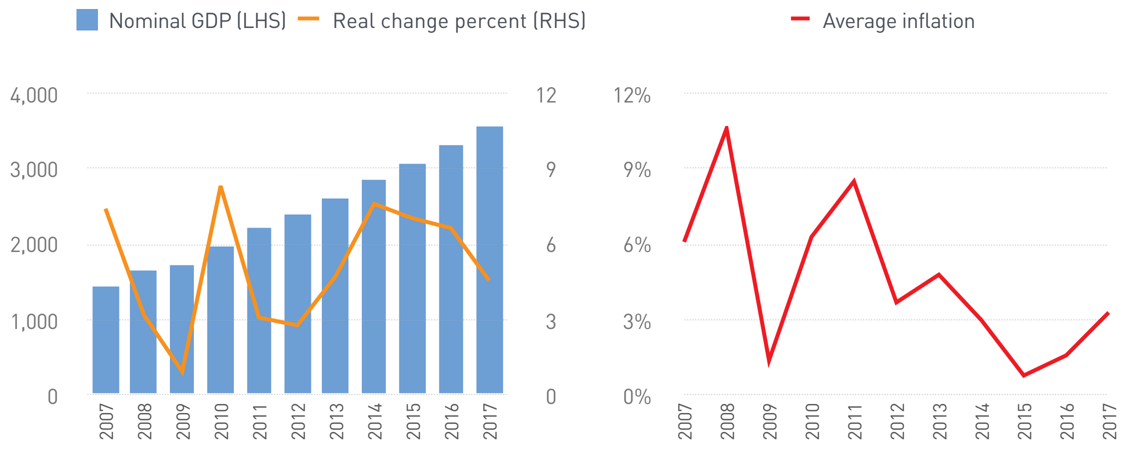
3.1.8 Dominican Republic

Macroeconomic environment

The Dominican Republic's economy grew by 4.6% in real terms in 2017, notably down on the 6.6% growth reported a year earlier. This slowdown is largely due to the slump in domestic demand, especially investment (see Chart 3.1.8-a).

As regards the country's current account, import activity was hurt by rising oil prices, offset by a lively tourism industry, strong remittance flows and exports. On balance, the current account deficit ended 2017 at 0.2% of GDP, compared with 1.4% in 2016. Meanwhile, and based on information released by the Central American Monetary Council, the fiscal deficit in 2017 came to 3% of GDP (2.8% in 2016) and public debt amounted to 49.1% of GDP (47.1% in 2016).

Chart 3.1.8-a
Dominican Republic: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

Average inflation doubled in 2017 for the second straight year to hit 3.3%, while unemployment fell by fourth tenths of a percentage point to 5.1%.

Turning to growth projections, ECLAC expects the Dominican economy to post 5.1% growth in 2018 in response to stronger domestic demand, especially investment, and global economic growth. The economy is likely to see further improvements following efforts to repair the damage caused by Hurricanes Irma and María. Meanwhile, the IMF estimates that the economy will post 5.5% growth in 2018.

Insurance market

Growth

The Dominican insurance market achieved a premium volume of 49.35 billion pesos (1.04 billion dollars) in 2017, revealing nominal growth of 21.6% and real growth of 17.7%, up by more than 5 percentage points year on year in real terms (see Table 3.1.8 and Chart 3.1.8-b).

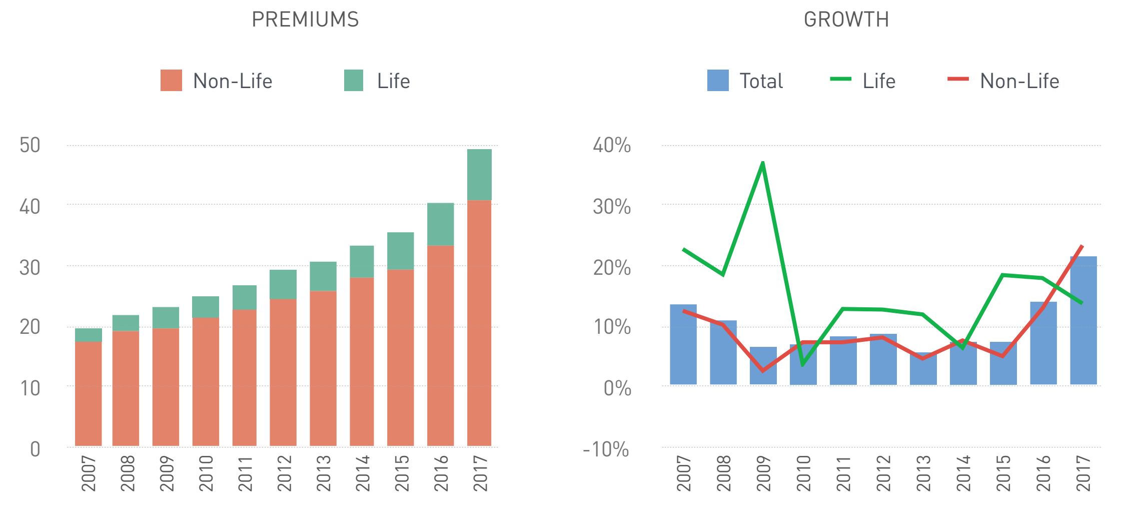
Life insurance premiums grew strongly, gaining 13.8% in nominal terms to reach

8.48 billion pesos (179 million dollars). Individual Life (+19.2%) once again experienced notable growth in 2017, despite being of only marginal importance within the Dominican insurance industry. Meanwhile, group Life insurance premiums increased by 13.6%.

Non-Life premiums (which account for 82.8% of the total) grew by 23.4% in nominal terms and 19.4% in real terms (versus 13.0% and 11.2%, respectively, a year earlier) to reach 40.87 billion pesos (861 million dollars). The two most significant lines in this segment of the Dominican insurance market (Fire and Automobile) both reported growth in real terms, gaining 5.5% and 8.9%, respectively. The other insurance lines also registered growth, with the exception of Transport and Surety.

The Non-Life insurance segment accounted for the bulk of the 21.6% overall growth registered by the Dominican insurance market in 2017.

Chart 3.1.8-b
Dominican Republic: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)



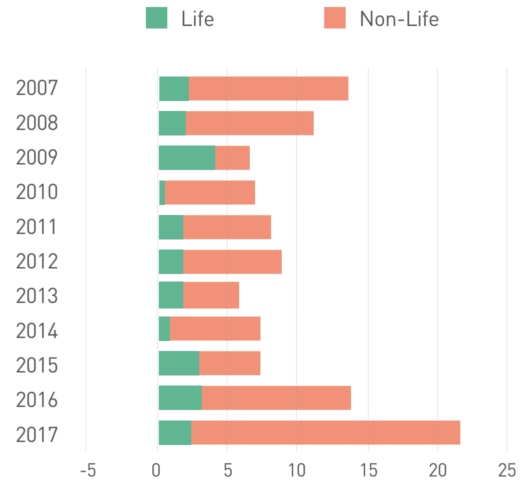
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Table 3.1.8
Dominican Republic: premium volume[1] by line of business, 2017

Line of business	Millions of pesos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**49,354**	**1,040**	**21.6**	**17.7**
Life	**8,480**	**179**	**13.8**	**10.2**
Individual Life	225	5	19.2	15.4
Group Life	8,255	174	13.6	10.0
Non-Life	**40,875**	**861**	**23.4**	**19.4**
Fire and allied lines	11,937	252	8.9	5.5
Automobile	13,376	282	12.5	8.9
Health	10,269	216	96.2	90.0
Other lines	2,817	59	11.3	7.8
Transport	1,050	22	-2.8	-5.9
Surety	868	18	-4.7	-7.7
Personal accident	557	12	4.8	1.4

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)
1/ Premiums net of returns and cancellations

Chart 3.1.8-c
Dominican Republic: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

The segment contributed 19.1 percentage points to total growth within the sector in 2017, while the Life segment contributed the remaining 2.5 percentage points (see Chart 3.1.8-c).

Balance sheet and equity

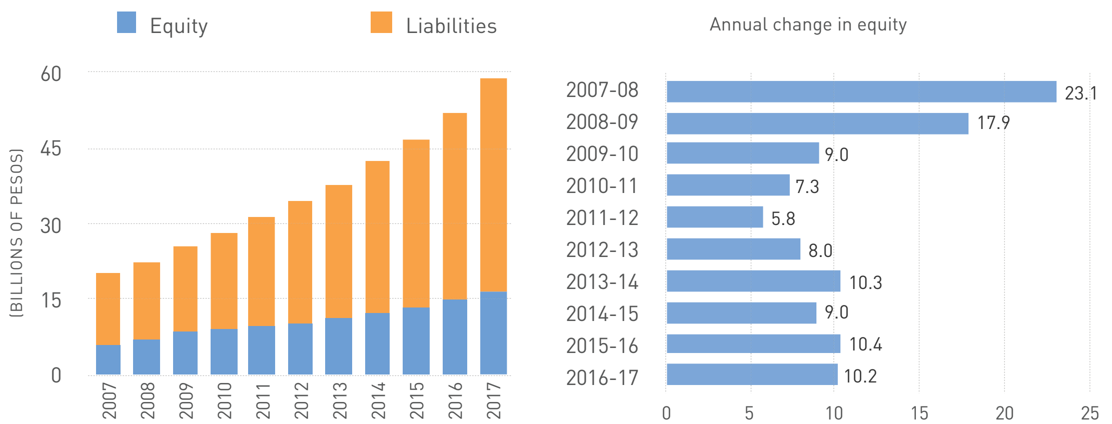
Chart 3.1.8-d shows the aggregate balance sheet for the Dominican insurance industry. The industry's total assets in 2017 amounted to 58.60 billion pesos (1.23 billion dollars). Meanwhile, total equity within the industry came to 16.45 billion pesos (347 million dollars), up 10.2 percentage points on the value reported in 2016.

Significantly, the Dominican insurance industry has consistently increased its levels of equity on an annual basis between 2007 and 2017. Aggregate capitalization levels in the insurance industry (measured relative to total assets) have remained close to 30.0% throughout the period, accounting for 28.1% of total assets at year-end 2017.

Investment

Chart 3.1.8-e shows the performance of the aggregate investment portfolio at sector level between 2007 and 2017, while Charts 3.1.8-f and 3.1.8-g show changes in investment patterns over the same period.

Chart 3.1.8-d
Dominican Republic: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



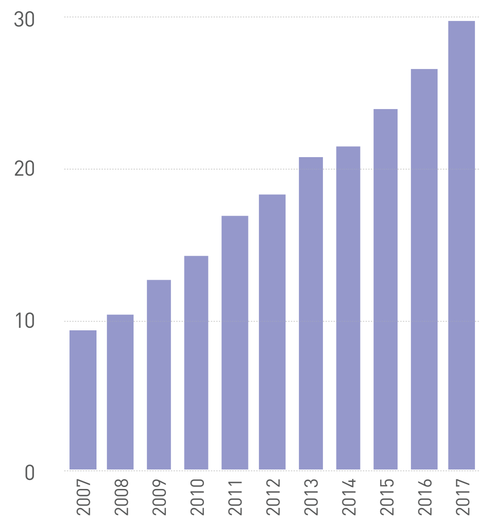
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Total investment came to 29.68 billion pesos (626 million dollars) in 2017, most of it concentrated in debt and equity instruments (75.2%) and a relatively smaller proportion in real estate (11.8%) and cash (8.1%). The most notable development in the aggregate investment portfolio is the change in the weight of real estate investment, which has steadily declined since 2007 (when it accounted for 16.4% of the portfolio) to reach 11.8% at year-end 2017.

Technical provisions

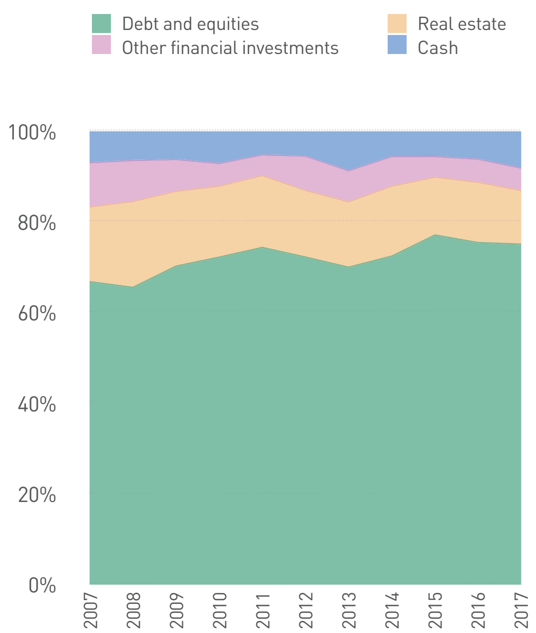
Chart 3.1.8-h shows changes in technical provisions within the Dominican insurance market, while Charts 3.1.8-i and 3.1.8-j show changes in the relative composition of those provisions between 2007 and 2017. As can be seen, technical provisions amounted to 23.21 billion pesos (489 million dollars) in 2017. Of total provisions, 10.3% related to mathematical provisions and unexpired risks, 27.2% to unearned premiums and unexpired risks in Non-Life insurance, 51.0% to provision for outstanding

Chart 3.1.8-e
Dominican Republic: insurance market investment, 2007-2017
(billions of pesos)



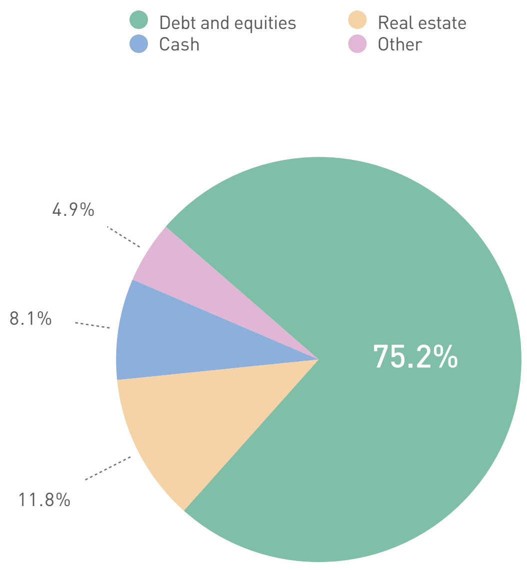
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-f
Dominican Republic: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-g
Dominican Republic: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

claims, 1.8% to catastrophic risks, and the remaining 9.7% to other technical provisions.

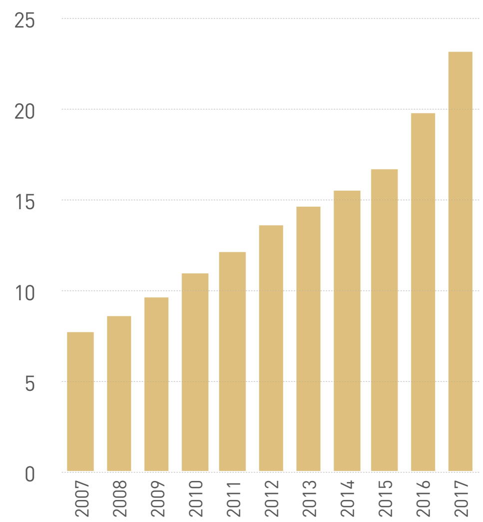
We should point out that in 2017 around 75% of mathematical provisions and provisions for unexpired risks under personal insurance related to mathematical reserves and the rest to provisions for unexpired risks under health and accident insurance. Also significant is the fact that these provisions have steadily dropped in weight between 2007 and 2017, falling from 12.7% of total technical provisions in 2007 to 10.3% at the end of 2017.

Technical performance

Chart 3.1.8-k[11] shows the performance of the aggregate combined ratio for the Dominican insurance industry between 2007 and 2017.

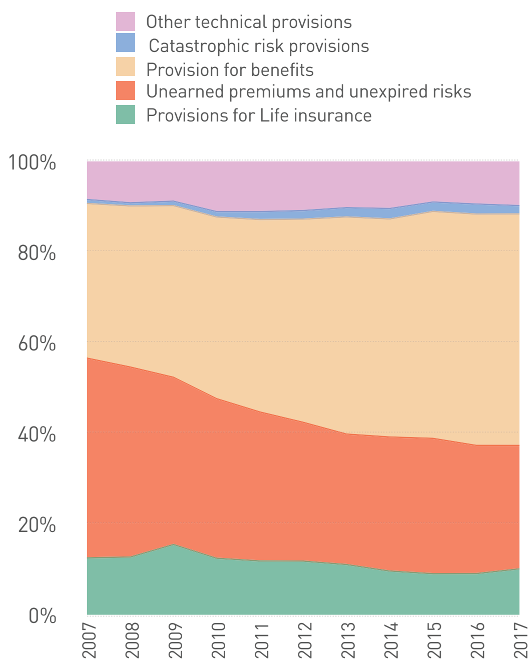
The technical indicator improved by 0.3 percentage points in 2017, mainly in response to a reduction in the loss ratio, which came to 99.3%.

Chart 3.1.8-h
Dominican Republic: insurance market technical provisions, 2007-2017
(billions of pesos)



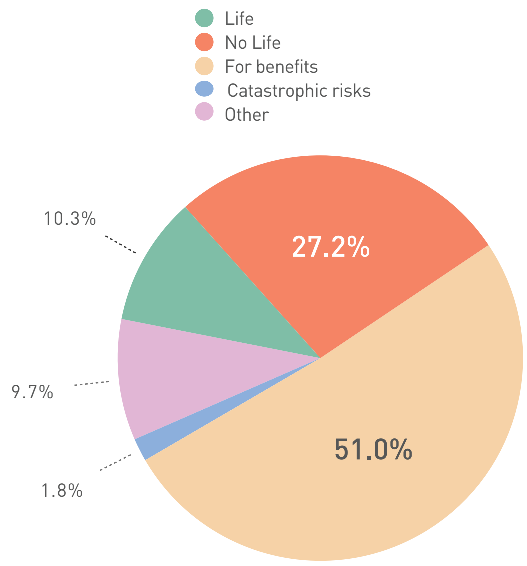
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-i
Dominican Republic: structure of technical provisions, 2007-2017
(%)



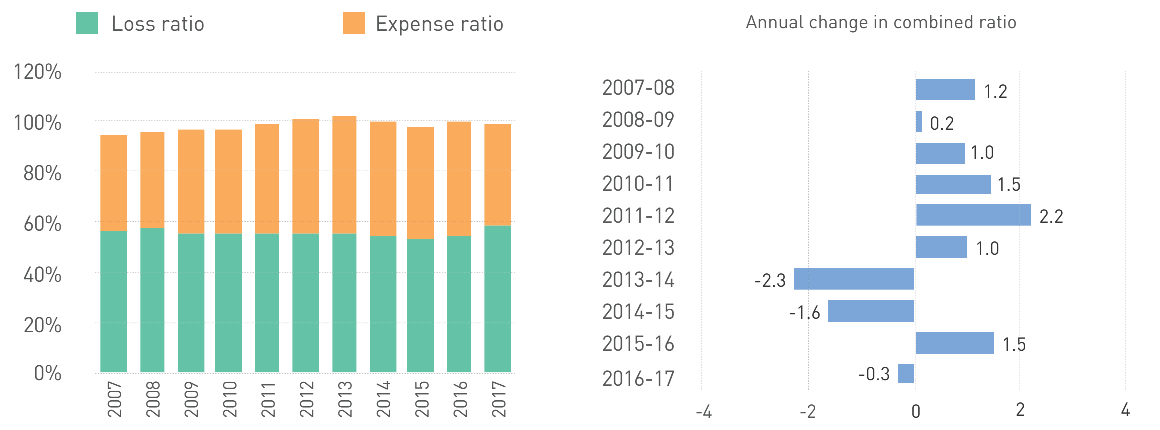
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-j
Dominican Republic: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-k
Dominican Republic: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



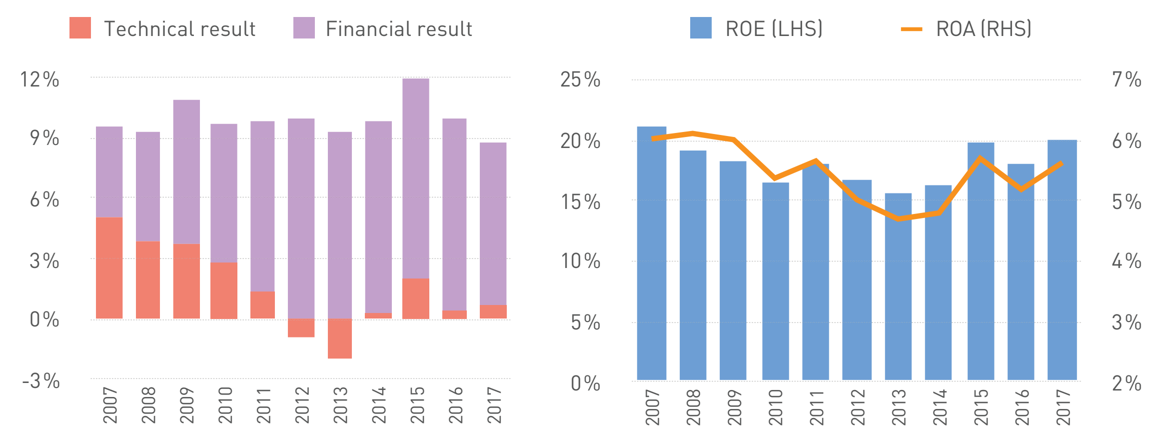
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Results and profitability

The Dominican insurance industry posted a consolidated result of 3.29 billion pesos (69 million dollars) in 2017, up 21.9% year on year. This performance was underpinned by a positive financial result. The technical result also grew to reach 0.7% of net accrued premiums (see Chart 3.1.8-l).

Return on equity (ROE) stood at 20% in 2017, revealing a year-on-year increase of 1.9 percentage points, while return on assets (ROA) came to 5.6% in 2017 (0.4 percentage points more than in 2016). Both indicators clearly show the growth in profitability seen since 2013.

Chart 3.1.8-l
Dominican Republic: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Insurance penetration, density and depth

Chart 3.1.8-m shows the main structural trends shaping the development of the insurance industry in the Dominican Republic between 2007 and 2017. The penetration index (premiums/GDP) was up slightly in 2017 to 1.4%, having remained virtually static at 1.2% since 2012. As can be seen, the penetration index for the Dominican Republic insurance market has generally declined over the period, bucking this trend only in 2017 and remaining well below the absolute average values for the wider region.

Meanwhile, insurance density in the Dominican Republic (premiums per capita) stood at 4,582 pesos (96 dollars) in 2017, up 20.2% on 2016 (3,810 pesos). The density of the Dominican market (measured in local currency) has steadily increased over the period under analysis, registering cumulative growth of 122.4% between 2007 and 2017.

Depth (Life insurance premiums to total premiums) came to 17.2%, 1.2 percentage points less than in 2016 and 6.6 percentage points above the depth level reported in 2007. While the depth growth of the Dominican market is following the average trend seen across the wider region of Latin America, absolute levels are still well below the regional average.

Estimation of the Insurance Protection Gap

Chart 3.1.8-n provides an estimate of the IPG for the Dominican insurance market between 2007 and 2017, revealing that the insurance gap stood at 218.95 billion pesos (4.61 billion dollars) in 2017, 4.4 times the size of the actual insurance market in the Dominican Republic at the end of that year.

The structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. At the end of 2017, Life insurance accounted for 63.3% of the IPG (138.56 billion pesos), 5.7 percentage points less than its part of the IPG in 2007. The remaining 36.7% of the insurance gap is a product of the Non-Life insurance segment (80.38 billion pesos). Accordingly, the potential insurance market in the Dominican Republic at the end of 2017 (sum of the actual market plus the IPG) was estimated at 268.30 billion pesos (5.65 billion dollars), some 5.4 times the size of the total insurance market in the country that year.

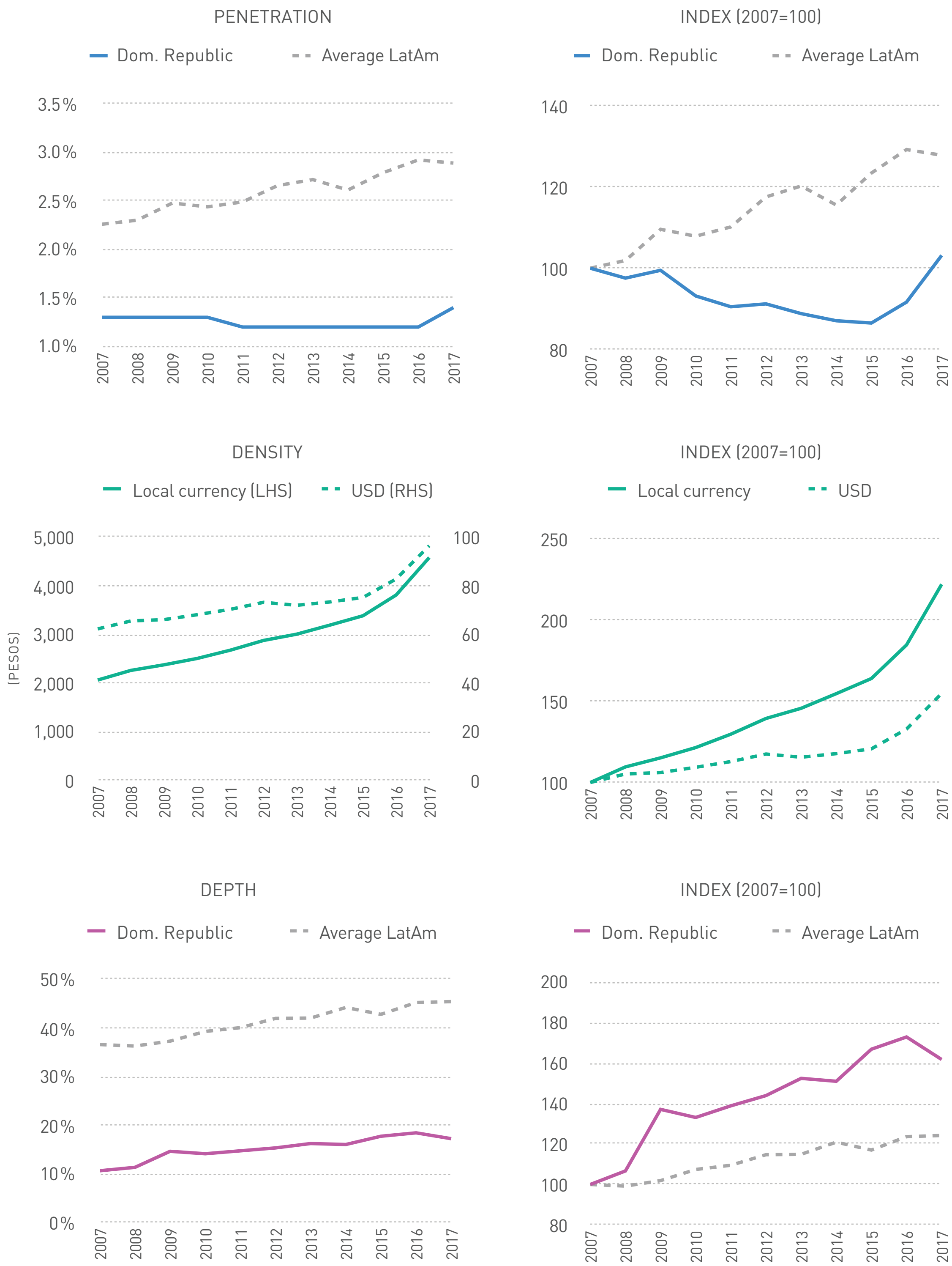
Chart 3.1.8-o provides an estimate of the IPG as a multiple of the actual market in the Dominican Republic between 2007 and 2017. The insurance gap as a multiple of the actual market shows steady growth through to 2015, whereupon the trend reverses to be dominated by the Non-Life insurance segment, where the IPG rises from 1.8 to 2.0 times the size of the actual market over that period, despite then declining in the following two years. Meanwhile, the indicator for the Life insurance segment has been clearly dropping over the period under analysis (2007-2017), falling from 33.3 to 16.3 times.

To complete our analysis, Chart 3.1.8-p summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Dominican insurance market over the last ten years. It shows that the Life business is the only one to have managed to narrow the gap as a multiple of the market, although the gap remains notably higher than in the case of Non-Life insurance.

Lastly, Chart 3.1.8-q outlines the capacity of the Dominican insurance market to close the insurance gap, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years.

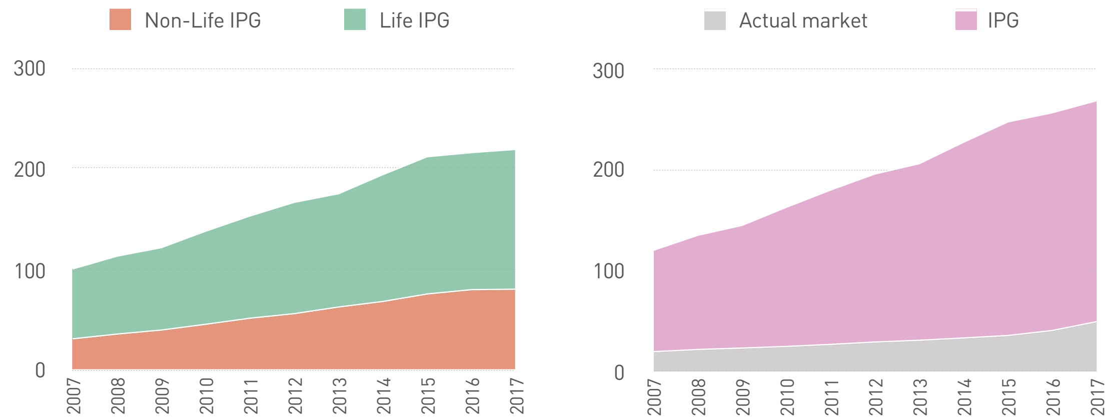
The Dominican insurance market registered average annual growth of 9.7%, comprising an annual growth rate of 15.1% for the Life insurance segment and of 8.8% for Non-Life insurance.

Chart 3.1.8-m
Dominican Republic: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-n
Dominican Republic: Insurance Protection Gap and potential market, 2007-2017
(billions of pesos)



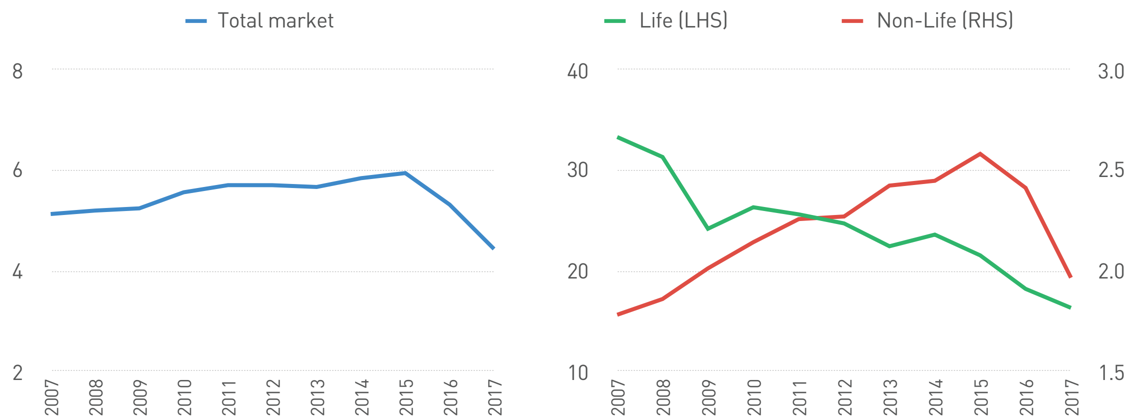
Source: MAPFRE Economic Research

Were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the insurance market would fall short of the mark (i.e. closing the IPG) for both the Life segment (short 2.6 pp) and the Non-Life segment (short 17.9 pp). When compared with the estimates carried out in 2016, please note that this shortfall was in fact less in 2017 for both the Non-Life segment (-2.6 pp) and Life (-0.5 pp) segments.

Market Development Index (MDI)

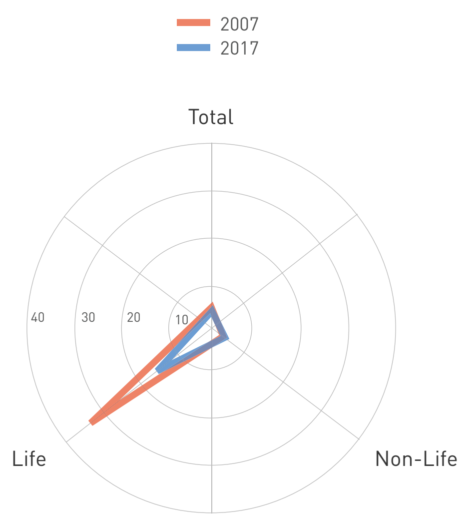
Chart 3.1.8-r provides an estimation of the Market Development Index (MDI) for the Dominican insurance industry. In this particular case, the MDI (which is used as an indicator of general patterns shaping the performance and maturity of insurance markets) performed positively over the period 2007 and 2017. However, the trend in market development in the Dominican Republic

Chart 3.1.8-o
Dominican Republic: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.1.8-p
Dominican Republic: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

appears to diverge from the average performance of the Latin American region over this period, with setbacks in 2005-2006, 2009-2010 and 2013-2014.

Combined analysis of structural ratios

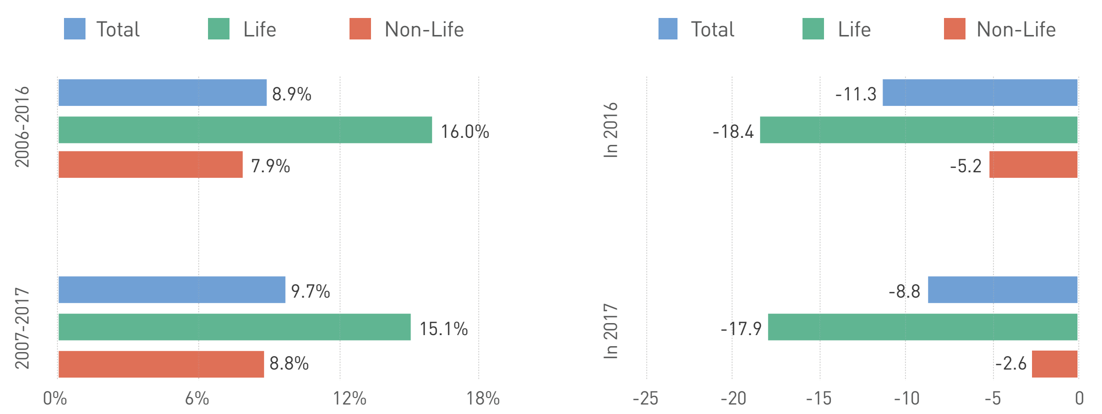
To round things off, Chart 3.1.8-s outlines the state of the Dominican market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, they all fall short of the average for Latin America, especially density and depth, strongly suggesting relatively poor levels of local development when compared with the wider region.

Insurance market rankings

Overall ranking

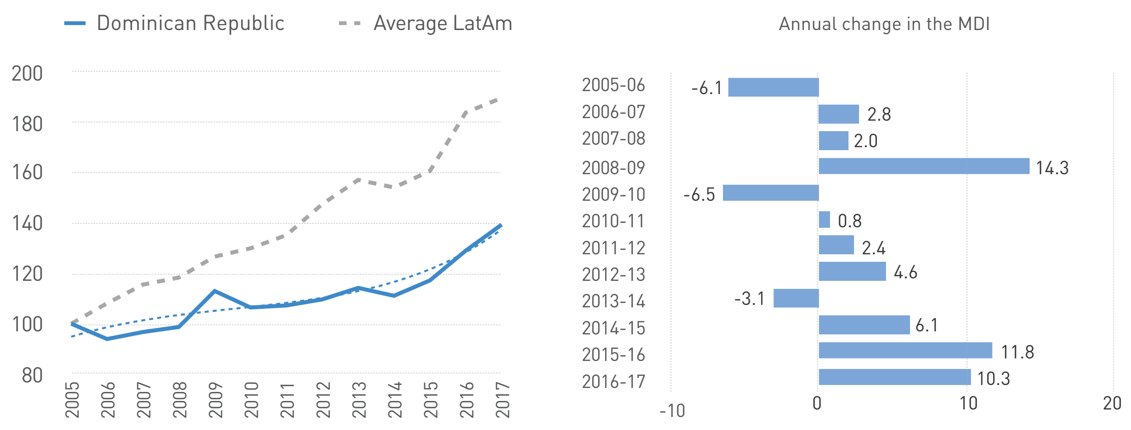
A total of 32 insurance companies were operating in the Dominican Republic in 2017. The market is highly concentrated, although in the last ten years there has been a trend toward lower levels of concentration. While steadily reducing over time, the Herfindahl index reveals that concentration levels have remained above the theoretical threshold associated with moderate levels of concentration. The CR5 index shows that the downward pattern has occurred mainly in the Non-Life insurance segment (see Chart 3.1.8-t).

Chart 3.1.8-q
Dominican Republic: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



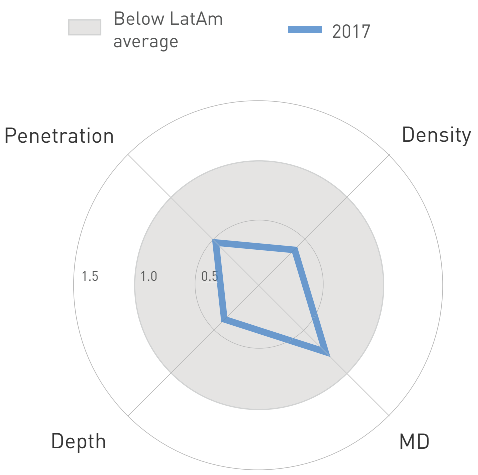
Source: MAPFRE Economic Research

Chart 3.1.8-r
Dominican Republic: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.1.8-s
Dominican Republic: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

The top ten insurance companies leading the overall ranking were the same as a year earlier. Seguros Universal tops the table, with 21.4% of premiums (down 2.7 pp on 2016), followed by Seguros Reservas (14.9%), previously known as Seguros Reservas, and then MAPFRE (13.2%). The rest of the overall ranking of the Dominican market saw only minor changes in market shares and relative positions with respect to 2016. However, we would certainly highlight the heavy gains being made by Humano Seguros, which jumped from sixth to fourth in the ranking (see Chart 3.1.8-u).

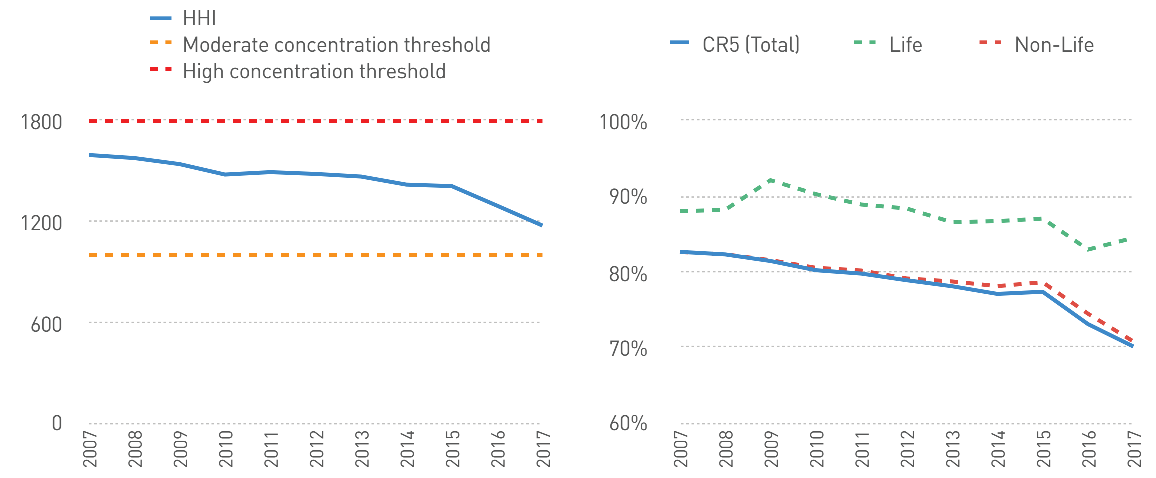
Non-Life and Life rankings

Given the significant relative weight of Non-Life insurance within the overall Dominican market, the ranking for the segment is very similar to the overall ranking)(see Chart 3.1.8-v).

The insurers topping the table for the Non-Life segment are exactly the same as in previous years. In this segment of the market, there have been only minor changes in market shares and relative standings, although the rise of Humano Seguros was certainly a highlight.

Meanwhile, the Life ranking continues to be led by Seguros Universal, with 25.3% of market premiums, followed by MAPFRE, which, with a market share of 18.3%, overtakes Seguros Reservas with its 17.6% of premiums.

Chart 3.1.8-t
Dominican Republic: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)

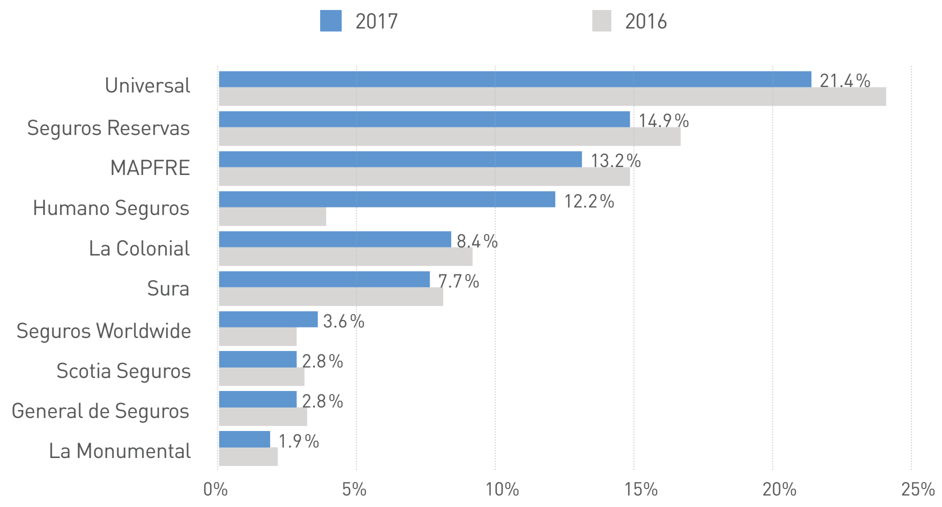


Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Key regulatory aspects

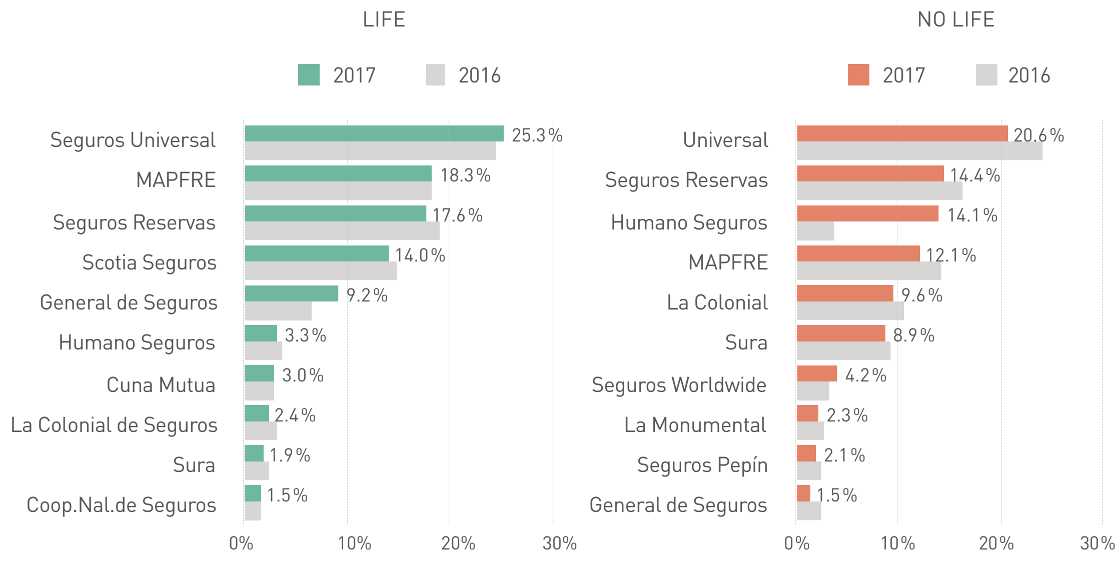
Regulatory highlights in 2017 in the Dominican Republic included the granting of permission for insurers and reinsurers authorized by the Superintendency of Insurance to consider the following investment instruments as valid investment alternatives for their reserves: a) open- and closed-ended mutual funds and those operated by mutual fund management companies authorized by the Superintendency of Securities; b) publicly-offered trust shares authorized by the

Chart 3.1.8-u
Dominican Republic: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Chart 3.1.8-v
Dominican Republic: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

Superintendency of Securities; and c) the purchase of instruments/securities that include a repurchase clause (repos) traded through stock market seat holders authorized by the Superintendency of Securities. Moreover, the government is currently reforming existing Law 146-02 on Insurance and Sureties within the Dominican Republic so as to establish branches and bring them in line with the requirements of the CAFTA-DR trade agreement signed by the Dominican Republic, the United States and Central America.

3.1.9 Puerto Rico

Macroeconomic environment

The Puerto Rican economy contracted by -7.7% in real terms in 2017, showing a further deterioration of the slump reported a year earlier (-2.6% in 2016) as the economy remains mired in a recession that has now lasted over ten years (see Chart 3.1.9-a). While exports grew at a moderate pace in 2017, imports also increased at a similar rate, hindering any real improvement in the balance of trade. Private consumption remained anemic and investment and public consumption both declined.

Fiscal challenges continued to linger despite economic reforms and budgetary adjustments, which were not enough to prevent the country from entering into default on some its debt and being classified below investment grade by the main international ratings agencies.

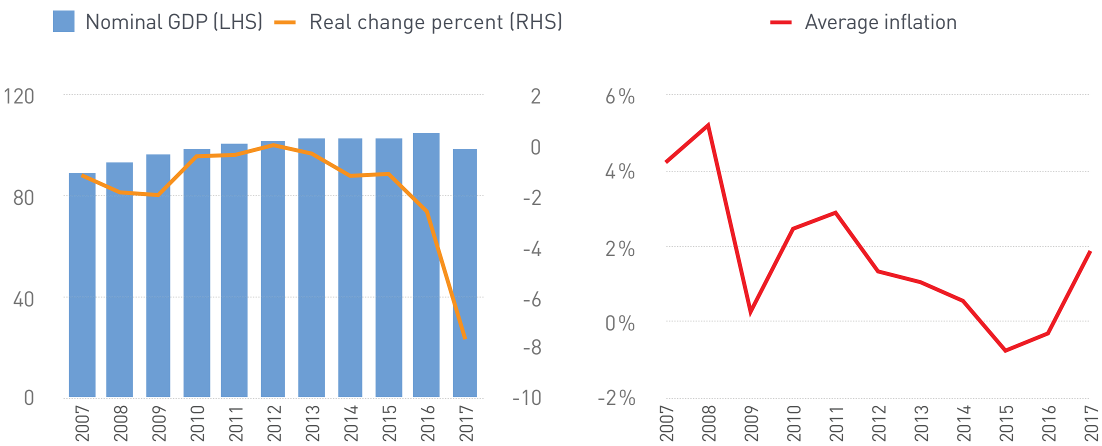
The inflation rate returned to positive territory in 2017 (1.9% versus -0.8% a year earlier), while unemployment improved by around two tenths of a percentage point to 11.8%. The IMF expects Puerto Rico's economic woes to persist throughout 2018 and estimates that GDP will shed a further 3.6%.

Insurance market

Growth

As shown in Chart 3.1.9-b and Table 3.1.9, the Puerto Rican insurance market was down 0.7% in nominal terms in 2017 (-2.5% real) to reach 12.77 billion dollars in premiums, at odds with nominal growth of 6.2% in 2016 (6% in real terms). Premiums from the Life segment in 2017 (which account for 9% of the total market) were down 8.9% in nominal terms (-10.5% real).

Chart 3.1.9-a
Puerto Rico: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of USD; real growth rate, percent; annual inflation rate, percent)

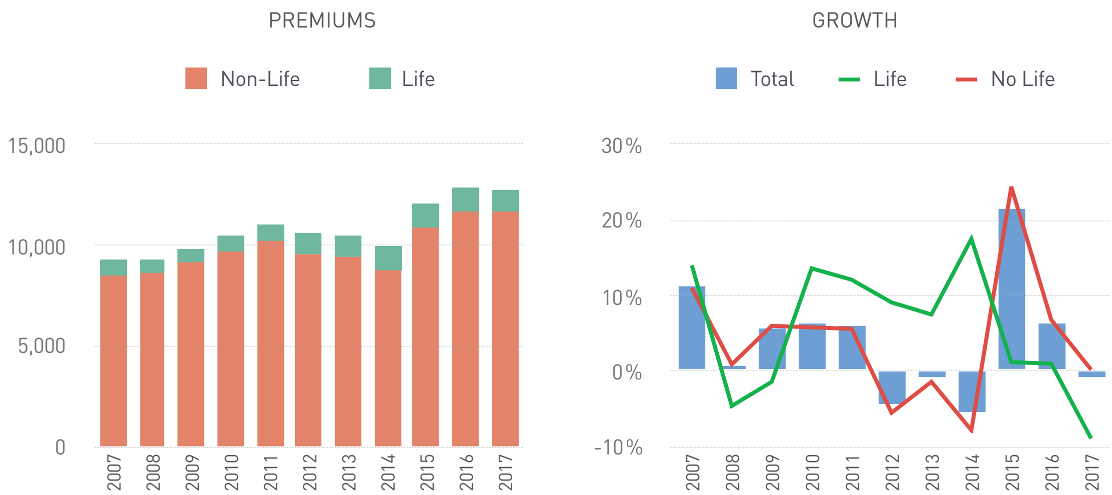


Source: MAPFRE Economic Research (based on IMF data)

Meanwhile, Non-Life insurance premiums grew just 0.2% in nominal terms, yielding a loss of -1.7% in real terms. Of the total premiums for the Non-Life segment, 84.8% relate to Health, which barely managed to grow in 2017 (+0.1% in real terms). All other Non-Life modalities were down, save for Transport, which gained 4.7%, and Other lines, which added 13.9%.

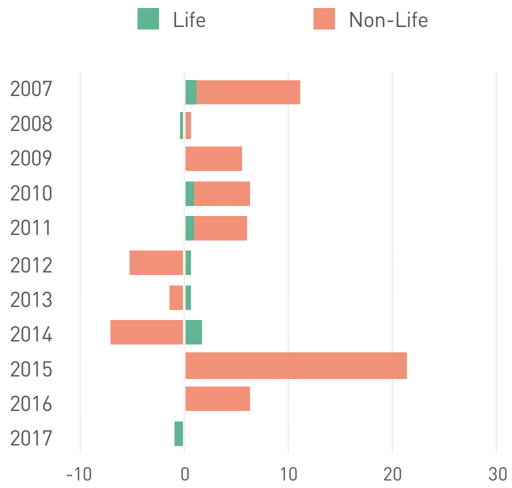
Thus, as illustrated in Chart 3.1.9-c, practically all the negative growth reported by the Puerto Rican insurance market in 2017 was down to the impact of Life insurance, which contributed a negative 0.9 percentage points, while the Non-Life insurance segment added a positive yet paltry 0.2 percentage points.

Chart 3.1.9-b
Puerto Rico: growth developments in the insurance market, 2007-2017
(premiums, millions of USD; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Chart 3.1.9-c
Puerto Rico: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Balance sheet and equity

Chart 3.1.9-d shows changes in the aggregate balance sheet of insurance companies domiciled in Puerto Rico between 2007 and 2017. The total assets of the insurance industry amounted to 9.43 billion dollars in 2017, while equity stood at 2.62 billion dollars, 5.1 percentage points higher than in 2016.

The aggregate capitalization level of insurance companies operating in the country (measured over total assets) remained above 30% over the 2007-2017 period, peaking in 2012 at 35.3% and then declining to reach 27.8% in 2017.

Investment and technical provisions

Chart 3.1.9-e shows developments in the aggregate investment portfolio at sector level for insurers operating in Puerto Rico between 2010 and 2017. The total portfolio amounted to 7.24 billion dollars in 2016, up 15.2% on the previous year. Chart 3.1.9-f shows changes in technical provisions at sector level over the period now under analysis. Provisions came to 3.68 billion dollars in 2017, down 8.2% year on year.

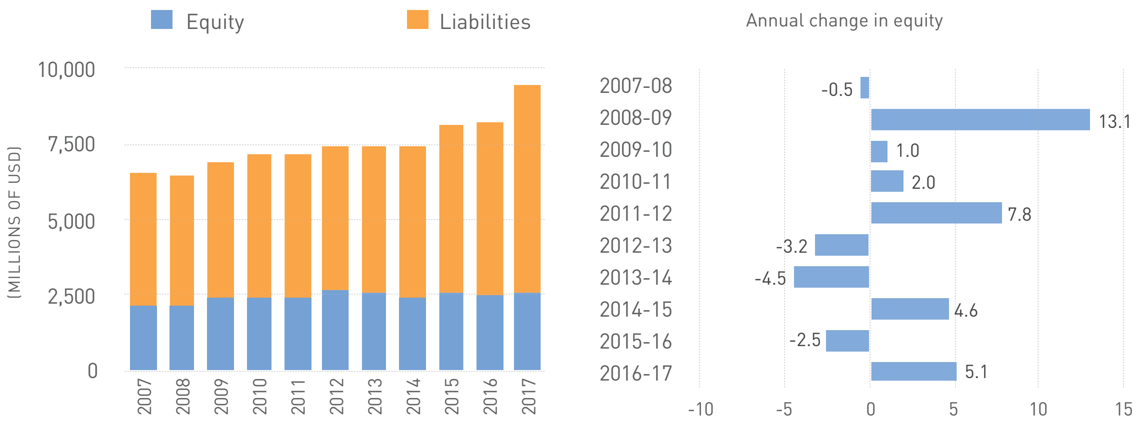
Is is not possible on the basis of available data to provide a more detailed disaggregation of the composition of both investment and technical provisions.

Table 3.1.9
Puerto Rico: premium volume[1] by line of business, 2017

Line of business[2]	Millions of USD	Increase	
		Nominal (%)	Real (%)
Total	**12,778**	**-0.7**	**-2.5**
Life	**1,153**	**-8.9**	**-10.5**
Non-Life	**11,625**	**0.2**	**-1.7**
Health	9,862	0.1	-1.8
Automobile	634	-1.7	-3.5
Third-party liability	156	-9.9	-11.6
Fire and/or allied lines	215	-15.6	-17.2
Transport	117	4.7	2.7
Other lines	642	13.9	11.8

Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)
1/ Premiums net of returns and cancellations
2/ For 2016, compulsory motor insurance was transferred from "Other lines" to the "Automobile" line.

Chart 3.1.9-d
Puerto Rico: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



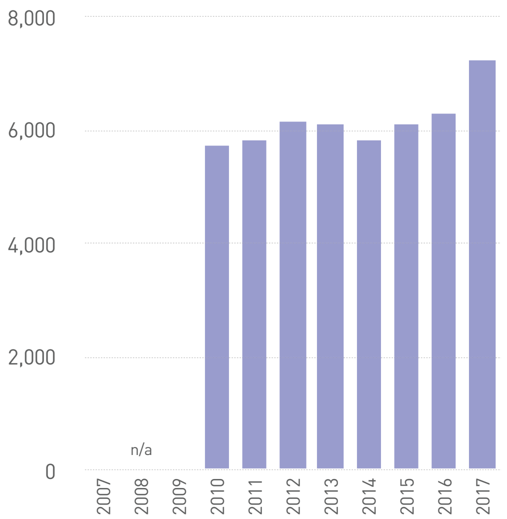
Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Results and profitability

The Puerto Rican insurance industry posted a consolidated result of 338 million dollars in 2017, revealing a year-on-year increase of 98.2%.

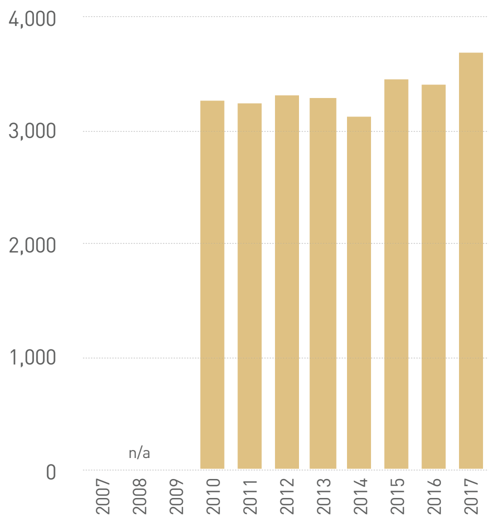
In terms of profitability, the Puerto Rican market posted a return on equity (ROE) of 12.9% in 2017, up 6.1 percentage points on 2016. In similar fashion, return on assets (ROA) came to 3.6% in 2017, up 1.5 percentage points year on year (see

Chart 3.1.9-e
Puerto Rico: insurance market investment, 2007-2017
(millions of USD)



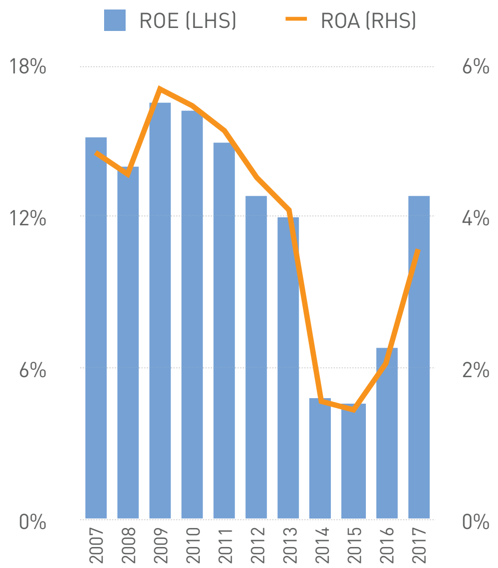
Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Chart 3.1.9-f
Puerto Rico: technical provisions of the insurance market, 2007-2017
(millions of USD)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Chart 3.1.9-g
Puerto Rico: profitability, 2007-2017
(%; ROE, %; ROA, %)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Chart 3.1.9-g). The performance of both indicators in the year effectively confirms the ongoing trend of growing profitability within the Puerto Rican insurance industry, which first emerged in 2015.

Insurance penetration, density and depth

Chart 3.1.9-h shows the main structural trends shaping the development of the Puerto Rican insurance industry between 2007 and 2017. The penetration index (premiums/GDP) stood at 12.9% in 2017, up 0.7 percentage points on the previous year and some 2.6 percentage points higher than in 2007. It is the highest indicator value to be found in all of Latin America and is largely because premium volumes in this segment include Health insurance for the poorest groups of society, which is managed by the insurance industry but covered by government budgets.

Meanwhile, insurance density in Puerto Rico (premiums per capita) came to 3,488 dollars (also the highest in the region), down 0.6% on the level reported a year earlier (3,509 dollars). As with penetration, density has continued to grow over the period now under analysis, with cumulative growth of 41.2% between 2007 and 2017.

The depth index for the Puerto Rican insurance market (Life insurance premiums to total premiums) stood at 9.0%, 0.8 percentage points below the 2016 value and 11.3 percentage points above the depth level reported in 2007. In contrast to the penetration and density indicators, the depth growth of the Puerto Rican insurance market has been well below the trend for the wider Latin American market.

Estimation of the Insurance Protection Gap

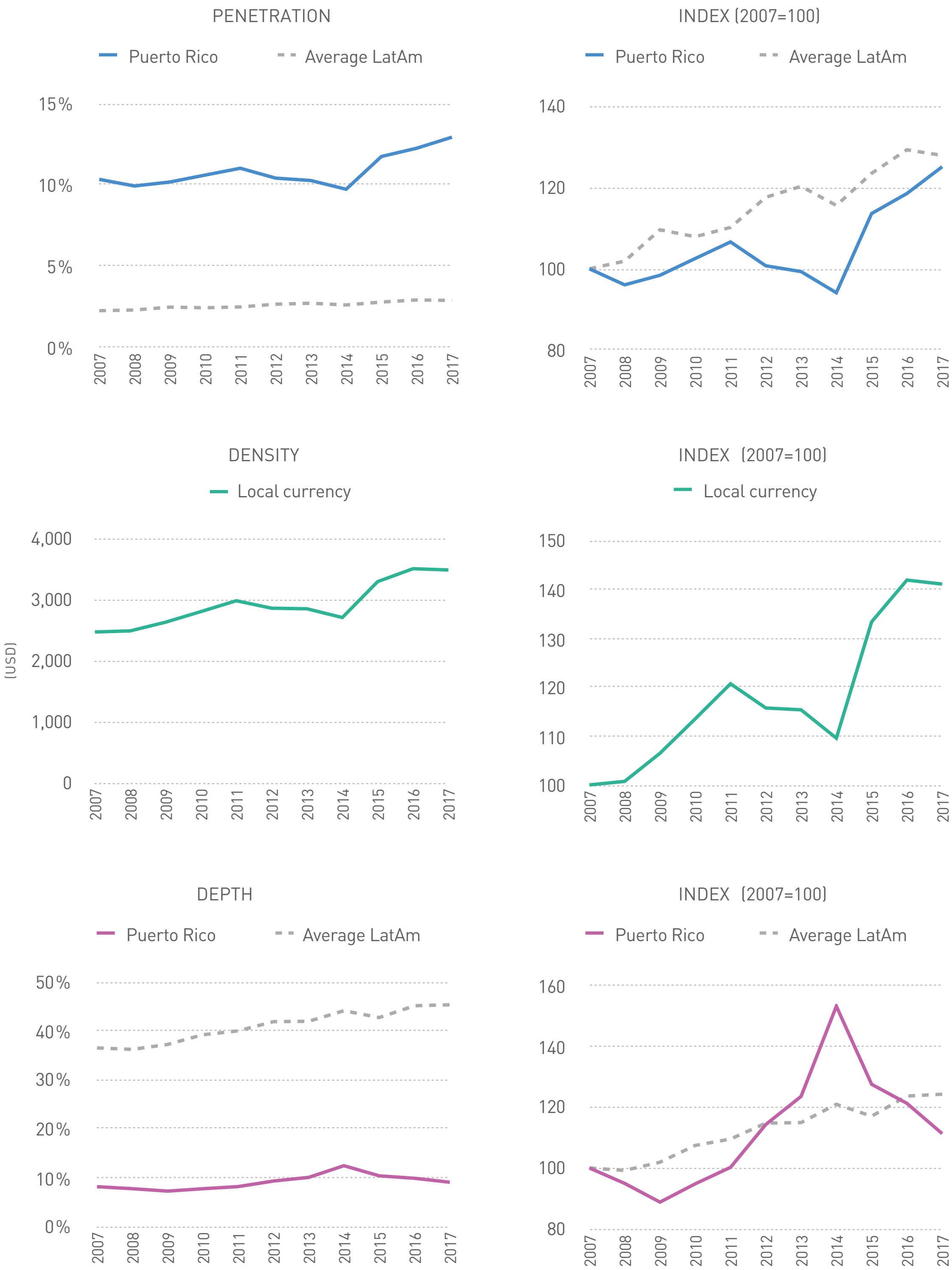
Chart 3.1.9-i provides an estimate of the IPG for the Puerto Rican insurance market between 2007 and 2017. It shows that the insurance gap amounted to 2.92 billion dollars in 2017, some 0.2 times the size of the actual insurance market in Puerto Rico at the end of that year.

The structure and performance of the insurance gap over the period are shaped by the absolute predominance of the Life insurance segment, given the relative size of the Non-Life insurance segment (dominated by growth in Health insurance). Therefore, nearly the entire IPG was a product of the Life insurance segment at the end of 2017. Accordingly, the potential insurance market in Puerto Rico at the end of 2017 (sum of the actual market plus the IPG) is estimated at 15.70 billion dollars, some 1.2 times the size of the total insurance market that year.

Chart 3.1.9-j provides an estimate of the IPG as a multiple of the actual insurance market in Puerto Rico. The insurance gap multiple (concentrated in the Life insurance segment) has continually declined between 2007 and 2017, falling from 4.8 to 2.5 over the period.

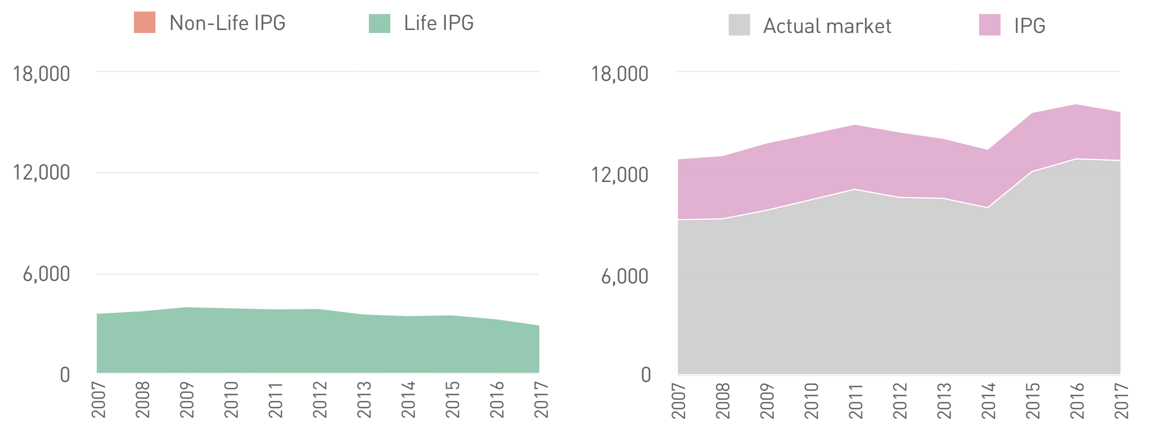
Chart 3.1.9-p rounds off this analysis by summarizing changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Puerto Rican insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. It shows an improvement in the insurance gap mainly in the Life segment.

Chart 3.1.9-h
Puerto Rico: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

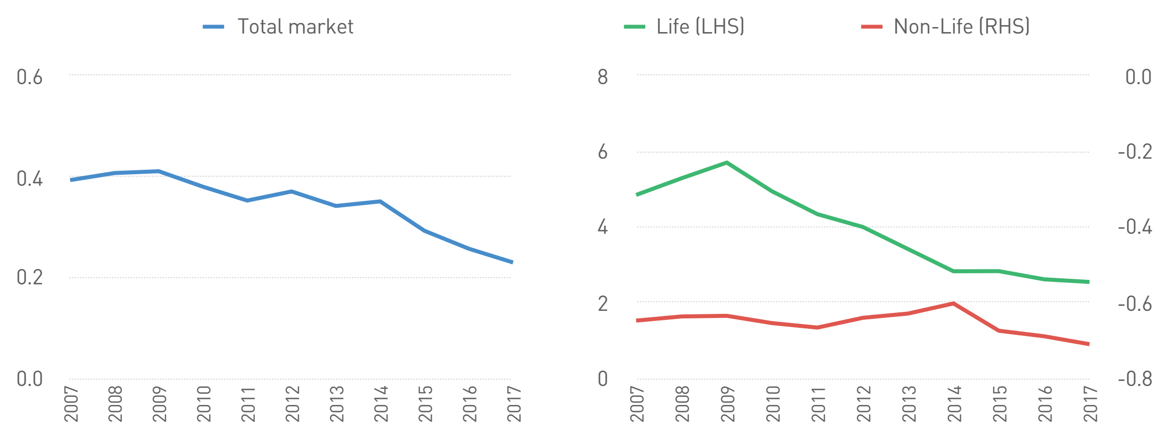
Chart 3 3.1.9-i
Puerto Rico: Insurance Protection Gap and potential market, 2007-2017
(millions of USD)



Source: MAPFRE Economic Research

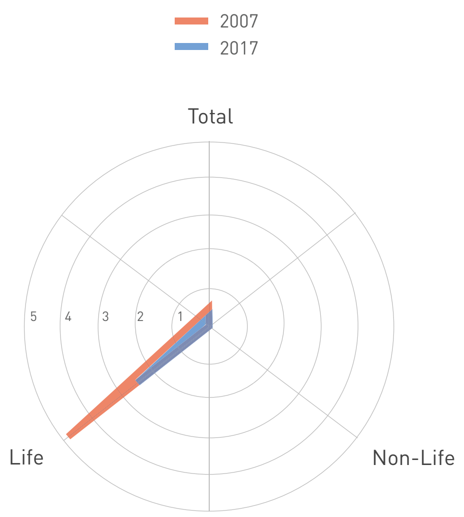
Chart 3.1.9-l outlines the capacity of the Puerto Rican insurance market to close the insurance gap, based on a comparison between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years. The Puerto Rican insurance market registered average annual growth of 3.3% over the last ten years, comprising an annual growth rate of 4.4% in the Life insurance segment and of 3.2% in the case of Non-Life insurance. Were the same rate of growth observed of the last ten years to continue over the next ten years, then the growth rate of the Puerto Rican insurance market would fall 9.1 percentage points short of closing the gap in the Life insurance segment, which accounts for the bulk of the insurance gap in this insurance market.

Chart 3.1.9-j
Puerto Rico: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.1.9-k
Puerto Rico: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

This shortfall has in fact grown when compared with the same calculation for 2016 (when it was -7.6 pp).

Market Development Index (MDI)

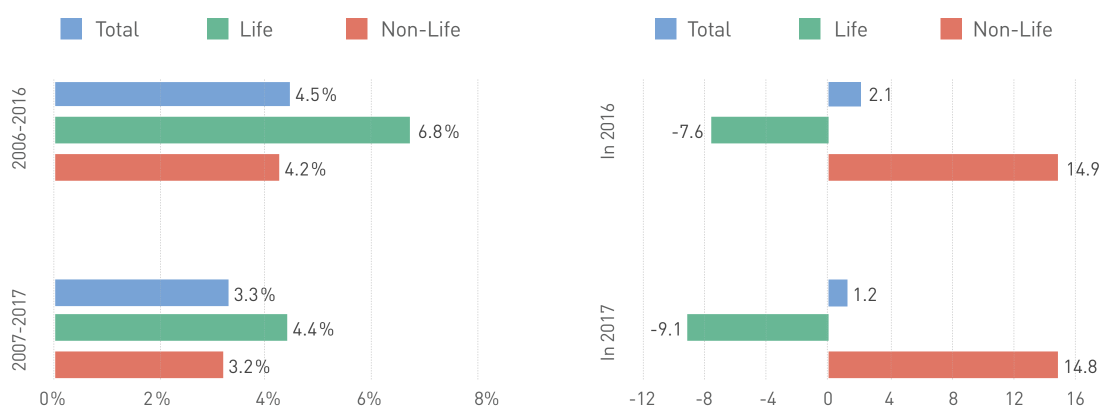
Chart 3.1.9-m provides an estimate of the Market Development Index (MDI) for the Puerto Rican insurance industry. As can be seen, the MDI has performed positively since 2009, when it clearly started to converge toward the average for all Latin American insurance markets.

Combined analysis of structural ratios

To round things off, Chart 3.1.9-n outlines the state of the Puerto Rican insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report.

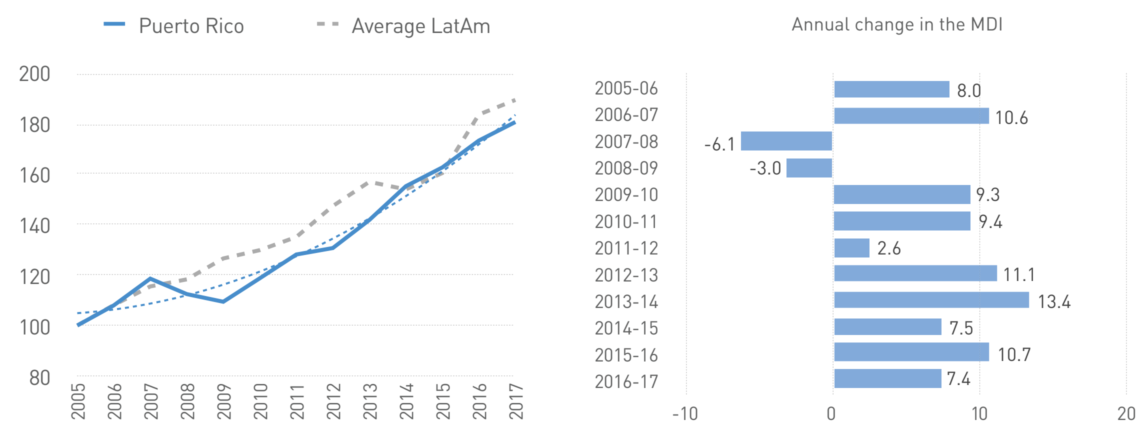
With the exception of depth (due to the insufficient relative development of the Life insurance segment within the Puerto Rican market), all the other indicators, especially penetration and density, are well above the average for Latin America. This is because private health insurance is a highly developed concept in Puerto Rico, as discussed previously. The market development index, however, is on par with the average for the wider region.

Chart 3.1.9-l
Puerto Rico: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



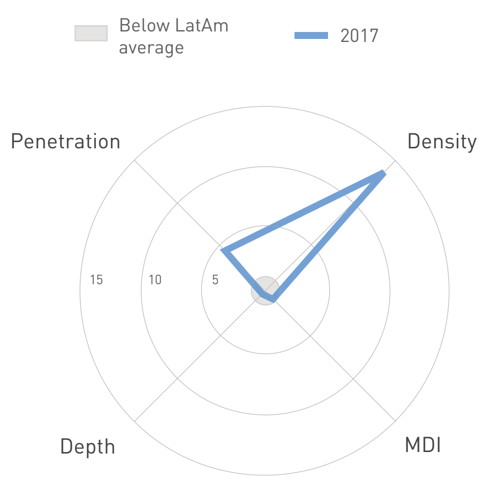
Source: MAPFRE Economic Research

Chart 3.1.9-m
Puerto Rico: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.1.9-n
Puerto Rico: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Insurance market rankings

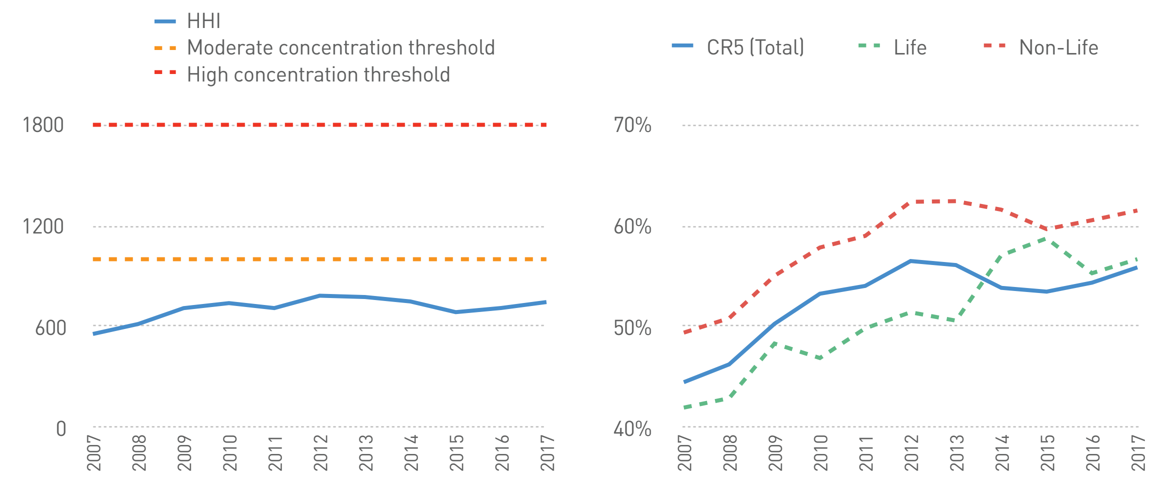
Overall ranking

A total of 373 insurers were operating in Puerto Rico in 2017. Compared with 2016, there were fourteen property and casualty insurers fewer, including one domestic insurer. Moreover, there were seven reinsurers authorized to operate in both Life and disability and in Property and Casualty.

According to the indexes that measure market concentration (see Chart 3.1.9-o), concentration rose between 2007 and 2012 before falling over the following three years, followed by a slight pick-up since 2016. Even so, the Herfindahl index shows that the level of concentration within the industry has remained consistently below the technical threshold indicative of moderate concentration. However, there has been a notable spike in concentration in the Life insurance segment from 2013 onward.

The top three spots in the overall ranking of insurance groups are occupied by insurance groups whose market share are well ahead of the other market participants. Once again, Triple-S topped the table with a 22.7% share of total premiums. It is followed by InnovaCare (MMM and

Chart 3.1.9-o
Puerto Rico: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



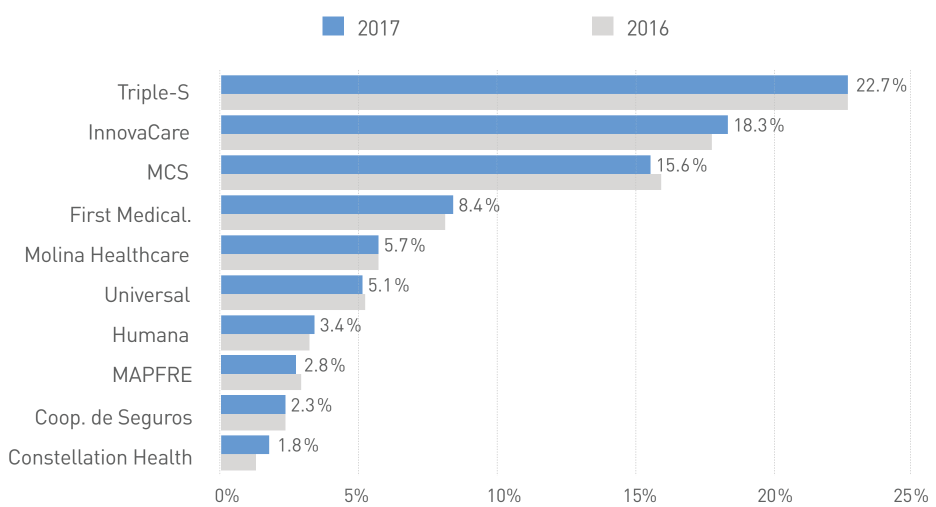
Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

PMC), with a share of 18.3%, and in third place we have MCS, with a 15.6% share of the market (see Chart 3.1.9-p).

Non-Life and Life rankings

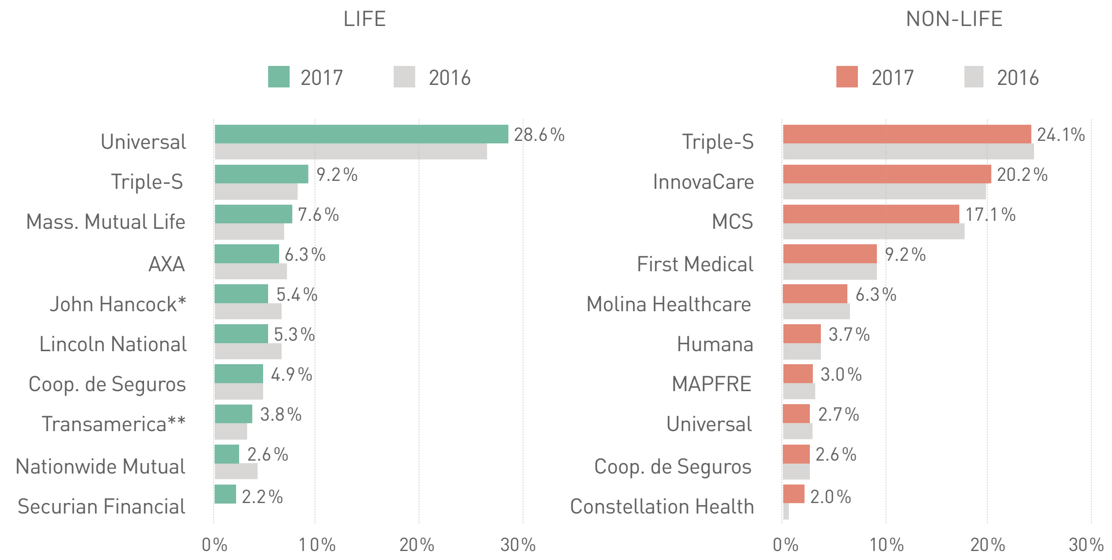
Given the significant relative weight of Health insurance in Puerto Rico, the overall and Non-Life rankings are very similar. Triple-S therefore led the way, with a 24.1% share of Non-Life premiums. InnovaCare (MMM and PMC) is in second place with a market share of 20.2% and MCS is third on 17.1% (see Chart 3.1.9-q).

Chart 3.1.9-p
Puerto Rico: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)

Chart 3.1.9-q
Puerto Rico: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)
* Formerly Manulife ** Formerly Aegon

Meanwhile, the top three spots in the Life insurance market in Puerto Rico are held by Universal Life, with a share of 28.6% of premiums, followed by Triple-S with a 9.2% market share, and finally Massachusetts Mutual Life on 7.6%.

Key regulatory aspects

Here we would highlight the following legal changes to the framework of prudential regulation of the insurance industry, along with various sets of regulations issued by the Office of the Insurance Commissioner of Puerto Rico:

- Act no. 82-2017, amending Articles 44,010, 44,050, 44,070, 44,080 and 44,090 and adding new Articles 44,071 and 44,072 to Act no. 77 of June 19, 1957, as amended, known as the Puerto Rico Insurance Code, the purpose of such amendments being to update the provisions of Chapter 44 of the Code, on the "Law governing the Control of Health Insurers or Organizations by Parent Undertakings of Insurance Companies", so as to bring them in line with the new regulatory standards being pushed through by the National Association of Insurance Commissioners (NAIC) under the model Act known as the Insurance Holding Company System Regulatory Act (MDL-440); and for other related purposes.

- Approval of various circulars and regulatory letters as a result of Hurricane Irma, so as to give the insurance sector the ad hoc flexibility it needs.

- Repeal effective as of July 20, 2017 of Rule 101 of the Regulations of the Puerto Rico Insurance Code No. 8878, such rule governing standards for service agreements. Rule 101 has been repealed in response to the harmonization of regulatory criteria with the National Association of Insurance Commissioners (NAIC).

- Approval of regulatory letter No. CN-2017-213-EX, whereby insurers are required to post the reserve for catastrophic losses under the terms of article 25,030 of the Puerto Rico Insurance Code.

- Changes in the scope of consolidation for small- and medium-sized enterprises (SMEs) in accordance with the federal regulation titled "Protecting Affordable Coverage for Employees Act" through Regulatory Letter No. CN-2017-219-AS.

3.2 South America

3.2.1 Colombia

Macroeconomic environment

The Colombian economy slowed slightly in real terms in 2017, posting growth of 1.8% following a 2.0% showing a year earlier. The slowdown was largely a product of weaker domestic demand (see Chart 3.2.1-a). Economic growth in the country was driven by the measures rolled out to increase public revenue and curb expenditure as the government continues to bring public finances in line. The fiscal deficit ended 2017 at 3.2% of GDP, compared with 3.9% a year earlier.

Meanwhile, the current account deficit has been adjusting downward from values above 4% in 2016 to reach 3.3% of GDP at year-end 2017. Rising mineral and oil prices aided this improvement by effectively increasing proceeds from international sales of fuel.

The inflation rate fell sharply throughout the year, reaching 4.3% for the whole year (7.5% en 2016). This allowed the central bank to relax monetary policy by dropping its intervention rate by 300 basis points (bp) from 7.75% in November of 2016 to 4.75% at year-end 2017. The central bank has since continued to lower its rates, which stood at 4.25% in April 2018. While the rate reductions have been slow in feeding through to lending activity, it is expected that the slowdown in consumption and the slow pace of investment in 2017 will pick up at some point. Unemployment came to 9.4%, compared with 9.2% a year earlier.

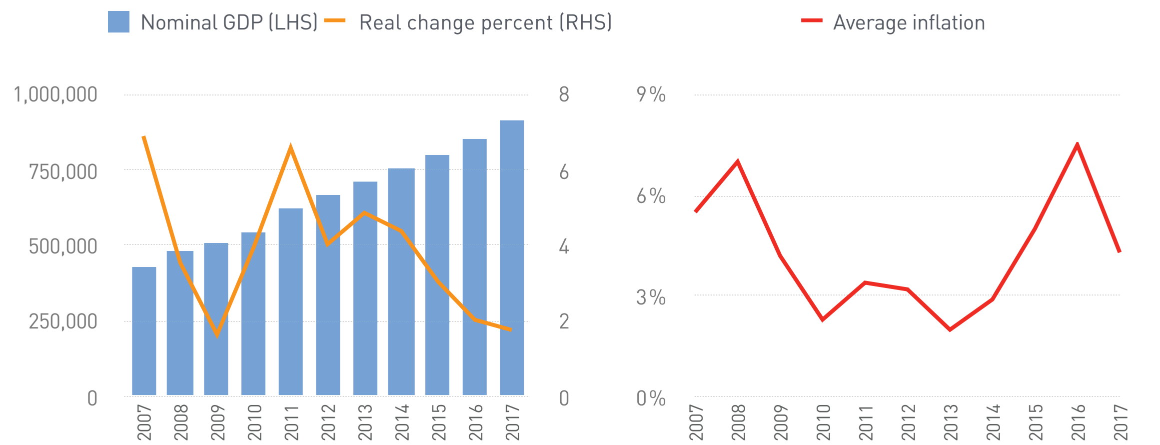
ECLAC expects Colombian GDP to grow by some 2.6% on the back of lower interest rates and rising oil prices, among other factors. For its part, the IMF estimates that the economy will post 2.7% growth in 2018.

Insurance market

Growth

The Colombian insurance industry banked 26 trillion pesos (8.81 billion dollars) in premiums in 2017, up 9% in nominal terms but still slightly down on the previous year, when it reported nominal growth of 10.9%. However, a lower inflation rate in 2017 had the effect of pushing up industry growth in real terms to reach 4.5% versus 3.1% the previous year (see Table 3.2.1-a and Chart 3.2.1-b).

Chart 3.2.1-a
Colombia: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



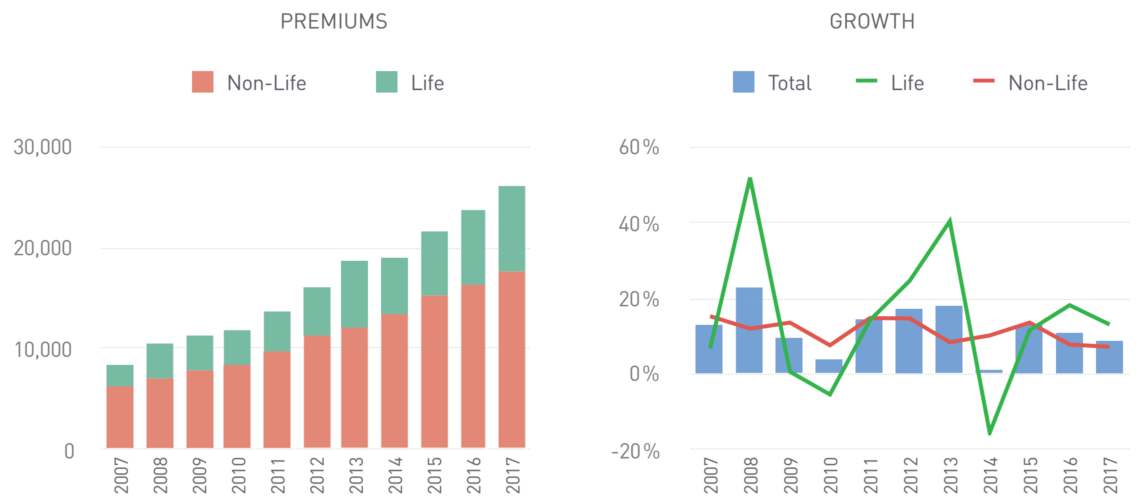
Source: MAPFRE Economic Research (based on IMF data)

Table 3.2.1-a
Colombia: premium volume[1] by line of business, 2017

Line of business	Millions of pesos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**26,003,162**	**8,815**	**9.0**	**4.5**
Life	**8,436,839**	**2,860**	**13.1**	**8.4**
Life - Group and individual	4,539,715	1,539	10.1	5.5
Pension insurance	3,897,124	1,321	16.7	11.9
Non-Life	**17,566,323**	**5,955**	**7.2**	**2.8**
Automobile	3,359,420	1,139	13.1	8.5
Other lines	2,404,727	815	-4.6	-8.6
SOAT[2]	2,323,838	788	8.5	4.0
Health	1,658,251	562	14.0	9.3
Earthquake	783,742	266	6.6	2.2
Fire	766,569	260	-0.2	-4.3
Third-party liability	912,216	309	5.0	0.7
Personal accident	1,032,570	350	1.8	-2.4
Transport	314,138	106	3.6	-0.6
Theft	367,217	124	11.4	6.8
Aviation	118,036	40	-1.2	-5.3
Credit	77,721	26	15.9	11.1
Workplace accidents	3,447,877	1,169	11.5	6.9

Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)
1/ Written premiums
2/ Mandatory traffic accident insurance

Chart 3.2.1-b
Colombia: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)



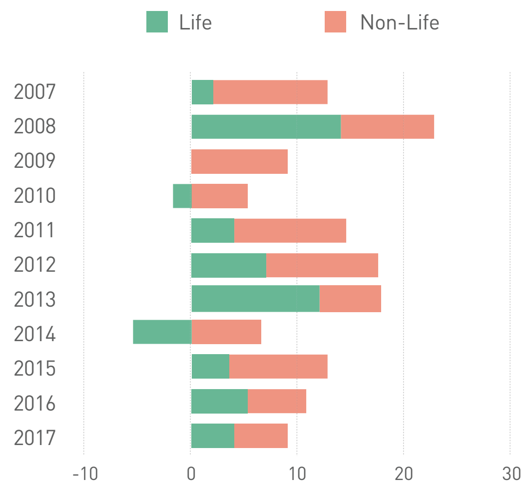
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

The Life segment of the market (which accounts for 32% of the entire industry) reported a nominal increase of 13.1% in 2016 (8.4% real), confirming the recovery registered in 2015 (12%) and following a contraction of this segment in 2014 (-15.5%). Pension insurance continued to grow at a healthy pace (+16.7%) and individual and group Life also fared well, gaining 10.1%.

Meanwhile, Non-Life insurance (which accounts for 68% of the market) grew by 7.2% in 2017 (2.8% in real terms). Health insurance, Automobile insurance and Mandatory Traffic Accident Insurance (known as SOAT) were once again the main growth drivers in this segment, with Health and Automobile both reporting double-digit growth. Conversely, Other lines (-4.6%), Fire (-0.2%) and Aviation (-1.2%) were all down in the year.

These figures show that the growth of the Colombian insurance industry in 2017 was a balanced affair in terms of market composition. As can be seen from Chart 3.2.1-c, the Life segment contributed 4.9 percentage points to the overall growth of 9% in the country's insurance industry, while the Non-Life segment supplied the remaining 4.1 percentage points.

Chart 3.2.1-c
Colombia: contribution to insurance market growth, 2007-2017
(percentage points, pp)

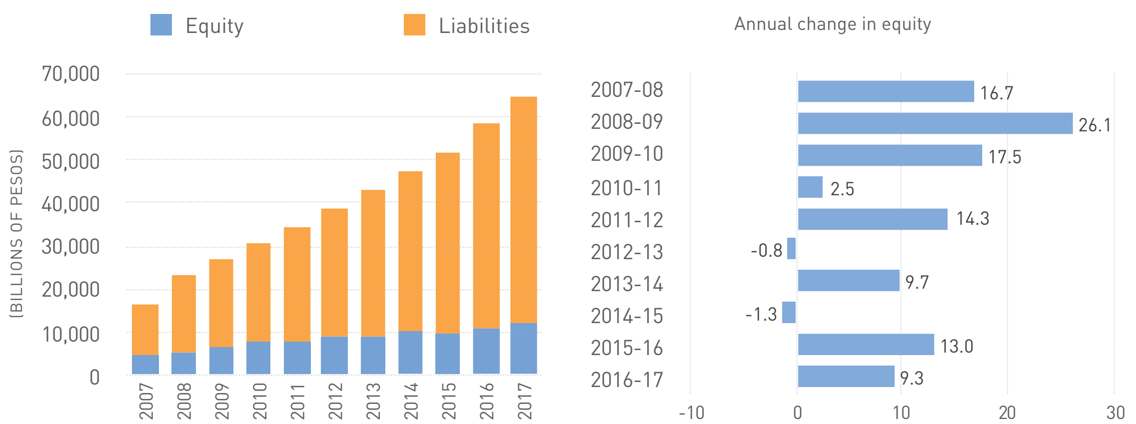


Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Balance sheet and equity

Chart 3.2.1-d shows the performance of the aggregate balance sheet at sector level for the Colombian insurance industry between 2007 and 2017. The industry's total assets amounted

Chart 3.2.1-d
Colombia: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

to 64.88 trillion pesos (21.99 billion dollars). Aggregate equity came to 12.18 trillion pesos (4.13 billion dollars) in 2017, up 9.3 percentage points on the previous year.

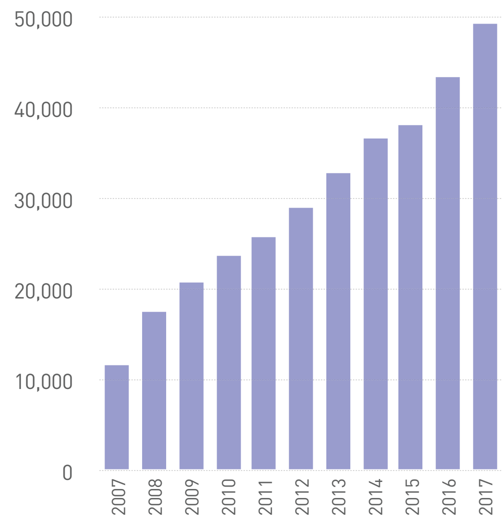
Meanwhile, aggregate capitalization levels for the Colombian insurance industry (relative to total assets) experienced a downward trend over the period under analysis, falling to 19.1% of total assets by the end of 2017, the same percentage as in 2016 (27.3% at the end of 2007).

Investment

Chart 3.2.1-e shows changes in investment within the Colombian insurance industry between 2007 and 2017, while Charts 3.2.1-f and 3.2.1-g highlight the changes in the structure of the investment portfolio during that period.

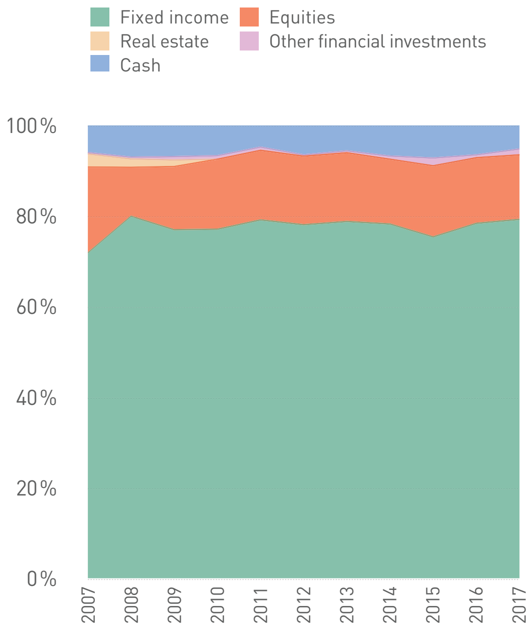
As can be seen, in the last year of the period now under analysis investment in the Colombian insurance industry totaled 49.24 trillion pesos (16.69 billion dollars). In terms of structure, investment was concentrated in fixed income (79.4%) and, to a lower proportion (14.2%), in equity instruments. Significantly, real estate

Chart 3.2.1-e
Colombia: insurance market investment, 2007-2017
(billions of pesos)



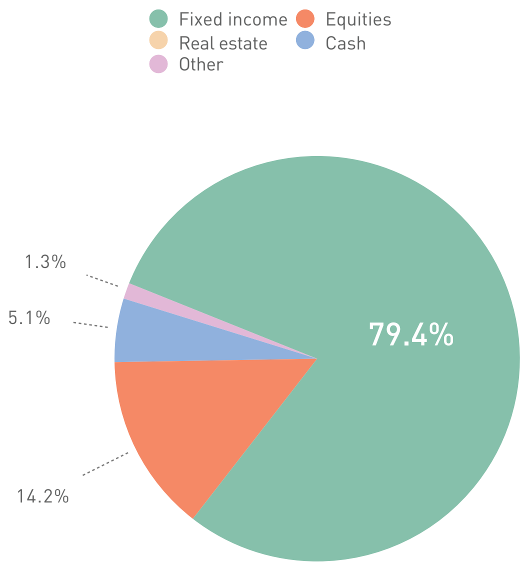
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-f
Colombia: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-g
Colombia: structure of investment, 2017
(%)



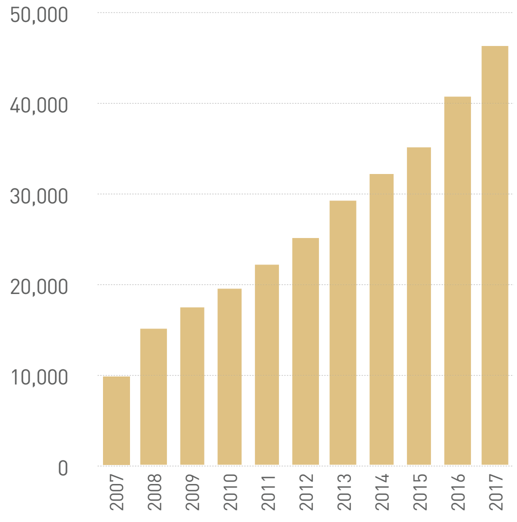
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

investment has all but disappeared from the investment portfolio over the last ten years, with the weight clearly shifting to fixed income and equities during the period under analysis.

Technical provisions

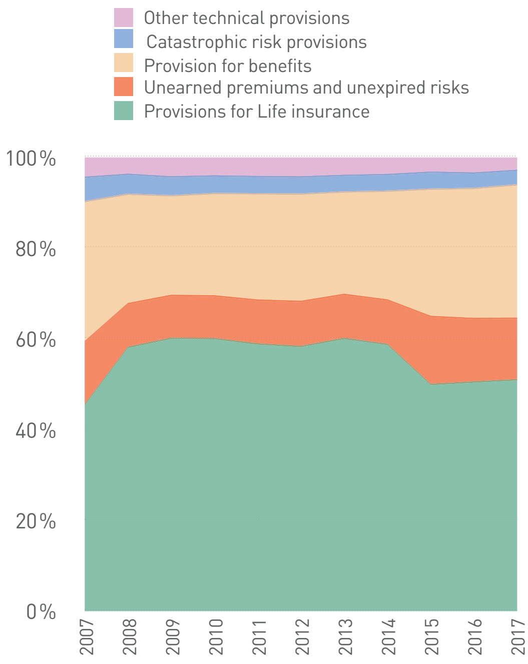
Chart 3.2.1-h shows changes in technical provisions between 2007 and 2017, while Charts 3.2.1-i and 3.2.1-j highlight their relative composition over that period. Technical provisions amounted to 46.42 trillion pesos (15.73 billion dollars) in 2017. Of the total provisions, 51.1% related to Life insurance, 13.5% to provisions for unearned premiums and unexpired risks in Non-Life insurance, 29.4% to provision for outstanding benefits, 3.2% to provisions for catastrophic risks and the remaining 2.8% to other technical provisions.

Chart 3.2.1-h
Colombia: technical provisions of the insurance market, 2007-2017
(billions of pesos)



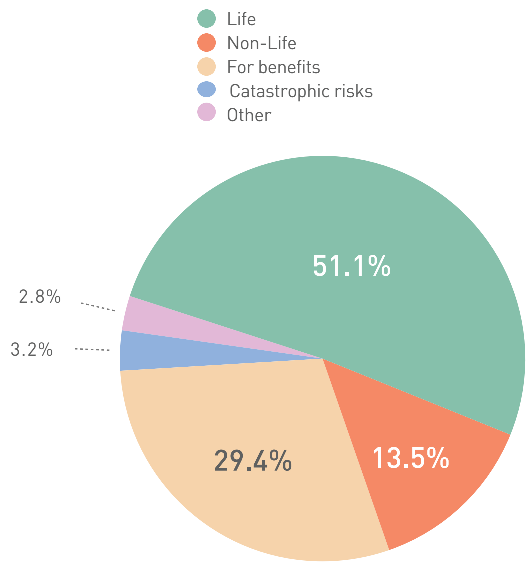
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-i
Colombia: structure of technical provisions, 2007-2017
(%)



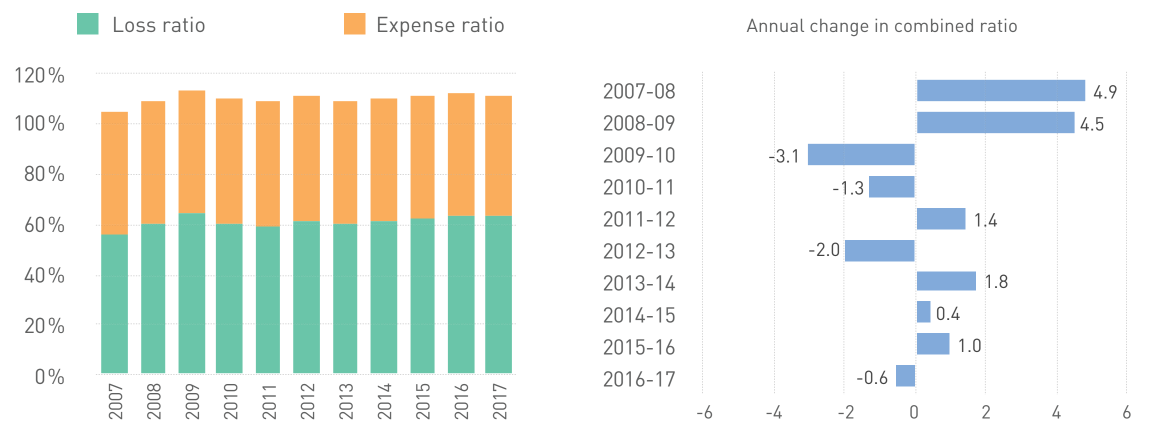
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-j
Colombia: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-k
Colombia: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



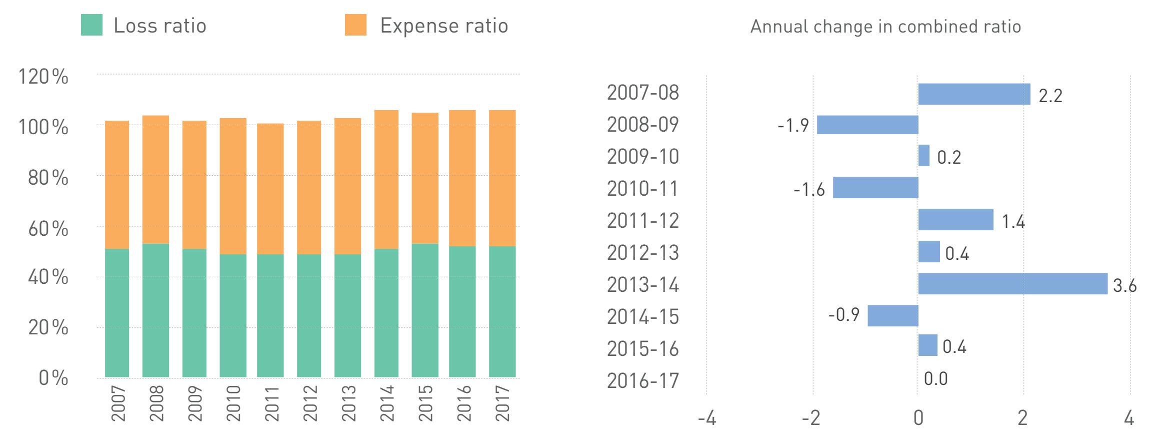
Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

A medium-term analysis reveals sustained absolute growth in technical provisions across the Colombian insurance industry between 2007 and 2017, save for a slight dip in the Life insurance business in 2015, which then rallied from 2016 onward to surpass the level reported in 2007. Please note that the fluctuations in technical provisions observed in recent years is mainly a result of the implementation and adoption of IFRS standards.

Technical performance

The Colombian insurance industry ended 2017 with a negative technical result. The total combined ratio improved by over half a percentage point to reach 111.3%, following an improvement of around one percentage point in the expense ratio, despite a slight increase of 0.3 percentage points in the loss ratio. Recent years have seen an upward trend in the loss ratio and

Chart 3.2.1-l
Colombia: changes in the technical performance of the Non-Life market, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

a stabilization of the combined ratio at around 111% (see Chart 3.2.1-k).

Meanwhile, the combined ratio of companies operating in general insurance (Non-Life) reveals an equally negative performance. In 2017, the ratio remained stable at 105.6% and the loss and expense ratios were both virtually unchanged when compared with the previous year. As Chart 3.2.1-l clearly shows, there have been years, including 2017, when the expense ratio has even exceeded the loss ratio.

Results and profitability

The net result of the Colombian insurance business in 2017 was 1.80 trillion pesos (611 million dollars), up 8.2% year on year. This is explained by the fact that the positive financial results were able to offset the market's relatively poor technical performance (see Chart 3.2.1-m).

Meanwhile, the sector's profitability was virtually the same as in 2016. Return on on equity (ROE) came to 14.8% in 2017, compared with 14.9% a year earlier. The same can be said for return on assets (ROA), which reached 2.8% in 2017, down slightly on 2016 by just 0.1 percentage points.

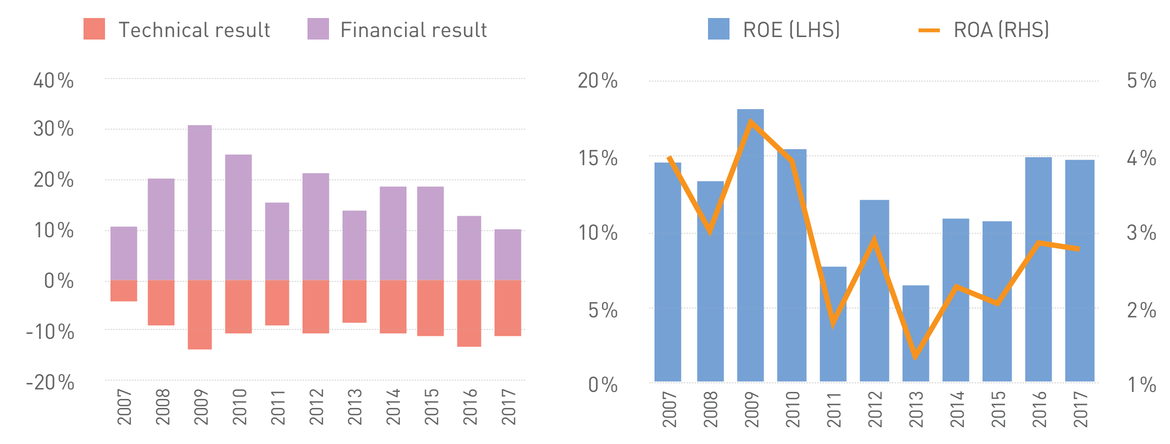
Insurance penetration, density and depth

Chart 3.2.1-n shows the main structural trends shaping the development of the Colombian insurance industry between 2007 and 2017. The penetration index (premiums/GDP) came to 2.8% in 2017, up 0.9 percentage points on the 2007 figure. The penetration ratio for the Colombian market has grown steadily since 2007, in line with the average for the wider Latin American insurance market, although it remains slightly below the absolute average values for the region.

Meanwhile, insurance density in Colombia (premiums per capita) amounted to 530,037 pesos (180 dollars) in 2017, up 8.1% year on year (490,220 pesos). Like the penetration index, density in the Colombian market (measured in local currency) climbed steadily between 2007 and 2017. However, when measured in dollars it shows a decline from 2013 through to 2016 owing to the devaluation of the Colombian peso versus the US dollar, although this situation corrected itself in 2017.

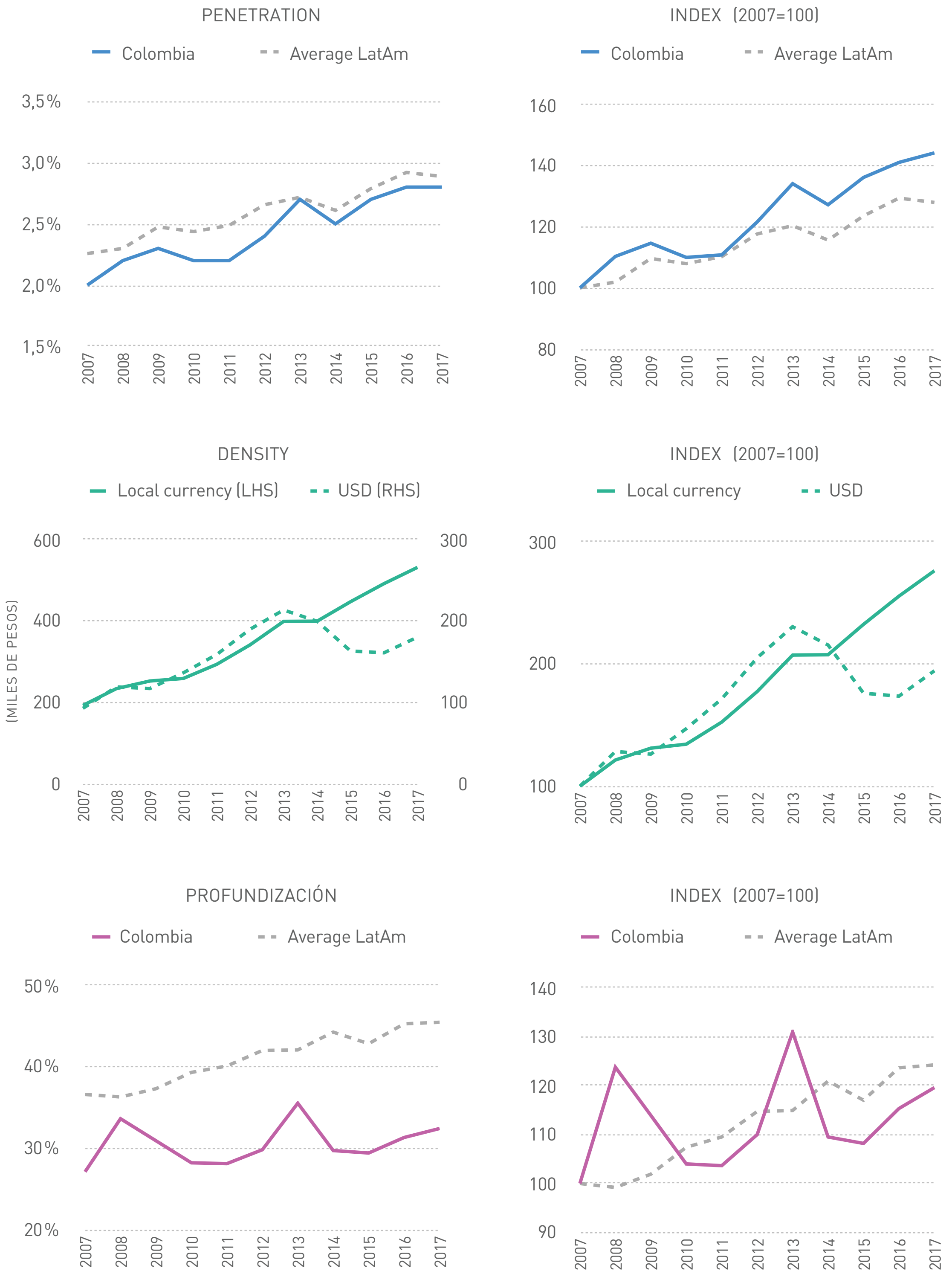
The depth (Life insurance premiums to total premiums) of the Colombian insurance market stood at 32.4% in 2017, 5.3 percentage points

Chart 3.2.1-m
Colombia: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-n
Colombia: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

above the level reported in 2007. Depth has experienced timid growth over the entire period under analysis, despite remaining consistently below the absolute values for the average of all Latin American countries.

Estimation of the Insurance Protection Gap

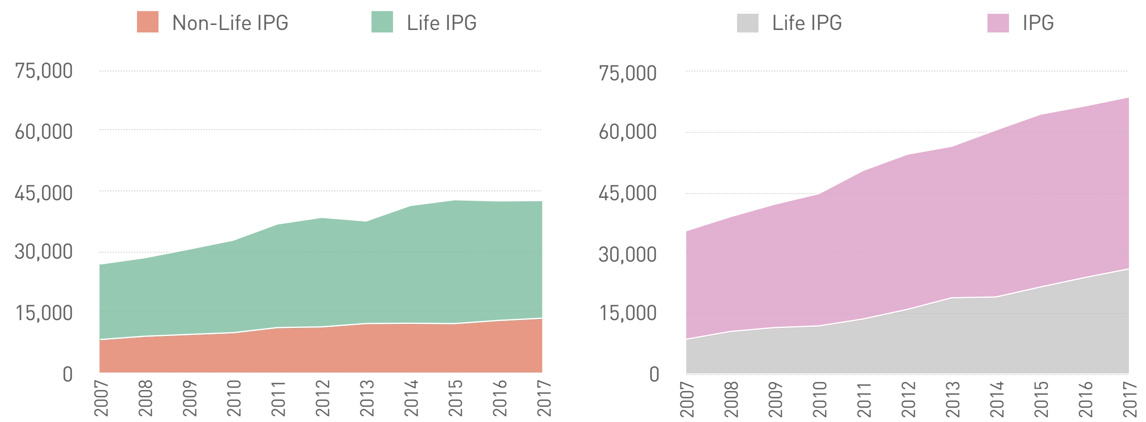
Chart 3.2.1-o provides an estimate of the IPG for the Colombian insurance market between 2007 and 2017. It shows that the IPG amounted to 42.72 trillion pesos (14.48 billion dollars) in 2017, some 1.6 times the size of the actual insurance market in Colombia at the end of that year.

As its plain to see, the Life insurance segment is largely responsible for the structure and performance of the IPG over the period under analysis. Indeed, 68.4% of the IPG was a product of Life insurance (29.23 trillion pesos) at the end of 2017, down 1.2 percentage points on the share for this segment in 2007. The remaining 31.6% of the insurance gap is a product of the Non-Life insurance segment (13.49 trillion pesos). Accordingly, the potential insurance market in Colombia at the end of 2016 (sum of the actual market plus the IPG) is estimated at 68.73 trillion pesos (23.39 billion dollars), some 2.6 times the size of the total insurance market in Colombia that year.

Meanwhile, Chart 3.2.1-p provides an estimate of the IPG as a multiple of the actual market in each the years now under analysis. The insurance gap multiple declined steadily between 2007 and 2017, falling from 3.2 to 1.6 times the size of the actual market. Similarly, the Life insurance multiple fell from 8.1 to 3.5 over the period, while the Non-Life multiple dropped from 1.3 to 0.8. Chart 3.2.1-q shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Colombian insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. The insurance gap as a multiple of the actual market can be seen to improve in both the Non-Life and Life segments.

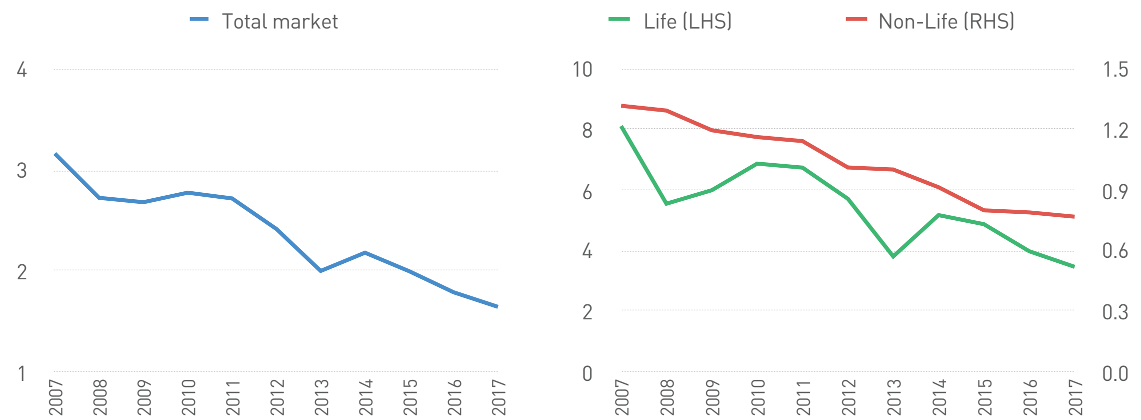
Last but not least, Chart 3.2.1-r shows whether the Colombian insurance market will be able to close the insurance gap, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed in order to close the 2017 gap

Chart 3.2.1-o
Colombia: Insurance Protection Gap and potential market, 2007-2017
(billions of pesos)



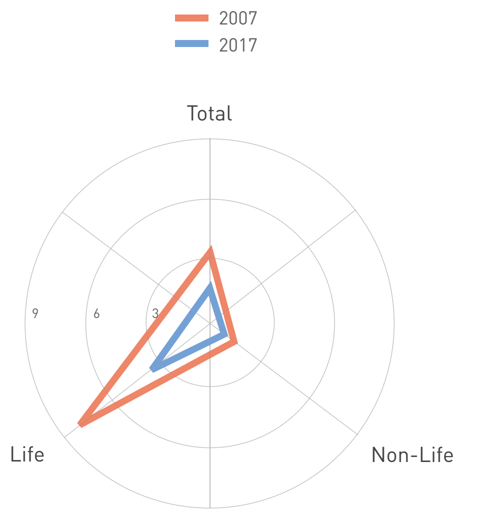
Source: MAPFRE Economic Research

Chart 3.2.1-p
Colombia: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.1-q
Colombia: the IPG
as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

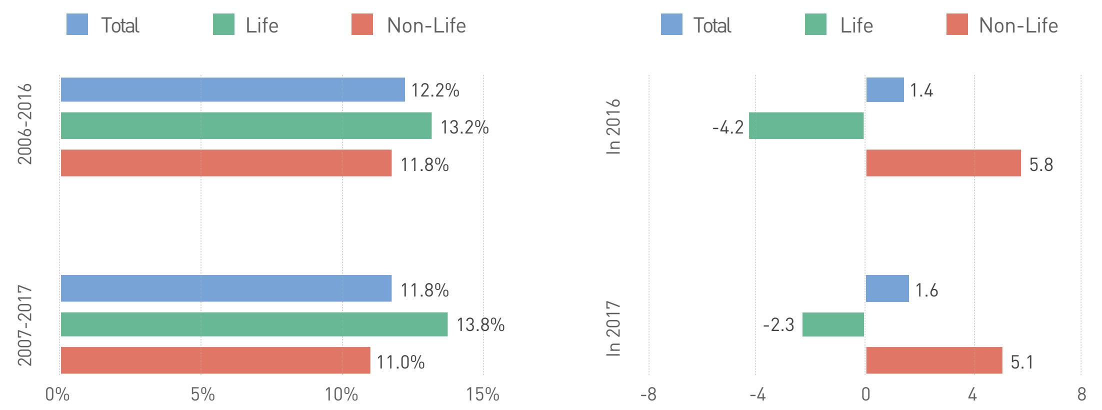
over the coming ten years. Our analysis shows that the Colombian insurance market registered an average annual growth rate of 11.8% between 2007 and 2017, underpinned by average annual growth of 13.8% in the Life insurance segment and of 11% in the case of Non-Life insurance. Were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Colombian insurance market would be enough to close the IPG but only in the Non-Life insurance segment. For the Life insurance segment, the growth rate would fall 2.3 percentage points short of closing the gap, revealing a slight improvement on the same measurement taken in 2016.

Market Development Index (MDI)

Chart 3.2.1-s provides an estimation of the Market Development Index (MDI) for the Colombian insurance industry.

Broadly speaking, the market performed positively over the period under analysis. This trend is in roughly line with the average registered by all Latin American markets, albeit with significant fluctuations in certain years (2007-2008 and 2013-2014) as a result of atypical behavior in the growth of the Life insurance segment in Colombia, as explained by the variability of the depth index.

Chart 3.2.1-r
Colombia: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

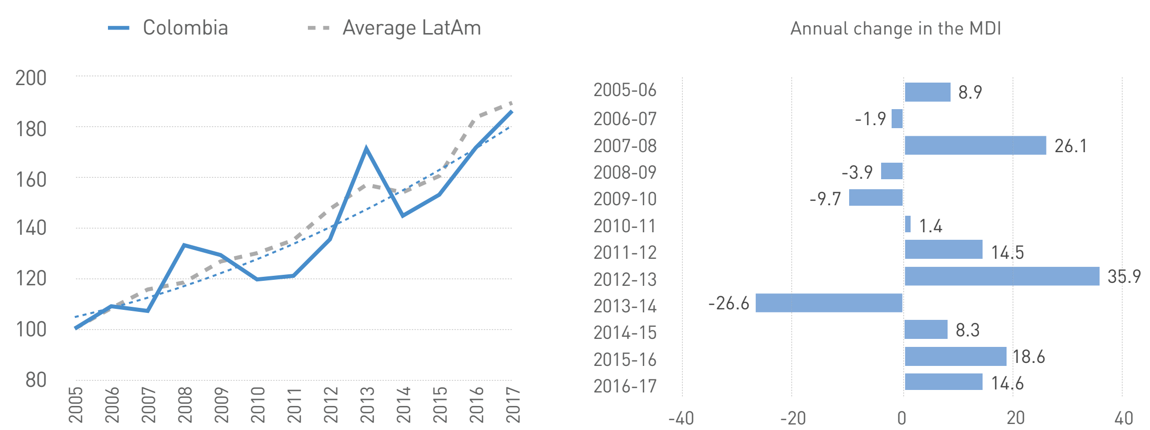
The analysis shows a pattern of balanced growth in the Colombian market between 2007 and 2017. In aggregate terms, levels of penetration (quantitative side of development) and depth (qualitative side) climbed steadily over the period. However, this growth process included considerable fluctuations in the levels of depth, which suffered setbacks in 2009-2011 and, to a lesser extent, in 2014-2015.

Comparative analysis of structural ratios

Chart 3.1.2-t outlines the state of the Colombian market when compared with the average for Latin America, measured in terms of the various structural ratios featured in this report.

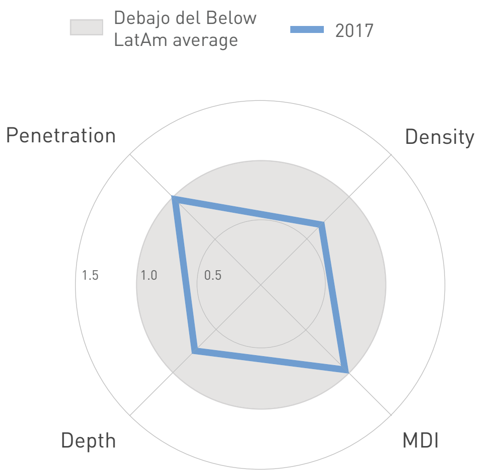
It shows that while the state of the Colombian market in terms of penetration and its market

Chart 3.2.1-s
Colombia: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.2.1-t
Colombia: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

development index has followed the average for the wider region, levels of both depth and density are still below the average for Latin American insurance markets.

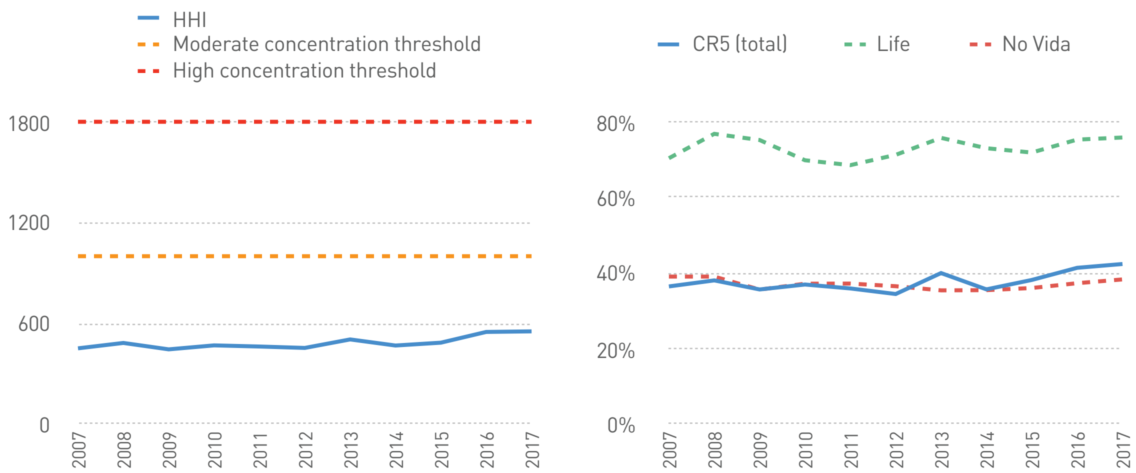
Insurance market rankings

Overall ranking

In 2017, 24 general insurance companies, 19 Life insurance companies and two insurance cooperatives were operating in Colombia. In terms of its structure, the Colombian insurance market continues to show low levels of concentration. The Herfindahl and CR5 indexes shown in Chart 3.2.1-u reveal a steady trend. Despite a slight increase in 2017, the Herfindahl index (IHH=552.6) remains well below the threshold associated with moderate concentration. The year also saw a mild increase in the level of concentration of the five largest insurance companies (CR5), which between them account for 42.4% of all premiums (41.4% in 2016), with a higher concentration in the Life segment (75.8%) than in Non-Life (38.3%). These percentages are higher when the groups in the ranking are considered rather than individual companies, although doing so does not lead to a significant increase in levels of concentration.

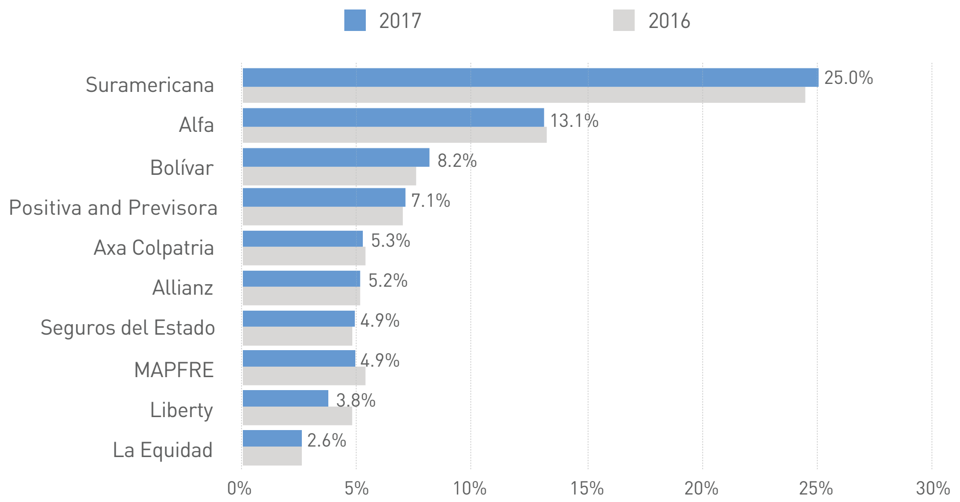
Turning our attention to key mergers, acquisitions and other corporate changes in 2017, US insurance group AIG is no longer present in the Colombian market, having sold its operations in the country to Canadian insurer and reinsurer Fairfax Financial

Chart 3.2.1-u
Colombia: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Chart 3.2.1-v
Colombia: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

Holdings, which has now started to operate under the name SBS Seguros Colombia. Another group to have walked away from the country is Generali, which sold its subsidiaries Generali Colombia Seguros Generales and Generali Colombia Vida to German insurance group Talanx.

In the overall ranking of insurance groups, Suramericana held on to top spot in 2017 with 25% of total premiums, showing a gentle increase of half a percentage point on its share of the market in 2016. In 2016, the Sura Group completed its deal with British insurer RSA to acquire the latter's subsidiary in the country. Alfa (13.1%), Bolivar (8.2%) and state-owned companies Positiva and Previsora (7.1%) occupy the next slots in the 2017 ranking, while Axa Colpatria, Allianz, Seguros del Estado and MAPFRE all have market shares of around 5%. Last but not least, Liberty and Equidad sit ninth and tenth in the table, with a market share of 3.8% and 2.6%, respectively (see Chart 3.2.1-v).

Non-Life and Life rankings

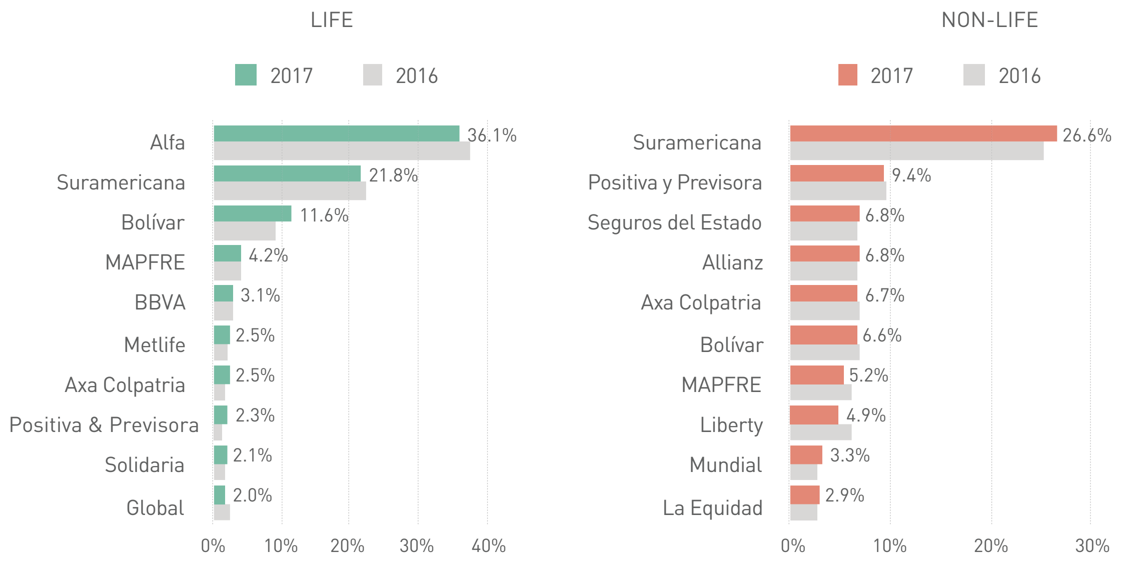
In the Non-Life insurance segment, Suramericana continued to top the ranking in 2017 with 26.6% of all premiums, showing a year-on-year gain of 1.2 percentage points. State-owned companies Positiva and Previsora remained in second place. Seguros del Estado, Allianz, MAPFRE and Mundial were all climbers, while Axa Colpatria, Bolivar and Liberty slipped down the table. La Equidad joined the top ten in 2017 at the expense of Chubb, which dropped from eighth to eleventh (see Chart 3.2.1-w).

Turning to the Life ranking for 2017, Alfa held on to top spot by securing 36.1% of total premiums (1.5 percentage points less than a year earlier). Following behind we have Suramericana (21.8%) Bolivar (11.6%), MAPFRE (4.2%) and BBVA (3.1%), which occupy the same positions as in 2016. From sixth place downward, various changes occurred during the year: MetLife climbs one spot while Global drops four positions. Joining the ranking this year are three new groups, namely Axa, state-owned companies Positiva and Previsora and Solidaria.

Key regulatory aspects

Table 3.2.1-b shows key regulatory developments in the form of rules and instructions issued by the Financial Superintendency of Colombia and taking effect in 2017. It also includes new rules and regulations issued last year but which are due to take effect at a later date. In general, the rules seek to: i) implement the new framework governing technical reserves (Decree 2973 of

Chart 3.2.1-w
Colombia: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)

2013); ii) provide appropriate advice to consumers of insurance products; iii) ensure proper risk management by insurers; and iv) address related and ancillary matters.

i) Regulations governing technical reserves. The Colombian insurance market has been steadily migrating toward a new framework of technical reserves since 2013. In 2017, various regulations were released in order to address certain technical and methodological aspects and ensure the proper implementation of these standards.

External Circulars 15 and 25 establish methodologies and parameters for calculating reserves on reported claims (general and special regimes of social protection insurance for disability and survival) and the reserve for unearned premiums under policies and insurance coverage subject to indefinite terms. These instructions are due to take effect in 2018 and will include a phase-in period under the terms of the Decree.

Meanwhile, External Circular 40 sets out the methodology for determining the technical interest rate; a relevant parameter for calculating the mathematical reserve.

In addition, the method for quantifying the reserve for asset insufficiency—one of the new requirements under this framework—is explained in the technical document posted on the SFC's website. This has allowed companies to conduct preliminary impact assessments before the regulation becomes law.

Last but not least, the SFC released Circular Letter 9 of 2017, establishing three accepted models for estimating earthquake losses. Insurers may use these to model portfolios for the earthquake insurance line.

The rules and regulations that took effect in 2017 dictate that insurers must adopt methodologies to adequately measure the amounts to be defrayed by reinsurers and to calculate the reserve for reported claims under the occupational risk line. Also in 2017, insurers started the new monthly process of reporting the certificates issued by the head actuary —akin to an auditing actuary— on the adequacy of their technical reserves.

Table 3.2.1-b
Colombia: summary of regulatory provisions that took effect in 2017 and those issued that year that are to take effect following the end of 2017

Regulation	Description	Entry into force
External Circular 038 of 2016	Defines the main requirements of methodologies for quantifying the amounts to be met by reinsurers.	2017
External Circular 039 of 2016	Governs the methodology for calculating and releasing the reserve for reported claims under the occupational risk line.	2017
Circular Letter 009 of 2017	Sets out the firms whose estimated loss models for earthquake will be admissible.	2019
External Circular 015 of 2017	Governs the methodology for calculating and releasing the reserve for reported claims under the pension and social protection insurance line for invalidity and survival.	2018
External Circular 021 of 2017	Instructions on the implementation of Ministry of Transport Resolution 4170 of October 5, 2016, amending the issuance of SOAT policies.	2017*
External Circular 022 of 2017	Amends the mechanisms for depositing technical notes, clauses and appendices to the insurance products marketed and sold.	2018
External Circular 025 of 2017	Gives instructions on how to calculate the technical reserve for unearned premiums in the case of policies and insurance coverage subject to indefinite terms. Also defines the relevant parameters for quantifying the reserve for reported claims under those lines of business not subject to any special regime.	2018
External Circular 018 and 038 of 2017	Includes new insurable vehicles and modifies SOAT rates.	2018
External Circular 040 of 2017	Sets out the methodology for determining the technical interest rate used to calculate the mathematical reserve.	2018
External Circular 006 of 2018	Stipulates the minimum content of the comprehensive management plan for the earthquake line to be implemented by companies when modeling their insured assets.	2019

Source: Financial Superintendency of Colombia
* Partial entry into force in that year.

ii) Consumer information. Through External Circular 22, insurers now have an updated system for filing with the Superintendency the specifications and terms and conditions of the products they market and sell. This allows them to make policy terms and conditions available to consumers through the Superintendency's website.

Meanwhile, policyholders and insured parties can enter the Unified System for Consulting Insurance Intermediaries (known as SUCIS) to find and view online information in relation to those insurance intermediaries that meet the relevant suitability conditions and are active on the market.

iii) Adequate risk management. In 2015, the Colombian Ministry of Transport released a set of regulations whereby insurance companies are permitted to issue and register online Mandatory Traffic Accident Insurance policies (known as SOAT). Accordingly, insured parties need no longer carry the policy on their person, while insurers are under no obligation to issue policies as a specific security hard copy, as had been common practice. These provisions all took effect in 2017 and are expected to have a positive impact when it comes to controlling expenses and claims for this product. Further highlights in relation to the SOAT include the updating and/or adjustment of the maximum tariffs in force since January 2018. This modification was prompted by recent changes in the composition of Colombian vehicle numbers and types, prevailing claims patterns for the insurance line and the mandatory insurance coverage required for mopeds, quadricycles and rickshaws.

Meanwhile, External Circular 6 was issued in early 2018. It sets out the framework for managing information on insured assets under the earthquake line and, in general, on the use of earthquake loss estimation models. Finally, it should be noted that this new framework for managing the earthquake risk will apply from 2019 onward since we are currently in the phase-in period.

iv) Other related matters. Act 1870 of 2017 envisages a framework for the supervision and regulation of financial conglomerates in Colombia. In 2018 and 2019, the Superintendency shall continue to roll out regulations implementing these measures while establishing the relevant prudential requirements.

3.2.2 Venezuela

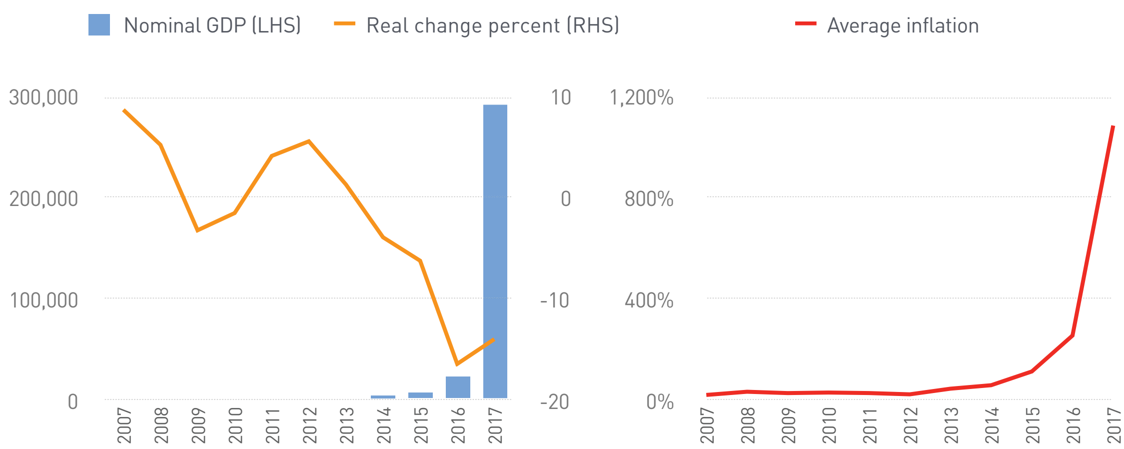
Macroeconomic environment

The Venezuelan economy shrank by 14% in real terms in 2017 (compared with -16.5% the previous year), with a fall in public and private consumption, in investment, and in nearly every productive sector as the government simply does not have enough dollars with which to acquire inputs and raw materials from outside the country (see Chart 3.2.2-a).

Despite rising oil prices, the significant reduction in crude production (lowest level in 30 years) by Petróleos de Venezuela (PDVSA) has had a hugely negative impact on Venezuelan exports, seeing as though 96.7% of export activity is oil-related. Against this backdrop, the government and its various state-owned companies have not been honoring their external financial commitments since the fourth quarter of 2017 and have therefore been held in "partial default" by the main credit rating agencies.

Meanwhile, inflationary pressures are continuing to rise, bringing average inflation to 1,087.5% in 2017. According to IMF estimates, the country is expected to reach hyperinflationary values for 2018. High growth in monetary aggregates, financing of the fiscal deficit with revenue obtained from monetary issues, the heavy devaluation of the exchange rate, wage increases and severe constraints on obtaining foreign currency are just some of the reasons behind the spike in inflation, according to ECLAC in its report of February 2018.

Chart 3.2.2-a
Venezuela: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of bolivars; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

Insurance market

Growth

In 2017, premiums in the Venezuelan insurance market experienced nominal growth of 339.5% year on year to reach 3.83 trillion bolivars, although if we factor out the effect of inflation this growth becomes a negative 63% in real terms.

Non-Life insurance, which accounts for 99% of all premiums, tumbled further, experiencing a real decline of 62.9% (-25.4% a year earlier). Meanwhile, Life insurance fell by a real 66.8%, compared with -30.0% in 2016 (see Chart 3.2.2-b and Table 3.2.2-a).

Due to the virtual disappearance of Life insurance in Venezuela, nominal premium growth in 2017 came on the back of the Non-Life insurance segment (see Chart 3.2.2-c).

In the absence of more detailed statistical information on the performance of the insurance industry in 2017, it has not been possible to analyze the behavior of the different lines of insurance.

Table 3.2.2
Venezuela: premium volume[1] by line of business, 2017

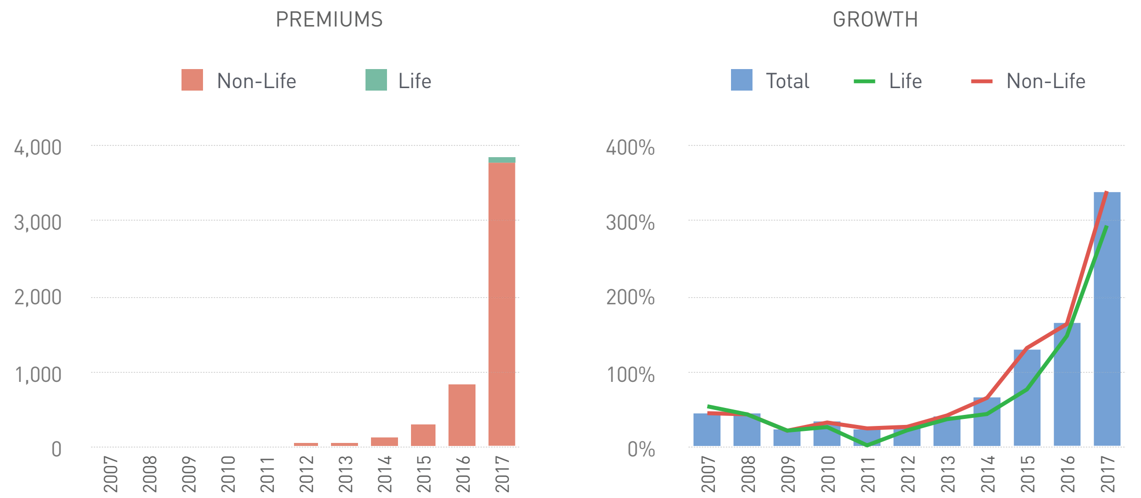
Line of business	Millions of bolivars	Millions of USD	Increase: Nominal (%)	Increase: Real (%)
Total	3,830,156	1,028	339.5	-63.0
Life	39,764	11	294.4	-66.8
Non-Life	3,790,392	1,018	340.0	-62.9

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)
1/ Net premiums collected. Direct insurance.

Balance sheet and equity

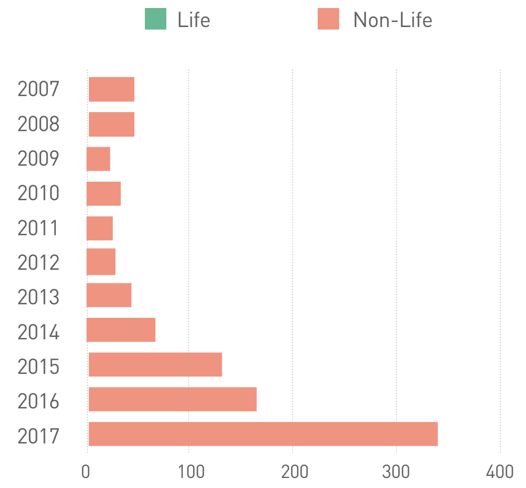
Chart 3.2.2-d shows the aggregate balance sheet for the Venezuelan insurance industry between 2006 and 2016, based on the latest data available. The industry's total assets came to 1.79 trillion bolivars, while equity amounted to 1.16 trillion bolivars, showing a positive increase of 213.7 percentage points on 2016, largely in response to the effects of hyperinflation in the Venezuelan economy.

Chart 3.2.2-b
Venezuela: growth developments in the insurance market, 2007-2017
(premiums, billions of bolivars; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-c
Venezuela: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

The Venezuelan insurance industry presents high levels of aggregate capitalization (measured in relation to total assets), which were around 34% between 2005 and 2012, thereafter increasing to reach 64.9% of total assets in 2016. The vast majority of the qualifying equity corresponds to unrealized gains on real estate investments and other financial instruments, with an average inflation rate of 254.4% in 2016. Since this rose to 1,087.5% in 2017, we are likely to see a repeat of the same phenomenon.

Investment

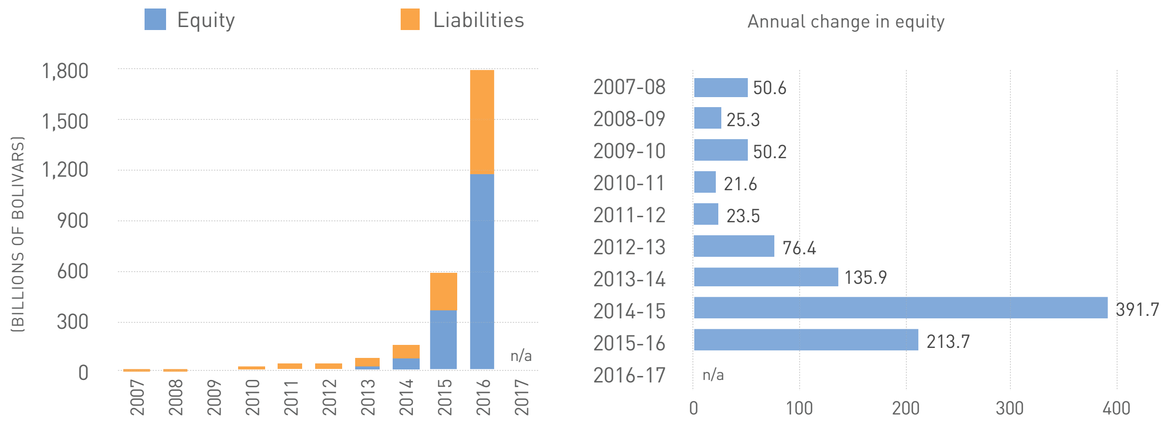
For information purposes, Chart 3.2.2-e shows changes in investment in the Venezuelan insurance market between 2007 and 2016 (latest information available). Investment in 2016 totaled 1.46 trillion bolivars. Due to a lack of information, it has not been possible to undertake a more detailed analysis of the country's insurance industry and provide a breakdown of the portfolio at sector level.

Technical provisions

Chart 3.2.2-f shows changes in technical provisions, net of reinsurance, for the Venezuelan insurance industry between 2007 and 2016. In 2016 (the last year for which data are available), technical provisions amounted to 303.60 billion bolivars. Life insurance accounted for only 0.7% of total provisions, while 68.3% related to provisions for unearned premiums and unexpired risks in Non-Life insurance, 28.4% to provision for outstanding benefits, 1.2% to provisions for catastrophic risks and the remaining 1.3% to other technical provisions (see Chart 3.2.2-h).

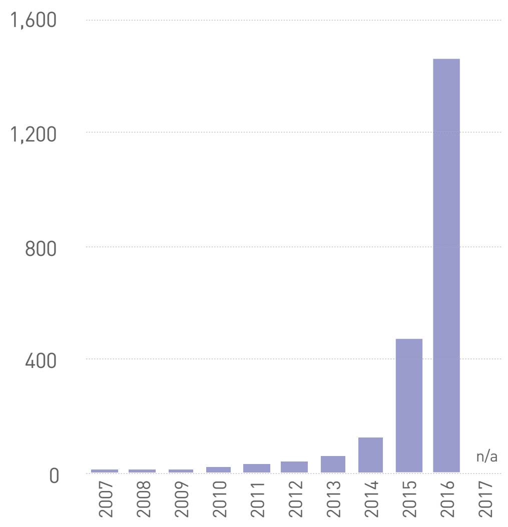
A medium-term analysis (shown in Chart 3.2.2-g above) reveals the low relative weight of Life insurance provisions, which fell from 1.4% of

Chart 3.2.2-d
Venezuela: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



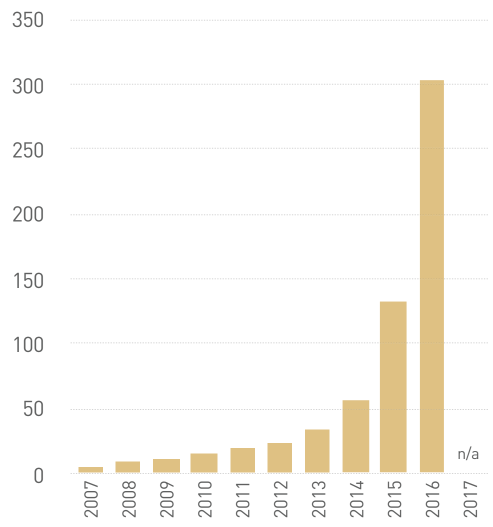
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-e
Venezuela: insurance market investment, 2007-2017
(billions of bolivars)



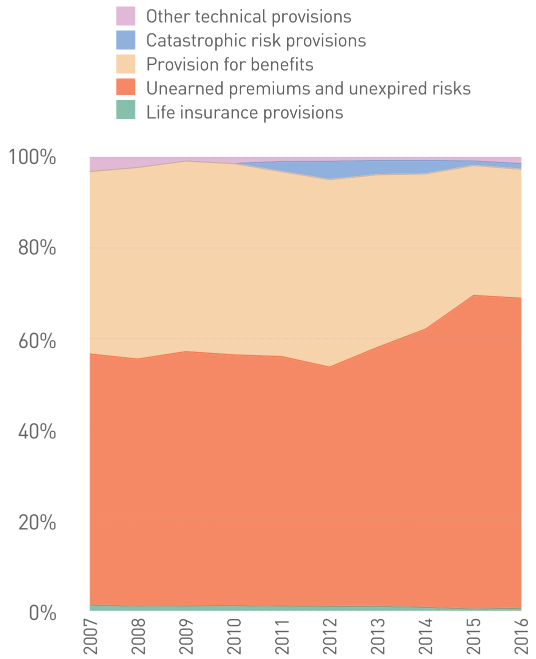
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-f
Venezuela: insurance market technical provisions, 2007-2017
(billions of bolivars)



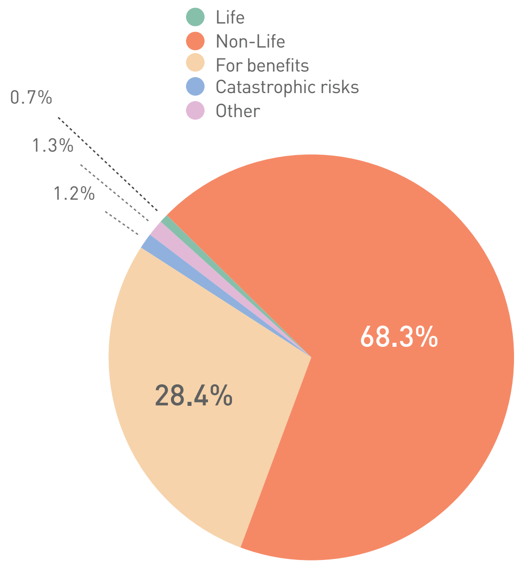
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-g
Venezuela: structure of technical provisions, 2007-2016
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-h
Venezuela: structure of technical provisions, 2016
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

total provisions in 2007 to 0.7% in 2016. One can also observe a steady increase in the weight of premiums for unearned premiums and unexpired risks between 2007 and 2016, which accounted for 56% of total provisions in 2007 to 68% in 2016. Meanwhile, provision for outstanding benefits fell from around 40% during the 2007-2012 period to 28.4% in 2016.

Technical performance

Based on the latest information available, the Venezuelan insurance industry registered a negative technical result in 2016, with a combined ratio of 107.9%, revealing a deterioration of 2.6 percentage points in relation to 2015, and with the loss and expense ratios both rising (see Chart 3.2.2-i).

Results and profitability

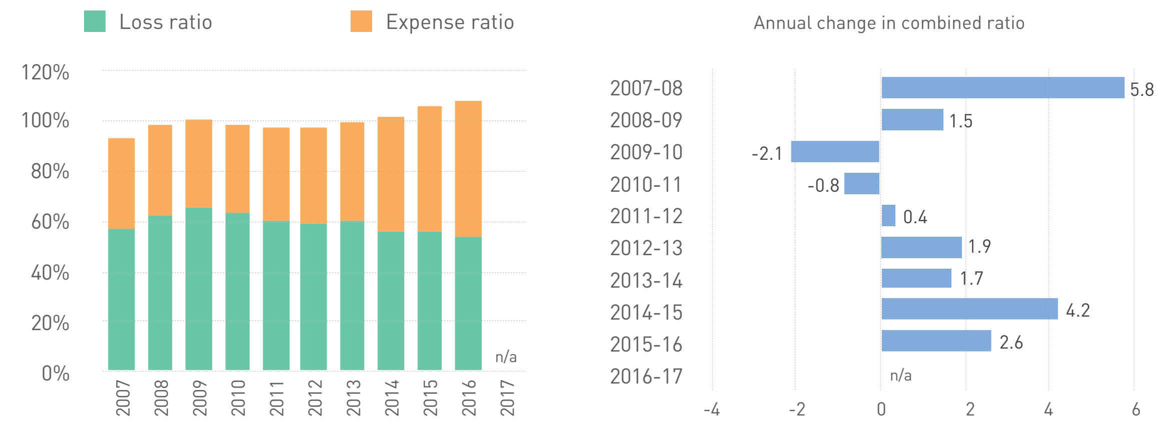
The Venezuelan insurance industry posted a consolidated result of 39.53 billion bolivars (10.6 million dollars) in 2017, up 37.5% on the previous year measured in bolivars.

However, due to an absence of data on the balance sheet for 2017, we have not been able to analyze the profitability indicators for that year. As the analysis in Chart 3.2.2-j shows, the year 2012 marked the beginning of a clear downward trend in the profitability of the Venezuelan insurance industry, reaching the lowest levels of the ten-year period in 2015-2016.

Insurance penetration, density and depth

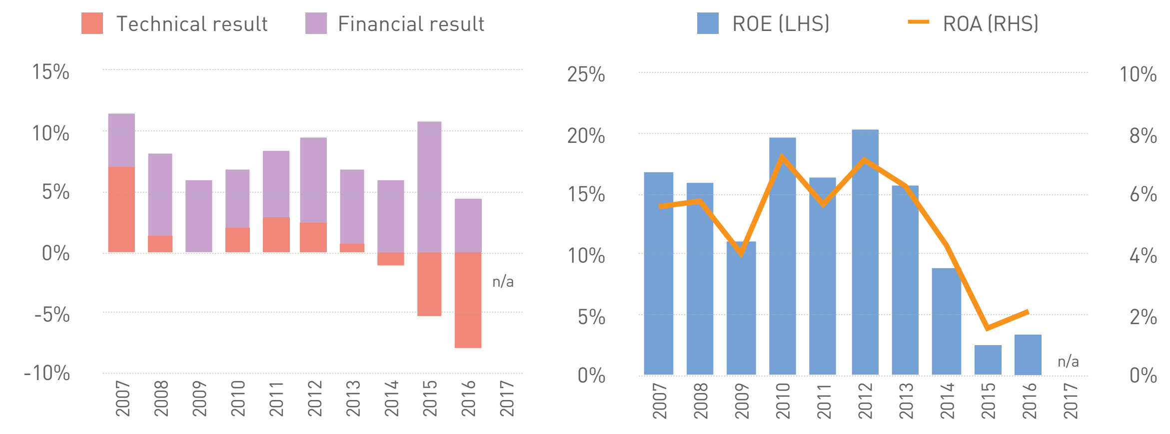
Chart 3.2.2-k shows the main structural trends shaping the development of the insurance industry in Venezuela over the 2007-2017 period. The penetration index (premiums/GDP) came to 1.3% in 2017, 2.3 percentage points below the level reported in 2016. Following a period of contraction between 2009 and 2011, the indicator shows an upward trend to coincide with a period of higher inflation. In fact, the performance of the penetration index may be pegged to price increases within the Venezuelan economy (see Chart 3.2.2-a). It is a well-known fact that in the insurance business the production cycle is inverted and the prices of products are fixed not on the basis of an incurred cost but a cost estimated to be incurred in the future. In the case of insurance, the most important component of this future cost is the loss ratio, which (particularly for Non-Life insurance)

Chart 3.2.2-i
Venezuela: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-j
Venezuela: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

is strongly pegged to general prices within the economy. Accordingly, penetration is estimated by comparing the expected cost for the following year against the flow of production in the economy in the current year, which in high-inflation scenarios may lead to an inaccurate penetration reading, as shown in the adjusted measurement provided in Chart 3.2.2-k. Even so, we will need to continue assessing the degree of penetration in the Venezuelan market over the coming years so as to determine the trend when general prices within the economy eventually stabilize.

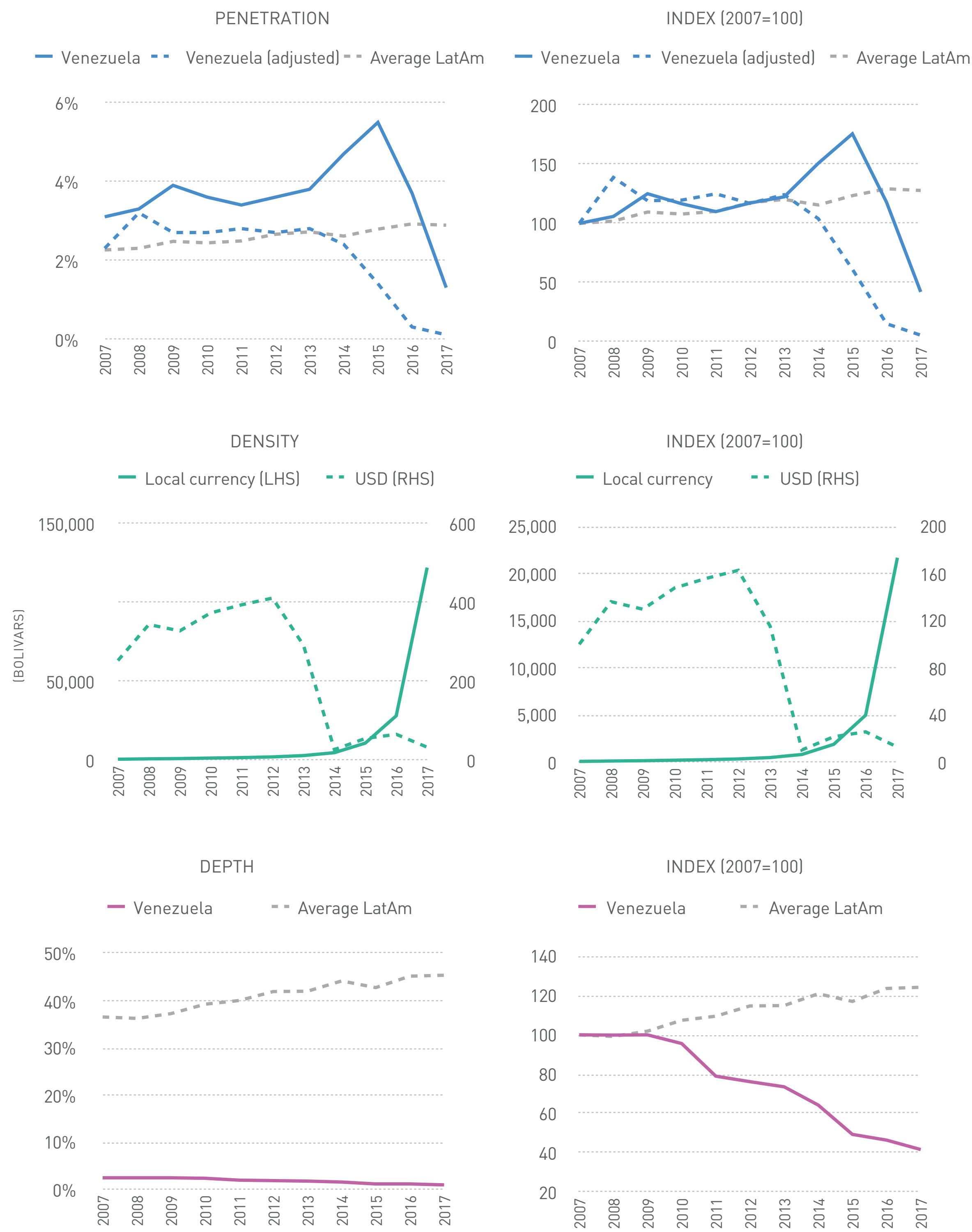
The density of insurance in Venezuela (premiums per capita) reached 122,324.5 bolivars (32.8 dollars), up 334% on the value observed in 2016 (28,171.8 bolivars). Again, this performance was influenced by the trend in the general level of prices in the economy. Accordingly, and as with penetration, density has climbed steadily over the last decade, rising exponentially from 2013. However, when measured in dollars, density has been clearly declining, especially from 2014 onward, to reach just 32.8 dollars in 2017.

Turning our attention to depth (Life insurance premiums to total premiums), the indicator for 2017 came to just 1%, 1.5 percentage points below the value observed in 2007. The trend in the depth of the Venezuelan insurance market stands in stark contrast to the average performance of the other Latin American insurance markets given the virtual disappearance of this hugely important segment of the market.

Estimation of the Insurance Protection Gap

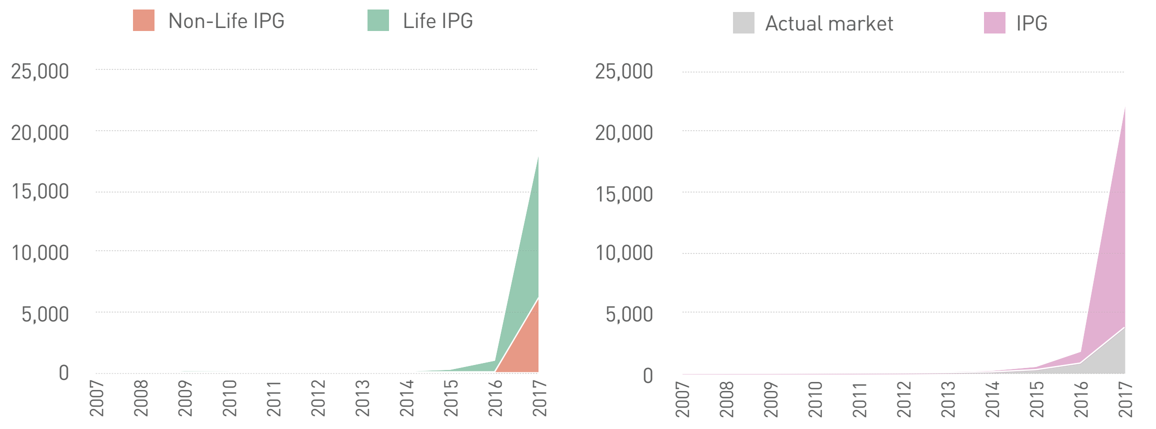
Charts 3.3.2-l and 3.2.2-m provide an estimate of the IPG for the Venezuelan insurance market between 2007 and 2017. The insurance gap amounted to 18.26 trillion bolivars in 2017, 4.8 times the size of the real Venezuelan insurance market at the end of that year. However, for the reasons explained above, this reading may be unreliable because of the prevailing levels of penetration within the Venezuelan market, a key variable in estimating the IPG based on the methodology used in this report. The structure and performance of the insurance gap over the period under analysis are largely a product of the Life insurance segment. At the close of 2017, Life insurance accounted for 66.1% of the IPG due to the underestimation of the IPG in the Non-Life insurance segment (33.9). Subject to the caveats just explained, the potential insurance market in Venezuela at the end of 2017 (estimated as the sum of the actual market plus the IPG) would amount to 22.09 trillion bolivars, some 4.8 times the size of the total insurance market that year.

Chart 3.2.2-k
Venezuela: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, bolivars and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-l
Venezuela: Insurance Protection Gap and potential market, 2007-2017
(billions of bolivars)

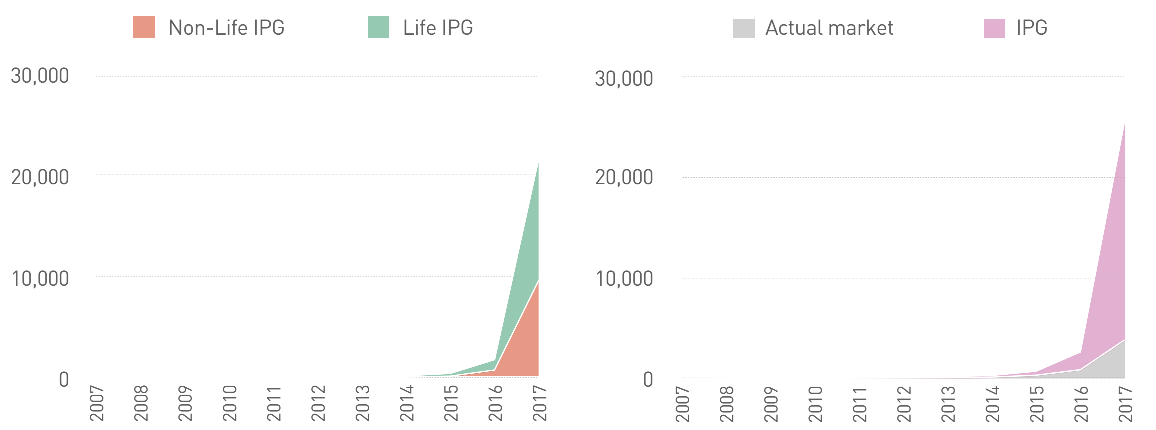


Source: MAPFRE Economic Research

Chart 3.2.2-n provides an estimation of the IPG as a multiple of the actual insurance market in Venezuela. It shows that the insurance gap as a multiple of the real market (concentrated in the Life insurance segment) followed a downward trend between 2007 and 2009, falling from 62.2 to 49.6 times the relative market. It then climbed to reach a multiple of nearly 60 times the Life market, before growing considerably in 2016 and 2017 to account for 303.6 times the size of the market. As mentioned previously, this metric is where it is because of the disappearance of the Life insurance segment.

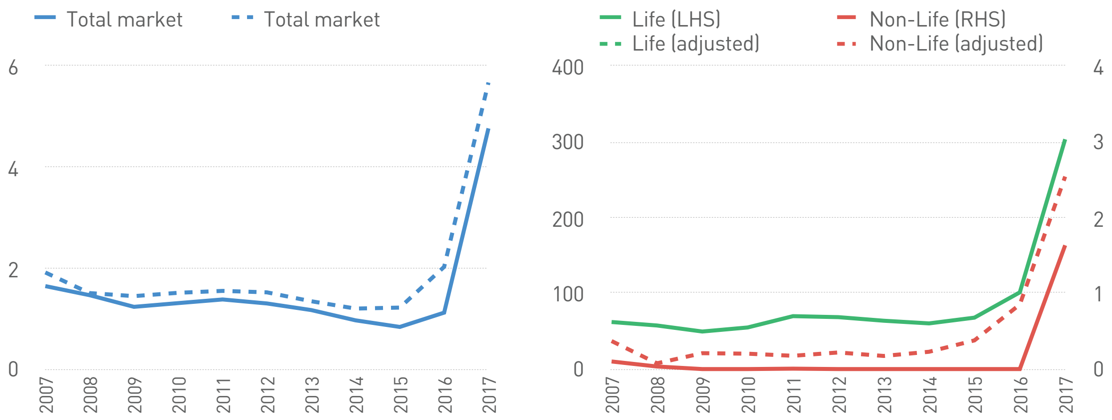
Chart 3.2.2-o summarizes the capacity of the Venezuelan insurance market to close the IPG. It relies on a comparative analysis between the growth rates observed over the last ten years in the Venezuelan market and the growth rates that would be needed to close the insurance

Chart 3.2.2-m
Venezuela: Insurance Protection Gap (adjusted) and potential market, 2007-2017
(billions of bolivars)



Source: MAPFRE Economic Research

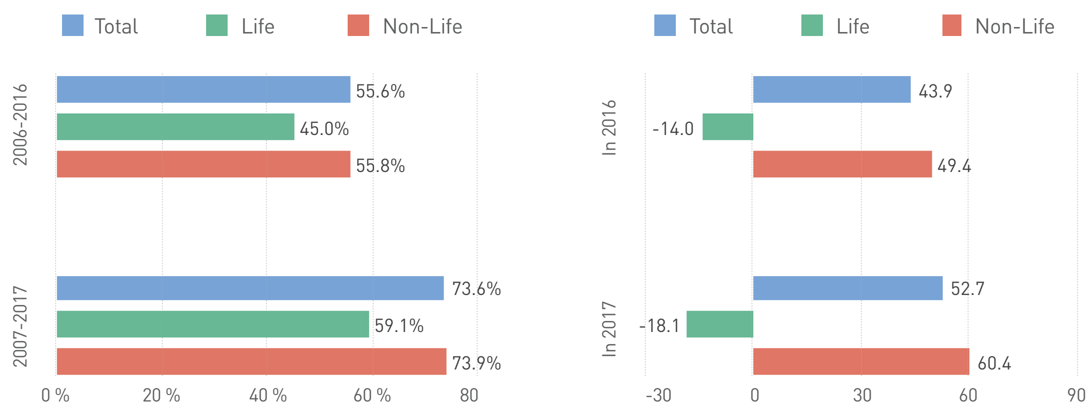
Chart 3.2.2-n
Venezuela: the IPG as a multiple of the actual marke, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

gap in 2017 gap over the coming ten years. The Venezuelan insurance market registered average nominal annual growth of 73.6% over the last ten years, comprising an annual growth rate of 59.1% in the Life insurance segment and of 73.9% in the case of Non-Life insurance. Were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the insurance market would fall 18.1 percentage points short of the mark (i.e. closing the IPG) for the Life insurance segment, which accounts for the bulk of the IPG in the case of the Venezuelan insurance market. However, be advised once again that this metric is unreliable due to the hyperinflation of the Venezuelan economy.

Chart 3.2.2-o
Venezuela: capacity to close the IPG (adjusted), 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Market Development Index (MDI)

Chart 3.2.2-p provides an estimation of the Market Development Index (MDI) for the Venezuelan insurance industry. As explained at various points of this report, the aim of the MDI is to summarize trends shaping the development and maturity of insurance markets.

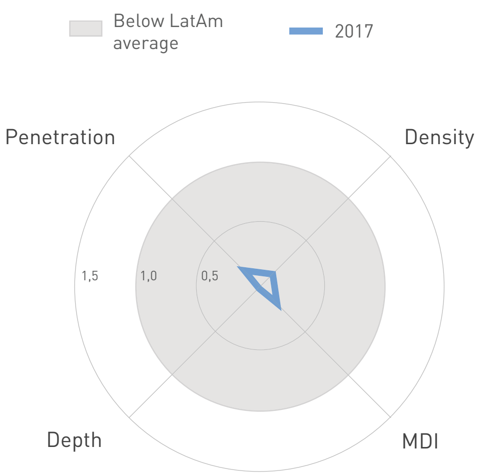
In the case of the Venezuelan insurance industry, the indicator shows a positive trend between 2005 and 2009. However, it then begins to diverge from the average performance of all the other countries in the region, entering a marked decline in 2016 and 2017.

This is even more evident when the analysis is adjusted to eliminate the overestimation of the speed at which the Life IPG may be closed (due to the relatively small base), effectively confirming that the performance of the Venezuelan insurance is well below the average for the wider region.

Comparative analysis of structural ratios

To round things off, Chart 3.2.2-q outlines the state of the Venezuelan insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report.

Chart 3.2.2-q
Venezuela: comparative analysis of structural ratios* vs. average for Latin America, 2017

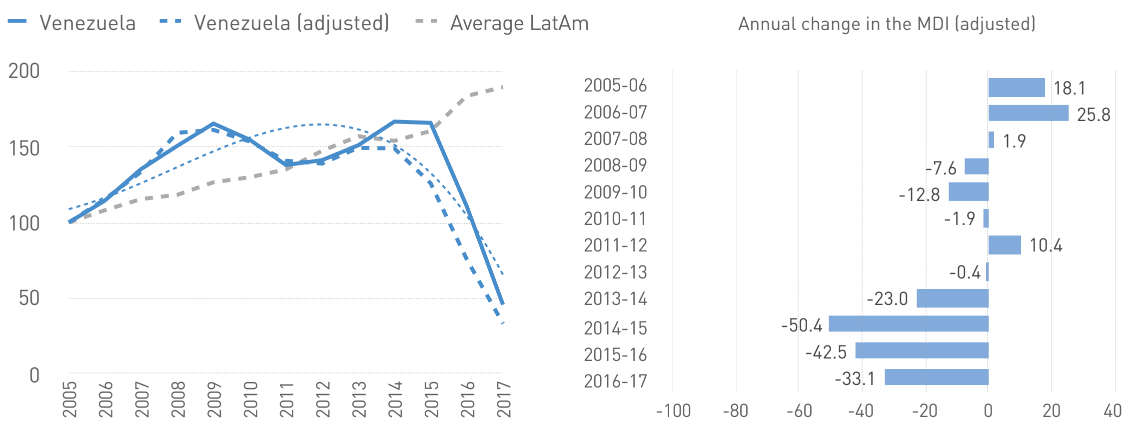


Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

As can be seen, all facets of the Venezuelan insurance market are significantly below the average for the region.

Chart 3.2.2-p
Venezuela: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

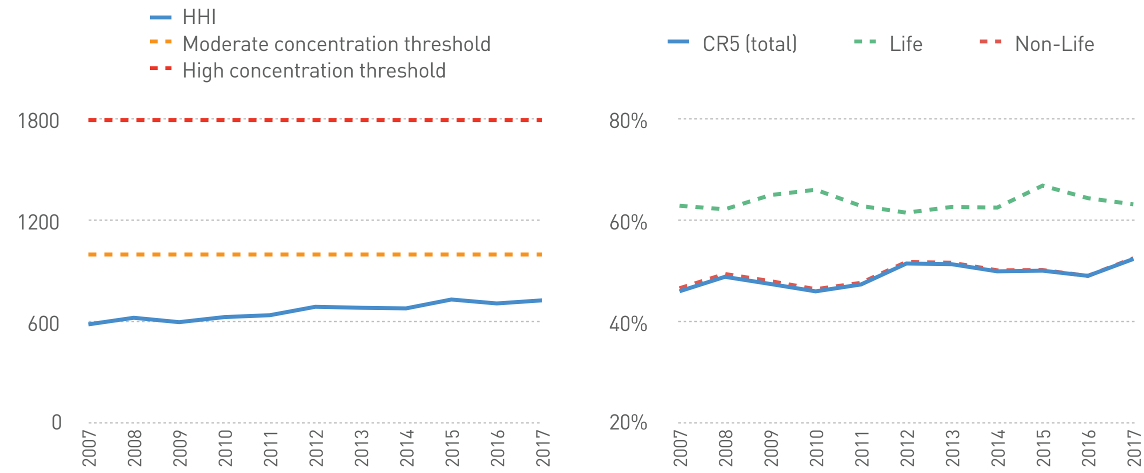
Insurance market ranking

Overall ranking

In 2017, 45 insurance companies were operating in Venezuela, three fewer than in 2016. Market concentration is low and has remained stable in recent years, as shown in Chart 3.2.2-r. The Herfindahl index stood at 727 in 2017, below the moderate concentration threshold of 1,500, while the CR5 was 52.4%, showing a dominant presence of Non-Life insurance companies.

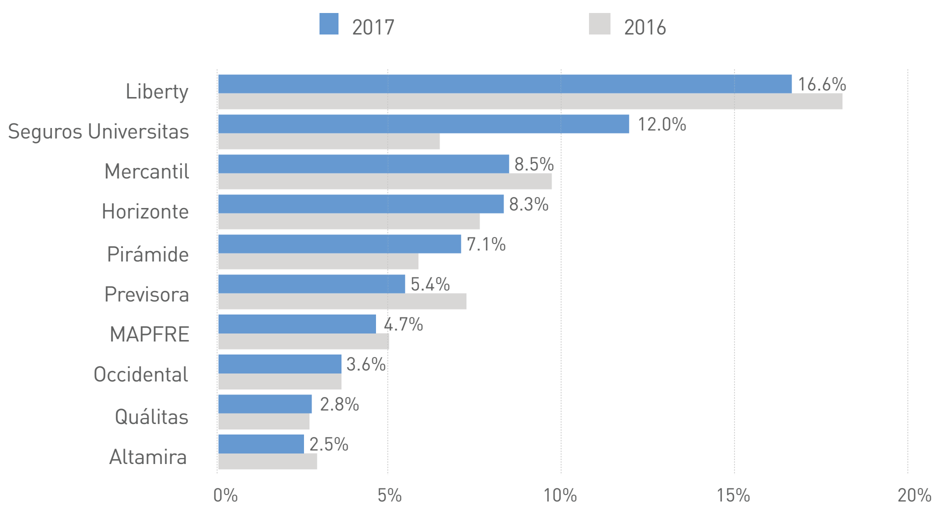
Liberty continues to top the table of Venezuelan insurance groups with a market share of 16.6%, followed by Universitas (12%), which overtakes

Chart 3.2.2-r
Venezuela: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Chart 3.2.2-s
Venezuela: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)

Mercantil (8.5%). MAPFRE remains in seventh place behind Previsora (which falls two places), Pirámide and Horizonte. The last three places go to Occidental, Quálitas and Altamira in that order. In the absence of detailed information on the different business lines, we are unable to complete the Non-Life and Life rankings.

Key regulatory aspects

Gazette 41,136 was released in April 2017, approving across all sectors the general and standard terms and conditions of insurance governing the structure of land transport vehicles, pecuniary liability and third party liability, including their various applications in the insurance industry.

Meanwhile, Order FSAA-9-308 was released in May 2017, approving across all sectors the standard and special terms and conditions governing third-party liability insurance policies for RPAS or drone aircraft systems.

3.2.3 Brazil

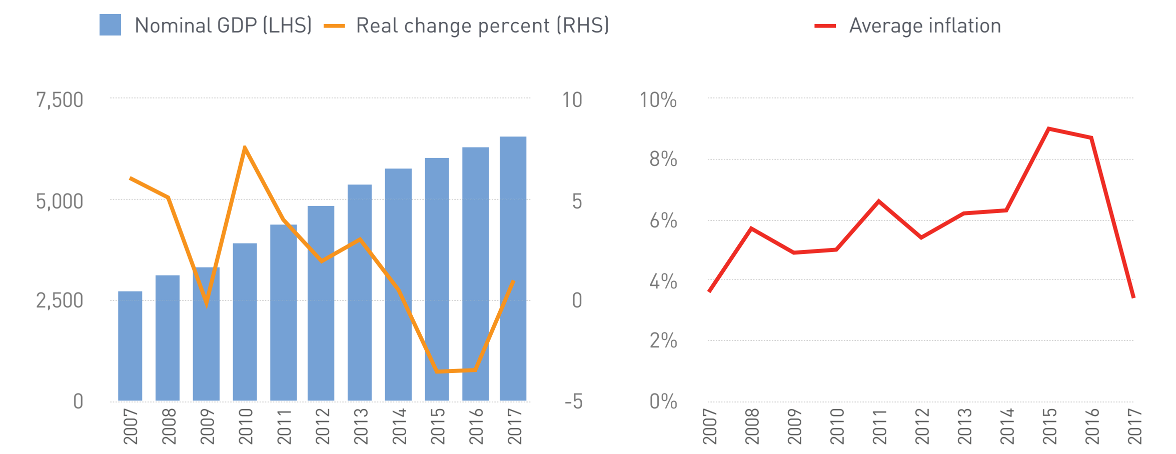
Macroeconomic environment

In 2017, the Brazilian economy finally began to show positive signs, posting estimated GDP growth of 1% (-3.4% in 2016). This growth was largely a product of positive data on investment and consumption. Starting with the external sector, a strong showing from exports (primarily basic and agricultural products) far exceeded the gentle growth seen in imports, triggering a significant reduction in the current account deficit, which stood at 0.5% of GDP at the end of 2017, compared with 1.3% in 2016 (see Chart 3.2.3-a).

On the supply side, the agriculture sector led the charge by adding 14.5% in the first three quarters of the year, while the other sectors are still finding it hard to make a positive contribution to overall growth.

The fiscal deficit stood at 7.8% of GDP, albeit showing a slight improvement on the previous year's figure of 9%. Gross public debt at year-end 2017 came to 74% of Brazilian GDP (versus 70%

Chart 3.2.3-a
Brazil: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of reals; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

in 2016), meaning the country still needs to push through structural reforms to help balance out the public accounts.

The average inflation rate stood at 3.4% in 2017, a far cry from the 8.7% reported in 2016. In this context, decisions on monetary policy came in response to the trend of low inflationary pressure, with an intervention rate of 7.58% at the end of the year. Meanwhile, unemployment peaked in the first quarter of the year (13.7%), before steadily falling over the following quarters to reach 11.8% at year-end 2017.

In view of all these circumstances and based on the recent performance of the Brazilian economy, MAPFRE Economic Research has adjusted its growth forecast to 1.6% for 2018. ECLAC estimates that if prices of basic products remain favorable on the external front and assuming also there are no speculative flows of capital due to political tensions, then the economy is likely to grow further in 2018. The IMF estimates 2.3% growth for this year.

Insurance market

Growth

The premium volume of the Brazilian insurance market reported nominal growth of 3.2% in 2017 (-0.2% in real terms) to reach 212.15 billion reals (66,446 million dollars). Market growth in 2017 fell short of the level reported in 2016 in both nominal and real terms (see Table 3.2.3-a and Chart 3.2.3-b).

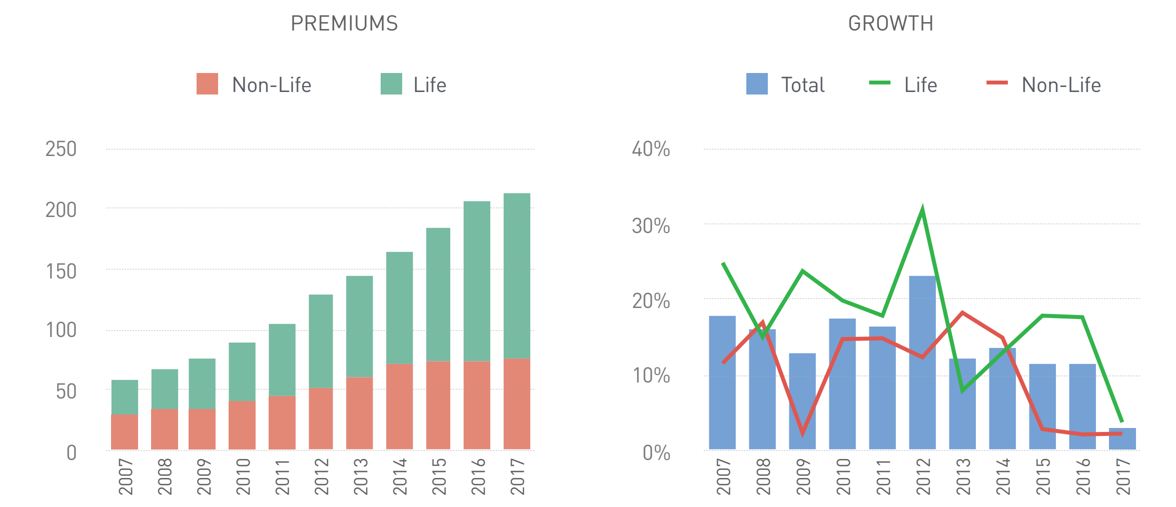
Life premiums amounted to 135.70 billion reals (42,504 million dollars) in 2017, up 3.8% in nominal terms and 0.4% in real terms (versus 17.7% and 8.3%, respectively in 2016). The growth was down to a weaker showing (which can be explained

Table 3.2.3-a
Brazil: premium volume[1] by line of business, 2017

Line of business	Millions of bolivars	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**212,155**	**66,446**	**3.2**	**-0.2**
Life	**135,709**	**42,504**	**3.8**	**0.4**
Life - Group and individual	29,055	9,100	12.8	9.1
VGBL[2]	106,654	33,404	1.6	-1.8
Non-Life	**76,446**	**23,943**	**2.3**	**-1.1**
Automobile	39,698	12,433	-1.7	-5.0
Other lines	12,848	4,024	8.4	4.8
Accident	5,332	1,670	3.3	-0.1
Fire	5,160	1,616	3.9	0.5
Transport	3,096	970	3.8	0.3
Credit and surety	3,907	1,224	26.5	22.3
Agrarian	3,303	1,034	10.9	7.2
Third-party liability	1,614	506	1.4	-2.0
Hull transport	698	219	-14.0	-16.9
Special risks[3]	261	82	-43.8	-45.7
Burial	530	166	12.2	8.5

Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)
1/ Premiums written (Capitalization Regime) + Insurance premiums 2/ Vida Gerador de Benefício Livre
3/ Oil, nuclear risks and satellites

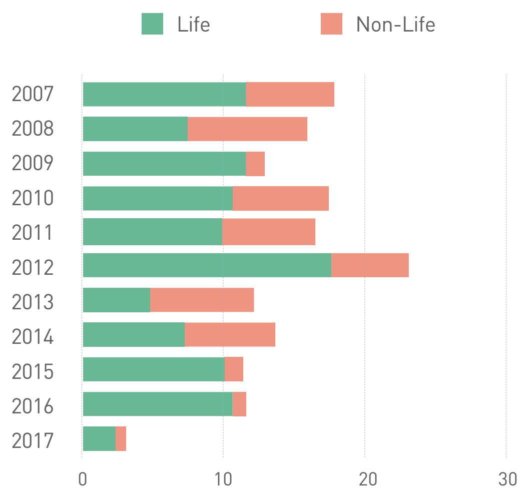
Chart 3.2.3-b
Brazil: growth developments in the insurance market, 2007-2017
(premiums, billions of reals; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

by the recent pattern of interest rate cuts) from VGBL insurance (+1.6%), which accounts for 78.6% of all Life insurance premiums, while individual and group Life insurance was up 12.8% in nominal terms.

Chart 3.2.3-c
Brazil: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

The premium volume for Non-Life insurance amounted to 76.44 billion reals (23.94 billion dollars) in 2017, revealing a nominal increase of 2.3% but an actual reduction of 1.1% in real terms (versus 2.2% and -6.1%, respectively, in 2016). The Automobile insurance line, which accounts for 51.9% of all Non-Life premiums, endured a further decline of 5% in real terms, albeit an improvement on the previous year (-9.6% in 2016). Most Non-Life insurance modalities fell in real terms in 2017, with the exceptions of Credit and Surety, Fire, Transport and Burial. Accordingly, the 3.2% growth experienced by the Brazilian insurance industry in 2017 was down to positive contributions from both segments: Life contributing 2.4 percentage points and Non-Life supplying the remaining 0.8 percentage points (see Chart 3.2.3-c).

If, in addition to insurance premium volumes, we factor in the contributions from private pensions received by insurance companies, as well as Health insurance premiums (under the control of Agencia Nacional de Saude Suplementar, ANS), and Capitalization premiums, total revenues for

Table 3.2.3-b
Brazil: private insurance premiums and contributions, 2017

Line of business	Millions of reals	Millions of USD	Change 2016-2017 (%)
Insurance	212,155	66,446	3.2
Private pension	13,991	4,382	15.6
Health insurance	39,470	12,362	11.2
Capitalization	20,777	6,507	-1.4
Total	**286,394**	**89,698**	**4.5**

Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance and the National Regulatory Agency for Private Health Insurance and Plans (ANS))

2017 came to 286.39 billion reals (89.68 billion dollars), revealing nominal year-on-year growth of 4.5% (see Table 3.2.3-b).

Balance sheet and equity

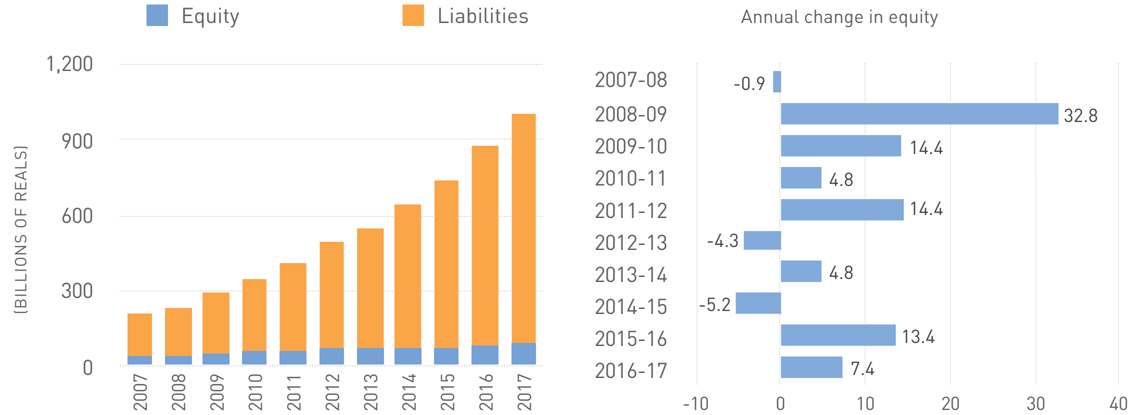
Chart 3.2.3-d shows changes in the aggregate balance sheet for all insurance companies operating in Brazil between 2007 and 2017. As can be seen, total assets came to 1 trillion reals (314.75 billion dollars). Meanwhile, equity amounted to 87.24 billion reals (27.32 billion dollars), up 7.4 percentage points on the 2016 figure.

Aggregate capitalization levels within the Brazilian insurance industry (measured against total assets) entered a downward trend in 2008, with relative values of around 20% and falling to 8.7% of total assets in 2017.

Investment

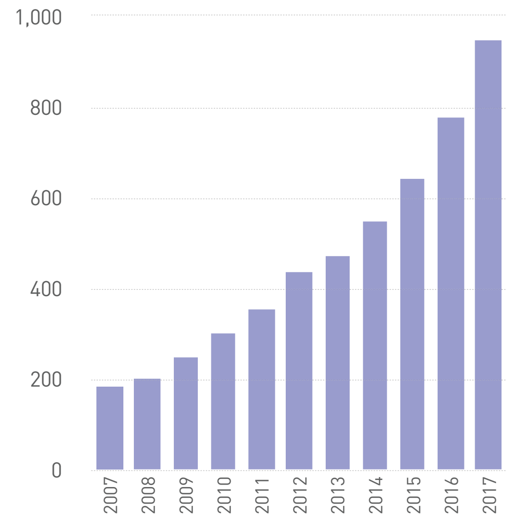
Charts 3.2.3-e, 3.2.3-f and 3.2.3-g show the performance and structure of the aggregate investment portfolio at sector level for the Brazilian insurance industry between 2007 and 2017, In the last year of this period, investment totaled 946.85 billion Brazilian reals (296.55 billion dollars), most of it concentrated in mutual

Chart 3.2.3-d
Brazil: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-e
Brazil: insurance market investment, 2007-2017
(billions of reals)



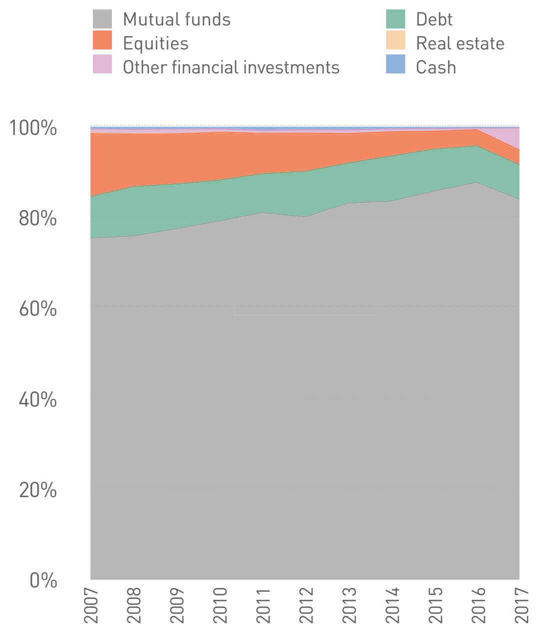
Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Table 3.2.3-c
Brazil: changes in the structure of investment by underlying asset, 2007-2017
(composition, percent)

Year	Fixed income	Equities	Real estate	Other investments
2007	85.5 %	11.8 %	0.4 %	2.2 %
2008	88.5 %	9.1 %	0.4 %	2.0 %
2009	86.3 %	12.3 %	0.6 %	0.8 %
2010	86.9 %	11.6 %	0.5 %	1.0 %
2011	89.2 %	9.4 %	0.4 %	1.0 %
2012	89.4 %	9.4 %	0.4 %	0.9 %
2013	91.3 %	7.1 %	0.4 %	1.1 %
2014	93.3 %	5.5 %	0.4 %	0.9 %
2015	94.7 %	4.0 %	0.3 %	1.0 %
2016	95.1 %	4.3 %	0.2 %	0.4 %
2017	94.4 %	5.0 %	0.3 %	0.4 %

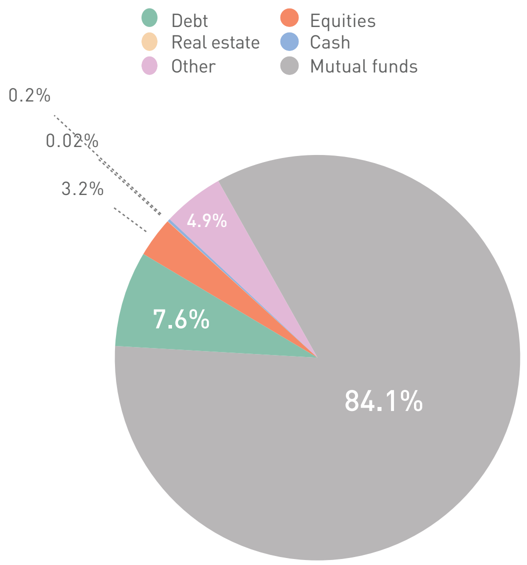
Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-f
Brazil: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-g
Brazil: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

funds (84.1%) and, to a much lesser extent, in debt securities (7.6%) and equity instruments (3.2%), with the remainder invested in cash, real estate and other financial investments (5.1%).

Our analysis of the aggregate portfolio illustrates the high percentage of investment managed through mutual funds, which increased in both absolute and relative terms in comparison with other investments over the period, with the sole exception of 2012 and 2017.

Table 3.2.3-c shows changes in the structure of investment but this time analyzing the underlying assets managed through mutual funds. Again, these are concentrated in fixed-income instruments, which account for 94.4% of total investment. We can observe a slight reduction on the previous year and a correlative increase in equities, which now account for 5% of total investment (4.3% in 2016).

Technical provisions

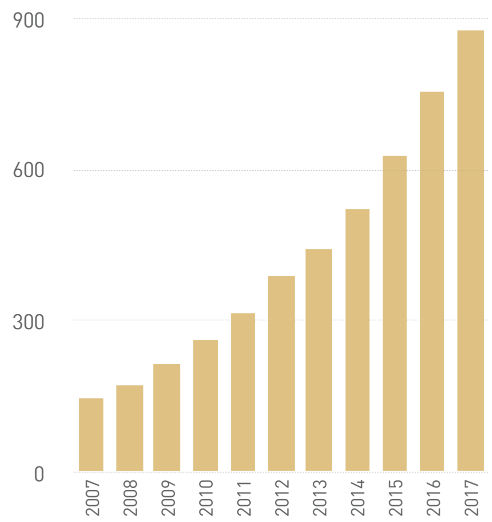
Charts 3.2.3-h, 3.2.3-i and 3.2.3-j show the performance and relative structure of technical provisions in the Brazilian insurance industry between 2007 and 2017. As can be seen, technical provisions amounted to 874.48 billion Brazilian reals (273.88 billion dollars) in 2017. That year, the Life business accounted for some 89% of all technical provisions if we factor in the percentage of provisions under the pension business.

Despite reporting growth in absolute terms between 2007 and 2017, provisions for pensions experienced a relative loss of weight in respect of overall technical provisions, falling from 43.1% in 2007 to 20.7% in 2017.

Technical performance

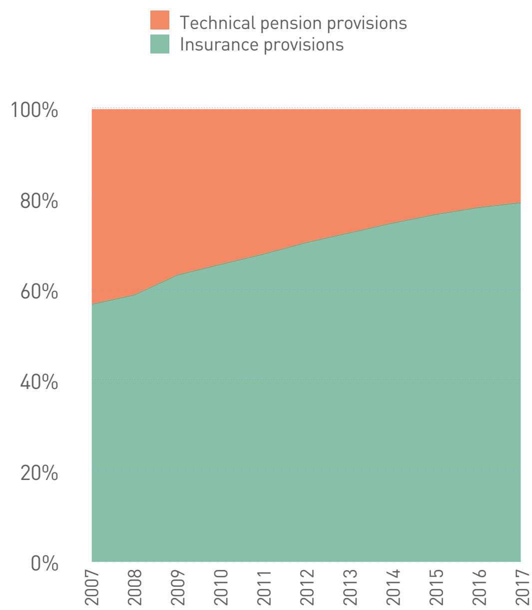
As shown in Chart 3.2.3-k, the total combined ratio for the Brazilian insurance industry improved by 1.5 percentage points in 2017 when compared with the previous year (93.7% versus 95.3% in 2016). This is due to a reduction of 2.6 percentage

Chart 3.2.3-h
Brazil: technical provisions of the insurance market, 2007-2017
(billions of reals)



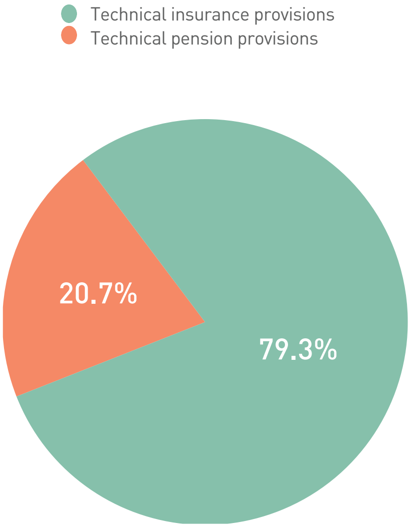
Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-i
Brazil: structure of technical provisions, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-j
Brazil: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

points in loss expenses and an increase of 1.04 percentage points in operating expenses. On balance, the loss ratio for 2017 came to 44.3%.

Results and profitability

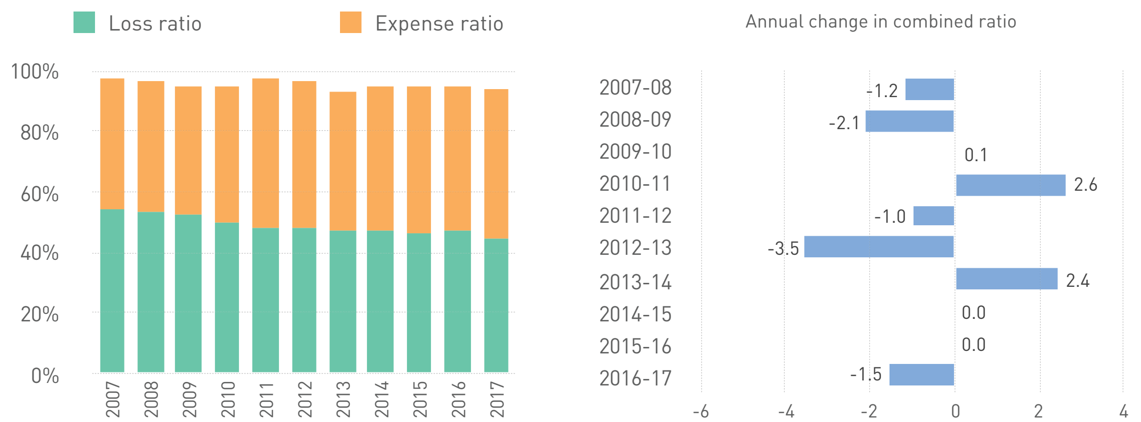
Brazilian insurance companies posted a net result of 17.30 billion reals (5.42 billion dollars) in 2017, down 3% on the previous year. Despite the solid technical performance, the reduction in the return on investment had a greater impact on the net result (see Chart 3.2.3-l).

The profitability of the Brazilian insurance industry was slightly down in 2017. This is because return on equity (ROE) fell to 19.8% in 2017, down 2.1 percentage points on 2016, while return on assets (ROA) dipped to 1.7% in 2017, down 0.3 percentage points on the value reported in 2016.

Insurance penetration, density and depth

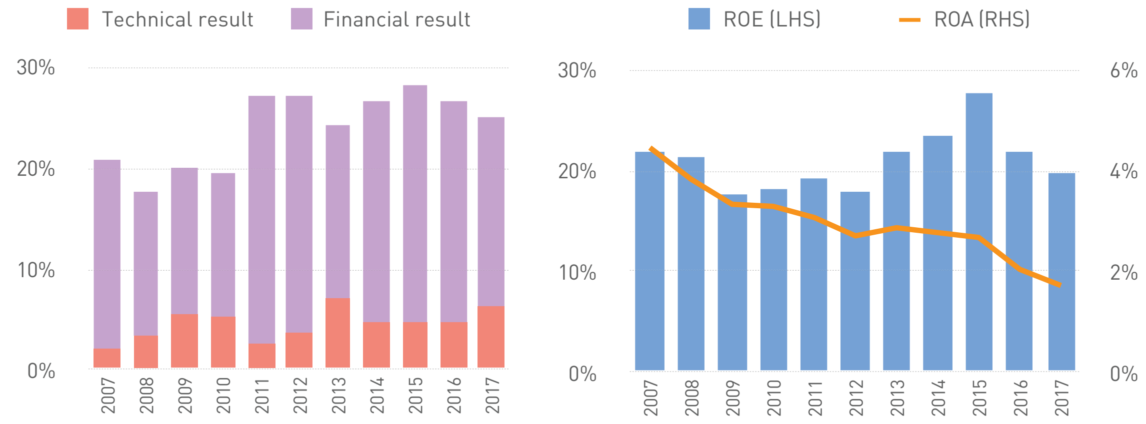
Chart 3.2.3-m shows the main structural trends shaping the development of the Brazilian insurance industry between 2007 and 2017. The penetration index (premiums/GDP) reached 3.2% in 2017, up 1.1 percentage points on the figure reported in 2007, but slightly down on 2016 (-0.1 pp). The penetration index for the Brazilian market (which only takes account of premiums from insurance activity) followed a clear upward path from 2007 onward, in line with the average trend for the wider Latin American insurance market, albeit with a slight downturn in 2017, as just mentioned.

Chart 3.2.3-k
Brazil: changes in market technical performance, 2007-2017
(r(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-l
BBrazil: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Meanwhile, the insurance density level (premiums per capita) amounted to 1,004.6 reals (314.7 dollars), up 2.4% on the previous year's value (980.9 reals). As with the penetration index, density in Brazil (measured in local currency) climbed steadily between 2007 and 2017.

Turning our attention to depth (Life insurance premiums to total premiums), the indicator for 2017 came to 64%, 14.3 percentage points above the value observed in 2007. Depth increased steadily in the Brazilian insurance market over the period under analysis and is higher than the average values for Latin America taken as a whole.

Estimation of the Insurance Protection Gap

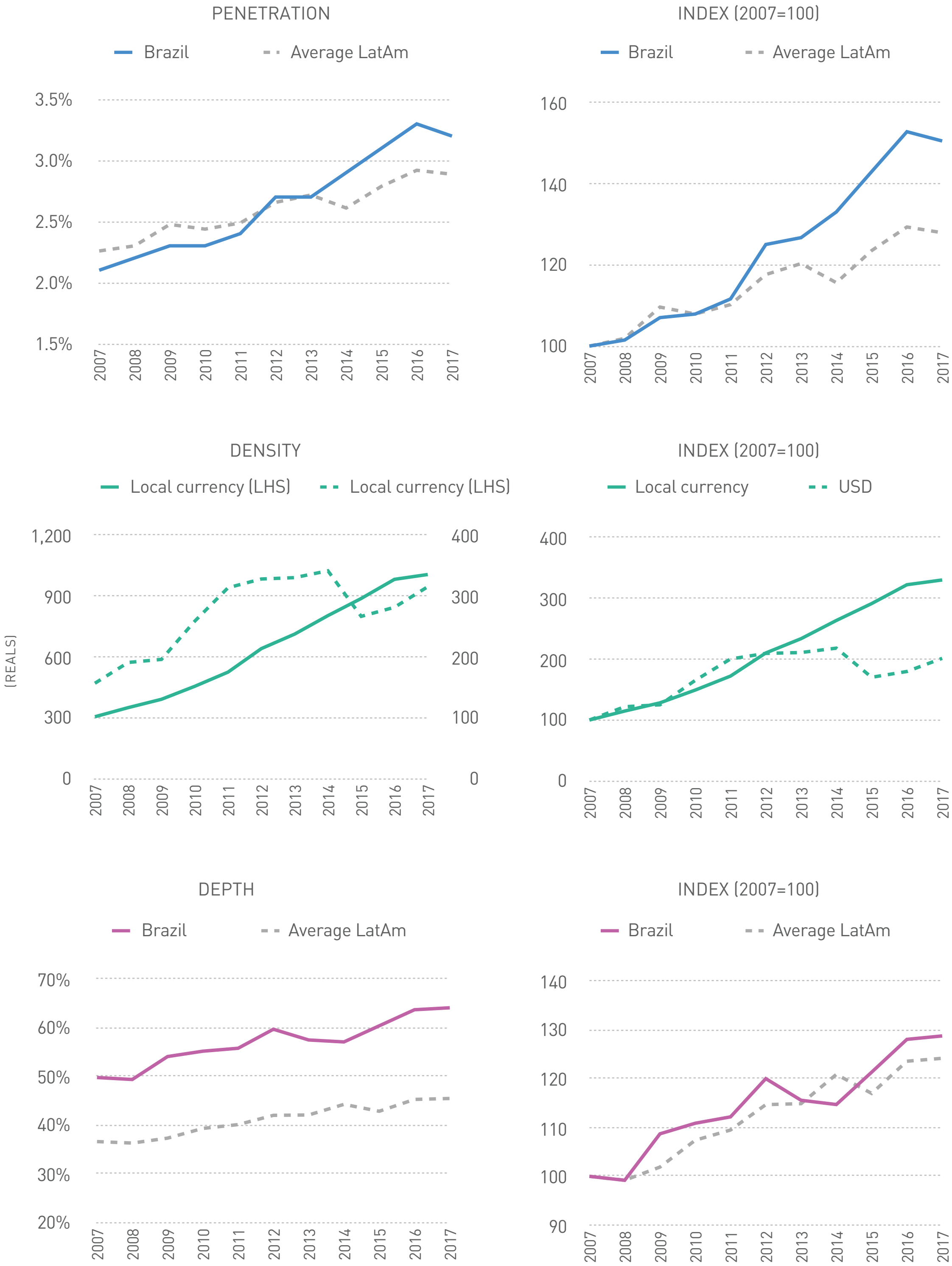
Chart 3.2.3-n provides an estimate of the IPG for the Brazilian insurance market over the 2007-2017 period. The IPG came to 281.8 billion reals (88.26 billion dollars) in 2017, equivalent to 1.3 times the size of the actual insurance market in Brazil at the end of that year. Meanwhile, the structure of the IPG over the last ten years has steadily shifted to reflect a closer balance between Life and Non-Life insurance. In 2017, 47.9% of the IPG was a product of Life insurance (135 billion reals), while the Non-Life insurance segment accounted for the remaining 52.1% of the gap (147 billion reals). Significantly, the share of Life insurance in the IPG fell by nearly 15 percentage points between 2007 and 2017. Accordingly, the potential insurance market in Brazil in 2017 (sum of actual market plus the IPG) was estimated at 494 billion reals (154.70 billion dollars), 2.3 times the size of the total insurance market in Brazil that year.

Chart 2.2.3-o provides an estimation of the IPG as a multiple of the actual insurance market. In the particular case of the Brazilian insurance market, the insurance gap multiple steadily declined over the period under analysis, especially in the Life insurance segment. During this time, the total IPG fell from 2.8 to 1.3 times the actual market, with the multiple for the Life market falling from 3.5 to 1.0 and the Non-Life multiple dropping from 2.1 to 1.9 times.

Chart 3.2.3-p summarizes changes in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Brazilian insurance market over the last ten years. The Life insurance business saw an substantial improvement over the period, while the same cannot be said for Non-Life segment, where the IPG as a multiple of the real market dipped slightly.

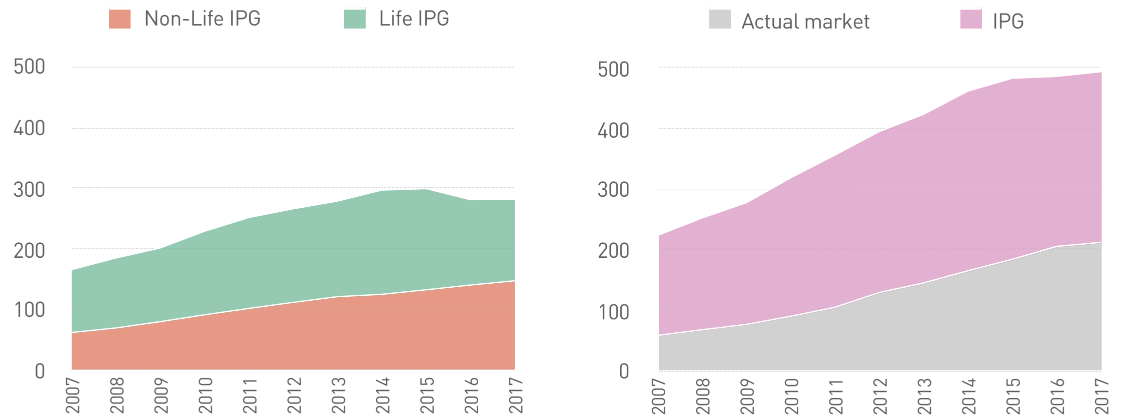
Lastly, Chart 3.2.3-q provides an overview of the capacity of the Brazilian insurance market to close the insurance gap, based on a comparative

Chart 3.2.3-m
Brazil: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, reals and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-n
BBrazil: Insurance Protection Gap and potential market, 2007-2017
(billions of reals)

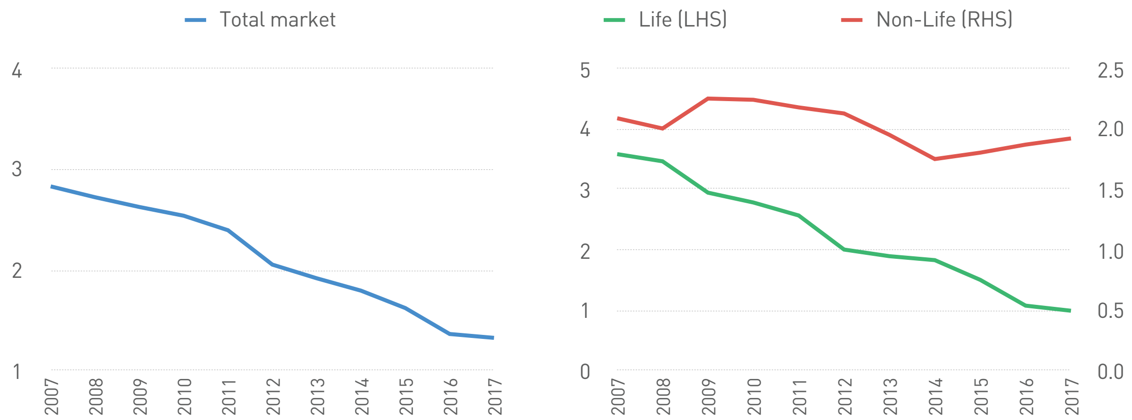


Source: MAPFRE Economic Research

analysis of the growth rates observed over the last ten years and the growth rates that would be required to close the gap for 2017 over the coming ten years. Between 2007 and 2017, the Brazilian insurance market registered an average annual growth rate of 13.8%, underpinned by average annual growth of 16.7% in the Life insurance segment and of 10% in the case of Non-Life insurance.

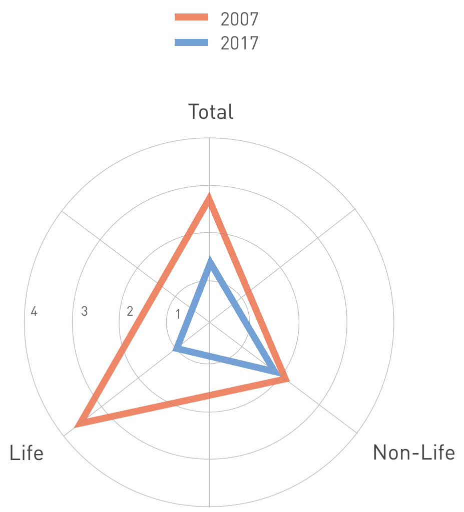
Based on the results shown in Chart 2.2.3-q, were the same rate of growth to continue over the next ten years, the growth rate of the Brazilian insurance market would be sufficient to close the insurance gap in the Life segment, but not in the Non-Life segment, where projected growth would fall 1.3 percentage points short of the mark.

Chart 3.2.3-o
Brazil: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.3-p
Brazil: the IPG
as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Market Development Index (MDI)

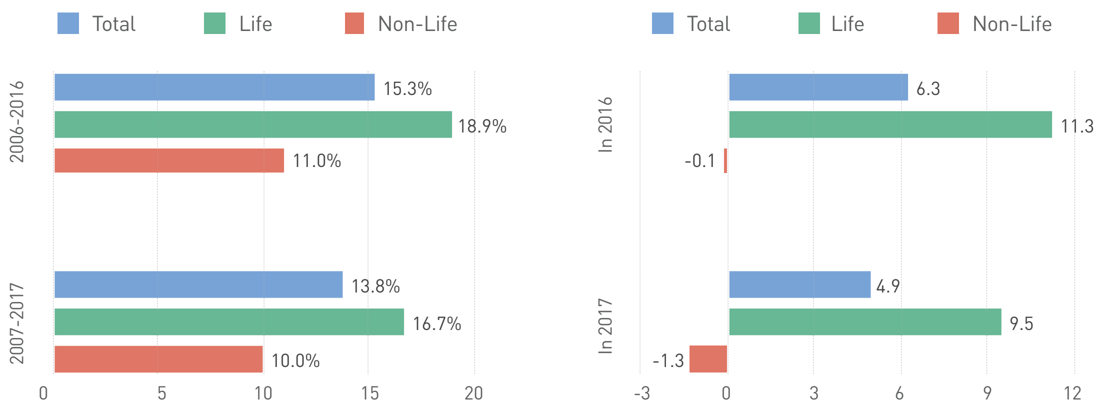
Chart 3.2.3-r provides an estimation of the Market Development Index (MDI) for the Brazilian insurance industry. The MDI is used as an indicator of general trends shaping the development and maturity of insurance markets.

In the case of the Brazilian insurance industry, the indicator shows a clearly positive pattern between 2007 and 2017, outpacing the average value for all insurance industries in the region during that period, revealing positive annual growth in each year and peaking in 2017.

Comparative analysis of structural ratios

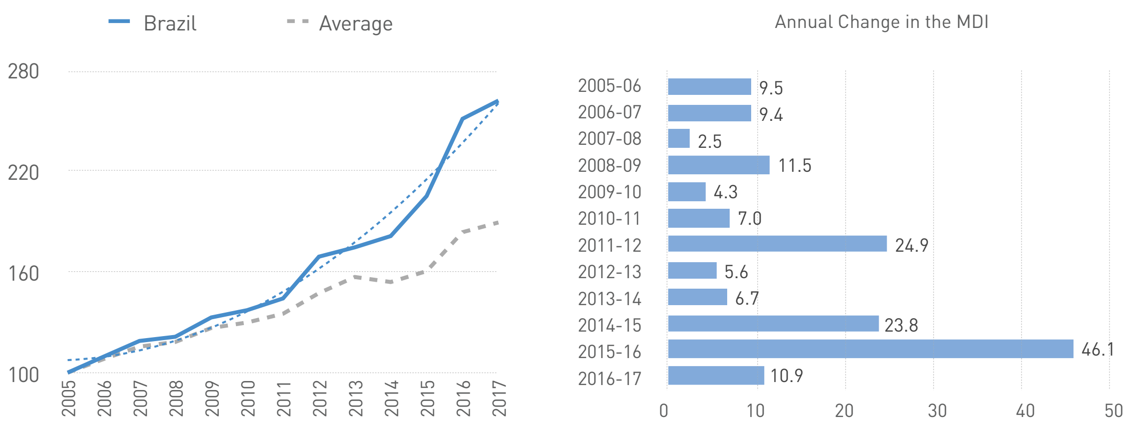
To round things off, Chart 3.2.3-s outlines the state of the Brazilian insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As is plain to see, all dimensions of the Brazilian market exceed the regional average, especially when it comes to depth and the market development index.

Chart 3.2.3-q
Brazil: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



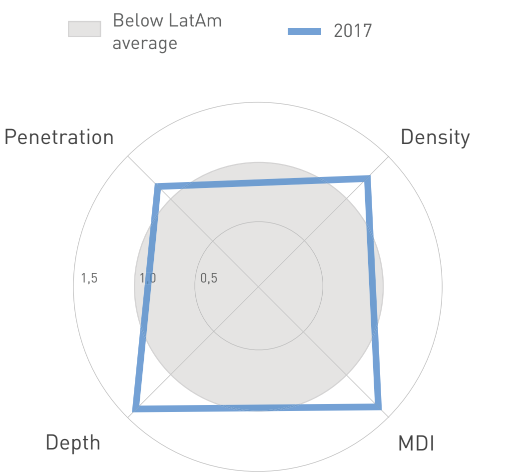
Source: MAPFRE Economic Research

Chart 3.2.3-r
Brazil: Market Development Index (MDI), 2005-2017
(index 2005=100; annual



Source: MAPFRE Economic Research

Chart 3.2.3-s
Brazil: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Insurance market rankings

Overall ranking

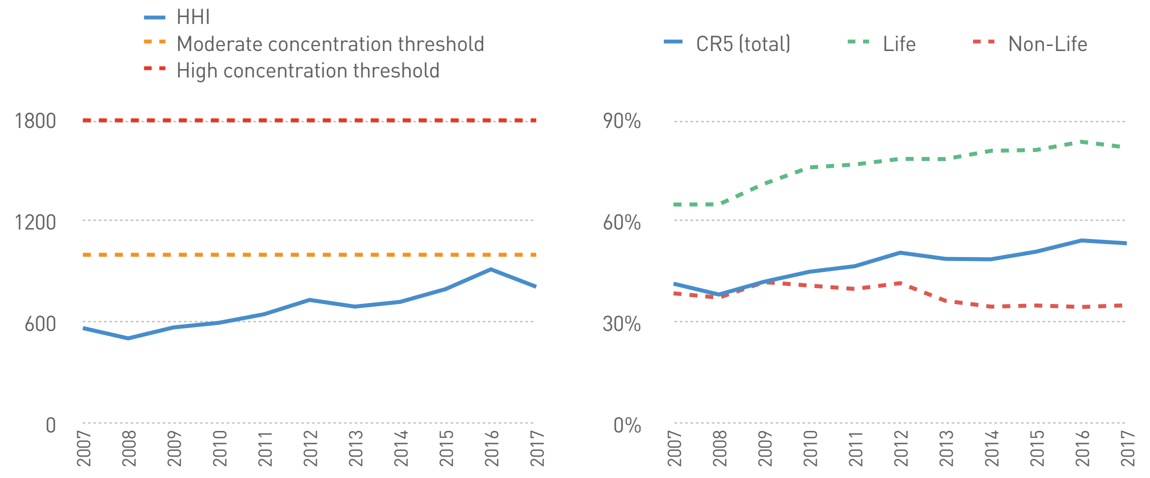
The Brazilian insurance industry featured 118 insurance companies in 2017 (2 fewer than in 2016). Levels of market concentration have grown steadily over the last ten years, despite changing direction in 2017. While the Herfindahl index remained below the theoretical threshold indicative of a moderate level of concentration, it followed an upward path throughout the period, despite dipping somewhat in 2017. The same is true of the CR5 index, at least in the case of the Life insurance segment of the market, which followed a similar trend, although the same cannot be said of the Non-Life segment (see Chart 3.2.3-t).

Turning our attention to the overall ranking of insurance groups operating in the Brazilian market, Bradesco occupied the top slot in 2017, with a 19.5% share of market premiums, pushing Brasilprev down to second with its 18% share. Following these we have Itaú (11.3%), followed by Caixa, which has pushed MAPFRE down into fifth spot, with 8.3% and 7.5%, respectively. The other positions on the table are held by Zurich, Porto Itaú, Tokio, SulAmérica and Talanx (see Chart 3.2.3-u).

Non-Life and Life rankings

Starting with Non-Life ranking, Porto Itaú holds top spot with 15.1% of total premiums, followed by MAPFRE on 13.5% and Bradesco on 8.8%. Zurich and Tokio remain fourth and fifth, respectively. Moving down the table, Caixa climbs two spots

Chart 3.2.3-t
Brazil: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)

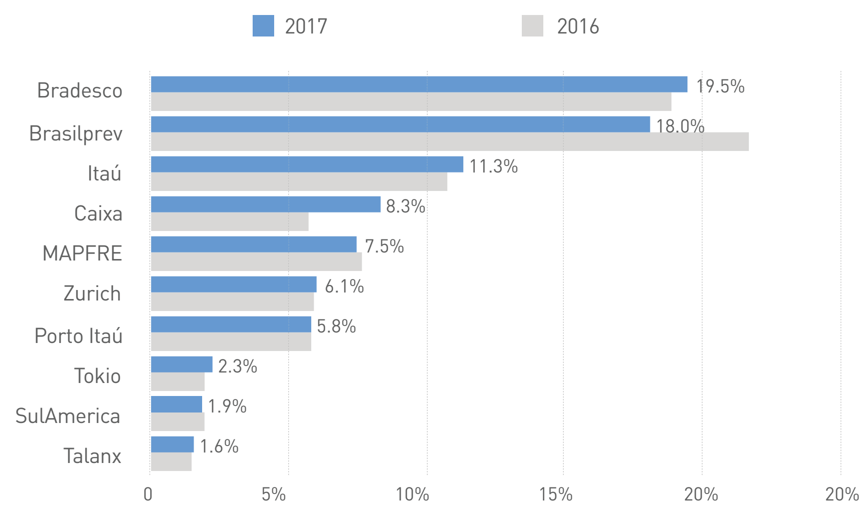


Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

to sixth, leapfrogging SulAmérica in the process, while Talanx and Liberty join the table in eighth and ninth place, respectively. Tenth place goes to Allianz, which drops one spot (see Chart 3.2.3-v).

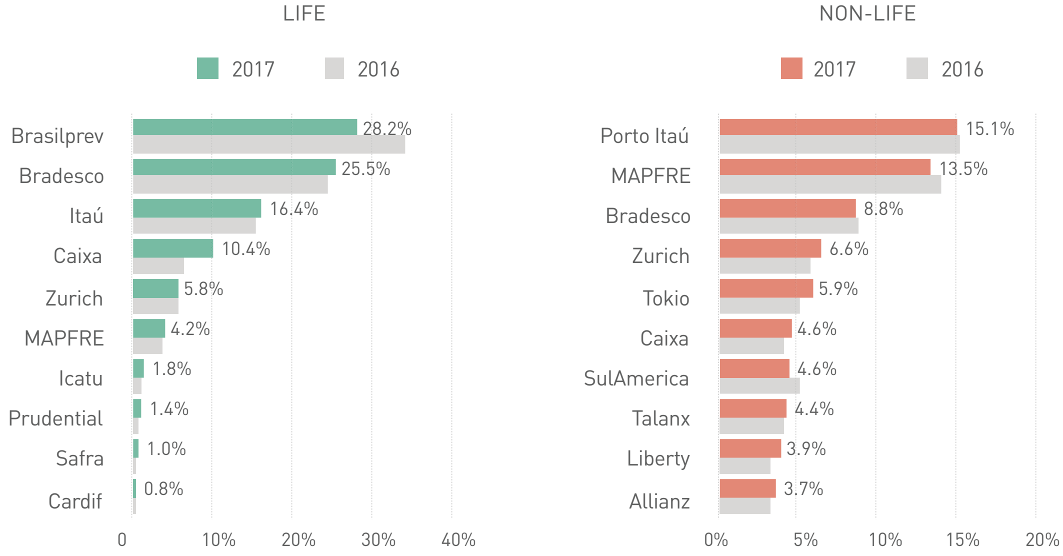
Moving to the Life insurance ranking, Brasilprev remains in first place with a market share of 28.2% in 2017. It is followed by Bradesco, with 25.5%, and Itaú, with a market share of 16.4%. Significantly, these three groups between them account for 70.1% of all premiums. The following positions in the table are the same as in 2016.

Chart 3.2.3-u
Brazil: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Chart 3.2.3-v
Brazil: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)

Key regulatory aspects

In 2017, the Superintendency of Private Insurance (SUSEP) made various changes to existing regulations governing the functioning of the Brazilian insurance market. The most significant of these are as follows:

- Circular SUSEP No. 553 was released in May 2017, establishing general guidelines on directors and officers liability insurance.
- In June 2017, article 11 of SUSEP Circular No. 535/2016 was amended by virtue of Circular 554, which establishes the types of coverage that can be offered in all auto insurance policies.
- In late 2017, a set of amendments was approved to the SUSEP Guidance on the Filing of Reinsurance Operations, which finds legal support in Circular SUSEP No. 517 of July 30, 2015.
- SUSEP Circular No. 561 was enacted in December 2017 to amend SUSEP Circular No. 517, of July 30, 2015, rewording various aspects of that Circular in relation to provisions, risk weighting, solvency calculations and accounting standards.
- Lastly, SUSEP Circular No. 563 was published in 2017, amending and consolidating further rules and criteria on the functioning and operation of coverage for survival offered under supplementary welfare and social security plans.

Moving to new regulatory developments in 2018, in April the SUSEP published its new annual regulation plan. The 2018 plan envisions the following regulations:

- The Chamber of Deputies has set up a special committee to discuss Bill 8338/17, which would usher in Mandatory Insurance for Traffic Accidents (known as SOAT) to supersede DPVAT (insurance for personal injury caused by land-based motor vehicles). Under the bill, vehicle owners are free to arrange the insurance with their choice of insurer, provided the company is authorized to operate. The premiums and insurance values will be established by the market, as per the guidelines released by the National Council of Private Insurance (CNSP), attached to the Brazilian Ministry of Finance.

- CNSP motion to streamline rules on insurance and address all passenger transport routes by making certain amendments to CNSP Resolution No. 223/10. At present, CNSP Resolution 223/2010 applies only to inter-state and international passenger transport.
- Death and disability tables. SUSEP Circular on the adoption of a specific biometric table for structuring insurance plans of individuals and additional social welfare mechanisms, with coverage for death and disability.
- CNSP Resolution establishing general guidelines relating to the acceptance of external risks by local reinsurers.
- CNSP Resolution to improve the marketing and sale of warranty extension insurance by making certain amendments to CNSP Resolution No. 306/14.

3.2.4 Ecuador

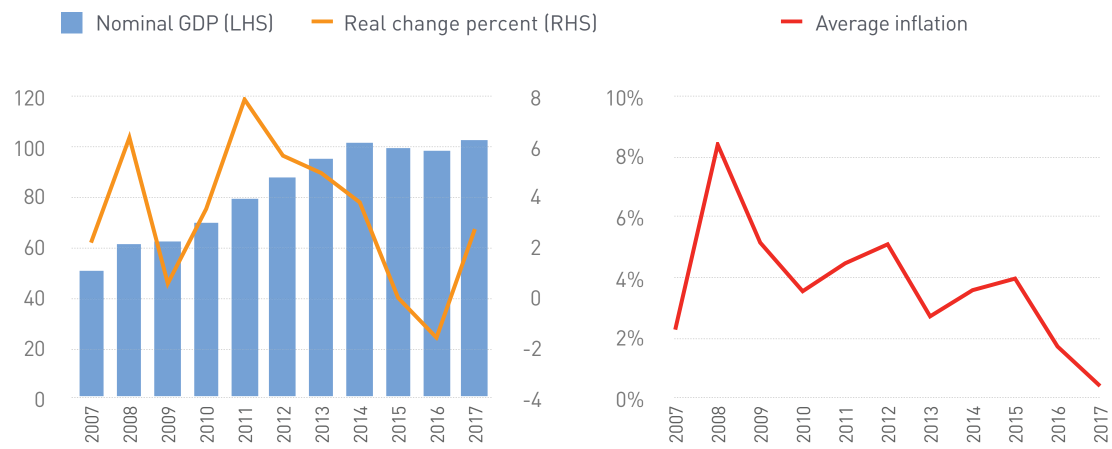
Macroeconomic environment

The Ecuadorian economy grew by 2.7% in real terms in 2017, compared with the negative growth of -1.6% it endured in 2016. The improvement was driven by rising oil prices and stronger domestic demand, especially household consumption. The expansion of public and private lending were also key factors supporting this growth. The fiscal deficit came to 5.3% of GDP (7.4% in 2016), while public debt accounted for 44.7% of GDP at year-end 2017 (42.9% in 2016).

The most lively sectors were electricity and water, financial services, shrimp farming and trade. Construction, meanwhile, continued to contract and gross capital formation turned in a weak performance.

While exports experienced heavy growth, they were actually outpaced by imports. When combined with an increase in the revenue deficit, this caused the current account surplus of 2016 (1.5% of GDP) to become a slight deficit of 0.2% by the end of 2017.

Chart 3.2.4-a
Ecuador: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of USD; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

The average inflation rate continued to fall, dropping to 0.4% percent (1.7% in 2016), while unemployment fell to 4.6%, comparing favorably with the 5.2% reported a year earlier (see Chart 3.2.4-a).

In relation to growth forecasts for 2018, ECLAC predicts that the Ecuadorian economy will continue to post positive growth, with the fiscal stimulus likely to be less than in 2017. The Central Bank of Ecuador's lending program for real estate developers and the Casa para Todos (A Home for Everyone) housing scheme could partially offset the loss of fiscal space. In view of existing market liquidity, domestic lending should continue to drive household consumption, which prompted ECLAC to predict growth of around 1.3% this year. The IMF, however, places growth at 2.5% for 2018.

Insurance market

Growth

Premium volume in the Ecuadorian insurance market increased by a muted 0.8% in nominal terms and 0.4% in real terms to reach 1.63 billion dollars, thus breaking free from the downward spiral seen in previous years. Premiums in the Non-Life segment, which accounts for 77% of the total insurance market, were down 0.8%, while premiums in the Life insurance segment gained 6.6%. Both individual and group insurance were up, although group insurance made the biggest contribution to overall growth because it represents 92% of the Life insurance business (see Table 3.2.4 and Chart 3.2.4-b).

Turning to Non-Life business lines, the growth reported in Fire, theft and allied lines (+0.3%), Personal accident (+5.8%), Health (+17.7%) and Third-party liability (+6.9%) was not enough to offset the decline seen in other lines, mainly Automobile insurance (-1.2%) and Transport (-11%).

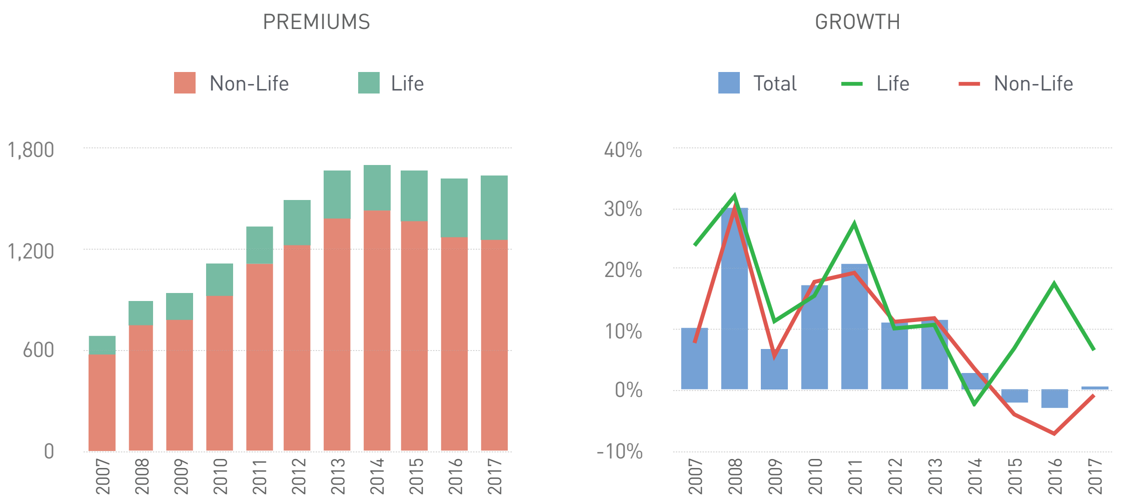
Accordingly, the Life segment contributed a positive 1.4 percentage points to the total growth of 0.8% reported in 2017, which countered the negative 0.6% contribution made by the Non-Life insurance segment (see Chart 3.2.4-c).

Table 3.2.4
Ecuador: premium volume[1] by line of business, 2017

Line of business	Millions of USD	Increase	
		Nominal (%)	Real (%)
Total	**1,631**	**0.8**	**0.4**
Life	**370**	**6.6**	**6.2**
Individual Life	30	8.2	7.7
Group Life	340	6.5	6.1
Non-Life	**1,261**	**-0.8**	**-1.2**
Automobile	379	-1.2	-1.6
Other damages	232	-0.2	-0.7
Fire, theft and allied lines	197	0.3	-0.1
Transport	123	-11.0	-11.4
Personal accident	93	5.8	5.4
Surety and credit	94	-10.7	-11.0
Health	76	17.7	17.2
Third-party liability	66	6.9	6.5

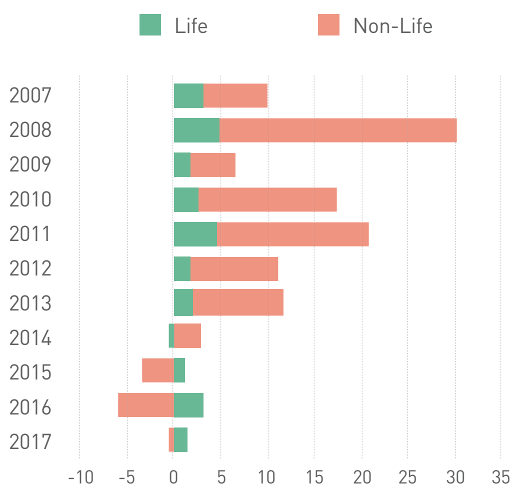
Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)
1/ Net premiums written (written premiums from direct insurance taken out, less settlements and surrenders, plus the premiums from ceded reinsurance)

Chart 3.2.4-b
Ecuador: growth developments in the insurance market, 2007-2017
(premiums, millions of USD; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-c
Ecuador: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Balance sheet and equity

Total assets came to 2.24 billion dollars in 2017, while equity stood at 600 million dollars, down 2.8 percentage points on the level reported a year earlier.

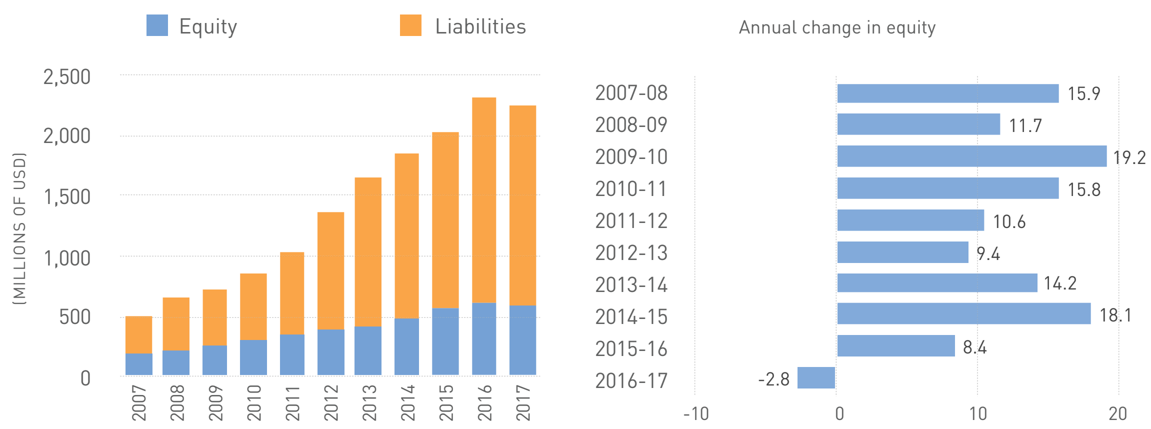
The Ecuadorian insurance industry boasts high levels of aggregate capitalization (measured in relation to total assets), which exceeded 30% between 2007 and 2011. Thereafter, they slipped below 30%, bottoming out at 25.6% in 2013, only to see a recovery of sorts to reach 26.7% in 2017.

Investment

Chart 3.2.4-e shows developments in the aggregate investment portfolio at sector level in Ecuador between 2007 and 2017, while Charts 3.2.4-f and 3.2.4-g analyze changes in the relative composition of the portfolio.

Investment totaled 1.06 billion dollars in 2017, with fixed-income securities falling slightly out of favor (54.4% versus 58.4% in 2016) to the benefit of equity instruments (26.5% of total investment versus 20.9% in 2016).

Chart 3.2.4-d
Ecuador: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Since 2012, sovereign fixed income has gradually increased its weight of total investment, rising steadily to 24.4% in 2017 (+2.7 pp on 2016).

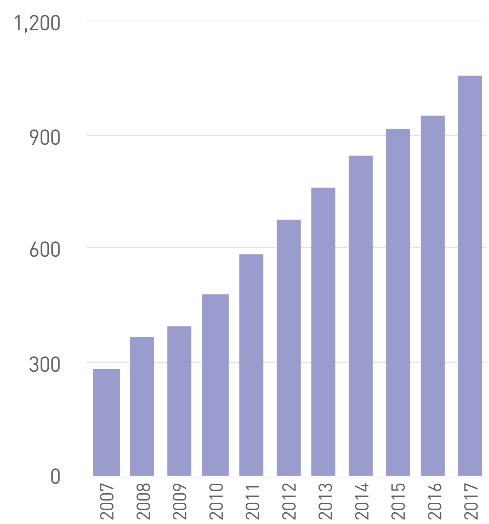
Technical provisions

Charts 3.2.4-h, 3.2.4-i and 3.2.4-j show the performance and composition of technical provisions in the Ecuadorian insurance industry between 2007 and 2017.

Technical provisions fell slightly in 2017 to 831.3 million dollars. We can see a significant year-on-year increase in provisions for Life insurance, climbing from 4.9% to 14.7%. Of the total provisions, 24.5% related to provisions for unearned premiums and unexpired risks in Non-Life insurance, 57.4% to provision for outstanding benefits, 0.3% to catastrophic risks, and the remaining 3.1% to other technical provisions.

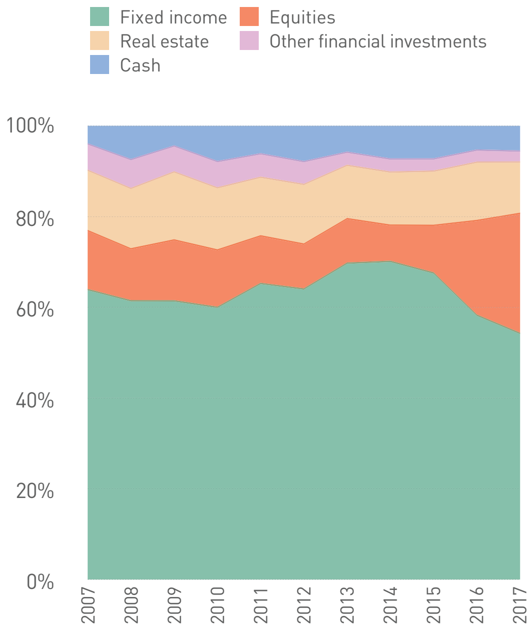
Note that that the change seen in 2012 is mainly down to an accounting impact, since Resolution No. SBS-2012-0068 of February 7, 2012 modifies the treatment of provisions for outstanding benefits, which until 2011 were considered net of ceded reinsurance but thereafter presented for the gross amount, while including under assets the amount receivable on the part relating to the reinsurer. The other important change between 2015 and 2016 is the aforementioned relative increase in the provision for outstanding benefits as a result of the earthquake that struck the country in April 2016.

Chart 3.2.4-e
Ecuador: insurance market investment, 2007-2017
(millions of USD)



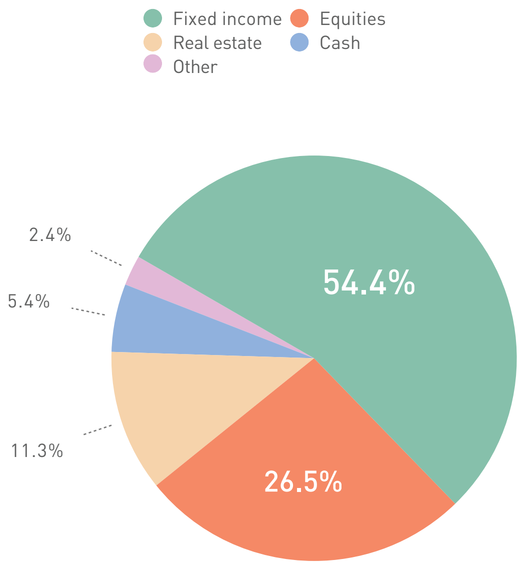
Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-f
Ecuador: structure of investment, 2007-2017
(%)



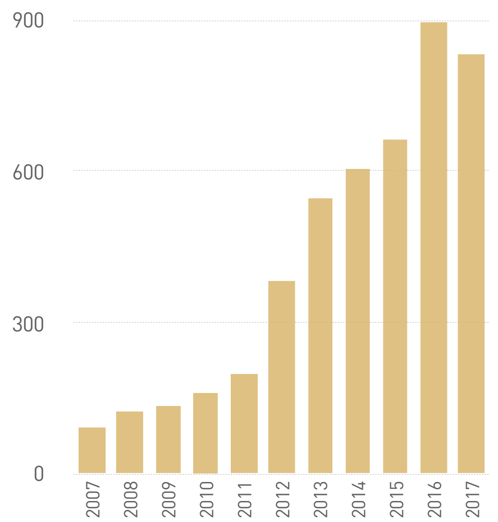
Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-g
Ecuador: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-h
Ecuador: technical provisions of the insurance market, 2007-2017
(millions of USD)



FSource: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

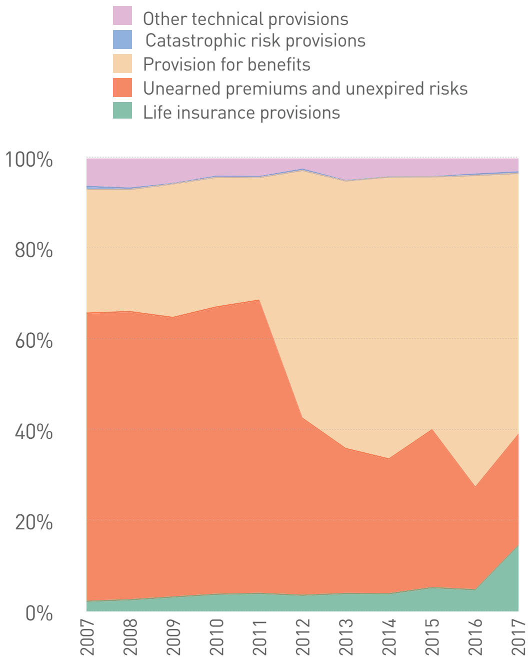
Technical performance

Chart 3.2.4-k shows the Ecuadorian insurance industry's technical performance between 2007 and 2017. As shown, the combined ratio experienced a slight decline of -0.1 percentage points to reach 74.8%. The loss ratio continued its downward trend of the last ten years, despite the payment of compensation in connection with the earthquake that occurred in April.

Reinsurance has played a significant role in containing the loss ratio for the Ecuadorian insurance industry. While recoveries from ceded reinsurance were up 75% in 2016 in the wake of the earthquake, they then fell 48% in 2017. The expense ratio rose 2.1 percentage points to 32.0%.

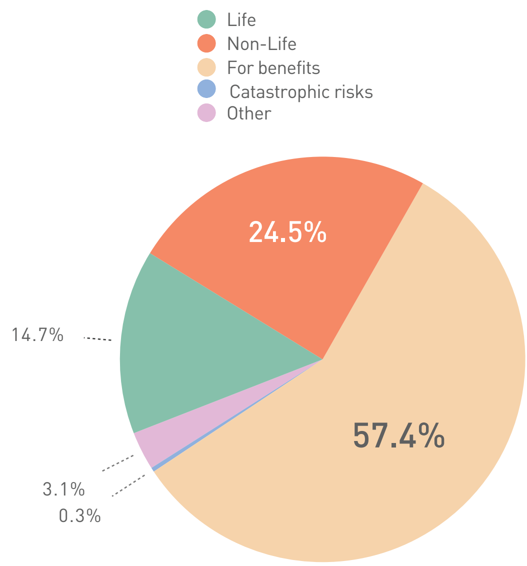
The Non-Life combined ratio (Chart 3.2.4-l) also fell slightly to 77.6%, two percentage points below the 2016 figure. However, the three

Chart 3.2.4-i
Ecuador: structure of technical provisions, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-j
Ecuador: structure of technical provisions, 2017
(%)

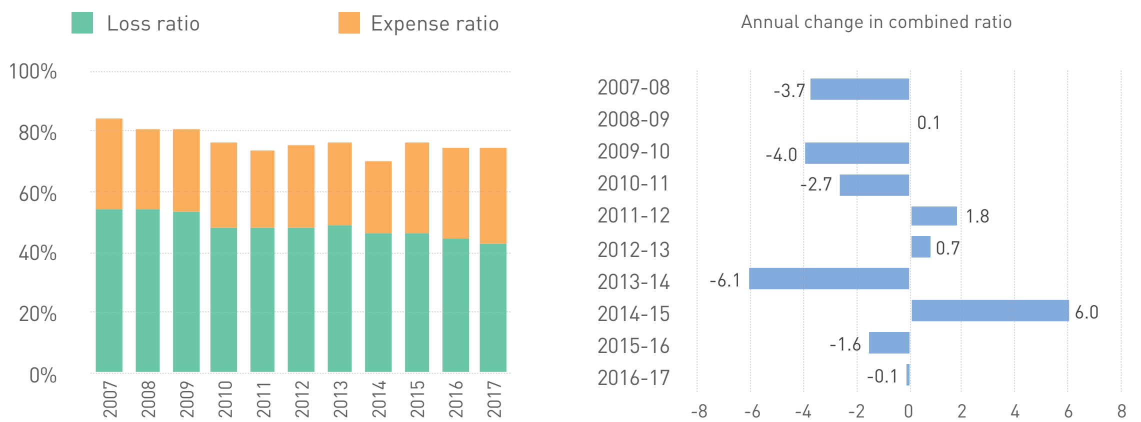


Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

percentage-point improvement in the loss ratio was offset by an expense increase of 2.8 percentage points.

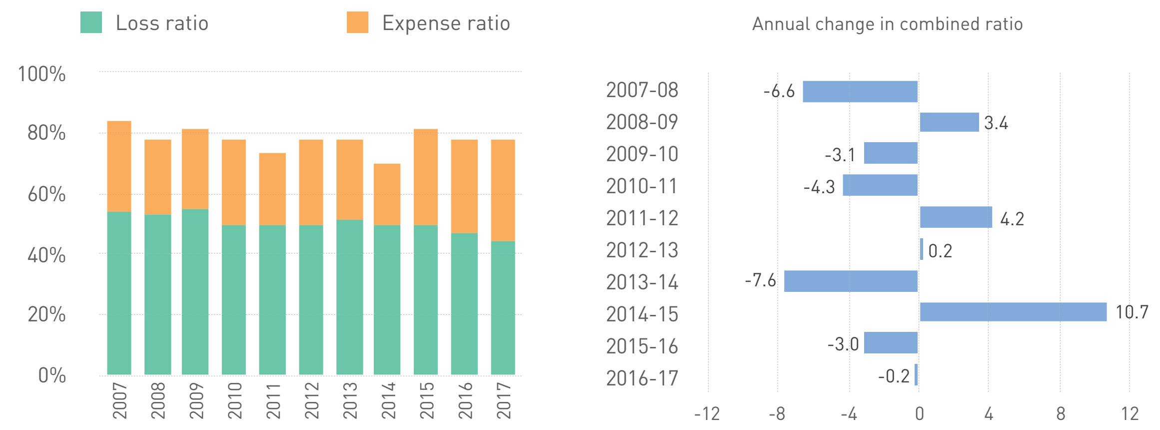
Note that the technical results indicated above does not include other revenues and non-operational expenses related on the one hand to other lines

Chart 3.2.4-k
Ecuador: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-l
Ecuador: changes in the technical performance of the Non-Life market, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

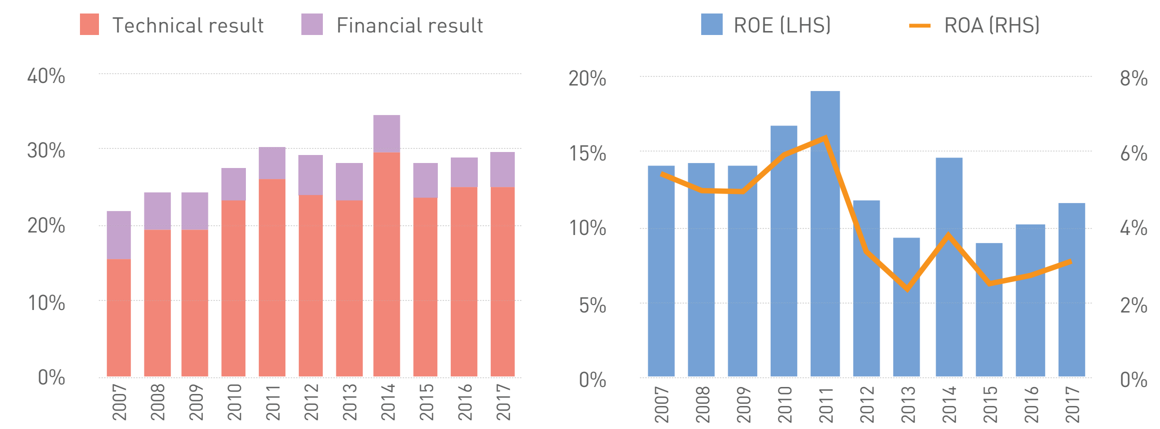
of business carried out by insurance companies in Ecuador and, on the other, certain administration costs which in this country are not counted as such when calculating the expense ratio.

Results and profitability

The Ecuadorian insurance industry posted a positive aggregate technical result of 254 million dollars in 2017, up 1.8% year on year. The financial result also surpassed the figure reported in 2016 (+10.6%) to reach 44 million dollars. The net result of the insurance industry was up 10.3% to 70 million dollars (see Chart 3.2.4-m).

Turning to the profitability of the Ecuadorian insurance industry, return on equity (ROE) climbed 1.4 percentage points in 2017 to reach 11.7%,

Chart 3.2.4-m
Ecuador: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

while return on assets (ROA) came to 3.1%, up four tenths of a percentage point on 2016.

Insurance penetration, density and depth

Chart 3.2.4-n shows the most relevant structural trends shaping the development of the Ecuadorian insurance industry between 2007 and 2017.

The penetration index (premiums/GDP) in Ecuador came to 1.6% in 2017 (0.4% in Life and 1.2% in Non-Life). The Life market is notably below the average for Latin America, in terms of both current level and trend. Penetration in the Non-Life business is closer to the average for Latin America, although it did change direction in 2014 and has been dropping ever since as it gradually moves further away from the average for the wider region.

A similar situation emerges when we analyze insurance density in Ecuador. The indicator (premiums per capita) amounted to 98.1 dollars in 2017, revealing a slight drop of 0.7% on the level reached in 2016 (98.8 dollars). While insurance density in Ecuador grew steadily up to 2014, it has fallen away in the last few years due to a reduction in premiums resulting from the general economic situation within the country.

Turning our attention to the depth of the Ecuadorian market (measured as Life insurance premiums versus total premiums), the index has been rising slowly but surely over the last ten years, although it remains well below the absolute average values for the wider region. Thanks to the growth in Life insurance in 2017, the indicator climbed to 22.7%, which is 1.2 percentage points more than in 2016. Since 2007, the depth of the market has risen by seven percentage points.

Estimation of the Insurance Protection Gap

Chart 3.2.4-o provides an estimate of the IPG for the Ecuadorian insurance market between 2007 and 2017. As shown, the insurance gap in 2017 amounted to 6.07 billion dollars, some 3.7 times the size of the actual insurance market in Ecuador at the end of that year.

As is the case with most Latin American markets, the structure and performance of the IPG between 2007 and 2017 are mainly a product of the Life insurance segment. Indeed, 63.4% of the IPG was down to Life insurance (3.85 billion dollars) at the end of 2017, down 4.4 percentage points on the share of this segment in 2007. That means that the remaining 36.6% of the gap is a product of the Non-Life insurance segment (2.22 billion dollars).

Accordingly, the potential insurance market in Ecuador at the end of 2017 (measured as the sum of the actual market plus the IPG) was estimated at 7.70 billion dollars, some 4.7 times the size of the total insurance market in Ecuador that year.

Meanwhile, Chart 3.2.4-p provides an estimate of the IPG as a multiple of the actual market in Ecuador between 2007 and 2017. The gap for the Life insurance segment shows a downward trend over the entire period under analysis (falling from 22.4 to 10.4 times), while in the case of the Non-Life insurance segment the gap fell steadily through to 2011 and then leveled off, finally rising again in 2015 to reach 1.8 in 2017.

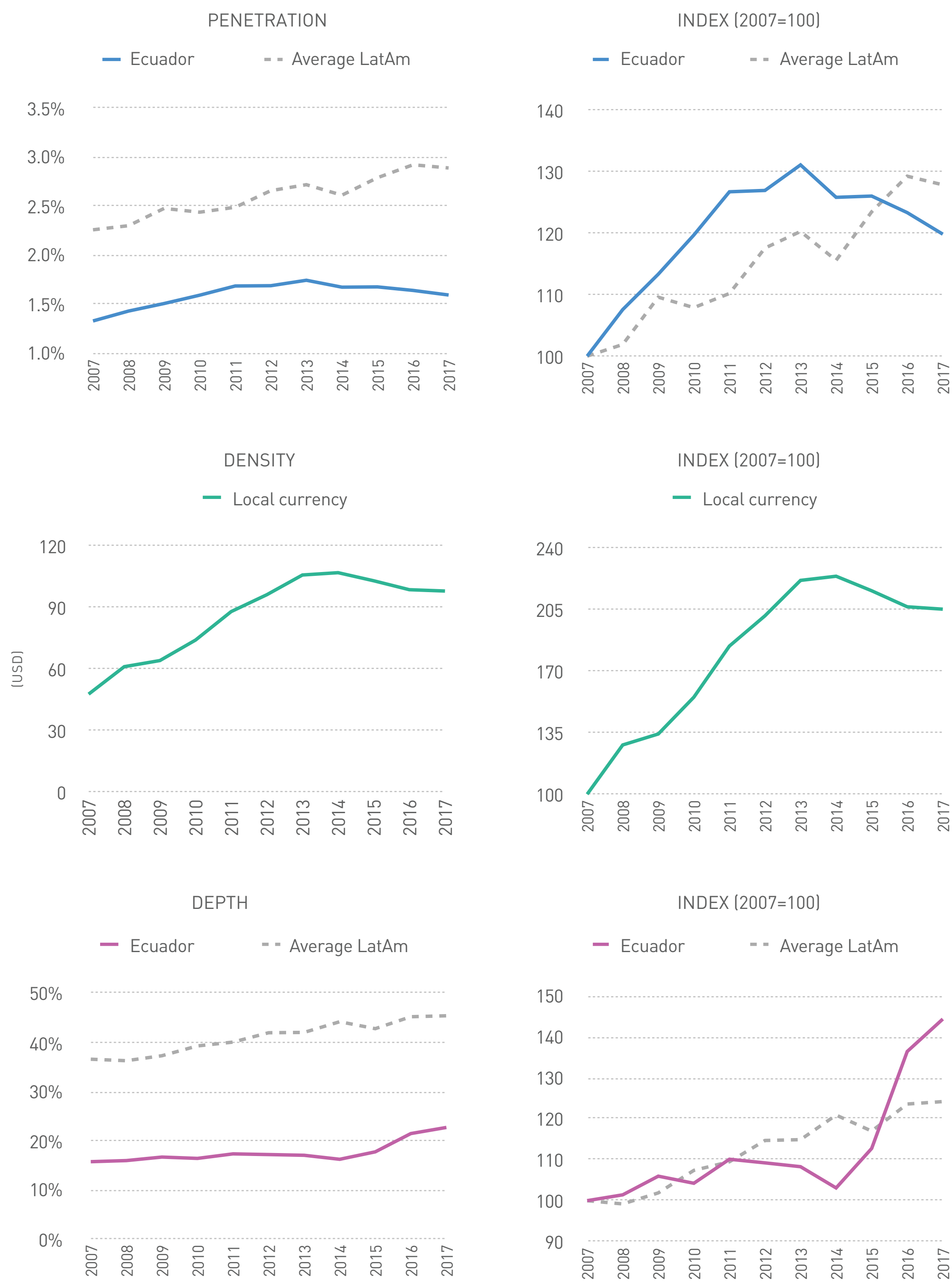
Chart 3.2.4-q shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Ecuadorian insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. Only the Life insurance business saw an improvement, while in the case of the Non-Life segment the IPG as a multiple of the real market is virtually unchanged.

Lastly, Chart 3.2.4-r outlines the capacity of the Ecuadorian insurance market to close the insurance gap, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years. The Ecuadorian insurance market grew at an average annual rate of 9.2%. The Life insurance segment grew at an average annual rate of 13.3%, while Non-Life insurance grew at an average annual rate of 8.2%.

Were the same growth rate observed over the last ten years to continue over the next ten years, the growth rate of the Ecuadorian insurance market would fall 7.6 percentage points short of closing the IPG for that period of time.

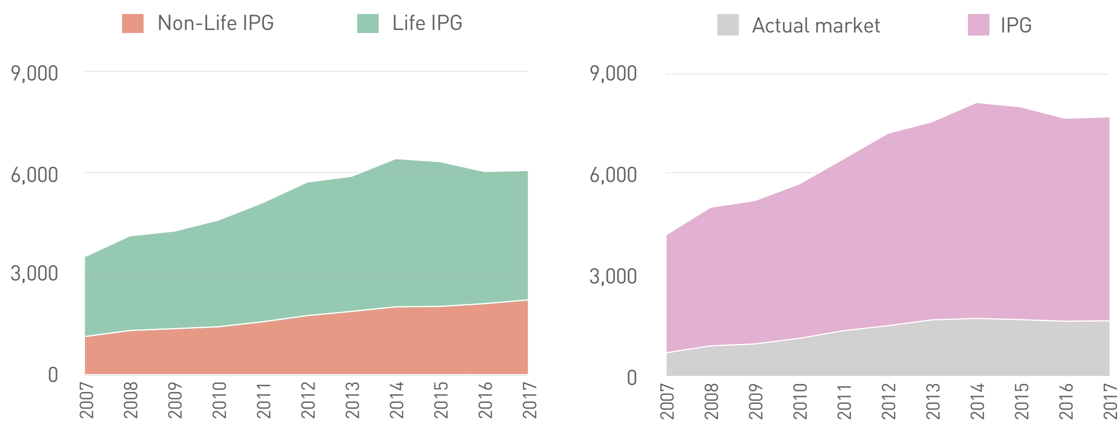
In the case of the gap in the Life segment, this shortfall would be 14.3 percentage points, while

Chart 3.2.4-n
Ecuador: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-o
Ecuador: Insurance Protection Gap and potential market, 2007-2017
(millions of USD)



Source: MAPFRE Economic Research

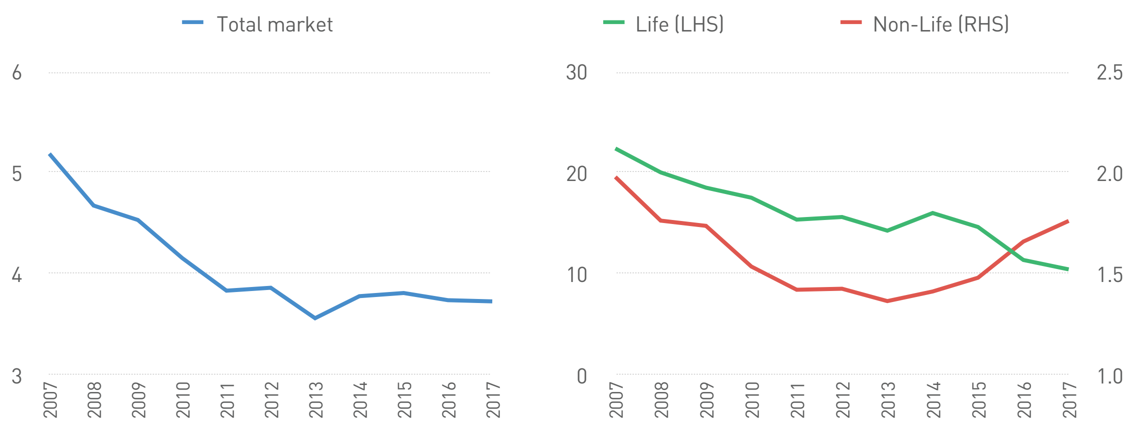
for the Non-Life segment the observed rate would fall short by some 2.5 percentage points. It also so happens that the shortfall in the case of Non-Life insurance has increased since the same measurement was taken a year earlier.

Market Development Index (MDI)

Chart 3.2.4-s provides an estimation of the Market Development Index (MDI) for the Ecuadorian insurance industry.

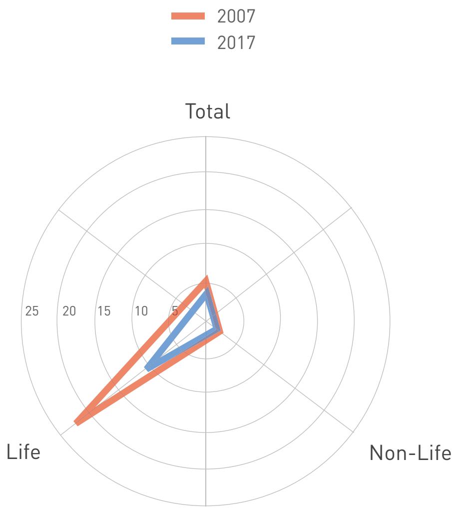
This indicator shows a positive trend through to 2013, in line with the average performance for all Latin American markets. However, that years marks a reversal of the trend following a slump in premium growth in the market (see Table 3.2.4), which was in turn the product of an unfavorable economic environment in Ecuador (see Chart 3.2.4-a).

Chart 3.2.4-p
Ecuador: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.4-q
Ecuador: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Comparative analysis of structural ratios

Chart 3.2.4-t outlines the state of the Ecuadorian market in 2017 when compared with the average for Latin America, measured in terms of the various structural ratios featured in this report. As is clear to see, its situation in terms of penetration, depth and density is below the average for the wider region. That said, the market development index has improved and is now closer to the regional average after recovering from the sharp drop suffered in 2014.

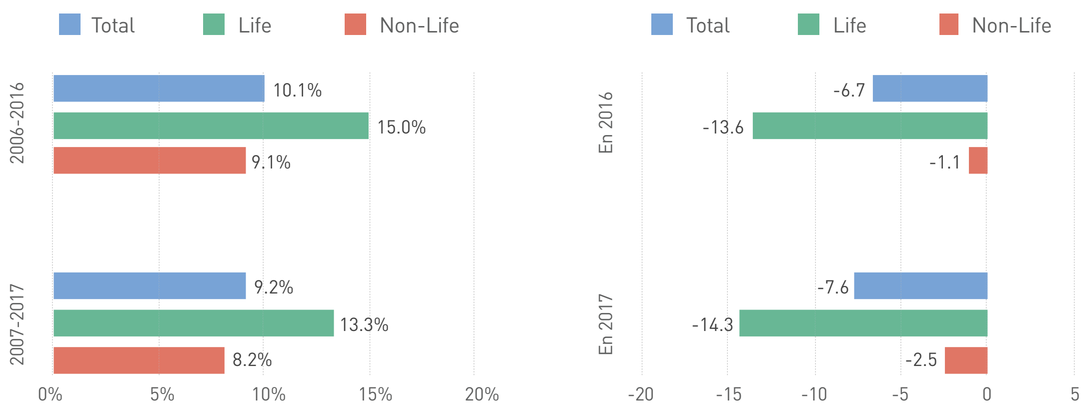
Insurance market rankings

Overall ranking

The Ecuadorian insurance industry featured 32 insurance companies in 2017. The top five insurers (CR5) account for 49.2% of total premiums, revealing slightly higher levels of concentration than in 2016.

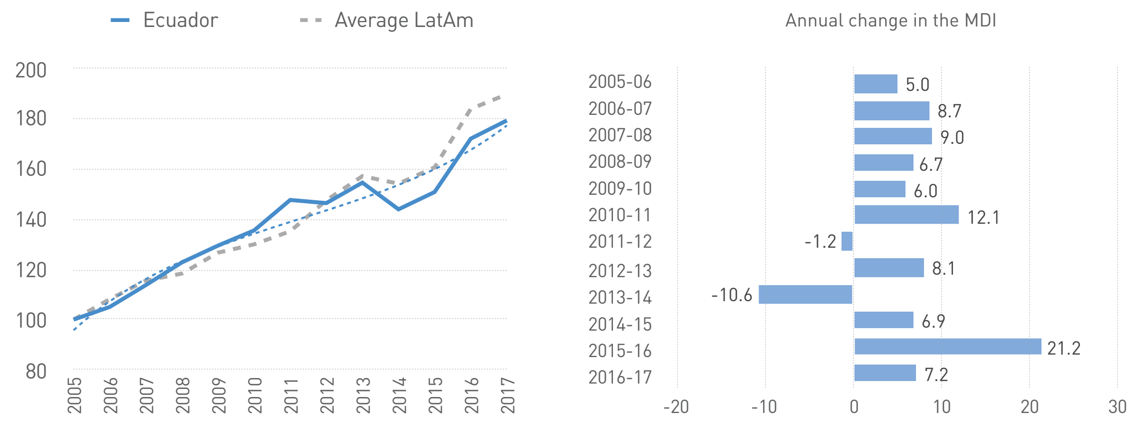
In the last ten years the Ecuadorian market has seen an upward trend in concentration levels, especially from 2011 onward, as can be seen in Chart 3.2.4-u, which shows changes in the Herfindhal and CR5 indexes. Even so, the Herfindahl index is still below the moderate concentration threshold.

Chart 3.2.4-r
Ecuador: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



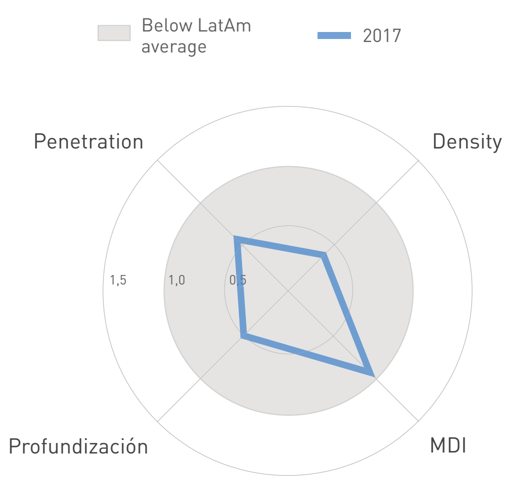
Source: MAPFRE Economic Research

Chart 3.2.4-s
Ecuador: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.2.4-t
Ecuador: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

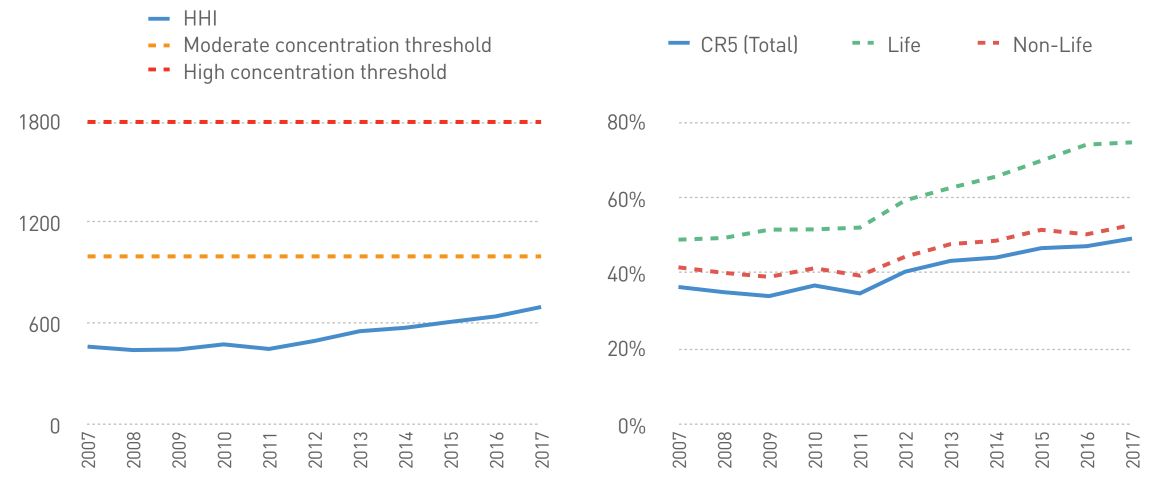
The overall ranking of Ecuadorian insurers in 2017 is led by Sucre, which has managed to increase its market share by a further 1.8 percentage points to 16.8% following its acquisition of Rocafuerte (ranked eighth in the 2016 table). Following behind we have Equinoccial (9.1%) and Chubb Seguros (8.7%). Meanwhile, Pichincha climbs one place in the table to push QBE Colonial into fifth spot. AIG and Equivida once again take sixth and seventh, while Liberty climbs one and MAPFRE joins the ranking in ninth. Lastly, Ecuatoriano Suiza retains its tenth place.

Non-Life and Life rankings

The 2017 Non-Life ranking is led by Sucre on 17.7%, three points more than in 2016 following its acquisition of Rocafuerte. Chubb and QBE swap positions when compared with the 2016 table. MAPFRE Atlas, which came in tenth in the 2016 ranking, jumps to seventh and Pan American Life joins the table in tenth place.

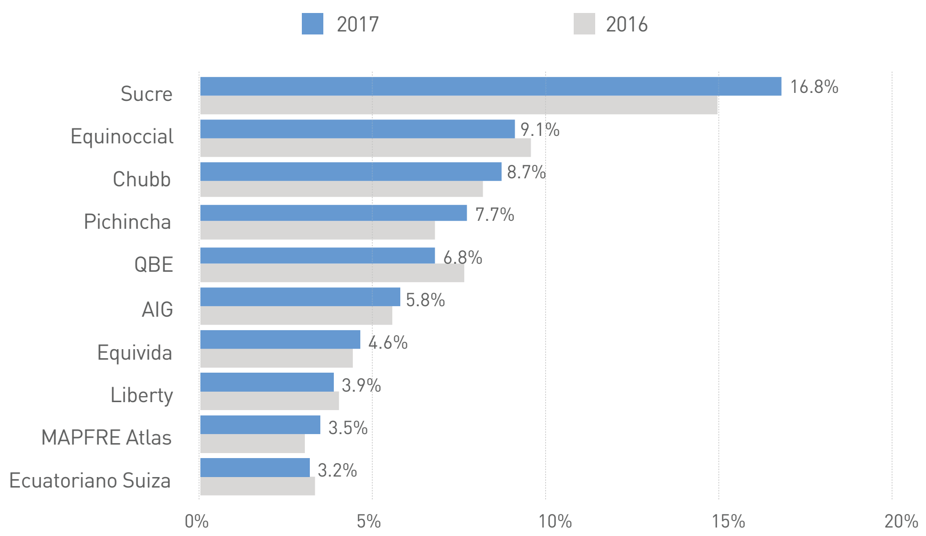
Lastly, the 2017 Life ranking is led by Pichincha with a market share of 29.2%, at a considerable distance from Equivida in second spot with 17.8% of all Life premiums.

Chart 3.2.4-u
Ecuador: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



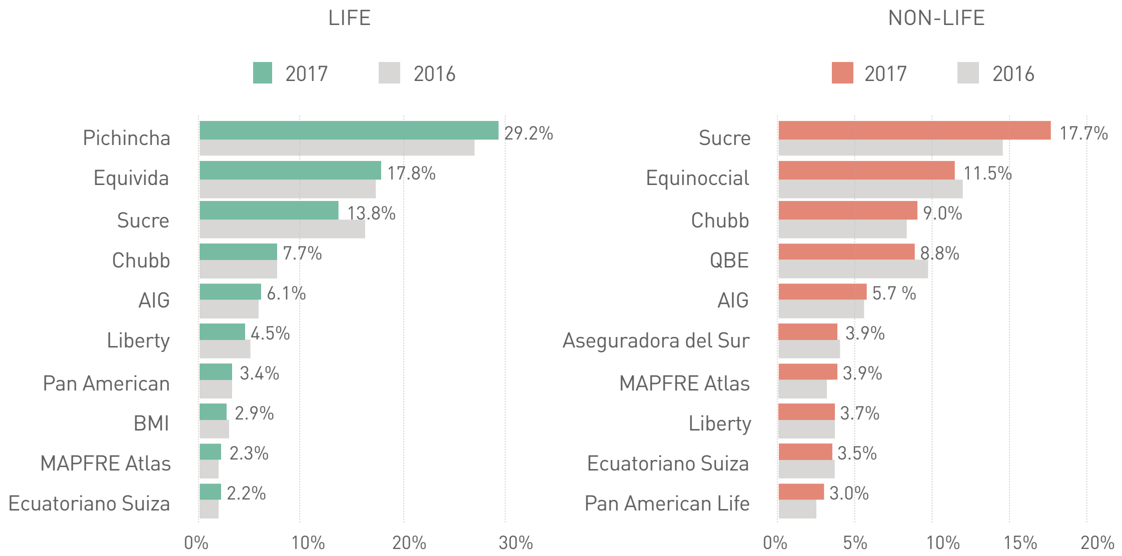
Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-v
Ecuador: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Chart 3.2.4-w
Ecuador: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

Key regulatory aspects

We would highlight the following key regulatory developments in 2017 and in 2018 year-to-date:

- Resolution No. SCVS.INS.14004: definition of mandatory and prohibited clauses for each of the plans, programs and forms of providing comprehensive pre-paid health care and coverage under medical insurance policies.
- Resolution No. SCVS.INS.2017.0037: adjustments to the system for calculating contributions so as to reduce the saving, cash value, accumulation fund or any other amount not included in the premium or premium tariff that may accrue from the time an individual or universal Life insurance product is sold.
- Resolution No. SCVS.INS.17002: publishing updates to the regulations on claims and appeals on matters relating to insurance.
- Resolution No. SCVS.INS.17007: adding a single provision to the rules on the drafting of technical notes supporting tariffs on installments and premiums.
- Resolution No. SCVS-INS-2018-0007 of April 12, 2018: rule defining mandatory and prohibited clauses in insurance contracts.

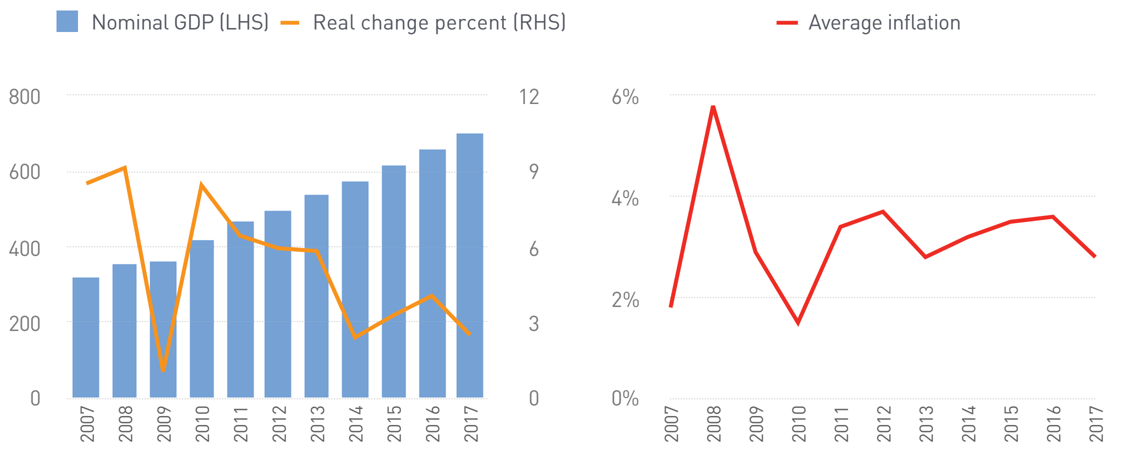
3.2.5 Peru

Macroeconomic environment

The Peruvian economy grew 2.5% in real terms in 2017, compared with 4.1% the previous year. This slowdown was a product of weaker domestic demand, partly due to the climatological phenomenon known as El Niño, which caused one of the worst natural disasters to have struck Peru in decades (see Chart 3.2.5-a).

In the wake of the event, the Peruvian government rolled out a restructuring plan in the second quarter of the year, along with fiscal stimulus measures to target public investment. Meanwhile, the central bank began to pursue a moderately expansionary monetary policy against a backdrop of controlled inflation and a negative output gap. The growth rate for lending to the private sector,

Chart 3.2.5-a
Peru: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of soles; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

which had slowed in the first half of the year, began to show signs of recovery toward the end of the third quarter.

By sector, the slowdown in economic activity was largely seen in the non-primary industries, including the hydrocarbon sector, construction and trade. Export-oriented primary sectors, such as metal mining and fishing, all experienced growth.

The average inflation rate in 2017 fell to 2.8% (3.6% in 2016). Unemployment was up two tenths of a percentage point to 6.9%.

The current account deficit fell 1.4 percentage points in 2017 to reach 1.3% of GDP. This improvement was driven by exports as basic products were able to command higher prices and also because of an increase in export volume due to the extensions made to mining sites in recent years.

ECLAC predicts growth of 3.5% for the Peruvian economy in 2018, with a closer balance between the external sector and domestic demand, which will be driven by livelier public and private investment fueled by a healthy metal mining sector. Meanwhile, the IMF estimates growth of 3.7% for 2018.

Insurance market

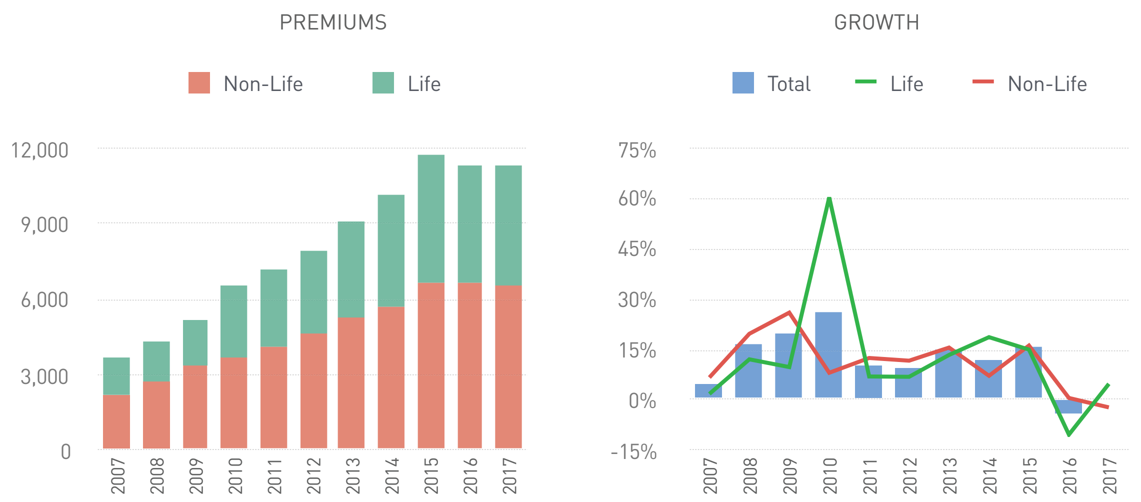
Growth

As shown in Chart 3.2.5-b, the insurance market ended 2017 with growth of 0.6% to reach 11.32 billion soles (3.47 billion dollars), having endured

a slowdown of 4.2 percentage points a year earlier. The main support factors behind this recovery were individual Life insurance, which gained 57.8 points of nominal growth in 2017 to bring the overall Life segment to 4.81 billion soles (+4.8), aided by group Life insurance (+9.2%), which were more than enough to offset yet another drop in pension insurance (-17.2%).

Market performance was once again affected by the entry into force in April 2016 of the Act 30425, amending the Private Pension Scheme Act, whereby subscribers aged 65 or over may choose to receive their pension under any of the available

Chart 3.2.5-b
Peru: growth developments in the insurance market, 2007-2017
(premiums, millions of soles; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

retirement modalities, or otherwise instruct the pension fund administrator to pay up to 95.5% of the total available fund into their Individual Capitalization Account.

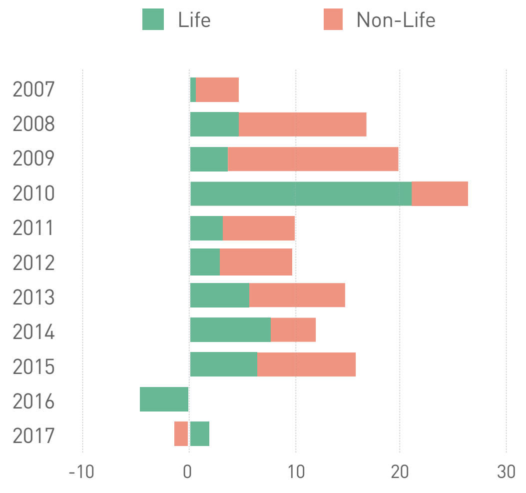
Meanwhile, Non-Life insurance businesses experienced a 2.2% reduction in premium volume to reach 6.51 billion soles (1.99 billion dollars). Despite nominal growth in Health (+8.2%), Burial (+4.6%), Credit and surety (+15.5%) and Workplace accidents (+4.7%), all other lines registered negative nominal growth rates (see Table 3.2.5-a).

Balance sheet and equity

Chart 3.2.5-d shows the performance of the aggregate balance sheet at sector level for the Peruvian insurance industry. Total insurance industry assets came to 45.16 billion soles in 2017 (13.85 billion dollars), while equity dropped to 7.08 billion soles (2.17 billion dollars), down 0.7 percentage points on the previous year.

Aggregate capitalization levels in the Peruvian insurance industry (measured against total assets) improved between 2006 and 2010, climbing steadily from 18.6% in 2006 to reach 21.7% at the end of 2010. Capitalization then

Chart 3.2.5-c
Peru: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

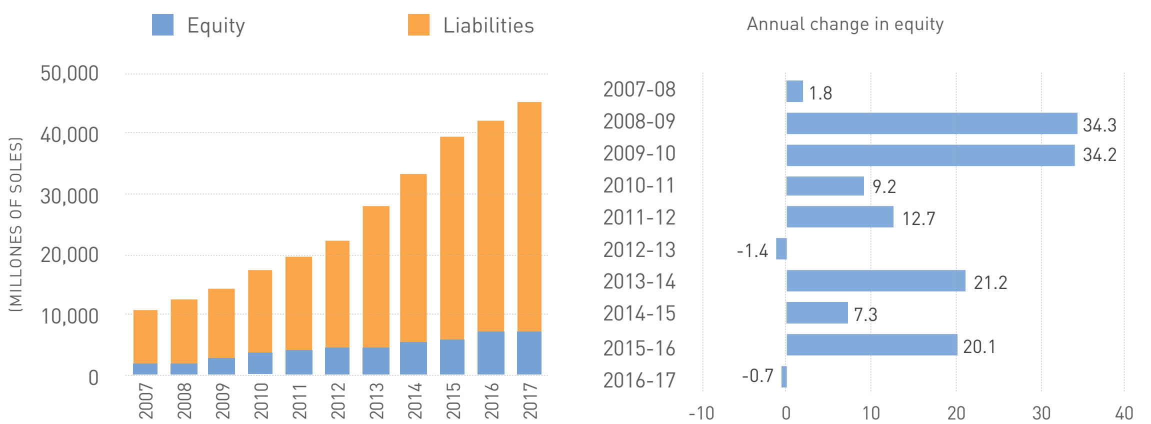
entered a downward trend, falling to 15.1% by the end of 2015, only to rise again in 2016 before dipping slightly in 2017 to reach 15.7% of total assets.

Table 3.2.5-a
Peru: premium volume[1] by line of business, 2017

Line of business	Millions of soles	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**11,327**	**3,474**	**0.6**	**-2.1**
Life	**4,811**	**1,475**	**4.8**	**1.9**
Individual Life	1,361	418	57.8	53.5
Group Life	1,497	459	9.2	6.2
Pensions	1,952	599	-17.2	-19.5
Non-Life	**6,517**	**1,999**	**-2.2**	**-4.9**
Automobile	1,376	422	-5.2	-7.8
Fire and/or allied lines	1,283	394	-4.3	-6.9
Other damages	741	227	-6.3	-8.8
Health	949	291	8.2	5.3
Personal accident	682	209	-0.9	-3.6
Transport	176	54	-4.4	-7.0
Third-party liability	206	63	-17.4	-19.6
Burial	145	44	4.6	1.7
Aviation	89	27	-26.5	-28.5
Multirisk	151	46	0.1	-2.7
Maritime - Hulls	76	23	-4.7	-7.3
Credit and/or surety	243	74	15.5	12.3
Workplace accidents	400	123	4.7	1.9

Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)
1/ Net insurance premiums

Chart 3.2.5-d
Peru: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Investment

Charts 3.2.5-e and 3.2.5-f show changes in investment and the composition of the aggregate investment portfolio at sector level for the Peruvian insurance industry. Investment totaled 35.14 billion soles (10.77 billion dollars) in 2017, most of it concentrated in equities and fixed-income financial securities.

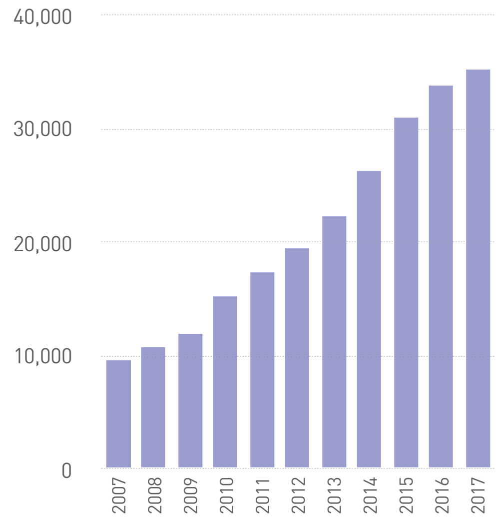
The composition of the investment portfolio was as follows: 88.6% in debt and equities; 4.4% in cash and the remaining 7% in real estate investment, which was up 1 percentage point year on year.

Technical provisions

Charts 3.2.5-h, 3.2.5-i and 3.2.5-j show the performance and relative composition of technical provisions.

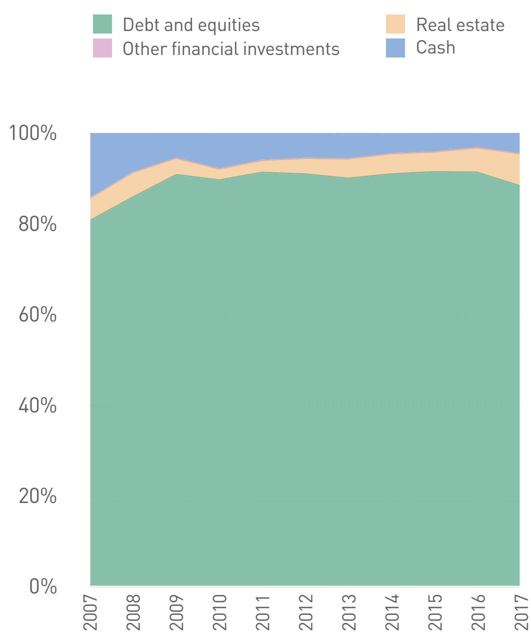
In 2017, technical provisions amounted to 33.24 billion soles (10.19 billion dollars). Of the total provisions, 75% related to Life insurance, 17.8% to provision for outstanding benefits and the remaining

Chart 3.2.5-e
Peru: insurance market investment, 2007-2017
(millions of soles)



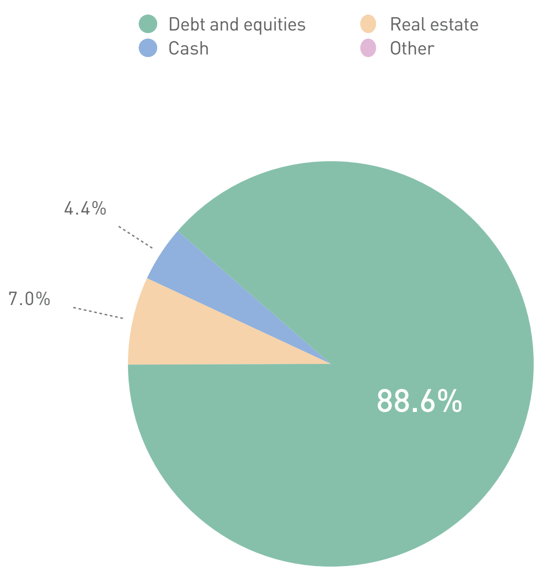
Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-f
Peru: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-g
Peru: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

6.9% to provisions for unearned premiums and unexpired risks in Non-Life insurance.

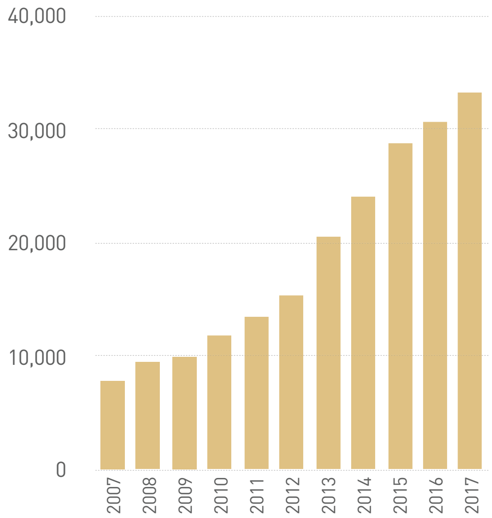
The volume of technical provisions experienced a significant increase in absolute values between 2007 and 2017, in both the Life and Non-Life segments. This trend changed slightly in 2016 following a small dip in provisions for unearned premiums and unexpired risks, which fell from 2.37 billion soles in 2015 to 2.28 billion in 2017.

The composition of aggregate provisions remained relatively stable until 2013, when the proportion of Life insurance fell slightly, from values of around 80% to some 76%. At the end of 2017, they accounted for 75% of total provisions.

Technical performance

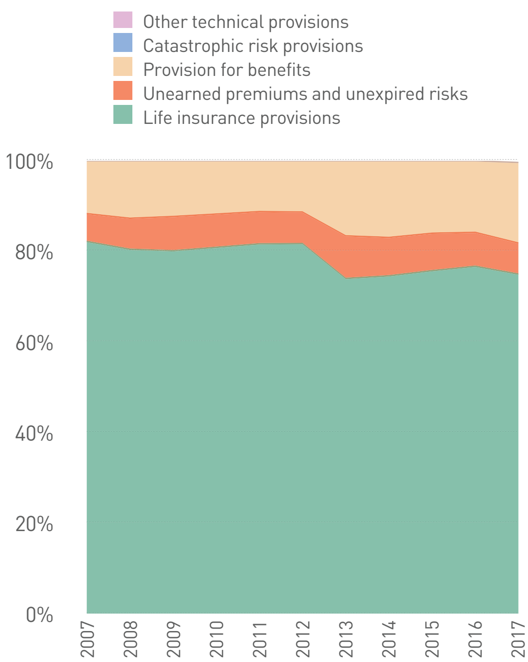
Chart 3.2.5-k shows the technical performance of the Peruvian insurance industry between 2007 and 2017. As can be seen, the expense ratio added 1.89 percentage point to 59.9% after falling 0.3 percentage points in 2015 with respect to 2014. The loss ratio followed a similar path, falling 2.2 percentage points in 2015 before gaining 2.3 percentage points in 2017 to reach 60.8%.

Chart 3.2.5-h
Peru: technical provisions of the insurance market, 2007-2017
(millions of soles)



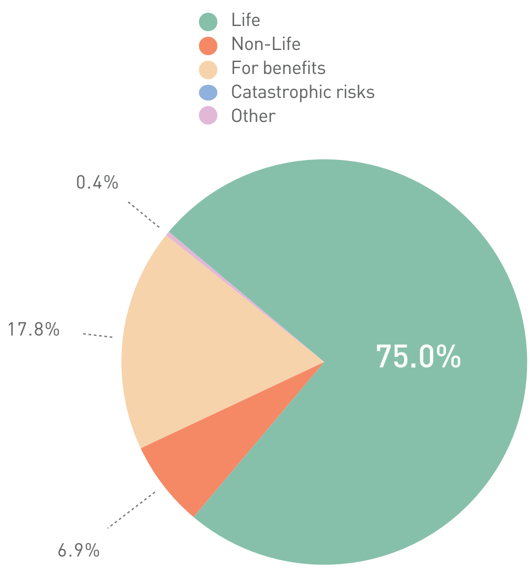
Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-i
Peru: structure of technical provisions, 2007-2017
(%)



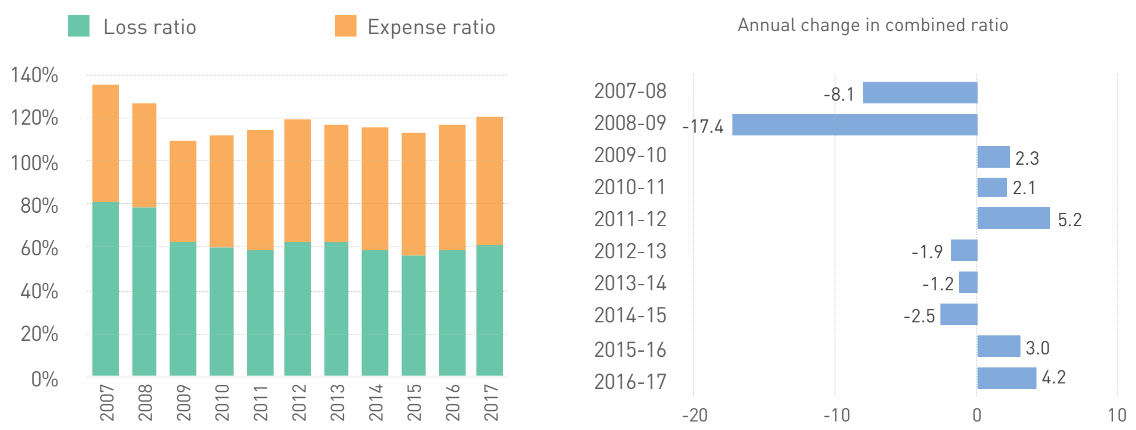
Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-j
Peru: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-k
Peru: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

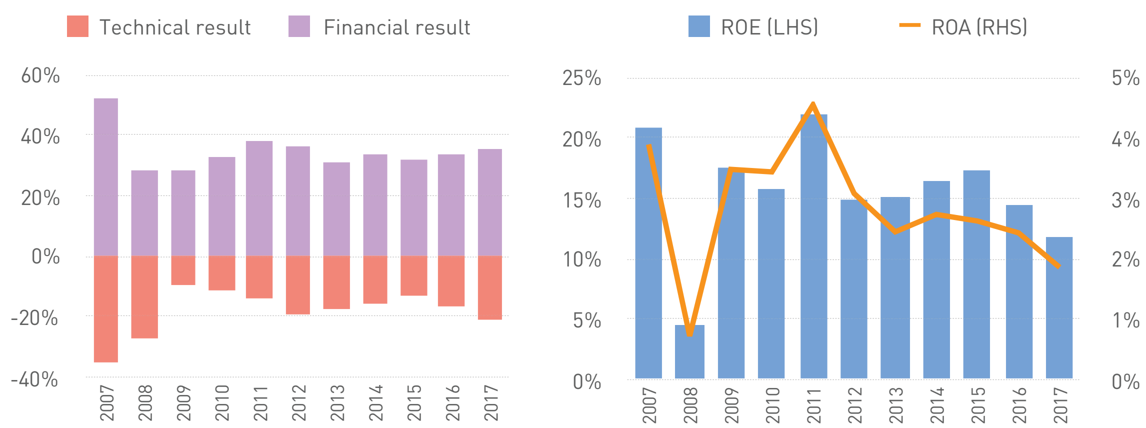
This meant that the combined ratio was 4.2 percentage points worse off at 120.6%.

Results and profitability

The net result for 2017 was 839.96 billion soles (257.4 billion dollars), down 18.1% year on year. Aside from a poor technical performance, the financial result was down 0.6%. However, since 2010 the financial result has remained above 30% of net accrued premiums, reaching 35.2% in 2017.

Turning our attention to the profitability of the Peruvian insurance market, return on equity (ROE) stood at 11.8% in 2017, down 1.5 percentage

Chart 3.2.5-l
Peru: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

points on the previous year. Meanwhile, return on assets (ROA) came to 1.9% in 2017, 0.6 percentage points below the value reported in 2016.

Insurance penetration, density and depth

Chart 3.2.5-m shows the main structural trends shaping the development of the insurance industry in Peru over the 2007-2017 period. The penetration index (premiums/GDP) stood at 1.6% in 2017, up 0.4 percentage points on the level reported in 2007. In general, the penetration index for the Peruvian market has grown steadily over the period under analysis but still lags behind the average absolute values of the other markets in the region. However, penetration dipped 0.2 and 0.1 percentage points in 2016 and 2017, respectively, owing to the contraction of the insurance industry in 2016 and its anemic albeit positive performance in 2017.

Meanwhile, insurance density in Peru (premiums per capita) stood at 352.1 soles (108 dollars), down 0.6% on 2015 (354.2 pesos). The density of the Peruvian market (measured in local currency) steadily increased through to 2015, despite slipping somewhat in the last two years, giving aggregate growth of 168.5% between 2007 and 2017. However, when analyzed in dollars the indicator reveals a downturn from 2013 onwards due to the monetary effect of the exchange rate between the Peruvian sol and the US dollar.

The depth of insurance in the Peruvian market (Life insurance premiums relative to total premiums) came to 42.5%, up 3 percentage points on the level registered in 2007. Depth growth in the Peruvian insurance market has hovered around the average values of the markets in the region over the period under analysis.

Estimation of the Insurance Protection Gap

Chart 3.2.5-n provides an estimate of the IPG for the Peruvian insurance market between 2007 and 2017, revealing that the insurance gap stood at 41.53 billion soles (12.73 billion dollars) in 2017, 3.67 times the size of the actual insurance market in Peru at the end of that year.

The structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. At the close of 2017, 58.2% of the IPG was a product of Life insurance (24.16 billion soles), down 4.5 percentage points on the share of this segment in the reading taken in 2007. The remaining 41.8% of the insurance gap for 2017 is a result of the Non-Life insurance segment (17.37 billion soles).

Accordingly, the potential insurance market in Peru at the end of 2017 (sum of the actual market plus the IPG) is estimated at 52.86 billion soles (16.21 billion dollars), some 4.67 times the size of the total Peruvian insurance market that year.

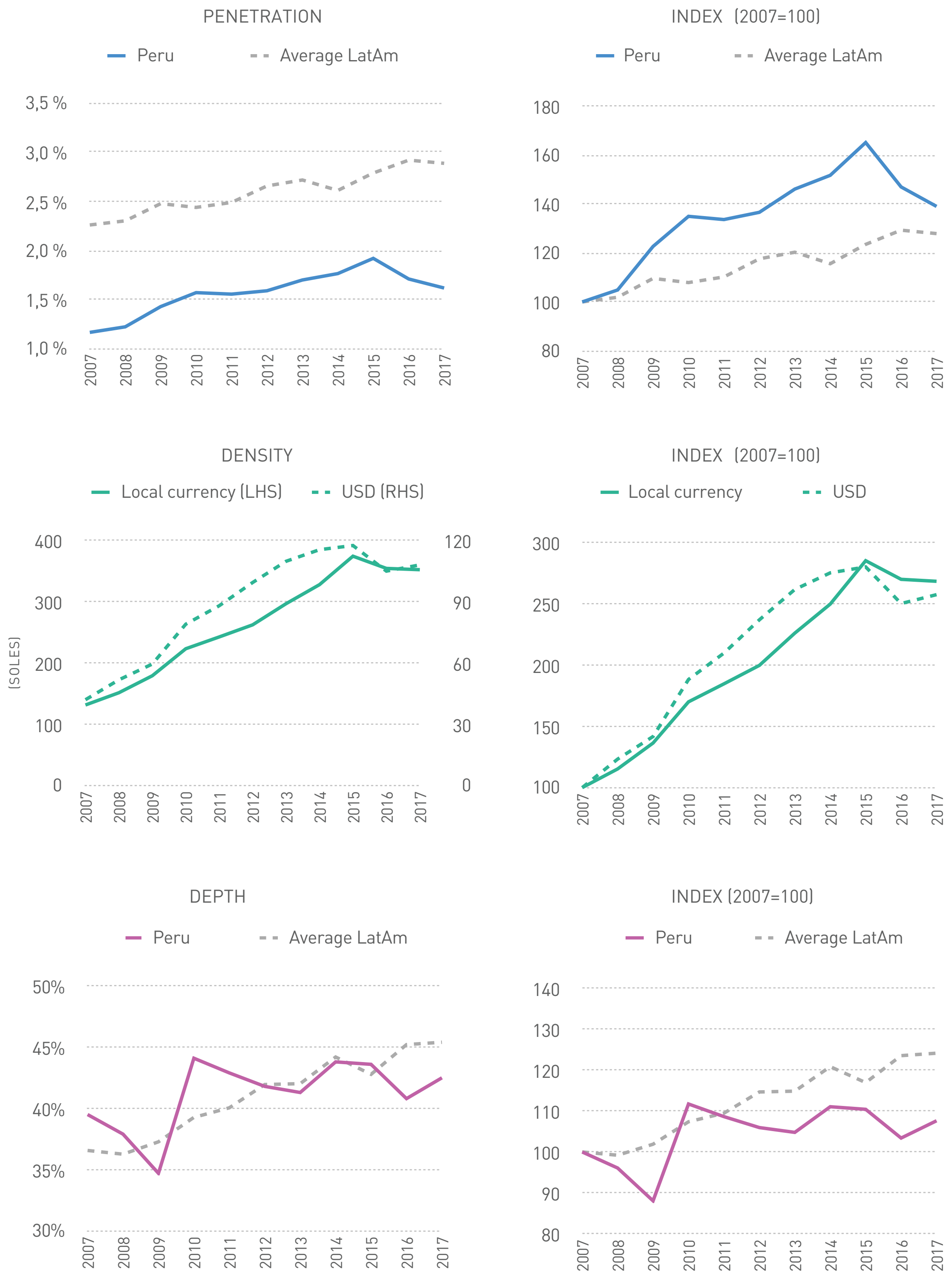
Chart 3.2.5-o provides an estimation of the insurance gap as a multiple of the actual insurance market in Peru. As a multiple of the real market, the IPG fell steadily between 2007 and 2017 (especially from 2007 onwards), only to change direction in 2016. This trend applies equally in both the Life insurance segment (falling from 9.7 to 5 times) and the Non-Life segment (dropping from 3.75 to 2.67 times).

Chart 3.2.5-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Peruvian insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. The situation has improved in both the Non-Life segment and, to the lesser extent, the Life segment.

Lastly, Chart 3.2.5-q outlines the capacity of the Peruvian insurance market to close the IPG, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years.

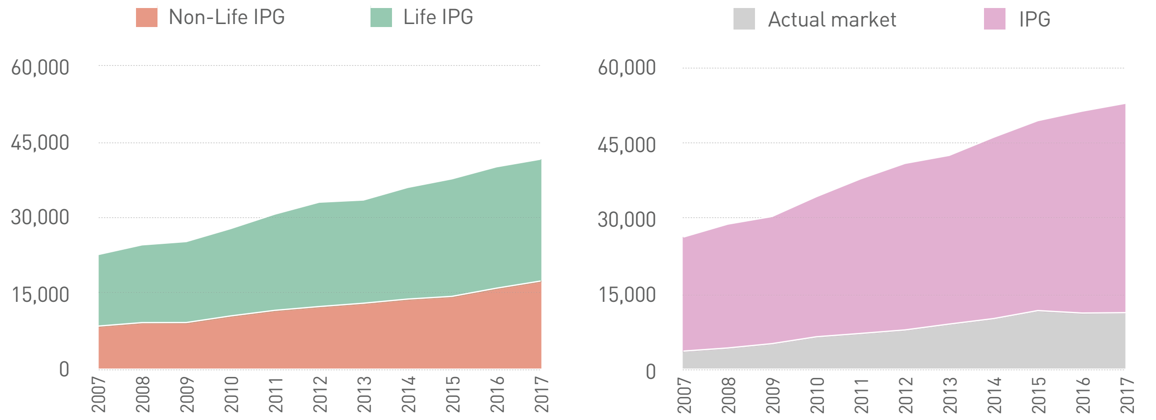
The Peruvian insurance market registered average annual growth of 11.8% between 2007 and 2017, underpinned by average annual growth

Chart 3.2.5-m
Peru: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, soles and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Chart 3.2.5-n
Peru: Insurance Protection Gap and potential market, 2007-2017
(millions of soles)



Source: MAPFRE Economic Research

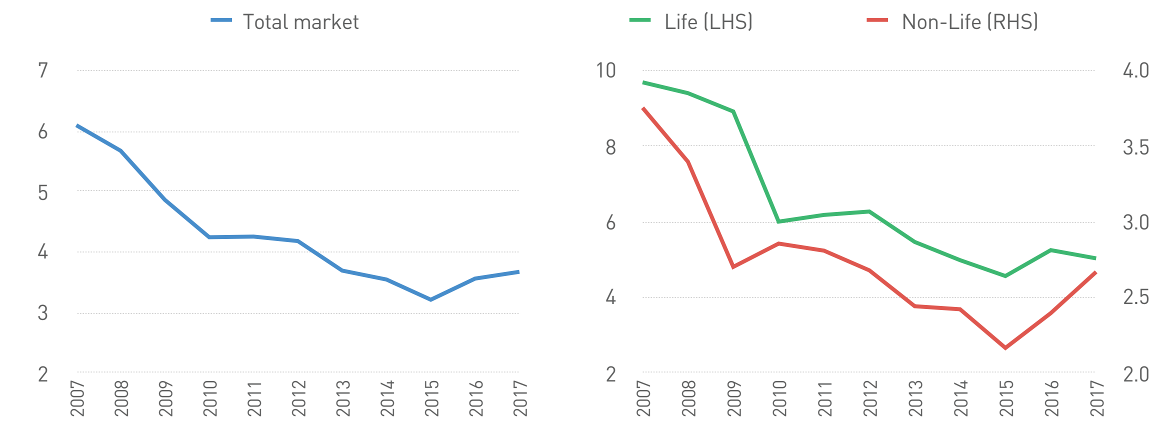
of 12.6% in the Life insurance segment and of 11.2% for Non-Life insurance.

Were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Peruvian insurance market would fall 7 percentage points short of closing the estimated insurance gap for the Life segment in 2017 and 2.4 percentage points short in the case of the Non-Life segment.

Market Development Index (MDI)

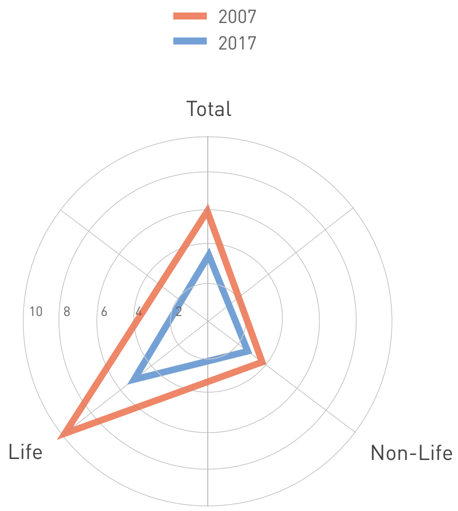
Chart 3.2.5-r provides an estimate of the Market Development Index (MDI) for the Peruvian insurance industry between 2005 and 2017.

Chart 3.2.5-o
Peru: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.5-p
Peru: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

In the case of Peru, the MDI (which is used as an indicator of general patterns shaping the performance and maturity of insurance markets) followed an upward path for the most part between 2007 and 2017.

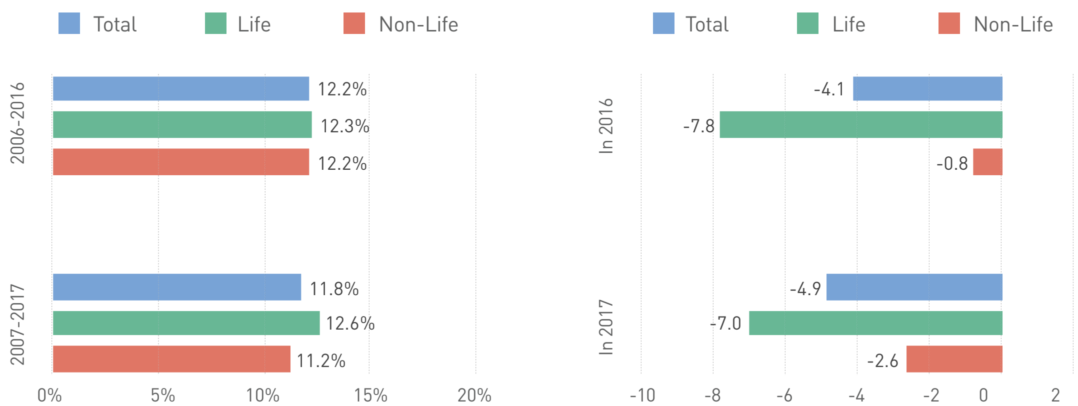
After slipping in 2006 and 2011, the index recovered to remain roughly level with the average performance of Latin American insurance markets through to 2015. In 2016 it endured its heaviest decline of the time series but then remained virtually stable in 2017 (-0.2 pp).

Comparative analysis of structural ratios

Chart 3.2.5-s outlines the state of the Peruvian market when compared with the average for Latin America, measured in terms of the various structural ratios featured in this report.

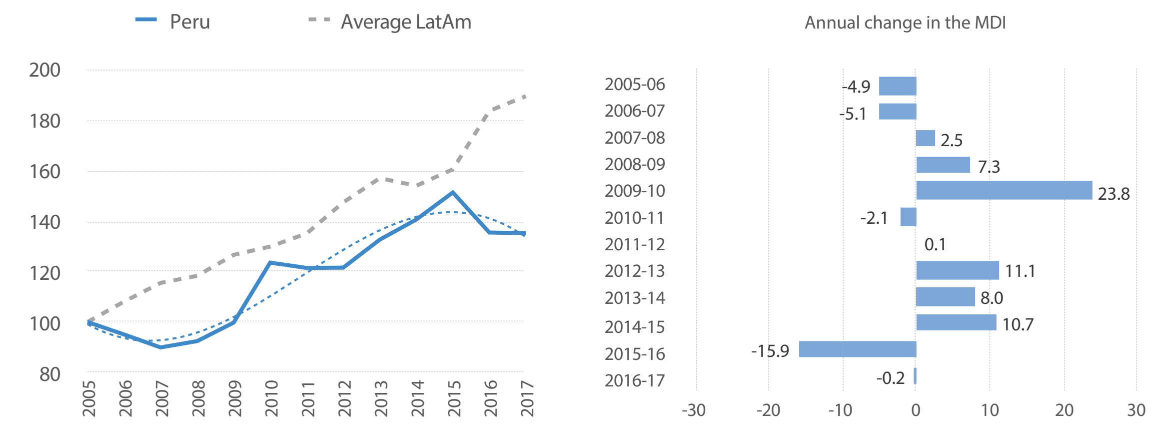
As can be seen, all dimensions of the Peruvian market fall short of average levels for the wider region, with the notable exception of depth, which is on par with the regional average.

Chart 3.2.5-q
Peru: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



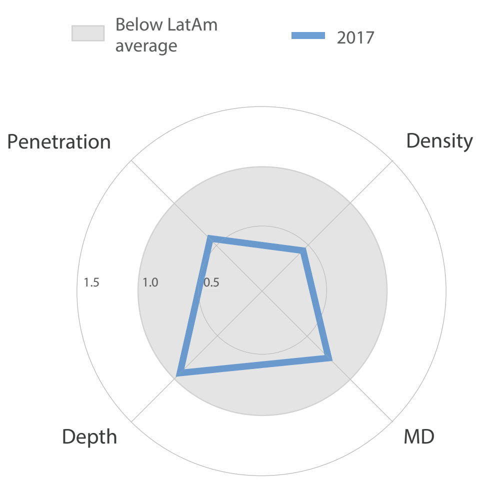
Source: MAPFRE Economic Research

Chart 3.2.5-r
Peru: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.2.5-s
Peru: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Insurance market rankings

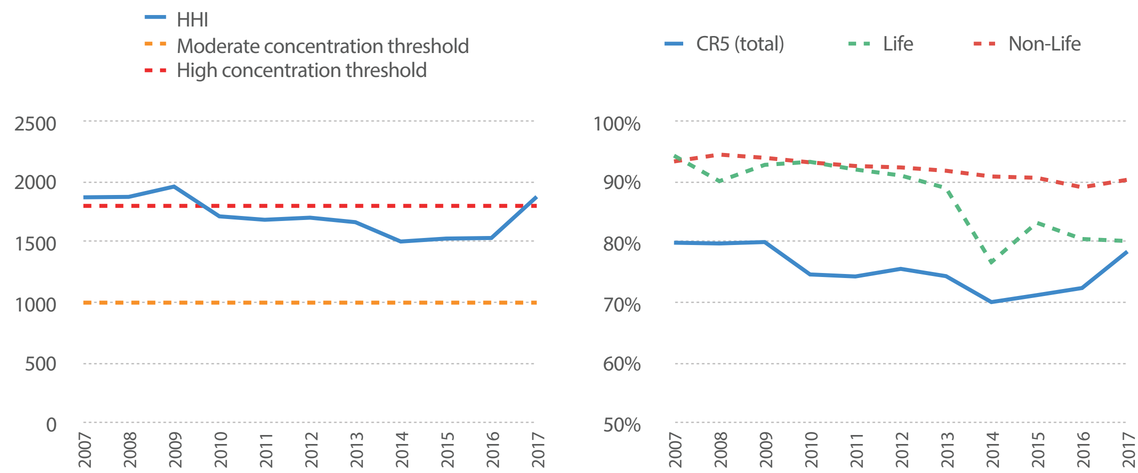
Overall ranking

At the end of 2017, there were 21 insurance companies operating in Peru, the same number as in 2016. Of these, seven engage exclusively in general insurance, three in Life insurance and the remaining eight in both businesses.

Broadly speaking, levels of market concentration have fallen steadily in recent years. In 2010, the Herfindahl index crossed the theoretical threshold that may eventually lead to a high level of concentration in the industry, reaching the band associated with moderate concentration. However, the index continued to rise throughout 2017 to cross over once again into the high concentration band. This pattern is confirmed by an analysis of the CR5 index for both the Non-Life and Life segments (see Chart 3.2.5-t).

The 2017 overall ranking of groups in the Peruvian insurance market is largely the same as the 2016 ranking. Rimac, Pacífico and MAPFRE make up the top three in that order, with market shares of 31.4%, 25.9% and 13.7%, respectively. There are very few changes as we move down the table, although market shares do vary slightly down to ninth place, where Vida Cámara knocks Ohio National Vida off the table to rejoin the ranking on 1.3%, while tenth spot goes to Protecta (see Chart 3.2.5-u).

Chart 3.2.5-t
Peru: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



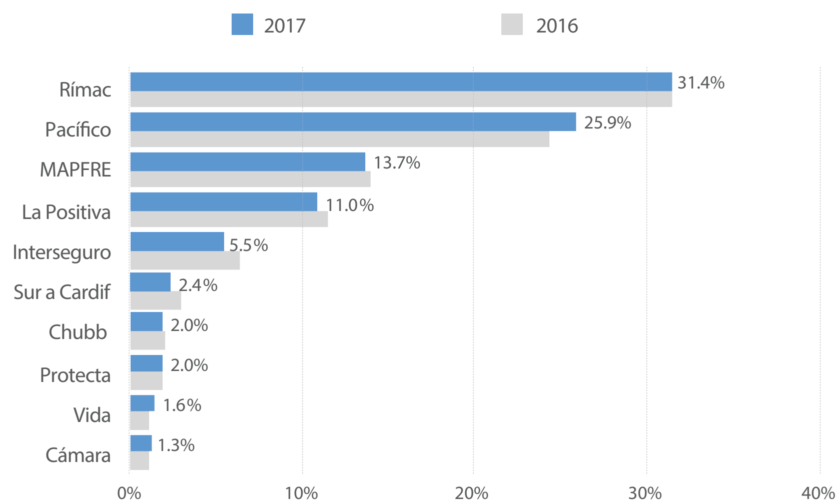
Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Non-Life and Life rankings

Rimac, Pacífico, MAPFRE and La Positiva also occupy the top positions in the Non-Life ranking for 2017, with market shares of 35.7%, 24.1%, 19.1% and 12.8%, respectively. AVLA Perú joins the ranking in ninth position while HDI is knocked off the table (see Chart 3.2.5-v).

Turning to the Life ranking for 2017, Pacífico still leads with a market share of 28.4%, followed by Rimac (25.5%), Interseguro (11.3%) and La

Chart 3.2.5-u
Peru: overall ranking, 2016-2017
(market shares, percent)



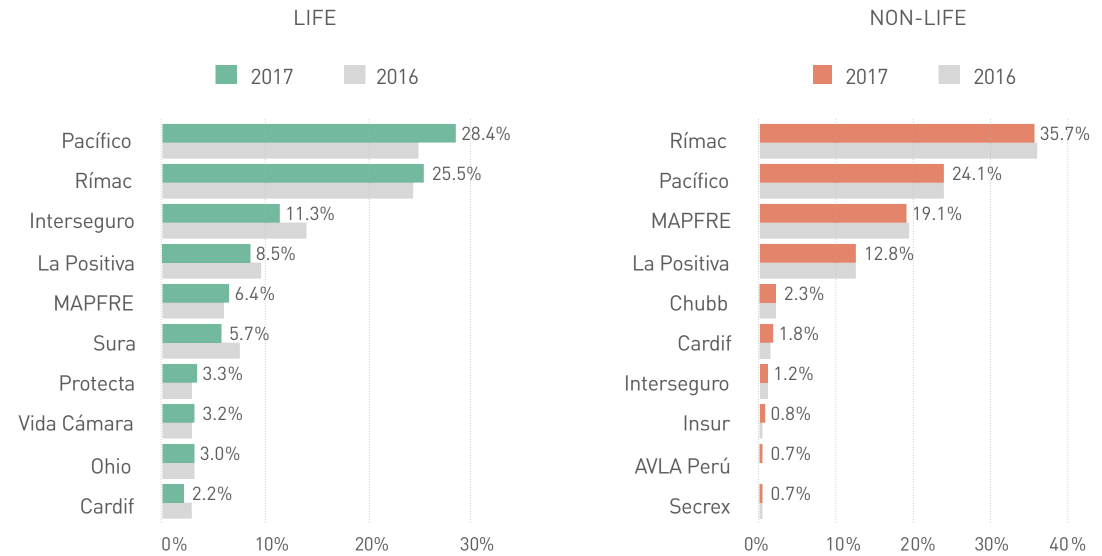
Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)

Table 3.2.5-b
Peru: recent regulatory developments in the insurance industry

Regulation	Main aspects
Circular S-664-2017	The bill provides insurance companies with procedures for filing information on investments, as well as a methodology for encrypting the data to be sent in the annexes indicated in article 43 of the Regulation on Investment at Insurance Companies, as enacted by Resolution SBS No. 1041-2016 and its amending rules.
Regulation on reserves for unexpired risks	
Resolution SBS No. 5027-2017	The regulatory change is intended to improve procedures for keeping custody of investment instruments, while ensuring that insurance companies pick intermediaries and agents for their investment activities that meet certain eligibility requirements relating to experience and suitability.
Resolution SBS No. 5026-2017	As a prudential regulatory measure to limit exposure to foreign exchange risk at insurance companies, limits on global positions have been changed when overbuying or overselling in US dollars, with regard to the limits imposed on financial institutions by the Regulations on the Control of Foreign Exchange Risk. The following aspects have been amended: (i) the maximum global position in US dollars for overselling has been lowered from 50% to 10% of effective equity; and (ii) the maximum global position in US dollars for overbuying has been lowered from 80% to 50% of effective equity.
Resolution SBS No. 4706-2017	The new regulations update the Rules on the Arrangement and Management of Reinsurance, as enacted by Resolution SBS No. 2982-2010, so as to ensure adequate supervision of reinsurance and co-insurance operations. The amendments are based on Insurance Core Principle (ICP) 13 of the IAIS and also on the experience acquired to date from supervisory activity. The main changes include: • New definitions and clearer existing definitions of reinsurance risk, types of reinsurance (treaty, facultative, treaty-facultative, proportional, non-proportional), lead reinsurance, reinsurance broker and retrocession. • The minimum risk classification of reinsurers has been adjusted accordingly in order to determine their eligibility for arranging reinsurance. An annex has been added with a table of classification equivalences. • Special authorization requirements have been introduced for dealing with foreign reinsurers. • The new regulation also governs the exception to the mutual autonomy of insurance and reinsurance contracts provided for in article 322 of the General Act (Ley General) in insurance arranged under the fronting modality. The insured party must now grant their consent for the purpose of covering the claim directly with the reinsurer.
Resolution SBS No. 3930-2017	The Resolution provides a clearer interpretation of the application and relationship between articles 34, 53 and 318 of the General Act, pursuant to article 349.6 of the same Act. In view of that interpretation and in accordance with international standards on capital adequacy, the Resolution proposes a number of adjustments to the process of calculating the effective equity of insurance companies. Here it includes the following provisions: i. Insurance companies may set up, in addition to the undertakings indicated in article 318.2 of the General Act, other insurance companies (provided these cover different risks), as well as companies that provide related services. ii. In view of the types of ancillary company that insurance firms can set up and so as to avoid possible problems associated with double or multiple leverage, any and all investment in stock and subordinated debt issued by other insurance companies will be deducted from effective equity, as will investment in stock and subordinated debt issued by companies belonging to the same economic group (including holdings and subsidiaries). iii. Provisions have been added to ensure that subsidiaries set up prior to the entry into force of the Resolution are compliant.
Circular S-665-2017	The Circular sets out the databases for the purpose of complying with 30 of Act 27181, governing land transport and traffic, in relation to the creation of a Central Risk Unit to deal with claims relating to traffic accidents. The databases must contain detailed information on all policies (whether written, renewed or canceled), as well as the vehicles covered, the contracting and/or insured parties, the types of coverage taken out, the payment status of premiums, claims (date, place of occurrence, compensation by type of coverage, drivers involved, etc.) and recoveries. Meanwhile, the maximum global position in US dollars when overbuying has been lowered from 80% to 50% of effective equity.

Source: Superintendency of Banking, Insurance and PFA

Chart 3.2.5-v
Peru: Life and Non-Life ranking, 2016-2017
(market shares. percent)



Source: MAPFRE Economic Research (based on data from the Superintendence of Banking. Insurance and PFA)

Positiva (8.5%). Meanwhile, Mapfre Vida climbs a spot with 6.4% of the market to overtake Sura.

Key regulatory aspects

Table 3.2.5-b shows the main regulatory developments to have arisen within the Peruvian insurance industry.

3.2.6 Bolivia

Macroeconomic environment

The Bolivian economy grew by 4.3% in real terms in 2017, compared with 4.2% the previous year. It remains one of the most buoyant economies in the region. Domestic demand is the main growth driver due to a fiscal policy that has boosted public investment, aided by an expansionary monetary policy.

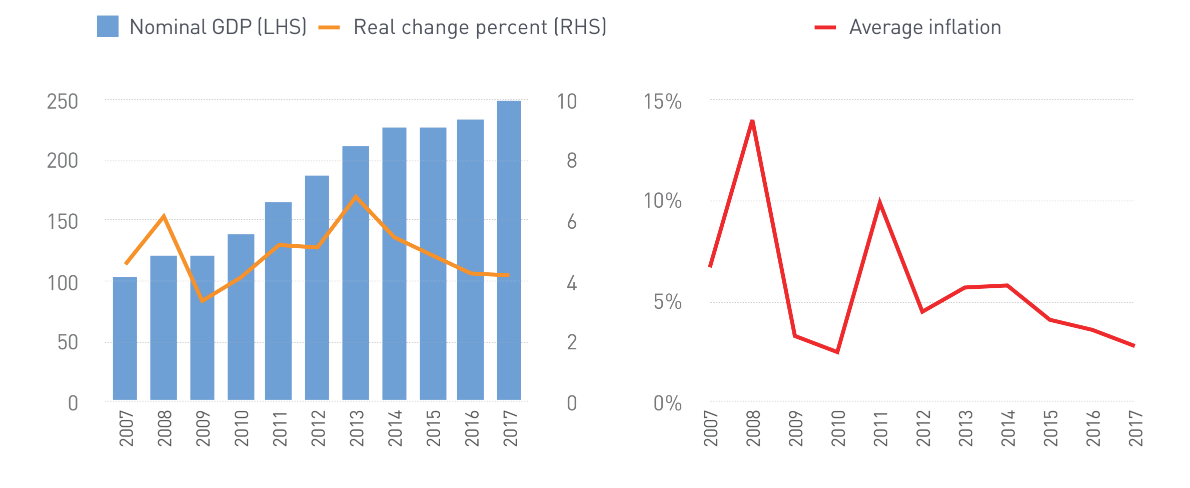
The average inflation rate was 2.8% in 2017, compared with 3.6% a year earlier (see Chart 3.2.6-a). Stronger domestic demand triggered growth in gross fixed capital formation (mainly public) and both household and public consumption.

Turning to the external sector, however, lower prices for the nation's main exports, especially natural gas, had the effect of pushing down revenue from international sales, which is a major source of fiscal revenue. The upshot has been high deficits for both the public sector balance sheet and current account, which came to 6% and 5.4% of GDP, respectively, at year-end 2017 according to the latest interim report released by ECLAC.

Moving to growth projections, ECLAC estimates that the Bolivian economy will post growth of some 4% in 2018 due to higher export prices and increased demand for Bolivian products from its trade partners.

Meanwhile, rising oil prices and increased revenue from the new urea petrochemical plant should help iron out the bumps in the public and external sectors. However, the expansionary fiscal and monetary policies could be outstaying their welcome, with delays in certain public investment products and weak levels of private investment. The IMF is also confidant the economy will post 4% growth in 2018.

Chart 3.2.6-a
Bolivia: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of bolivianos; real growth rate, percent; annual inflation rate, percent)



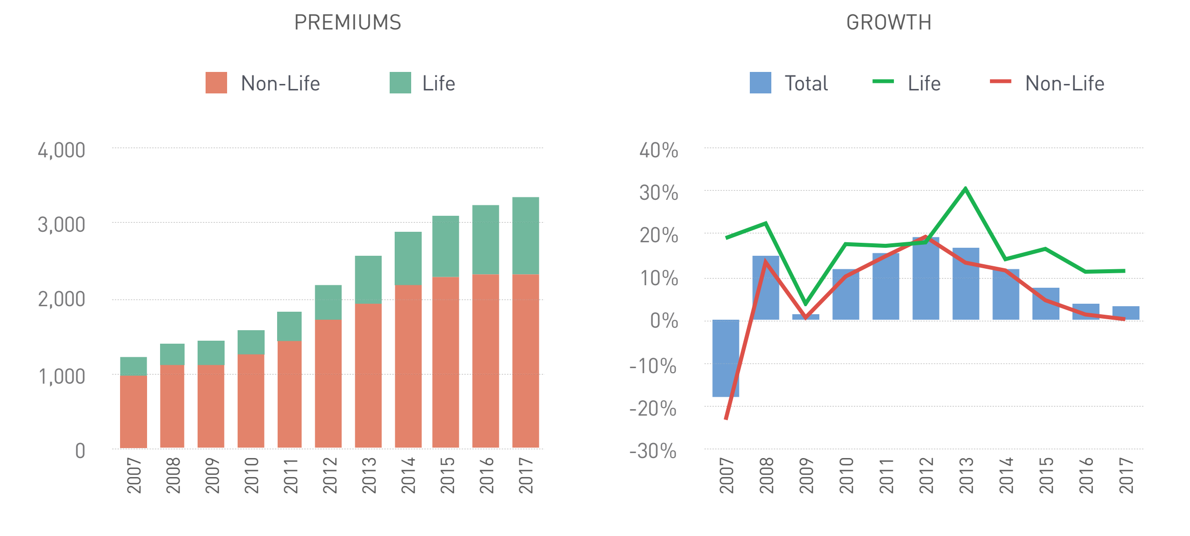
Source: MAPFRE Economic Research (based on IMF data)

Insurance market

Growth

Premium volume in the Bolivian insurance market amounted to 3.34 billion bolivianos (483 million dollars) in 2017, showing a nominal increase of 3.5% and a real increase of 0.6% year on year. Premiums continued to grow, albeit at a slower pace than in previous years. Of the total premiums, 69.5% relate to Non-Life insurance and the remaining 30.5% to Life insurance (see Table 3.2.6-a and Chart 3.2.6-b).

Chart 3.2.6-b
Bolivia: growth developments in the insurance market, 2007-2017
(premiums, millions of bolivianos; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Table 3.2.6-a
Bolivia: premium volume[1] by line of business, 2017

Line of business	Millions of bolivianos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**3,340**	**483**	**3.5**	**0.6**
Life	**1,020**	**148**	**11.5**	**8.5**
Group Life	92	13	11.6	8.5
Individual Life	924	134	11.3	8.2
Life annuities	4	1	0.00	0.00
Non-Life	**2,320**	**336**	**0.3**	**-2.5**
Automobile	744	108	6.5	3.6
Other lines	128	18	-7.3	-9.8
Fire	327	47	-8.0	-10.5
Third-party liability	94	14	2.4	-0.5
Transport	184	27	-14.6	-16.9
Technical risks	183	26	0.9	-1.8
Surety	183	26	7.1	4.2
Health	381	55	4.6	1.8
Personal accident	97	14	-2.2	-4.9

Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)
1/ Direct premiums

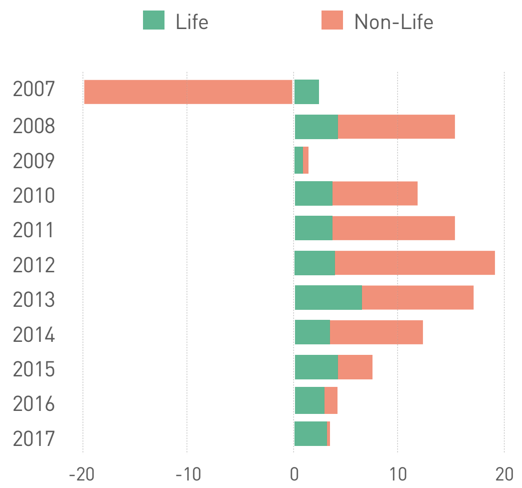
Life insurance premiums continued their upward trend in 2017, gaining a nominal 11.5% and a real 8.5% (compared with a nominal 11.3% and real 7.4% in 2016) to reach

1.02 billion bolivianos (148 million dollars). This growth occurred in both group Life (+11.6%) and individual Life (+11.3%), with the latter seeing a significant increase in mortgage protection insurance (11.2% nominal), which remains the most important modality.

Meanwhile, Non-Life insurance premiums grew by a nominal 0.3% in 2017, or -2.5% in real terms (compared with a nominal 1.4% and a real -2.1% in 2016) to reach 2.32 billion bolivianos (336 million dollars).

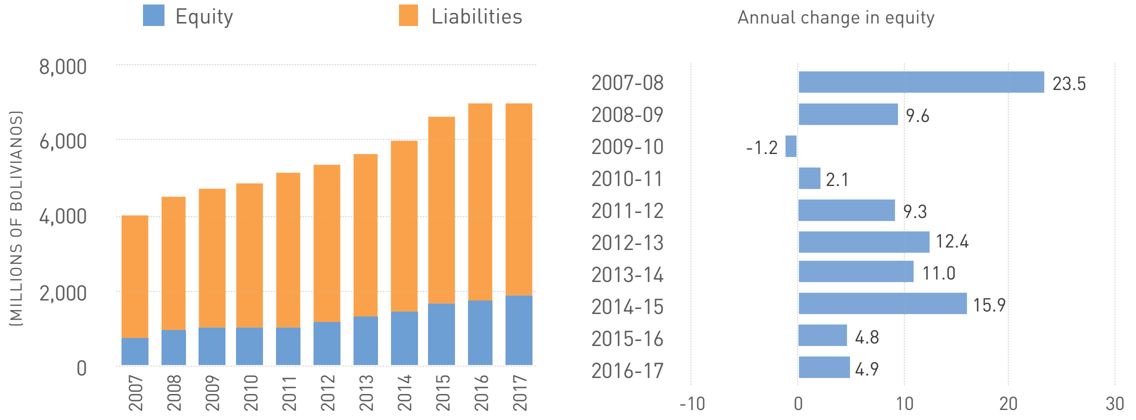
Unlike the previous year, Fire and Personal accident were both down in 2017, while Third-party liability and Technical risks both reported growth. The most important modality remains Automobile, including Mandatory Traffic Accident Insurance (known as "SOAT"), which registered nominal growth of 6.5% (against 3.4% in 2016).

Chart 3.2.6-c
Bolivia: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-d
Bolivia: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity percentage points)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

In accordance with the foregoing, the nominal growth of 3.5% registered by the Bolivian insurance market in 2017 was driven mainly by the Life insurance segment, which contributed 3.3 percentage points, while Non-Life insurance contributed the remaining 0.2 percentage points (see Chart 3.2.6-c).

Balance sheet and equity

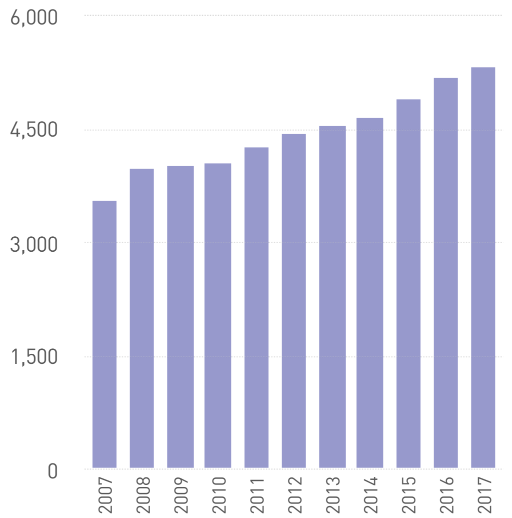
As indicated by the overall balance sheet for the Bolivian insurance market at sector level (Chart 3.2.6-d), total assets amounted to 6.97 billion bolivianos (1 billion dollars) in 2017, while equity totaled 1.87 billion bolivianos (271 million dollars), up 4.9 percentage points on the 2016 figure.

Significantly, the Bolivian insurance industry maintained aggregate capitalization levels (measured over total assets) of over 20% between 2008 and 2017, reaching 26.9% of total assets in 2017.

Investment

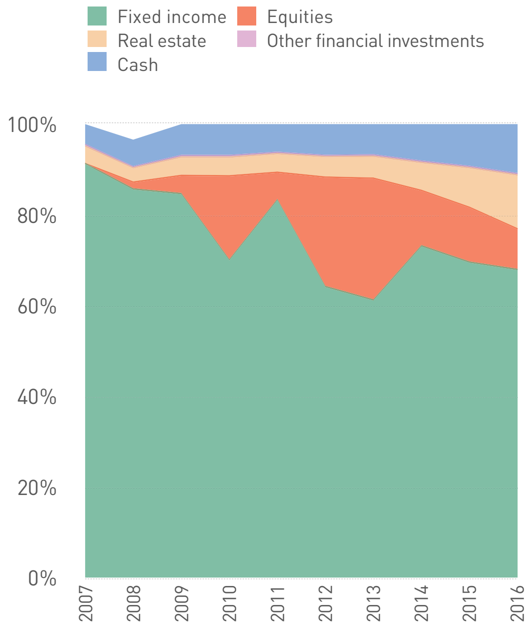
Changes in investment between 2007 and 2017 are shown in Chart 3.2.6-e, revealing that total investment came to 5.30 billion bolivianos (767 million dollars) in 2017. Meanwhile, Charts 3.2.6-f and 3.2.6-g show changes in the composition of the investment portfolio at sector level for the Bolivian insurance market between 2007 and 2016 (the last year for which data is available).

Chart 3.2.6-e
Bolivia: insurance market investment, 2007-2017
(millions of bolivianos)



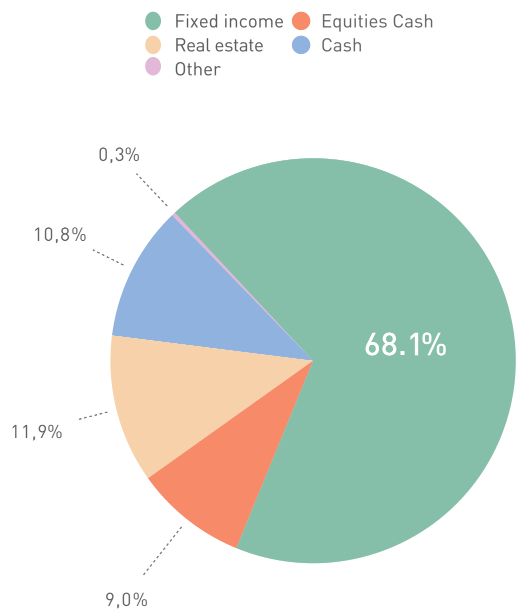
Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-f
Bolivia: structure of investment, 2007-2016
(%)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-g
Bolivia: structure of investment, 2016
(%)



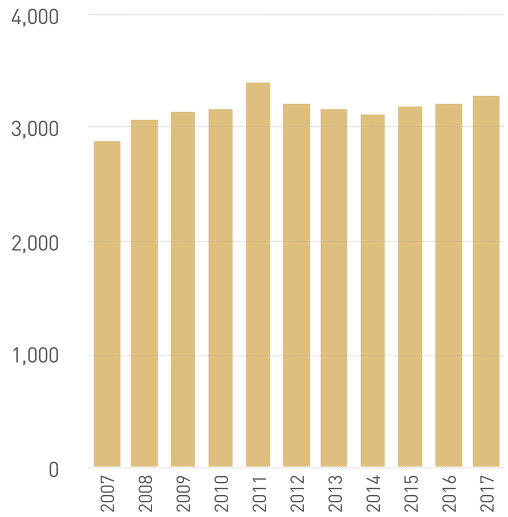
Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

At the end of the period, investment was concentrated in fixed income (68.1%) and, to a significantly lesser extent, in equity instruments (9.0%), real estate (11.9%), and cash and other investments (10.8% and 0.3%, respectively). The structure of the portfolio has shifted significantly over time, with the weight of investment in equities falling from above 24% in 2012 and 2013 to around 12% in 2014 and 2015 and then to 9% in 2016. Meanwhile, the weight of real estate assets steadily increased between 2009 and 2016. It hovered around the 4% mark over the first three years, before climbing to 4.5% and 4.8% in 2012 and 2013, respectively, then to 6.1% in 2014 and 8.7% in 2015, before finally reaching 11.9% in 2016 (last available data).

Technical provisions

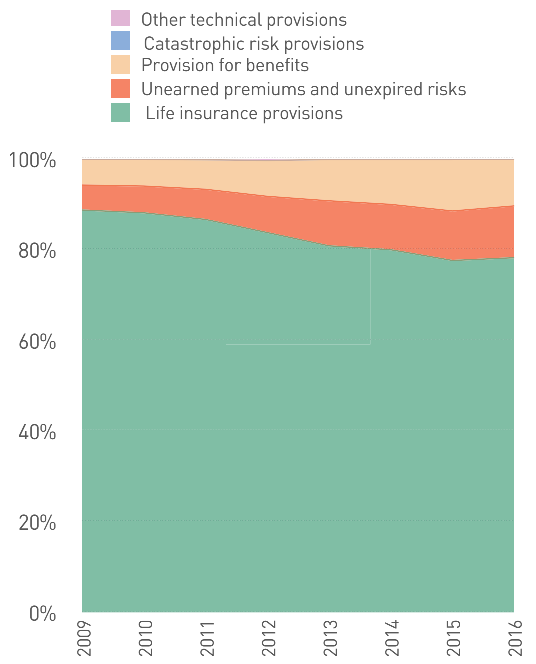
Charts 3.2.6-h, 3.2.6-i and 3.2.6-j show the performance and relative composition of technical provisions within the Bolivian insurance industry. In 2017, technical provisions amounted to 3.28 billion bolivianos (475 million dollars). According to the latest data available for the end of 2016,

Chart 3.2.6-h
Bolivia: technical provisions of the insurance market, 2007-2017
(millions of bolivianos)



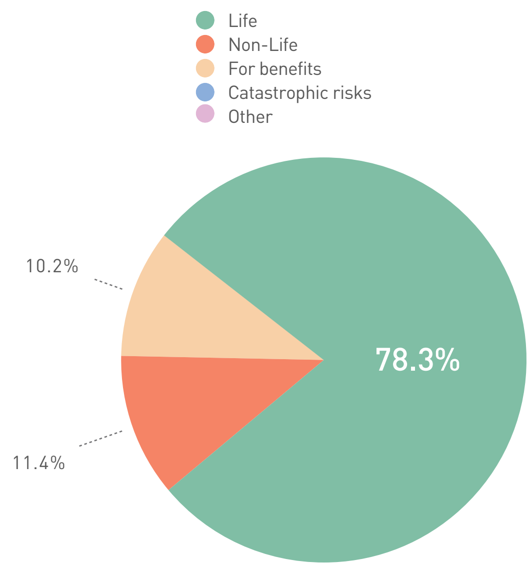
Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-i
Bolivia: structure of technical provisions, 2009-2016
(%)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-j
Bolivia: structure of technical provisions, 2016
(%)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

78.3% of the total related to Life insurance, 11.4% to provision for unearned premiums and unexpired risks in Non-Life insurance, and 10.2% to provision for outstanding benefits.

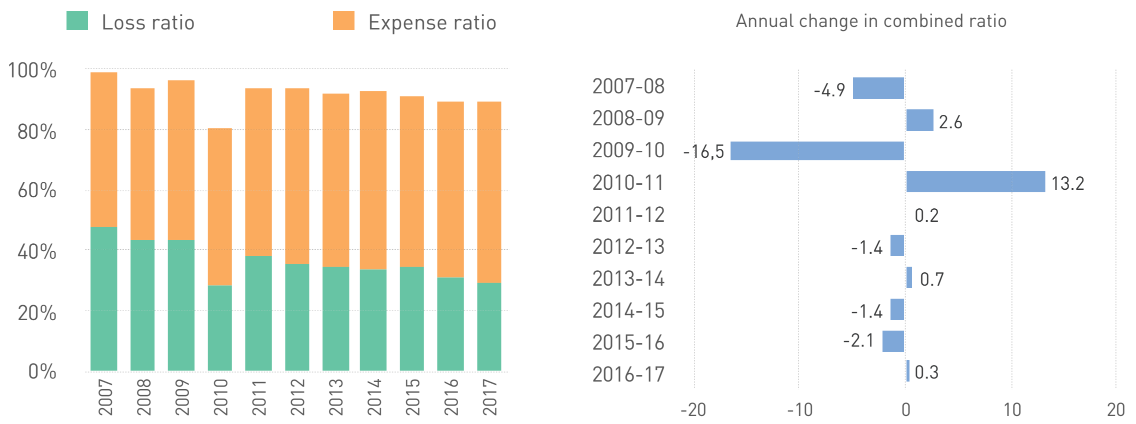
While the 2009-2015 period saw a sustained reduction in the weight of the provision for Life insurance, which fell from 88.8% of total provisions in 2009 to 77.7% in 2015, the metric increased slightly in 2016 to reach 78.3%. This also holds true for the absolute values, which fell from 2.79 billion bolivianos (405 million dollars) in 2009 to 2.47 billion bolivianos (358 million dollars) in 2015, before climbing to 2.51 billion bolivianos (364 million dollars) in 2016. During the same period the provision for unearned premiums and unexpired risks in Non-Life insurance doubled in value, rising from 173.3 million bolivianos (25 million dollars) in 2009 to 367 million bolivianos (53 million dollars) in 2016. However, while the provision for outstanding benefits in Non-Life insurance also doubled in value between 2009 and 2015, climbing from 178.6 million to 361.2 million bolivianos (from 26 to 52 million dollars), it dropped in 2016 when compared with the previous year to reach 328.9 million bolivianos (47.6 million dollars).

Technical performance

Turning to the technical performance of the Bolivian insurance market, the combined ratio worsened slightly by 0.7 percentage points in 2017 to reach 101.3%. This was largely down to an increase in the expense ratio, since the loss ratio did manage to improve on its 2016 value.

The loss ratio shed 2.9 percentage points to reach 38.6%, while the expense ratio gained 3.6 percentage points.

Chart 3.2.6-k
Bolivia: changes in the technical performance of the Non-Life market, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



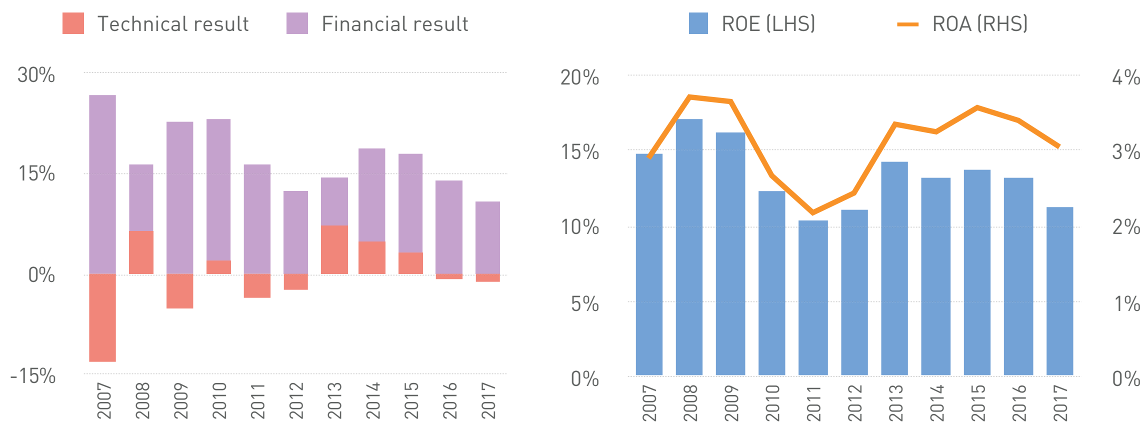
Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Meanwhile, the combined ratio for Non-Life insurance companies came to 89.7% in 2017, up 0.3 percentage points year on year. While the downward trend between 2011 and 2016 in the combined ratio of the Non-Life segment appears to have stopped in 2017 following this small increase, the loss ratio has continued to fall and we have also witnessed a significant increase in the expense ratio (see Chart 3.2.6-k).

Results and profitability

The Bolivian insurance industry posted a consolidated result of 213 billion bolivianos (31 million dollars) in 2017, down 10% year on year. Meanwhile, the financial result was down 3 percentage points to 14% (see chart 3.2.6-l).

Chart 3.2.6-l
Bolivia: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Turning to profitability, return on equity (ROE) was 11.4% in 2017, down 2 percentage points on 2016. The same holds true for return on assets (ROA), which reached 3.1% in 2017, down 0.3 percentage points on the previous year. Broadly speaking, the profitability of the Bolivian insurance business remained stable over the period, mainly supported by the financial result, which has made a more consistent contribution than the technical result.

Insurance penetration, density and depth

Chart 3.2.6-n shows the main structural trends shaping the development of the Bolivian insurance industry between 2007 and 2017.

The penetration index (premiums/GDP) came to 1.3% in 2017. Penetration in the Bolivian market fell steadily from 2006 onward before eventually changing direction in 2012. In 2017, the indicator fell by a further 0.1 percentage points compared with 2016.

Meanwhile, insurance density (premiums per capita) reached 302 bolivianos (43.6 dollars), up 132.2% on the level observed in 2007 (129.9 bolivianos). This index remained flat between 2006 and 2009 before reversing the trend from 2010 onward.

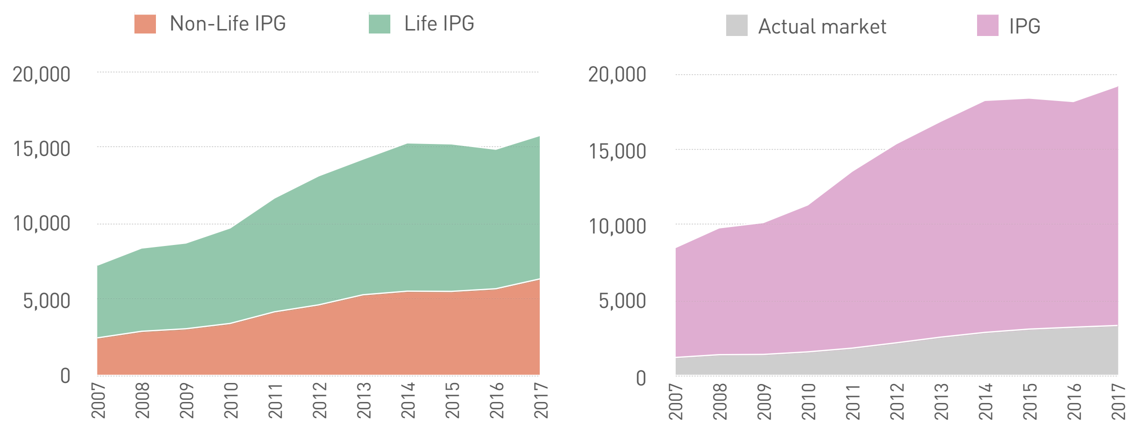
Turning our attention to depth (Life insurance premiums to total premiums), the indicator for 2017 came to 30.5%, 11.9 percentage points above the value observed in 2007. In this case, depth has increased steadily in the Bolivian insurance market during the period under analysis and while it is still below the average values observed across Latin America it is at least growing at a similar pace.

Estimation of the Insurance Protection Gap

Chart 3.2.6-m provides an estimate of the IPG for the Bolivian insurance market between 2007 and 2017, revealing that the insurance gap stood at 15.84 billion bolivianos (2.29 billion dollars) in 2016, nearly five times the size of the actual insurance market in Bolivia at the end of that year.

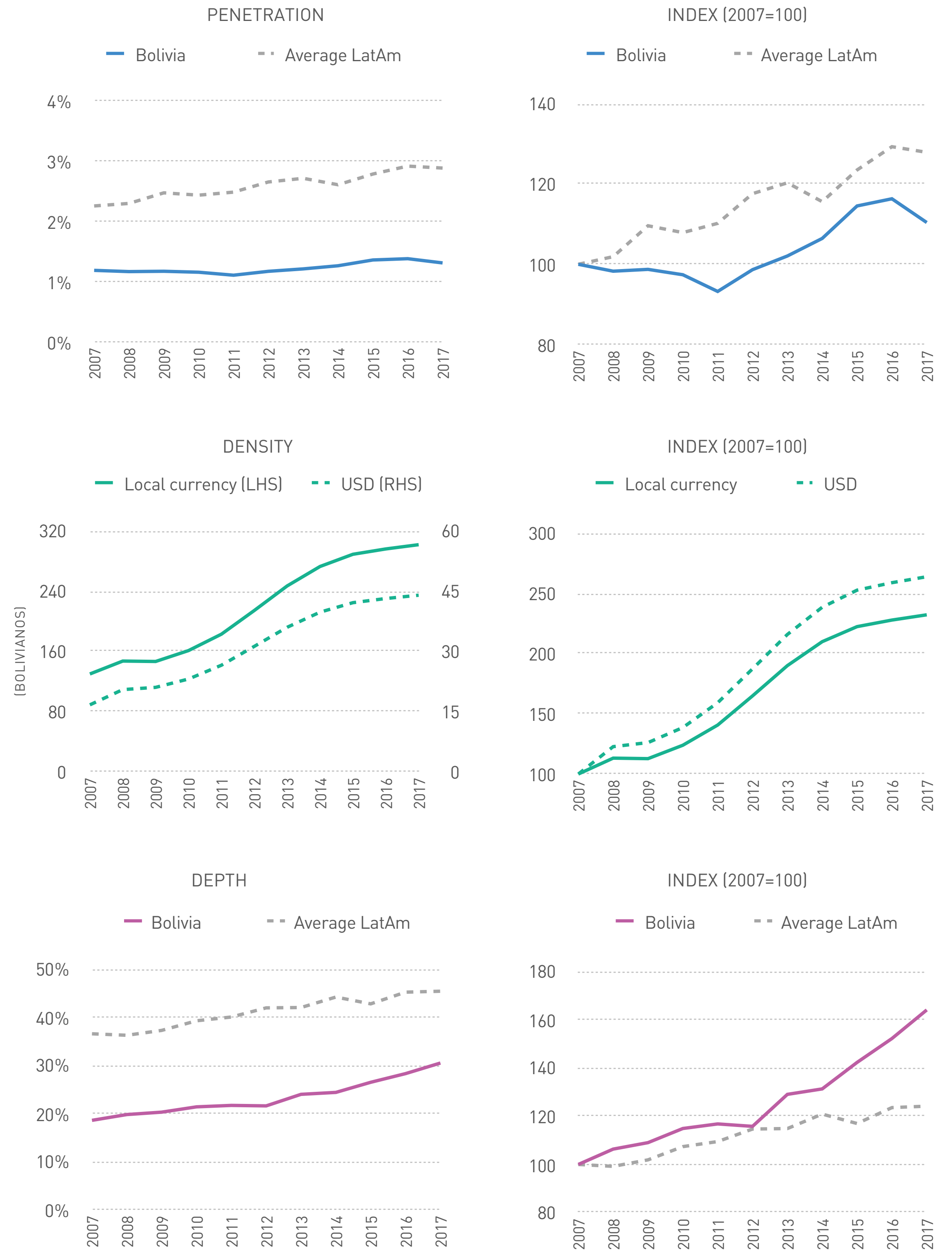
As is also the case for other insurance markets in the region, the structure and performance of the IPG over the last ten years are largely a product of the Life insurance segment. In 2007, 66.3% of the IPG related to Life insurance, equivalent to 4,811

Chart 3.2.6-m
Bolivia: Insurance Protection Gap and potential market, 2007-2017
(millions of bolivianos)



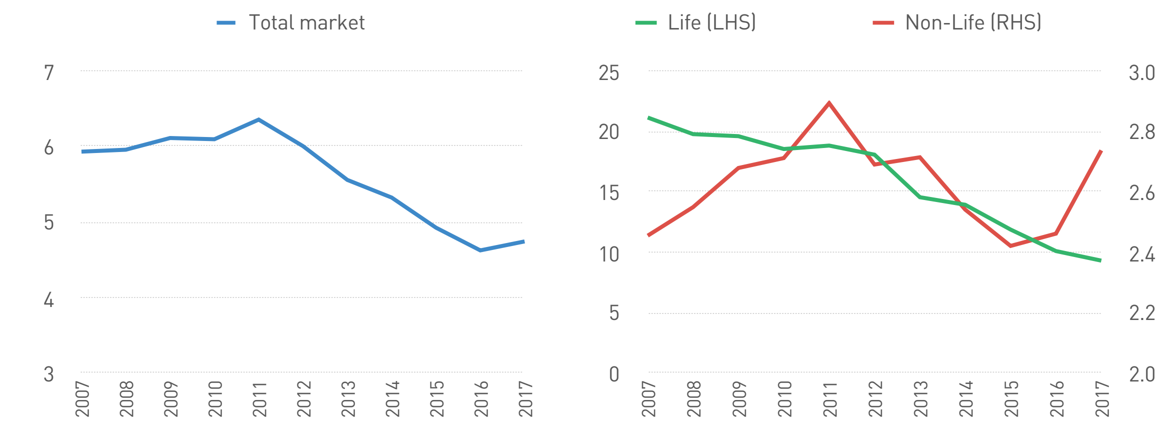
Source: MAPFRE Economic Research

Chart 3.2.6-n
Bolivia: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, bolivianos and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Chart 3.2.6-o
Bolivia: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

billion bolivianos. By 2017, this percentage had fallen to 59.9% (9.49 billion bolivianos).

Accordingly, the potential insurance market in Bolivia in 2016 (sum of the actual market plus the IPG) is estimated at 19.07 billion bolivianos (2.77 billion dollars), some six times the size of the total Bolivian insurance market that year.

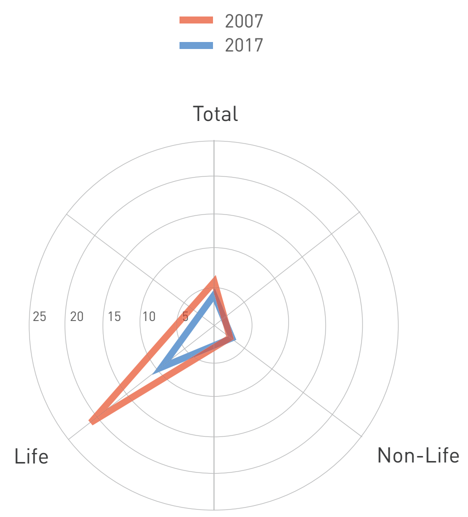
Chart 3.2.6-o shows an estimate of the IPG as a multiple of the actual market in each year. Measured as a multiple of the actual market, the IPG grew from 2007 through to 2011 (up from 5.9 to 6.4 times), while then falling from 2012 through to 2017 (down from 6.0 to 4.7 times). In both the Non-Life insurance segment (up from 2.5 to 2.7 times) and the Life insurance segment, the IPG as a multiple of the real market shrank between 2007 and 2017, falling from 21.1 to 9.3 times during that period.

Chart 3.2.6-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Bolivian insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. The situation has improved in the Life insurance business only.

Last but not least, Chart 3.2.6-q outlines the capacity of the Bolivian insurance market to close the IPG, based on a comparative analysis between the growth rates observed over the last ten years in the market and the growth rates that would be needed to close the resulting IPG.

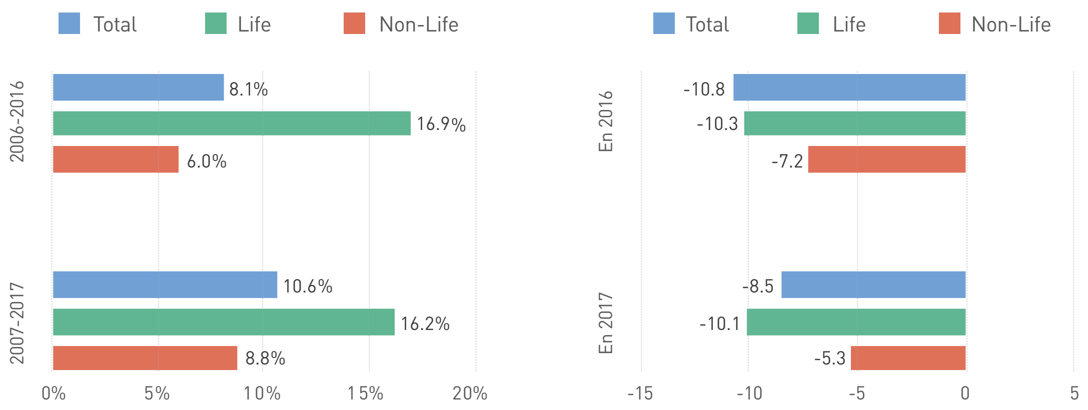
The Bolivian insurance market reported average annual growth of 10.6% between 2007 and 2017, underpinned by average annual growth of 16.2%

Chart 3.2.6-p
Bolivia: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

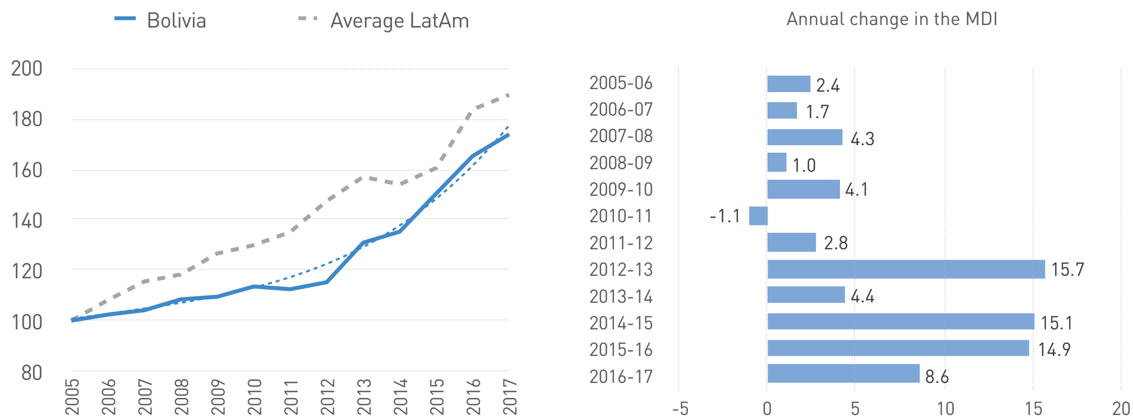
Chart 3.2.6-q
Bolivia: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

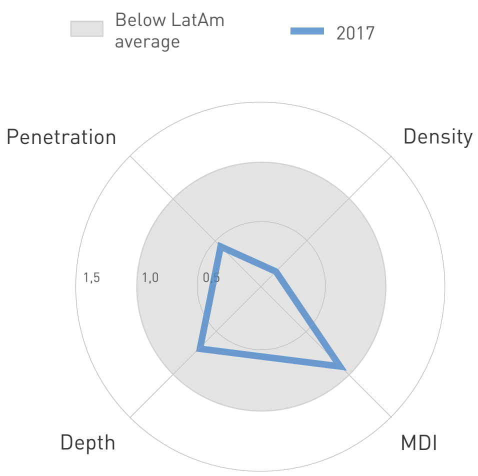
in the Life insurance segment and of 8.8% in the Non-Life insurance segment. The analysis reveals that were the same growth pattern to continue over the next ten years, the growth rate for the Bolivian market as a whole would fall 8.5 percentage points short of covering the IPG calculated for 2017. The same applies to both the Life insurance segment (short 10.1 percentage points) and the Non-Life segment (short 5.3 percentage points). This means that to close the IPG estimated for 2017, the Bolivian insurance market would require annual growth rates substantially higher than those observed over the last ten years: 19.1% for the total market, and 26.3% and 14.1% for the Life and Non-Life segments, respectively.

Chart 3.2.6-r
Bolivia: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.2.6-s
Bolivia: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Market Development Index (MDI)

Chart 3.2.6-r provides an estimation of the Market Development Index (MDI) for the Bolivian insurance industry. As discussed previously, the aim of the MDI is to summarize trends shaping the performance and maturity of insurance markets. In the case of the Bolivian insurance industry, the indicator shows a general upward trend between 2007 and 2017, becoming more pronounced from 2012 onward though still below the average trend observed across the wider Latin American region.

Comparative analysis of structural ratios

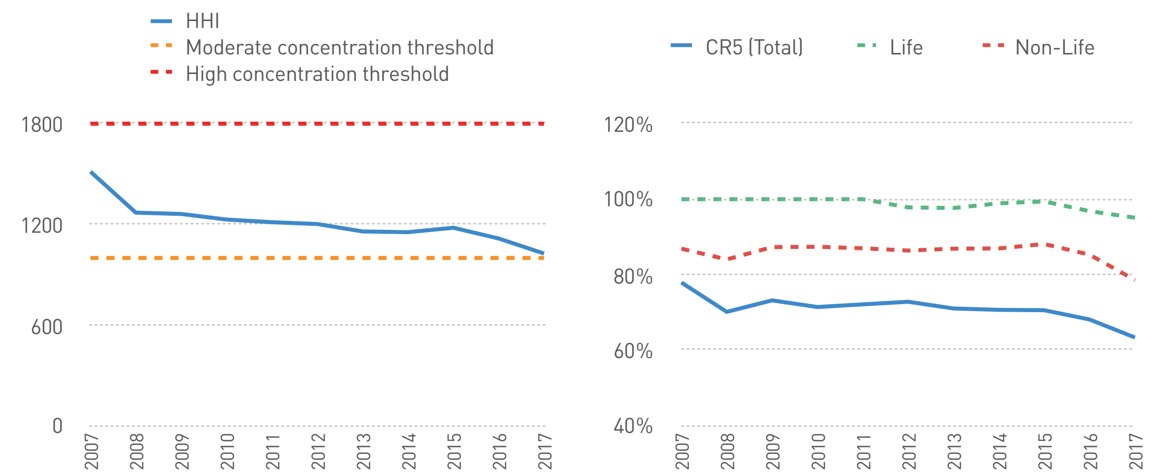
Chart 3.2.6-s outlines the state of the Bolivian market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, all these indicators are below the regional average.

Insurance market rankings

Overall ranking

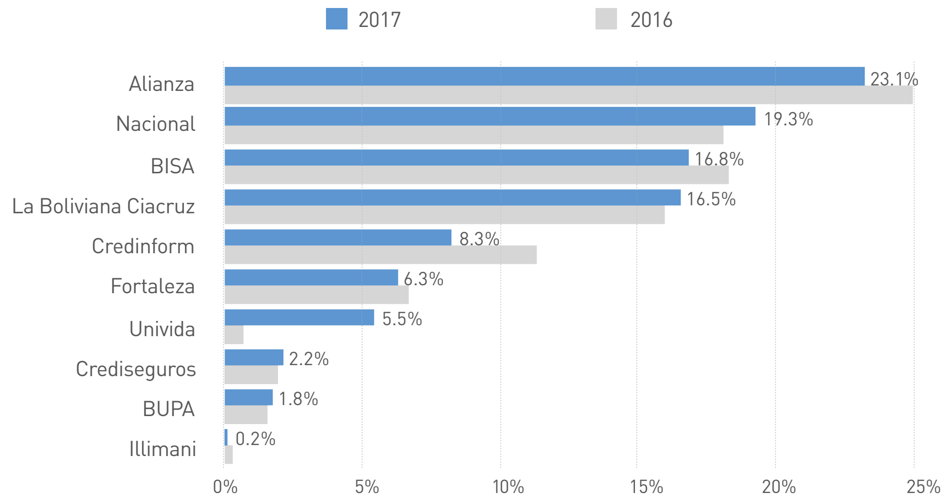
In December 2017, the Bolivian insurance market featured 16 insurance companies, eight of which operated exclusively in the Life insurance business and the remaining eight in both types (Life and Non-Life).

Chart 3.2.6-t
Bolivia: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

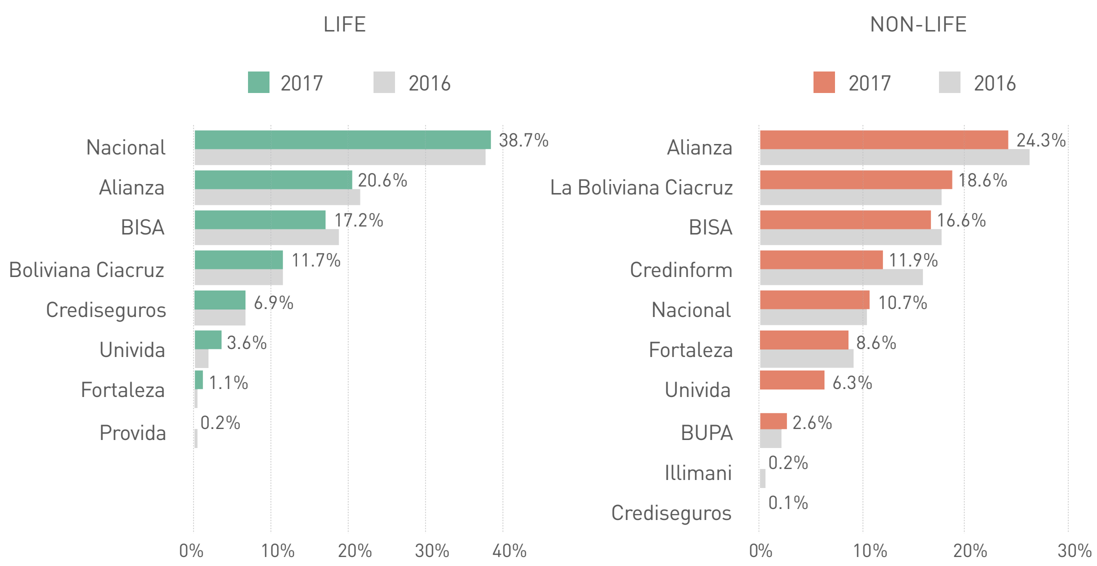
Chart 3.2.6-u
Bolivia: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Over the last ten years, levels of concentration in the Bolivian insurance market have fallen steadily. Even so, the Herfindahl index remains slightly above the threshold associated with a moderate level of concentration. The top five insurers (in terms of individual companies) accounted for 63.4% of total premiums between them, 4.8 percentage points less than the previous year. The concentration trend is higher when measured in group terms is also higher in the Life segment than in Non-Life insurance (see Chart 3.2.6-t).

Chart 3.2.6-v
Bolivia: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)

Table 3.2.6-b
Bolivia: recent regulatory developments in the insurance industry

Regulation	Date	Title / Reference	Applies to:
RA 549	12/05/2017	Enacting the single standard text of the guarantee policy for insurers Functioning of machinery and/or equipment for public entities.	Insurers
RA 638	31/05/2017	Authorization for insurers that manage pension insurance to enter into arrangements with financial intermediaries to grant health and occupational health insurers loans for household purchases.	SSO Insurers
RA 1234	04/10/2017	Amending Article 2 of the Regulations on Loss Absorption at Insurers and reinsurers approved via RA 769/2002 (amended by RA 1012/2007).	Insurers and reinsurers
RA 1488	30/11/2017	Approving Reconciliation Regulations as before the APS.	Insurance market
RA 1547	13/12/2017	Approving Regulations on the technical reappraisal of real estate assets that form part of the eligible investments of insurers and reinsurers.	Insurers
CC 90	14/06/2017	Accounting procedure and treatment for lines of credit acquired by insurance and reinsurance companies.	
CC 152	06/11/2017	Insurance agents - Minimum scope for conducting external audits - 2017 Management Cycle	
CC 153	06/11/2017	Insurance and reinsurance brokers - Minimum scope for conducting external audits - 2018 Management Cycle	
CC 154	06/11/2017	Insurers and reinsurers - Minimum scope for conducting external audits - 2017 Management Cycle	
CC 159	07/11/2017	- Accreditation of signatures appearing on financial statements - Repealing Circulars 11/2011, 05/2012 and 13/2013	

Source: Pension and Insurance Oversight and Control Authority

The overall ranking at the end of 2017 was once again led by Alianza Seguros, with a market share of 23.2%. Following behind we have Nacional Seguros on 19.3% and BISA Seguros on 16.8%. Fourth place goes to La Boliviana Ciacruz, with a market share of 16.51% (see Chart 3.2.6-u).

Non-Life and Life rankings

Alianza Seguros tops the Non-Life table with a market share of 24.3%, followed by La Boliviana Ciacruz on 18.6%. Third place goes to BISA Seguros on 16.6% (see Chart 3.2.6- v).

Turning our attention to the Life ranking, the 2017 table is topped by Nacional Seguros with 38.7% of market premiums, followed by Alianza Seguros on 20.6% and then BISA, with a market share of 17.2% (see Chart 3.2.6-v).

Key regulatory aspects

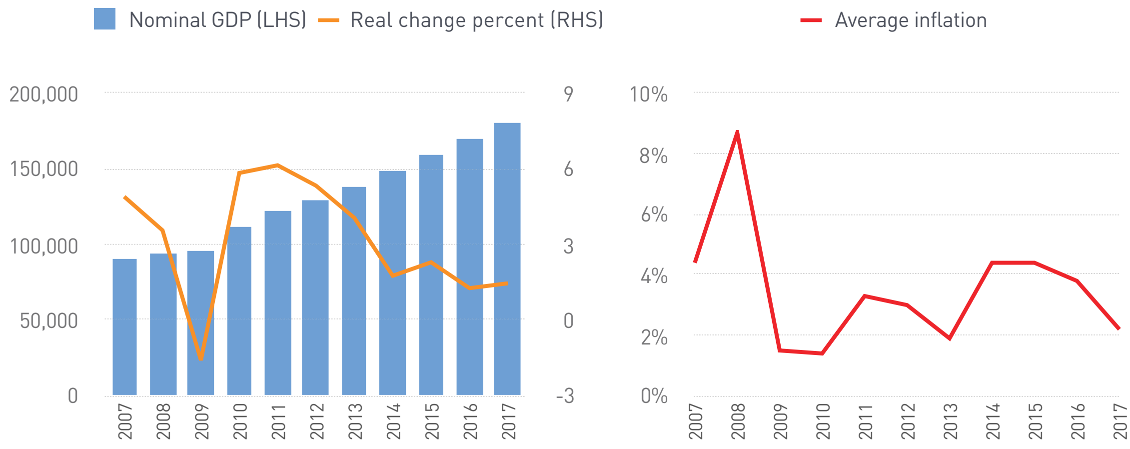
Table 3.2.6-b shows the main regulatory developments to have arisen within the Bolivian insurance industry.

3.2.7 Chile

Macroeconomic environment

The Chilean economy grew by 1.5% in real terms in 2017, after reporting 1.3% growth in 2016 (see Chart 3.2.7-a). Despite the pick-up, the country's performance was relatively poor compared with previous years due to weak domestic demand. As a result, tax receipts are not presently enough to finance current public spending, which has expanded, bringing the public deficit to 2.7% of GDP, the same figure as in 2016. Public debt to GDP came to 23.6%, compared with 21% a year earlier.

Chart 3.2.7-a
Chile: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

By productive sector, personal services posted growth in 2017, with increased spending on health and education, trade and communications. The mining sector put on an improved performance in the second half of the year. Construction turned in a positive performance, although growth slowed somewhat following a decline in residential building activity. The agriculture sector was forced to endure further losses, albeit less so than the previous year, due to a reduction in cattle and crop production. Export activity remained stable, while imports rose sharply. The current account deficit was also increased slightly to reach 1.5% in 2017, compared with 1.4% in 2016.

Average inflation dropped by 1.6 percentage points to 2.2% (3.8% in 2016), below the central bank's target of 3%, while the unemployment rate was up 0.2 percentage points to 6.7%. The prevailing climate of weak domestic demand and low inflationary pressure prompted the central bank to adopt an expansionary monetary policy by lowering interest rates, although these measures have yet to feed through fully to the cost of borrowing and exchange rates, which appreciated slightly.

Moving to growth forecasts for 2018, ECLAC expects the Chilean economy to continue benefiting from favorable external conditions and rising copper prices. It therefore believes that economic growth could climb to around 2.8% if domestic investment is able to get back on track and the country sticks with a counter-cyclical monetary policy. Meanwhile, the IMF expects the Chilean economy to grow by 3.4% in 2018.

Insurance market

Growth

After seven years of uninterrupted growth, premium volume in the Chilean insurance market fell slightly in 2017 (-0.4% in nominal terms; -2.5% in real terms) to 8.26 trillion pesos (12.74 billion dollars), as shown in Table 3.2.7-a and Chart 3.2.7-b.

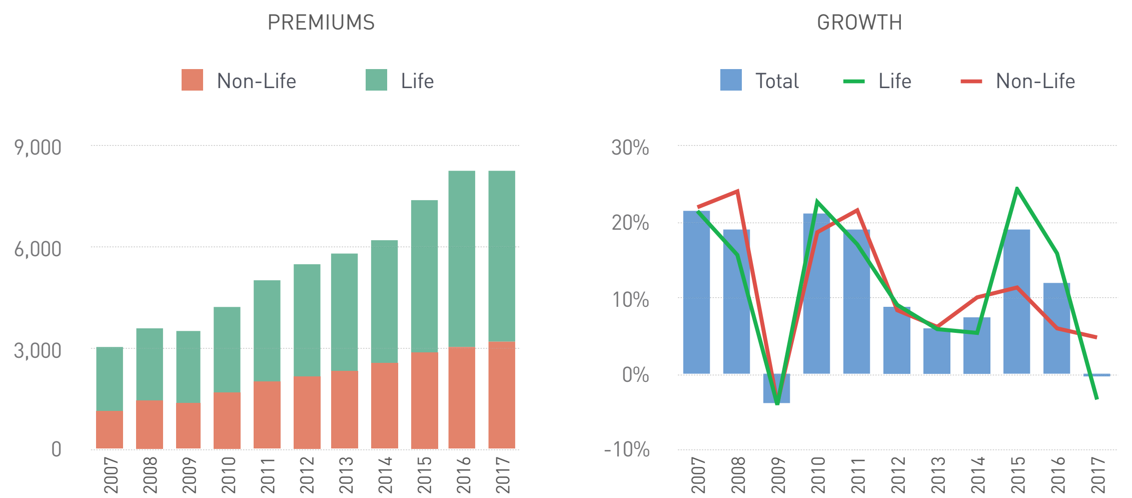
Life insurance, which had enjoyed double-digit growth in previous years, was down by a nominal 3.4% (-5.5% in real terms), while the 4.8% increase in Non-Life insurance lines was unable to offset the loss. The decline in Pension insurance, which accounts for 67% of the Life insurance segment, is the main culprit for this overall slump. Within Pension insurance, Life annuities, which generated 2.45 trillion pesos (3.78 billion dollars) in premium volume, was down 11.0%.

Table 3.2.7-a
Chile: premium volume[1] by line of business, 2017

Line of business	Millions of pesos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**8,268,352**	**12,744**	**-0.4**	**-2.5**
Life	**5,081,617**	**7,832**	**-3.4**	**-5.5**
Individual Life	857,112	1,321	-1.5	-3.6
Group Life	827,718	1,276	5.5	3.2
Pension	3,396,788	5,235	-5.8	-7.8
Non-Life	**3,186,734**	**4,912**	**4.8**	**2.6**
Fire and/or allied lines	781,466	1,204	-4.1	-6.2
Automobile	752,575	1,160	8.5	6.2
Other damages	503,919	777	3.1	0.9
Health	527,831	814	10.9	8.5
Personal accident[2]	280,827	433	15.4	13.0
Transport	106,066	163	-2.0	-4.1
Third-party liability	105,908	163	2.3	0.2
Credit and/or surety	128,142	198	14.1	11.6

Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)
1/ Direct premiums
2/ Includes Mandatory Personal Accident insurance (known as SOAP)

Chart 3.2.7-b
Chile: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)

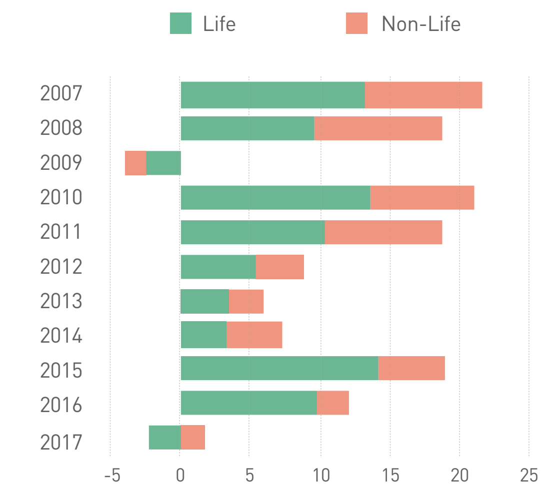


Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

Meanwhile, Non-Life insurance posted 3.18 trillion pesos in premiums (4.91 billion dollars). Nearly all Non-Life modalities registered growth, the only exceptions being Fire and allied lines and Transport, which were down 4.1% and 2.0%, respectively. This negative showing from the largest line of the Non-Life segment was offset by 8.5% growth in Automobile insurance.

As shown in Chart 3.2.7-c, Life insurance contributed a negative 2.2 percentage points to the overall decline of 0.4% registered by the Chilean insurance industry in 2017, while Non-Life insurance contributed a positive 1.8 percentage points.

Chart 3.2.7-c
Chile: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

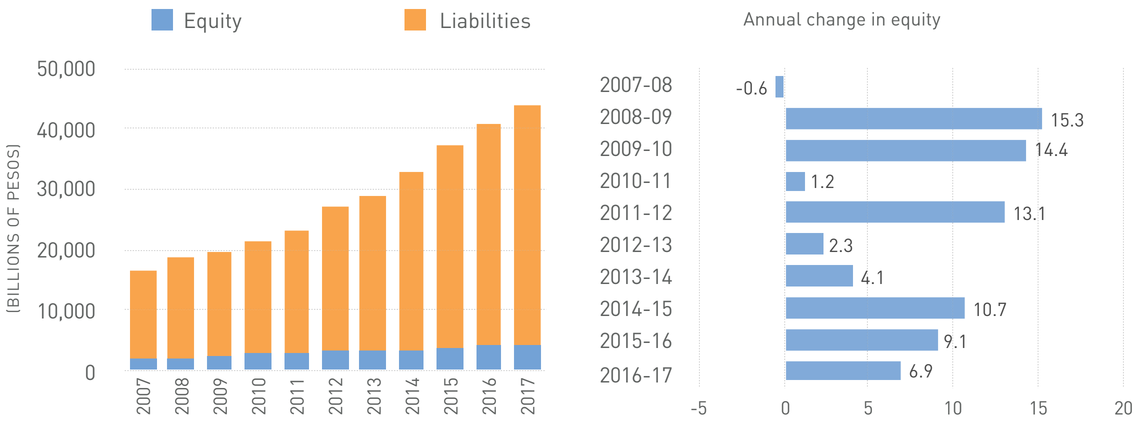
Balance sheet and equity

Chart 3.2.7-d summarizes the aggregate balance sheet at sector level for the Chilean insurance industry between 2007 and 2017.

As can be seen, total assets in the industry amounted to 43.85 trillion pesos (67.59 billion dollars) at the end of 2017, while equity came to 4.33 trillion pesos (6.67 billion dollars), up 6.9 percentage points on the value reported in 2016.

The Chilean insurance industry's capitalization level grew steadily over the period in absolute terms, although in relative terms the capitalization ratio (capital versus total assets) began falling in 2010, dropping from values of over 12% in that year to 9.9% in 2017.

Chart 3.2.7-d
Chile: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



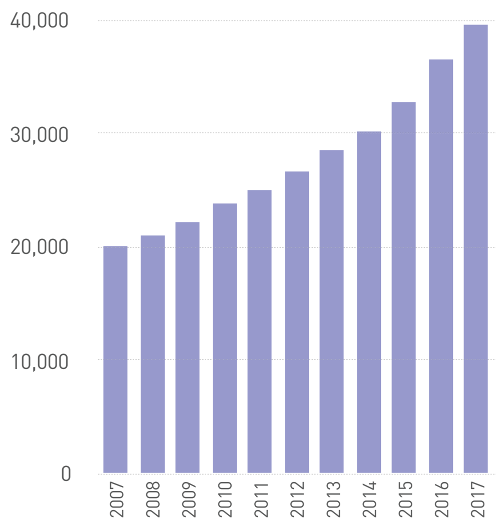
Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Investment

Charts 3.2.7-e, 3.2.7-f and 3.2.7-g show the performance and composition of the aggregate investment portfolio at sector level for the Chilean insurance industry between 2007 and 2017. According to this information, investment totaled 39.65 trillion pesos (61.12 billion dollars), concentrated in fixed income (59.6%) and, to a significantly lesser extent, in equities (7.7%).

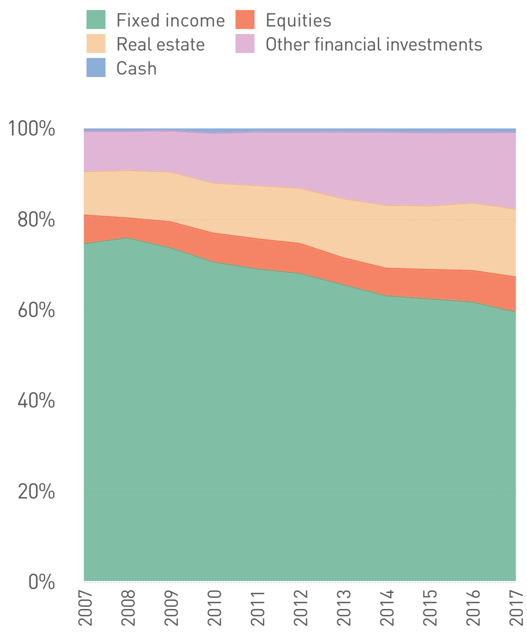
Significantly, the relative weight of fixed-income products as a percentage of total investment declined over the period, falling from 74.7% in 2007 to 59.6% in 2017. By contrast, the weight of real estate investment and other types of financial investment (especially bank deposits) grew during the period, climbing in each case from around 10% of the total portfolio in 2007 to 15.0% and 17.0%, respectively, in 2017.

Chart 3.2.7-e
insurance market investment, 2007-2017
(billions of pesos)



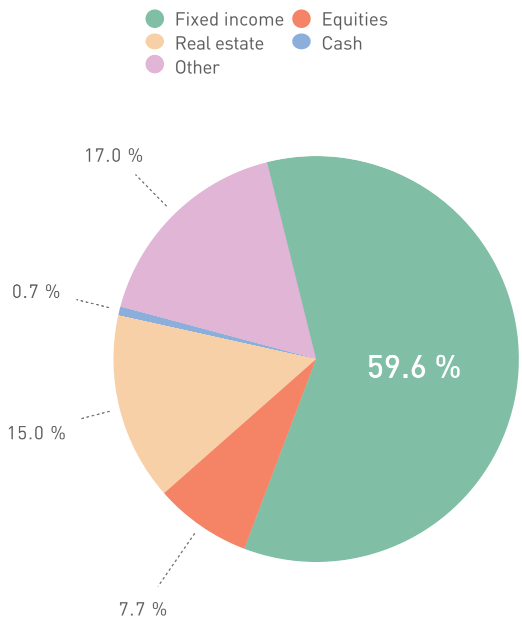
Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-f
Chile: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-g
Chile: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

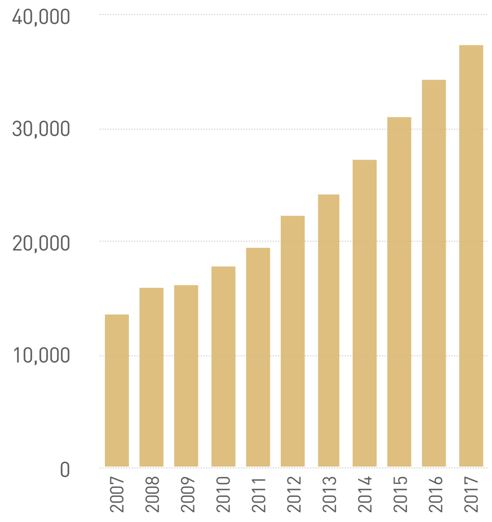
Technical provisions

Charts 3.2.7-h, 3.2.7-i and 3.2.7-j show the performance and relative composition of the Chilean insurance industry's technical provisions between 2007 and 2017.

In the last year of the period, technical provisions amounted to 37.29 trillion pesos (57.47 billion dollars). Of these total technical provisions, 90.8% related to Life insurance, 4.5% to provisions for unearned premiums and unexpired risks in Non-Life insurance, 3.4% to the provision for outstanding benefits, 0.03% to provisions for catastrophic risks and 1.3% to other technical provisions.

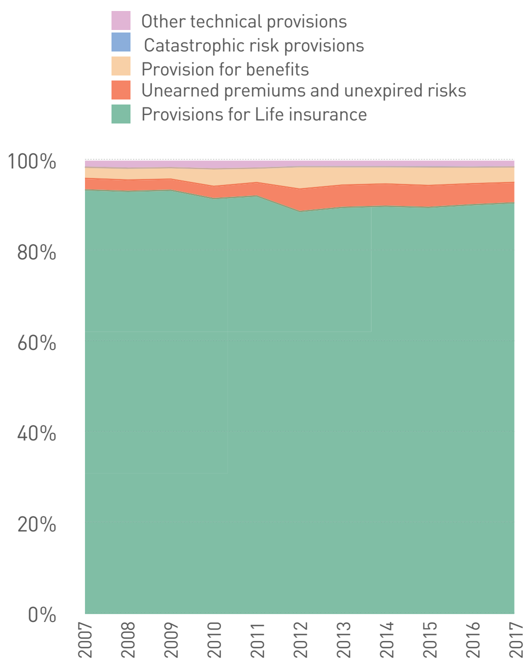
Interestingly, the relative weight of Non-Life insurance provisions practically practically doubled over the period under analysis, yet it still remains low when compared with the significant weight of technical provisions for the Life insurance segment, especially Life annuities.

Chart 3.2.7-h
Chile: technical provisions of the insurance market, 2007-2017
(billions of pesos)



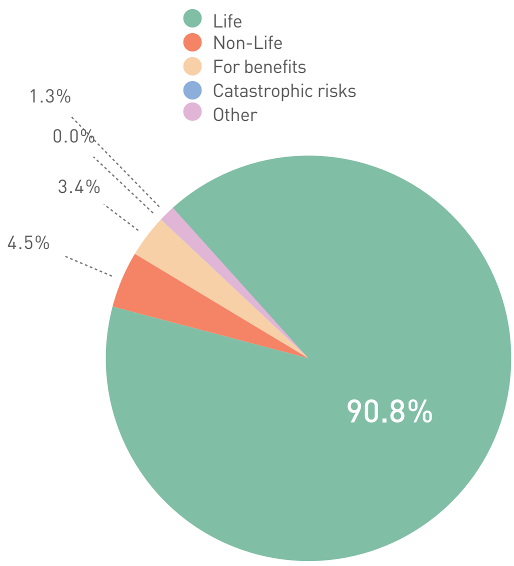
Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-i
structure of technical provisions, 2007-2017
(%)



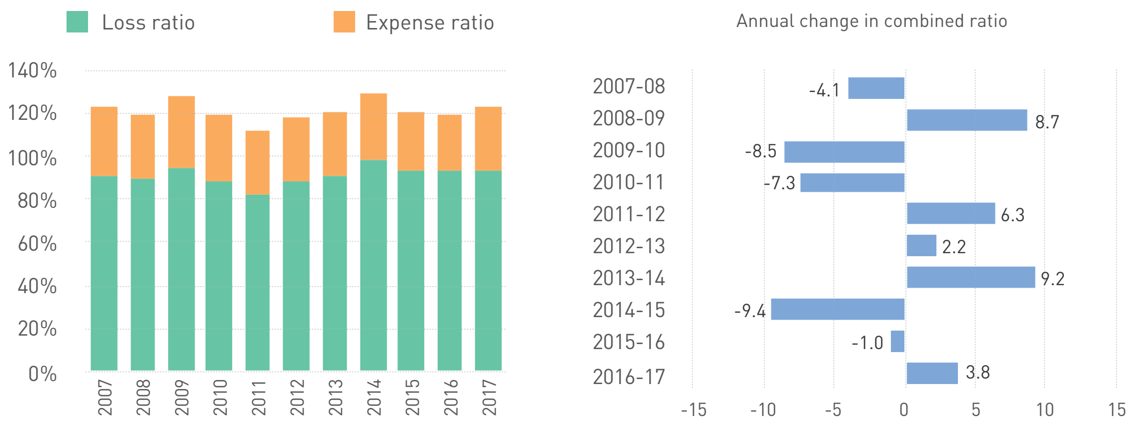
Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-j
Chile: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-k
Chile: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

Technical performance

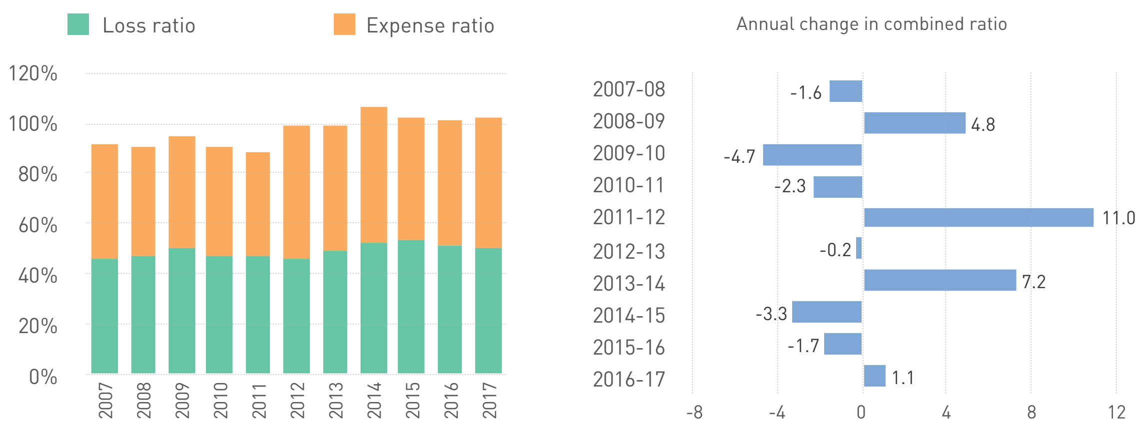
The consolidated technical result for the Chilean insurance sector was once again negative in 2017 with a combined ratio of 122.8%, albeit showing an improvement of 3.8 percentage points on the previous year.

The main culprits here are both the loss ratio and the expense ratio (which worsened by 0.6 pp and 3.2 pp, respectively (see Chart 3.2.7-k)).

Turning to the technical performance of the Non-Life segment, Chart 3.2.7-l shows that the combined ratio has worsened when compared with the previous year to reach 102% in 2017, up 1.1 percentage points.

While the loss ratio for this segment improved by 1.1 percentage points, the improvement was wiped out by an increase of 2.2 percentage points in expenses.

Chart 3.2.7-l
Chile: changes in the technical performance of the Non-Life market, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

Results and profitability

Despite its negative technical result, the Chilean insurance industry posted a positive net result of 622.67 billion pesos (960 million dollars) in 2017, showing a significant increase of 25.3%. As shown in Chart 3.2.7-m, the positive net result obtained over nearly all the period under analysis was down to positive financial results that were able to counter the negative technical results.

Moving to the profitability of the Chilean insurance industry, return on equity (ROE) stood at 14.4% in 2017, up 2.1 percentage points on the previous year. Similarly, return on assets (ROA) increased slightly (+0.2 percentage points on 2016) to reach 1.4%.

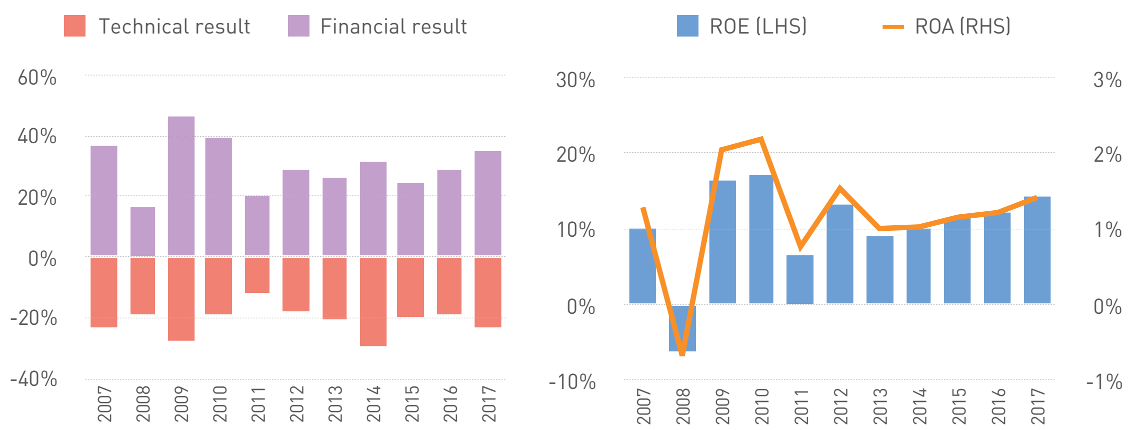
Insurance penetration, density and depth

Chart 3.2.7-n shows the main structural trends shaping the development of the Chilean insurance industry between 2007 and 2017. The penetration index (premiums/GDP) in Chile is one of the highest in Latin America, second only to Puerto Rico. Due to the reduction in premiums registered in 2017, the index dropped 0.3 percentage points year on year to reach 4.6%, which is 1.2 percentage points more than in 2007. As shown in the same chart, the penetration index for the Chilean market has grown steadily since 2007, in line with the average for the wider Latin American insurance market and above the absolute average values for the region.

The reduction in premium volume has also brought down the insurance density index (premiums per capita) in Chile, which came to 454,090 pesos (708 dollars) in 2017, 1.2% below the value reported in 2016 (459,535 pesos). As with the penetration index, density in Chile (measured in local currency) climbed steadily between 2007 and 2017. It should be noted that the high density level in the Chilean market is greatly determined by the extensive and long-standing contribution of the private insurance industry to the pension system in the form of Life annuities.

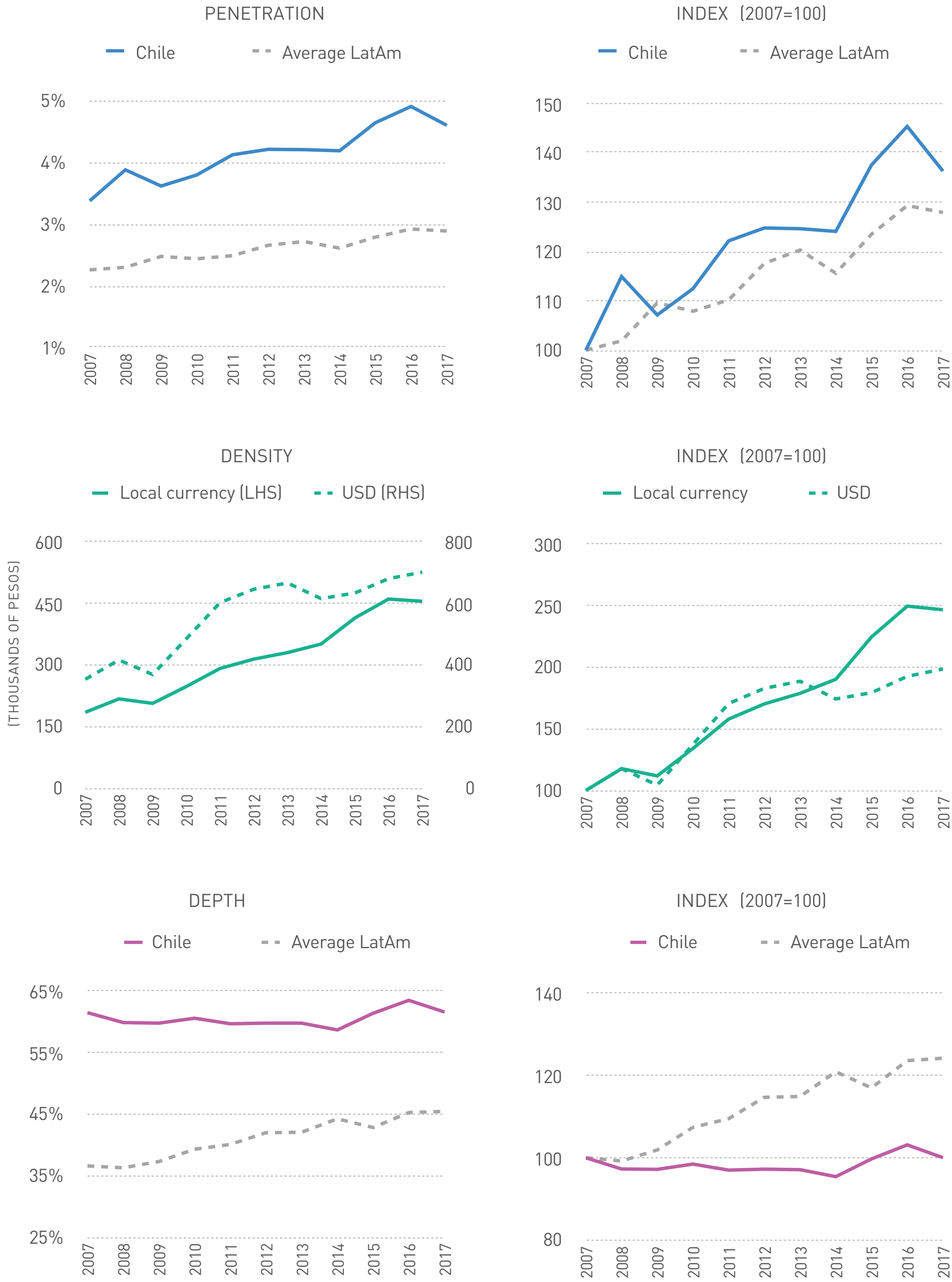
With regard to the depth of the Chilean market (Life insurance premiums to total premiums), the index came to 61.5% in 2017, down 1.9 percentage points, once again owing to the reduction in premium volume in the Life segment.

Chart 3.2.7-m
Chile: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

Chart 3.2.7-n
Chile: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD;
Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Financial Market Commission and the Chilean Insurers Association)

Estimation of the Insurance Protection Gap

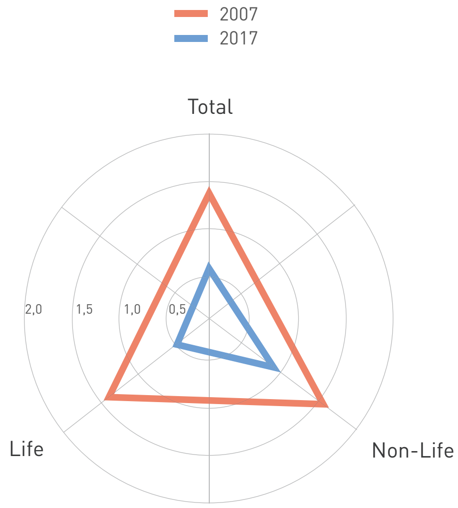
Chart 3.2.7-o provides an estimate of the IPG for the Chilean insurance market between 2007 and 2017. As shown, the insurance gap amounted to 5.27 trillion pesos in 2017 (8.12 billion dollars), 0.6 times the size of the actual insurance market in Chile at the end of the year.

The structure and performance of the IPG over the period under analysis show a relative balance between the contribution of Life and Non-Life insurance. Indeed, 44.4% of the IPG related to Life insurance (2.33 billion pesos) at the end of 2017, which is 1.3 percentage points above the level observed in 2007. The remaining 55.6% related to the gap in the Non-Life insurance segment (2.93 billion pesos). Significantly, Non-Life overtook Life insurance in 2016 as the biggest contributor to the insurance gap.

Accordingly, the potential insurance market in Chile at the end of 2017 (measured as the sum of the actual market plus the IPG) is estimated at 13.53 trillion pesos (20.86 billion dollars), some 1.6 times the size of the total Chilean insurance market that year.

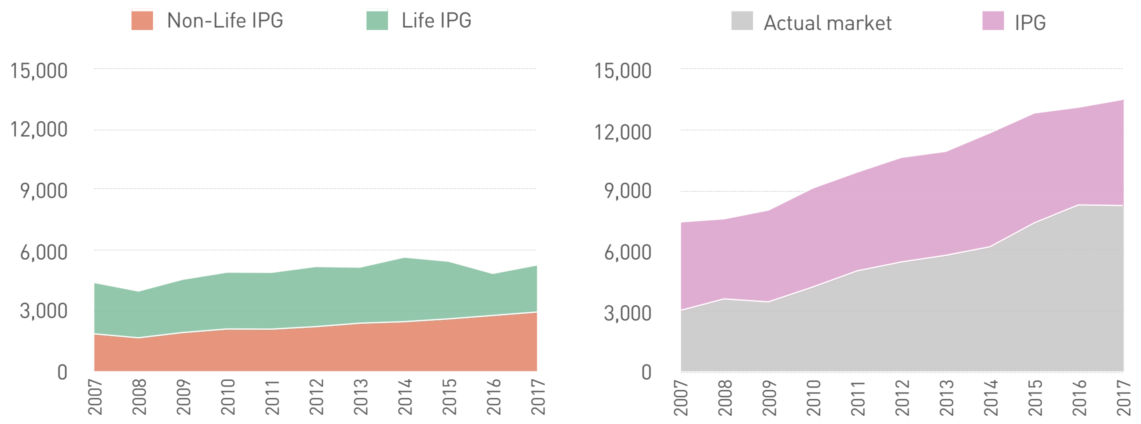
Charts 3.2.7-p and 3.2.7-q provide an estimation of the IPG as a multiple of the actual insurance market in Chile. As shown, there was a marked downward trend in the insurance gap over the period under analysis. During this time, the total insurance gap multiple fell from 1.4 to 0.6 times the size of the actual market. The same is true

Chart 3.2.7-p
Chile: the IPG as a multiple of the actual market, 2007 and 2017



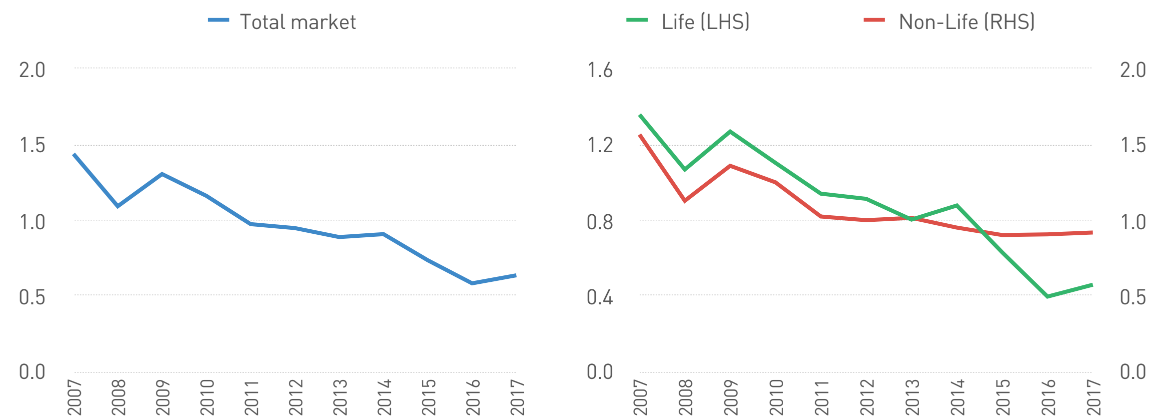
Source: MAPFRE Economic Research

Gráfica 3.2.7-o
Chile: the IPG as a multiple of the actual market, 2007 and 2017
(billions of pesos)



Source: MAPFRE Economic Research

Chart 3.2.7-q
Chile: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



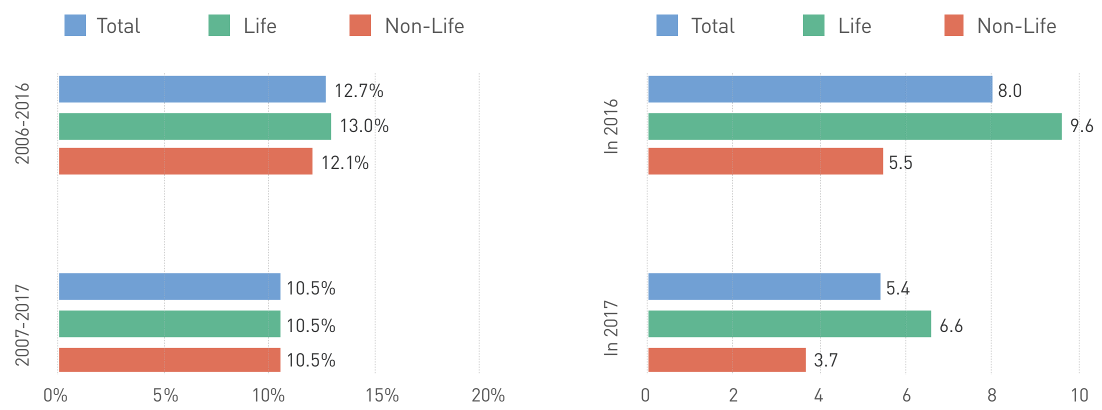
Source: MAPFRE Economic Research

of the multiple for the Life market, which fell from 1.4 to 0.5 times, and for Non-Life insurance, where it fell from 1.6 to 0.9 times.

Chart 3.2.7-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Chilean insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. The situation has improved in the Non-Life segment and especially so in the Life business.

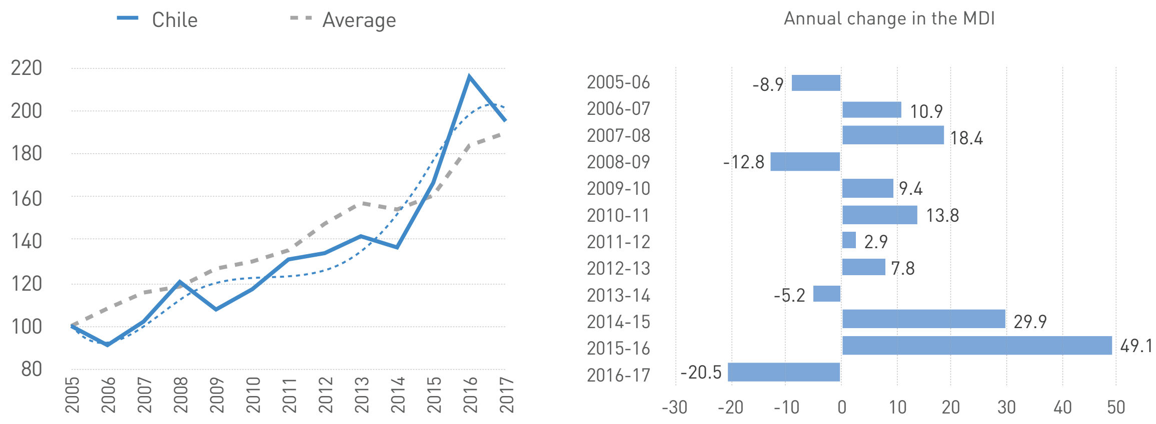
Last but not least, Chart 3.2.7-r outlines the capacity of the Chilean insurance market to close the insurance gap, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years. The exercise shows

Chart 3.2.7-r
Chile: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.2.7-s
Chile: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

that the Chilean insurance market grew by an annual average of 10.5% between 2007 and 2017. The Life and Non-Life segments also increased at a rate of 10.5% over the period.

The analysis shows that were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Chilean insurance market would be sufficient to seal the insurance gap for both the Life and Non-Life insurance segments.

Market Development Index (MDI)

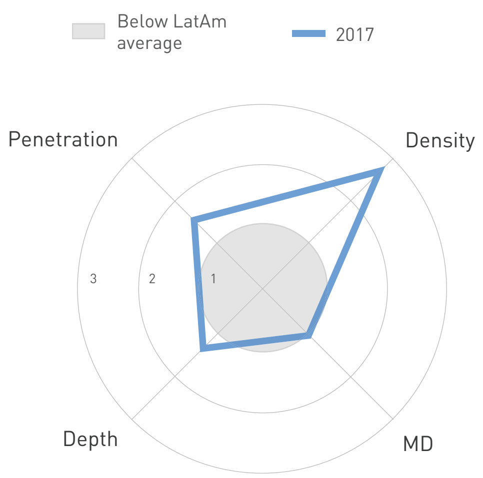
Chart 3.2.7-s provides an estimate of the Market Development Index (MDI) for the Chilean insurance industry. The MDI, which is used as an indicator of general trends shaping the development and maturity of insurance markets, performed positively through to 2016, only to fall away in the last year of the period.

Although the indicator has hovered around the average for all Latin American insurance market over the entire period now under analysis, it moves the closest to the regional average in 2015 before finally overtaking it in 2016, despite suffering a setback in 2017.

Combined analysis of structural ratios

To round things off, Chart 3.2.7-t outlines the state of the Chilean insurance market when

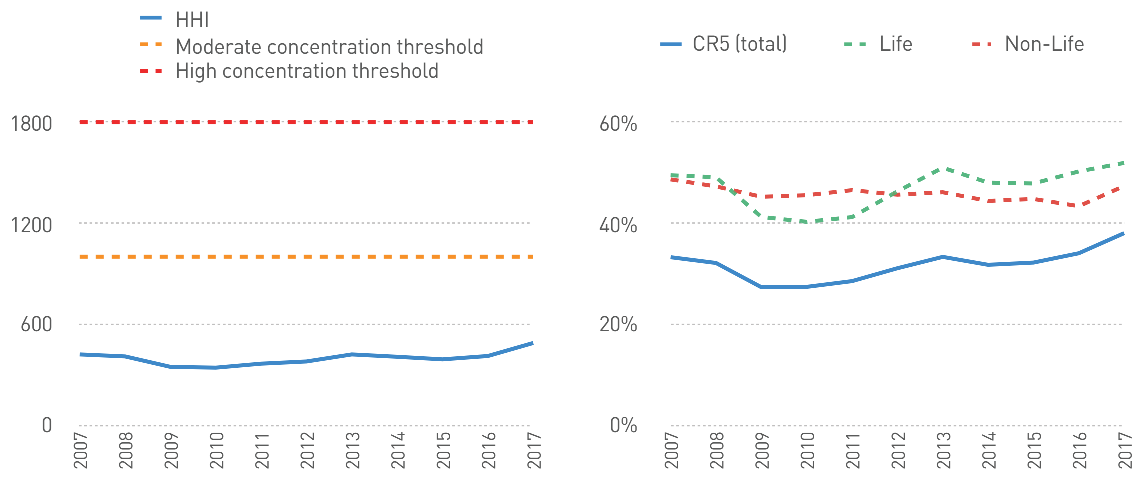
Chart 3.2.7-t
Chile: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research

* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Chart 3.2.7-u
Chile: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

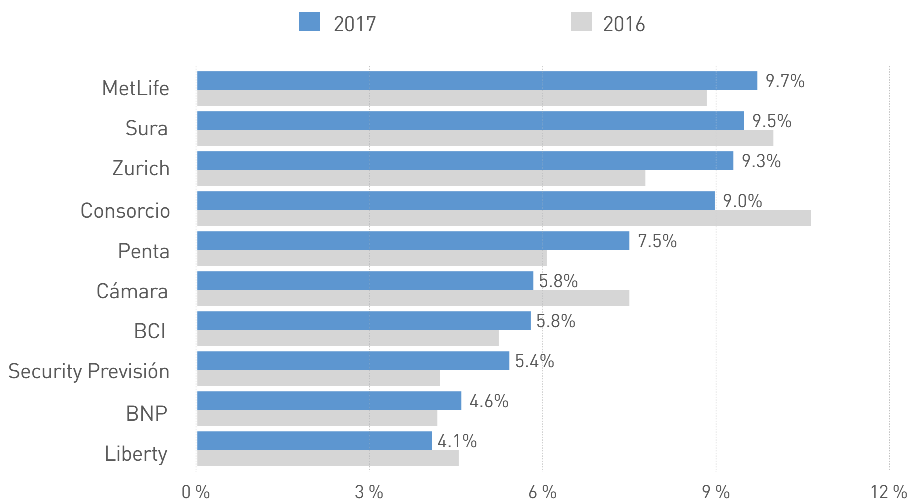
compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, the indicators for the Chilean market all exceed the average for Latin America, especially when it comes to density and penetration, indicating relatively strong levels of local development when compared with the wider region.

Insurance market rankings

Overall ranking

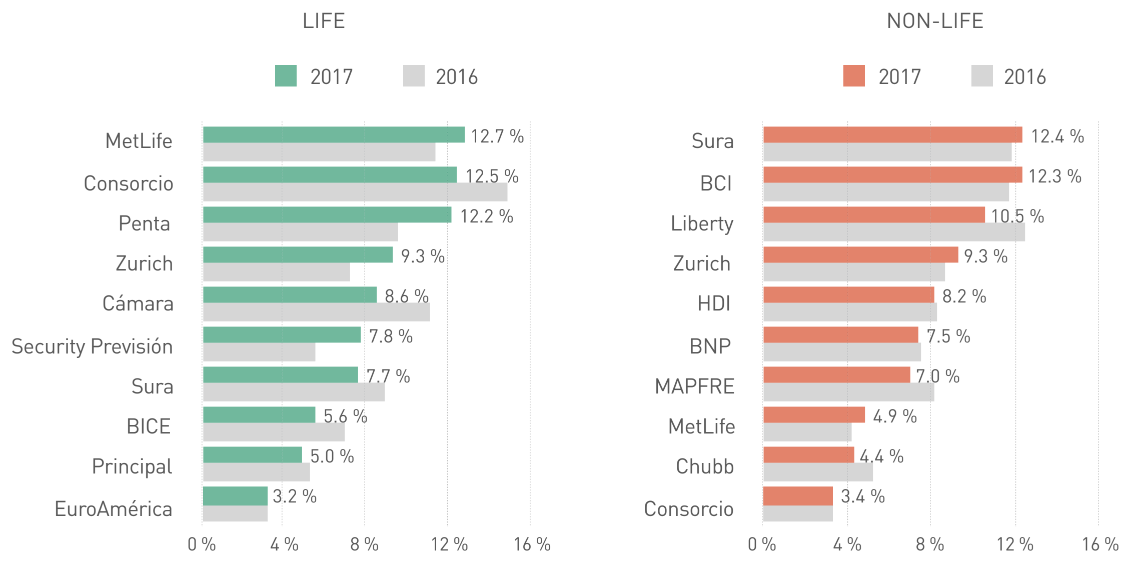
At the end of 2017, 32 general insurance companies and 36 Life insurance companies were operating in the Chilean insurance market. Chart 3.2.7-u shows the concentration indicators

Chart 3.2.7-v
Chile: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

Chart 3.2.7-w
Chile: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Chilean Insurers Association)

for the Chilean insurance industry between 2007 and 2017. The Herfindahl index reveals a low level of concentration in the industry, below the theoretical threshold indicative of moderate concentration. Meanwhile, the CR5 index (market share of the five largest insurance companies) remained stable throughout the period and, as shown in the chart, the Non-Life business saw increasingly lower levels of concentration, falling to below the Life insurance business in 2013.

In the overall ranking of insurance groups, we witnessed a number of changes in 2017, the most notable being MetLife's ascent to take top spot in the table with a market share of 9.7%, following a 9.9% increase in its premium volume in a year in which the insurance sector as a whole was down 0.4%. Meanwhile, Consorcio Nacional lost 1.7 percentage points of market share to fall from first to fourth place (see Chart 3.2.7-v).

Non-Life and Life rankings

Turning to the Non-Life ranking, again we saw various changes in the table, although the table continues to feature the same groups as in 2016, with the sole exception of Consorcio, which enters the ranking at the expense of AIG. It should be noted that AIG sold its subsidiary in the country to Canadian holding company Fairfax Financial. The company is now called Southbridge and ranked eleventh in 2017 (see Chart 3.2.7-w).

The groups that make up the Life ranking are the same as in 2016, although there are some changes in their relative positions. MetLife tops the 2017 table following a 7.7% increase in premium volume, an impressive feat when we consider that the sector fell by 3.4%. Penta, Zurich and Security also managed to increase their premiums in 2017, moving them up the table.

Key regulatory aspects

The recently created Financial Market Commission (Comisión para el Mercado, or CMF for short (formerly the Superintendency of Securities and Insurance (Superintendencia de Valores y Seguros, or SVS for short)) is currently migrating toward best international practices when it comes to the regulation of the Chilean insurance industry. A set of new regulations has been issued in recent years, as summarized in Table 3.2.7-b. The Chilean authorities have also made progress in developing and implementing

Box 3.2.7
Chile: creation of the Financial Market Commission

Act 21000, which took effect in January 2018, has ushered in a new institutional framework regulating securities and insurance in Chile, transforming the Superintendency of Securities and Insurance (Superintendencia de Valores y Seguros, or SVS) into the Financial Market Commission (Comisión para el Mercado Financiero, or CMF), which continues to act as the regulatory and supervisory body of the securities and insurance industry in the country. The new commission has been granted extensive authority to promote the development the market and ensure financial stability.

Further down the line, following a planned overhaul of the General Banking Act (the bill is currently making its way through the Chilean Parliament), the supervision and regulation of banks and other financial institutions will also be brought under the remit of the new CMF. This new system will set the foundations for a policy of consolidated supervision, focusing especially on financial conglomerates.

Prior to the entry into force of the new law, the framework of financial regulation and supervision in Chile was based on a model of specialized companies dedicated to specific sectors of the financial system, a framework that harks back to the nineteen eighties. This model presented various weaknesses, given the development, buoyancy, complexity and integration of the modern-day financial marketplace. International bodies such as the World Bank, the International Monetary Fund and the Organization for Economic Co-operation and Development have all been stressing the importance of increasing and strengthening the independence and legal powers of financial supervisors.

Accordingly, the country has deemed it necessary to erect a solid legal framework and confer broad and flexible powers so as to put in place a system of regulation and supervision that is capable of responding to the present and future challenges facing the Chilean financial system. In this context, the CMF has been set up as a decentralized public service tasked with managing technical aspects of the system and with its own legal personality and capital. Its objective is to oversee the proper functioning, development and stability of the financial market by ensuring the involvement of market players while ensuring the ongoing faith of the public in the system. To achieve this, the CMF must maintain a general and systemic view of the entire market, protecting the interests of investors and insured parties alike.

The new regulatory framework also makes a number of improvements to governance, with the CMF now headed and steered by a collegiate body as opposed to the previous Superintendent, who was appointed at the whim of the President of the Republic. The senior management of the CMF is now entrusted to a council comprising five members known as commissioners, who are elected from among candidates with suitable levels of professional or academic training in the finance sector. These commissioners have a fixed term of office and can only be removed on legal grounds. The president of the commission and the four commissioners will be appointed by the President of the Republic, subject to ratification by 4/7 serving members of the Chilean Senate. The office of commissioner will require exclusive dedication to the office and will be incompatible with any other position held in the private or public sector. There are also specific rules on incompatibility for office and conflicts of interest.

The new law improves regulatory transparency by establishing best standards for the regulations emanating from the CMF, while introducing the requirement of conducting regulatory impact statements and public consultation processes. It also calls on the different bodies of the central government to coordinate their actions before issuing any general administrative ruling or decision that would clearly affect the competencies of another body. The new law also improves upon aspects relating to accountability in the sense that the CMF is now required to draw up an annual report detailing the activities carried out in the previous year and explaining how it has implemented its budget, among other matters. Its Governing Board must appear before the Senate once a year to present the annual report and respond to questions on its activities in the previous year. It must also provide a general assessment of the state of the financial market.

Source: MAPFRE Economic Research (based on information obtained from the Financial Market Commission)

Table 3.2.7-b
Chile: recent regulatory developments in the insurance industry

Regulation	Main aspects
General Regulation No. 425: 06/25/2018	Rule amending General Regulation No. 152, which seeks to endow added flexibility to the investment framework governing insurance companies. It raises the issuing limit from 20% to 30% for investments that insurers hold in domestic or foreign mutual and investment funds, while relaxing the requirements placed on insurers to take part in the syndicated lending business.
Circular No. 2236: 3/6/2018	Circular requiring insurance companies that sell automotive insurance policies to deliver information to the CMF on delay times in repairing vehicles that are taken to a repair shop.
General Regulation No. 421: 12/1/2017	Rule containing basic principles and good practices in relation to reinsurance, while explaining the information on reinsurance schemes that companies must report to the CMF.
General Regulation No. 420: 10/16/2017	Rule introducing the self-assessment of basic principles and good practices on matters relating to market conduct within the insurance industry. It addresses four main areas: (i) fair treatment for customers; (ii) managing conflicts of interest; (iii) protecting customer information; and (iv) championing the development of the market through transparency.
General Regulation No. 415: 3/27/2017	Rule amending General Regulation No. 152, raising the limit on investment abroad for insurers to 25% effective from March 1 and to 30% effective from September 1. It also allows insurers to invest in the shares of concessionaire companies awarded public infrastructure contracts by removing these from the prohibition set out in article 22 of Decree with Force of Law (DFL) 251, thus allowing insurers to invest in this type of instrument subject to the limits prescribed by Act No. 20956.

Source: Financial Market Commission

new supervision methods (solvency and market conduct) Meanwhile, Act No. 21000, modifying the corporate governance of the SVS and creating the current CMF, was approved and published in the Official Journal of February 23, 2017 (see Box 3.2.7).

In this regard, the Bill envisioning a model of Risk-Based Supervision (RBS) for the Chilean insurance industry was laid before the Finance Committee of the Chamber of Deputies for initial legislative scrutiny in September of 2011. It has been undergoing a second round of constitutional scrutiny before the Finance Committee attached to the Chilean Senate since November 6, 2012. At the date of this report, the Bill is once again before the Congress following the change in corporate governance of the insurance industry regulator.

In tandem with this, the CMF is continuing to develop and implement Pillar 1 (regulatory) and Pillar 2 (supervisory) of the new RBS model. Much progress has been made in developing a Risk-Based Capital (RBC) method and in applying a Risk Matrix. This has brought the industry in line with one of the objectives of the new model of supervision, which is to encourage insurers to develop and strengthen their risk management processes.

Significantly, the CMF has already released five methodological documents on the subject of Risk-Based Capital (RBC) and five quantitative impact studies (QIS) on the industry have already been conducted, with a sixth now in progress. Insurers must publish the results of this latest study by the end of July 2018. This, combined with the Risk Matrix audits already completed by most insurers, has allowed the CMF to gain further experience in implementing the model while fine-tuning its methodologies and the scope of its work accordingly.

General Regulation No. 420 was released in the second half of 2017, introducing a self-assessment of basic principles and good practices on matters relating to the market conduct and the insurance industry. It also requires insurance companies and brokers to conduct a self-assessment every two years of the extent to which their market conduct is compliant with the principles enshrined in the Regulation, while requiring them to report their results to the

CMF along with an action plan to remediate any breach or non-compliance that may have been spotted.

General Regulation No. 421 was also released in 2017, containing core principles and good practices relating to reinsurance, as well as the information that companies must report to the CMF. This means that insurance companies must now provide the CMF with information on their reinsurance management policies, as approved by the company's governing body, so that the CMF is able to analyze their compliance with the principles set out in the new regulations.

Lastly, the year saw a number of regulatory changes that had a positive impact by stimulating economic activity while guaranteeing the industry's solvency. General Regulation No. 425 was issued on June 25, 2018. It relaxes investment rules for insurers by raising the issuing limit from 20% to 30% for their investments in domestic and foreign mutual funds. It also relaxes the requirements placed on insurers to take part in syndicated lending activity, allowing the bank or financial institution concerned to lower its participation in the loan from year eight onward (under the supervision of the Superintendency of Banks and Financial Institutions, or SBIF) from 5% to 2% of the amount of loan principal, the same as for the agent or lead arranger.

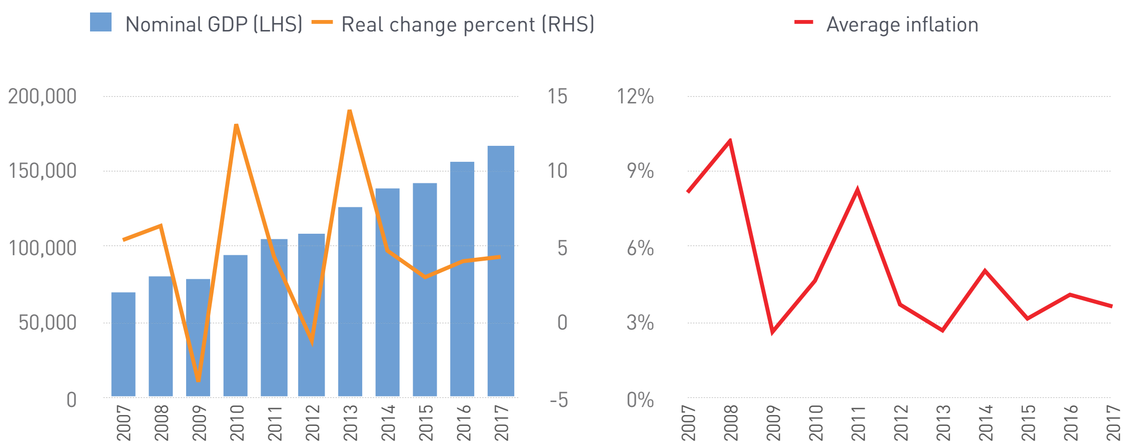
3.2.8 Paraguay

Macroeconomic environment

The Paraguayan economy posted estimated growth of 4.3% in real terms in 2017, up on the 4% reported the previous year and also outpacing the regional average (see Chart 3.2.8-a). The fiscal policy of controlling the deficit continued throughout 2017 as the government sought to curb current public spending in favor of increased capital expenditure, accompanied by a largely expansionary monetary policy.

By sector, the most lively were the agriculture sector (due to a strong season for soybeans and other crops such as rice, tobacco and beans), services (due to heavy commercial activity

Chart 3,2,8-a
Paraguay: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of guaranies; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF data)

stemming from import growth) and industry. Construction, cattle farming and the energy sector turned in a more subdued performance, in the latter case due to the reduction in power generation by the bi-national Itaipú Dam corporation (jointly owned with Brazil), which is 2016 hit an all-time record.

The final current account balance is expected to reach a surplus of around 0.2% of GDP, in contrast to a deficit of 1.5% reported a year earlier due to the considerable increase in imports but only moderate growth in exports.

Average inflation came to 3.6% in 2017, compared with 4.1% a year earlier and in its interim report on the industry ECLAC estimates that the unemployment rate will reach 8.9%.

Turning to growth projections, ECLAC is confidant the Paraguayan economy will achieve 4% growth in 2018, slightly down on 2017. Meanwhile, the IMF estimates growth of 4.5% in 2018.

Insurance market

Growth

The Paraguayan insurance market reported a premium volume (annualized at December 2017) of 2.33 trillion guaranies (416 million dollars), revealing nominal growth of 7.8% and real growth of 4.1% (see Chart 3.2.8-b and Table 3.2.8-a).

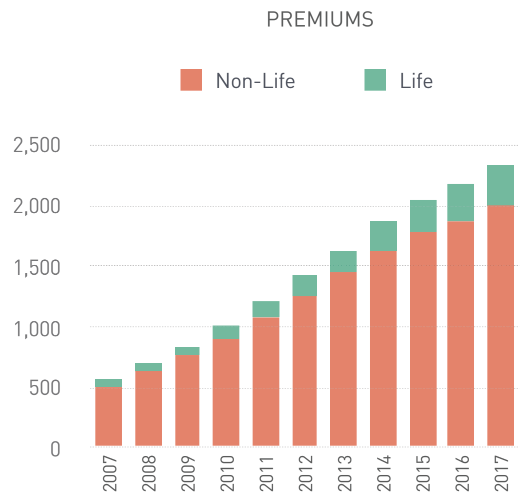
Life insurance premiums, which account for 14.2% of the total market, grew by a nominal 9.8% to 331.42 billion guaranies (59 million dollars), while Non-Life insurance premiums, which represent the remaining 85.8%, gained a nominal 7.5% to reach 2 trillion guaranies (357 million dollars). All insurance modalities reported both nominal and real growth, with the sole exception of Other damage, which was down by a nominal 3.6% (-7% in real terms). In real terms, the lines that posted the biggest growth were Miscellaneous risks (+19.7%), Personal accident (+11.1%), Surety (+10.6%) and Theft (+6%).

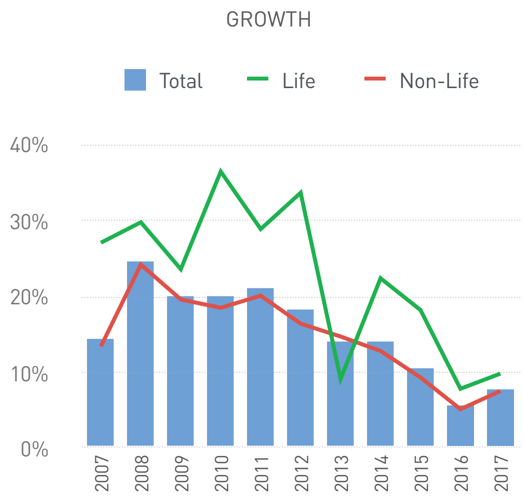
Table 3.2.8-a
Paraguay: premium volume[1] by line of business, 2017

Line of business	Millions of guaranies	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**2,338,258**	**416**	**7.8**	**4.1**
Life	**331,425**	**59**	**9.8**	**6.0**
Non-Life	**2,006,833**	**357**	**7.5**	**3.7**
Automobile	1,101,926	196	6.6	2.9
Other damages	158,027	28	-3.6	-7.0
Fire	187,588	33	6.1	2.4
Miscellaneous risks	166,539	30	24.1	19.7
Transport	89,081	16	4.4	0.7
Theft	69,869	12	9.8	6.0
Surety	88,672	16	14.6	10.6
Third-party liability	75,994	14	5.1	1.5
Personal accident	69,138	12	15.1	11.1

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)
1/ Direct premiums net of cancellations plus administrative surcharges

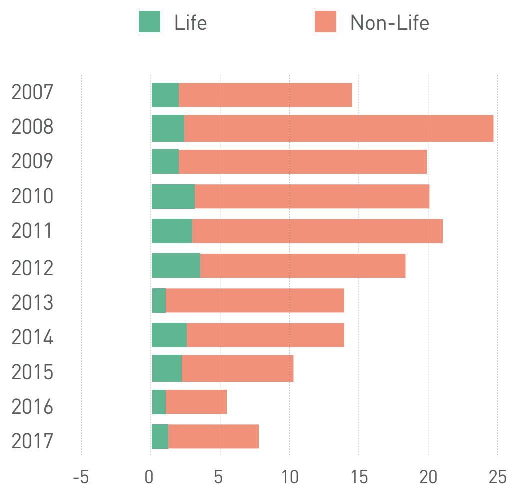
Chart 3.2.8-b
Paraguay: growth developments in the insurance market, 2007-2017
(premiums, billions of guaranies; nominal annual growth rates, percent)





Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Chart 3.2.8-c
Paraguay: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

As shown in Chart 3.2.8-c, both the Life insurance segment (+1.4 pp) and the Non-Life segment (+6.4 pp) both made a positive contribution to the nominal growth of 7.8% reported by the Paraguayan insurance market in 2017.

Balance sheet and equity

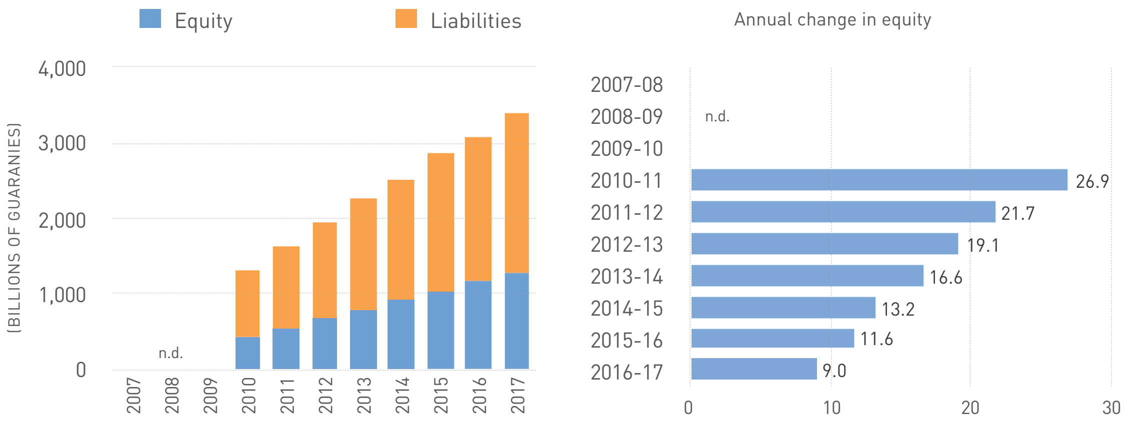
Chart 3.2.8-d shows changes in the aggregate balance sheet of the Paraguayan insurance industry between 2010 and 2017. The sector's total assets amounted to 3.38 trillion guaranies (602 million dollars) in 2017, while equity came to 1.27 trillion guaranies (226 million dollars), nearly 9 percentage points above the level observed in 2016.

Aggregate capitalization levels in the Paraguayan insurance industry remained high over the entire time series. In 2010, equity came to 32.6% of total assets, gradually climbing to 37.5% in 2017.

Investment and technical provisions

Charts 3.2.8-e and 3.2.8-f show changes in investment and technical provisions within the Paraguayan insurance industry between 2010 and

Chart 3.2.8-d
Paraguay: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)

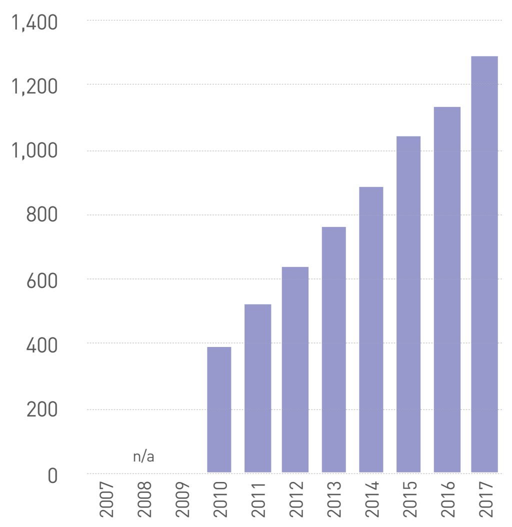


Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

2017. Investment totaled 1.29 trillion guaranies (230 million dollars) in 2017, up 14.2% on the figure reported in 2016.

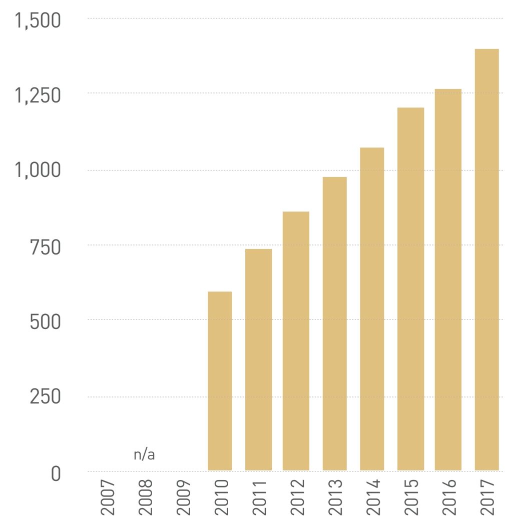
Meanwhile, technical provisions amounted to 1.39 trillion guaraníes (248 million dollars) in 2017, up 9.9% year on year. It has not been possible on the basis of available data to undertake a more detailed breakdown of the composition of investment and technical provisions.

Chart 3.2.8-e
Paraguay: insurance market investment, 2007-2017
(billions of guaranies)



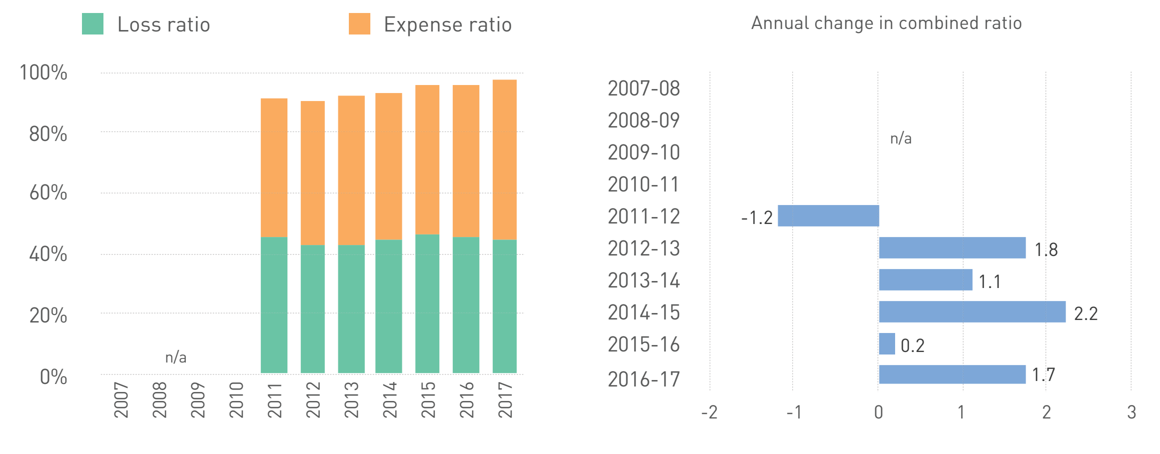
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Chart 3.2.8-f
Paraguay: technical provisions of the insurance market, 2007-2017
(billions of guaranies)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Chart 3.2.8-g
Paraguay: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Technical performance

As shown in Chart 3.2.8-g, the technical result of the Paraguayan insurance industry (with data annualized at December 2017) remains in positive territory.

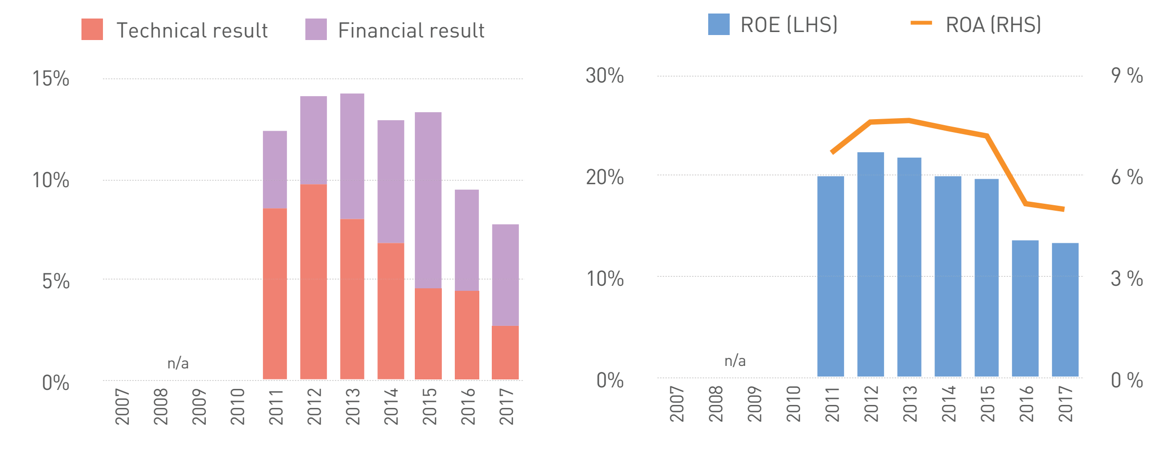
The combined ratio was 97.3% compared with 95.6% in 2016, up 1.7 percentage points largely in response to an increase of 3.3 percentage points in operating expenses, while the loss ratio improved by 1.5 percentage point.

Figures for recent years reveal a slight upward trend in the expense ratio while the loss ratio appears to have stabilized.

Results and profitability

The net result of the Paraguayan insurance business at December 2017 was 169.85 billion guaranies, up 6.5% on the previous year. Despite a poor technical showing when compared with 2016, as discussed in the previous section, the result for the period was offset by the results of

Chart 3.2.8-h
Paraguay: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

investment, which pushed up the result for the period by 6.5% in 2017 (see Chart 3.2.8-h).

Turning to profitability, the industry achieved a return on equity (ROE) of 13.4% in 2017, down 0.3 percentage points on 2016. This negative growth is down to a dilution of equity as the industry's aggregate balance sheet increases. A similar story emerges in the case of return on assets (ROA), which came to 5% in 2017, down

0.2 percentage points year on year. As in the previous case, the increase in assets was not accompanied by an increased return on those assets.

Insurance penetration, density and depth

Chart 3.2.8-j shows the main structural trends shaping the development of the insurance industry in Paraguay between 2007 and 2017. The penetration index (premiums/GDP) stood at 1.4% in 2017, the same as in 2016. As can be seen, the penetration index for the Paraguayan market grew steadily over the period under analysis but still lags behind the average absolute values of the other markets in the region.

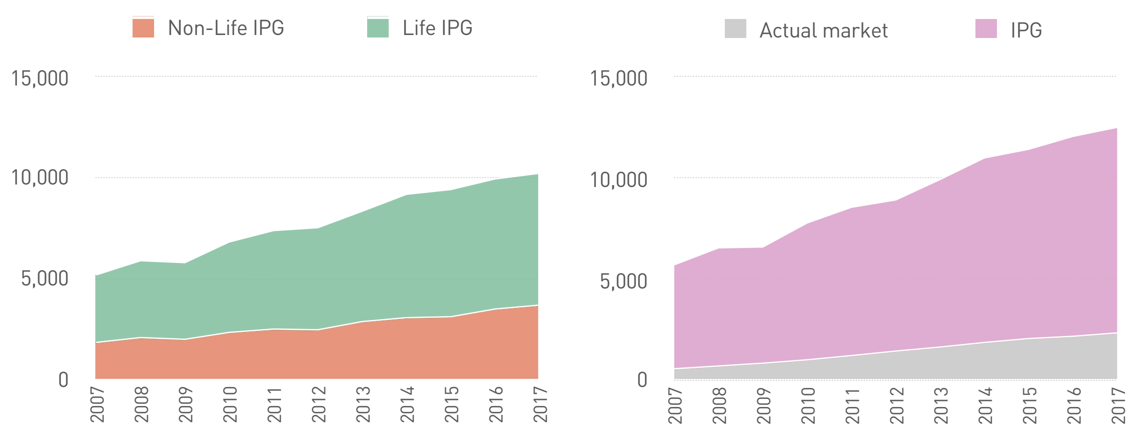
Meanwhile, insurance density in Paraguay (premiums per capita) came to 343,592 guaranies (61 dollars) in 2017, up 6.5% on the level reported in 2016 (322,610 guaranies). As with penetration, the density of the Paraguayan market (measured in local currency) steadily increased over the period under analysis, registering cumulative growth of 267.7% between 2007 and 2017.

The depth of insurance in the Paraguayan market (Life insurance premiums relative to total premiums) came to 14.2%, up 5.7 percentage points on the level registered in 2007. While the depth growth of the Paraguayan market is following the average trend seen across the wider region of Latin America, absolute levels are still well below the regional average.

Estimation of the Insurance Protection Gap

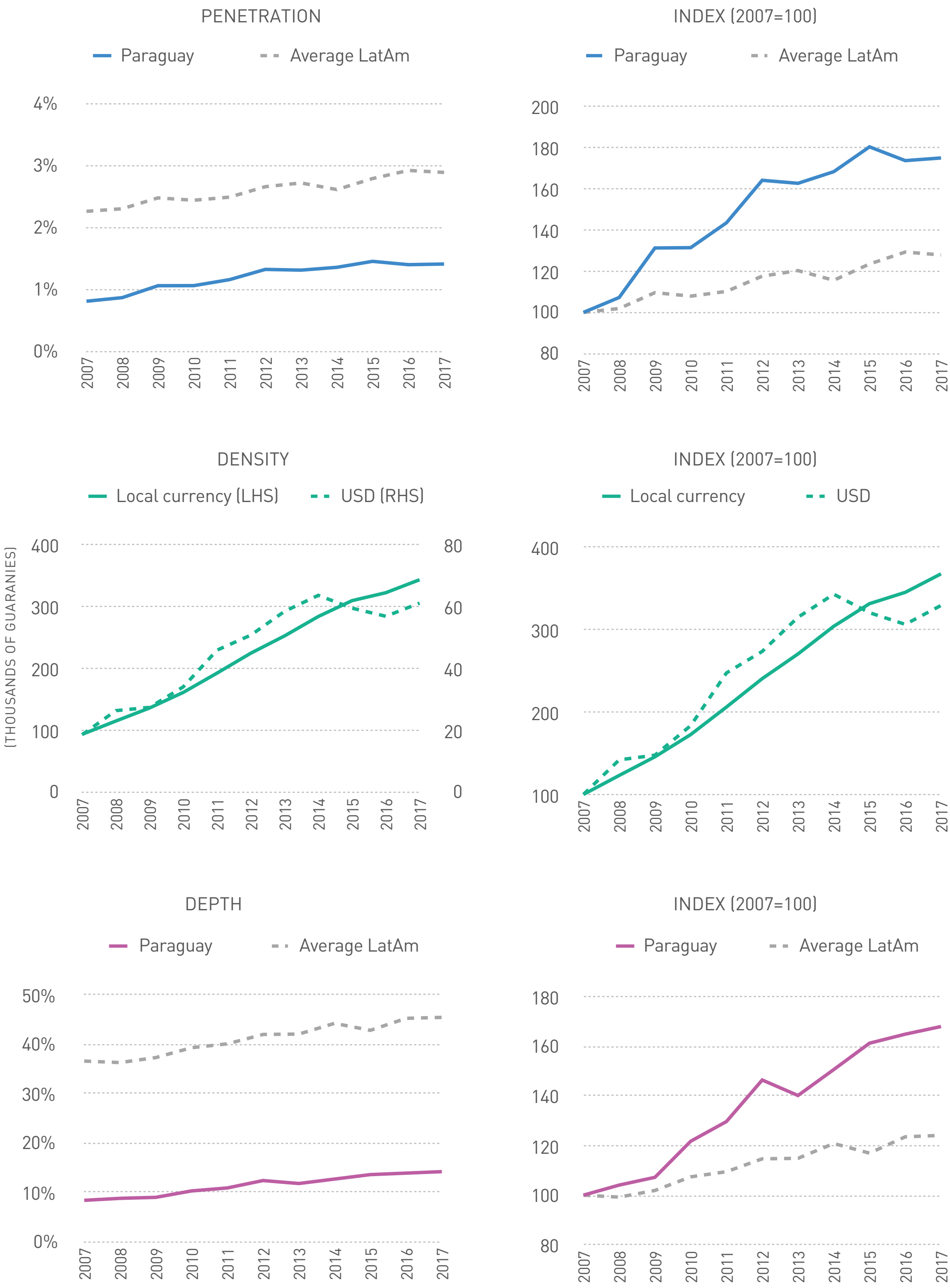
Chart 3.2.8-i provides an estimate of the IPG for the Paraguayan insurance market between 2007 and 2017. The insurance gap amounted to 10.19 trillion guaranies (1.81 billion dollars) in 2017, some 4.4 times the size of the actual insurance market in Paraguay at the end of that year. The structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. It so happens that 64.1% of the IPG was a product of Life insurance (6.53 trillion guaranies) at the end of 2017, nearly 1 percentage point less than the share of this

Chart 3.2.8-i
Paraguay: Insurance Protection Gap and potential market, 2007-2017
(billions of guaranies)



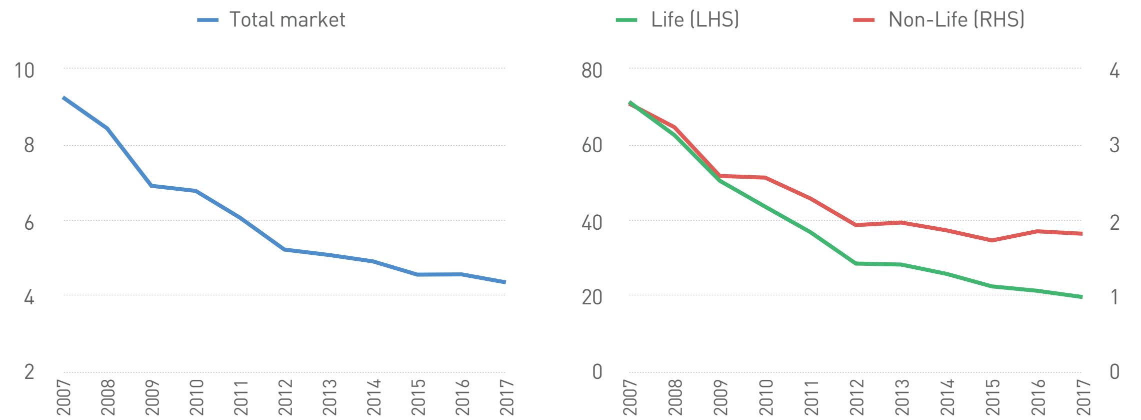
Source: MAPFRE Economic Research

Chart 3.2.8-j
Paraguay: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, guaranies and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Chart 3.2.8-k
Paraguay: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



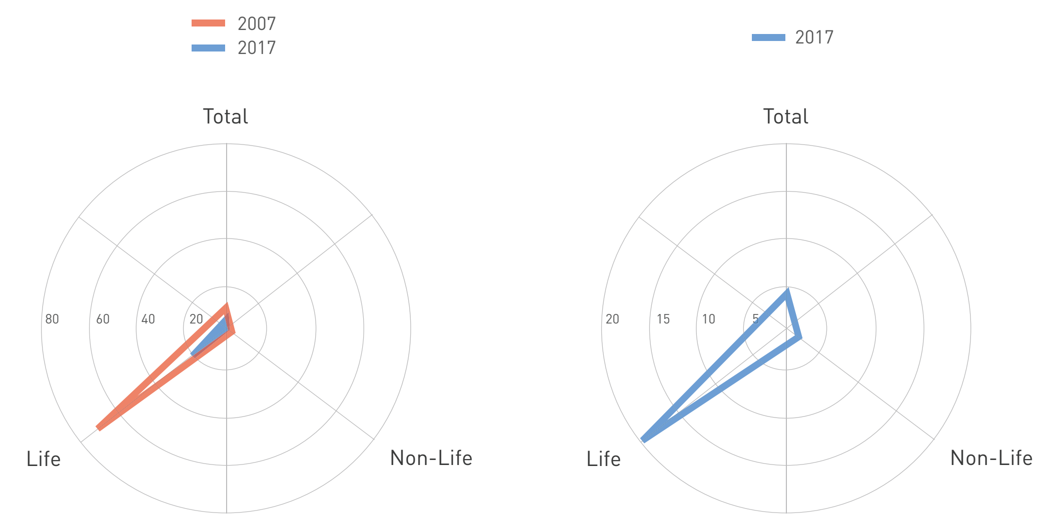
Source: MAPFRE Economic Research

segment in 2007. That means that the remaining 35.9% of the insurance gap is a product of the Non-Life insurance segment (3.65 trillion guaranies).

Accordingly, the potential insurance market in Paraguay at the close of 2017 (the sum of the actual insurance market plus the IPG) is estimated at 12.53 trillion guaranies (2.22 billion dollars), some 5.4 times the size of the total market that year.

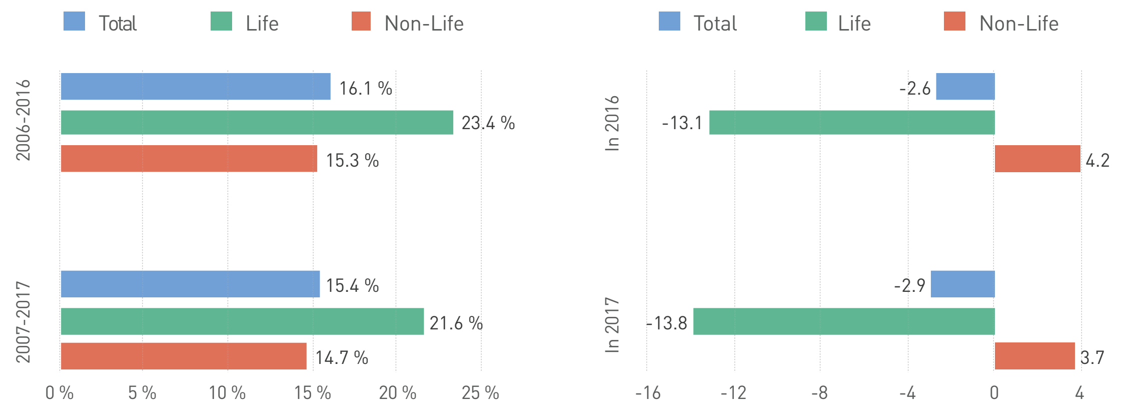
Chart 3.2.8-k provides an estimate of the IPG as a multiple of the actual insurance market in Paraguay. The insurance gap as a multiple of the market declined steadily between 2007 and 2017

Chart 3.2.8-l
Paraguay: the IPG as a multiple of the actual market, 2007 and 2017



Source: MAPFRE Economic Research

Chart 3.2.8-m
Paraguay: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

in the case of both the Life insurance segment (falling from 71.3 to 19.7 times) and the Non-Life segment (down from 3.5 to 1.8 times). To provide a further analysis, Chart 3.2.8-l shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Paraguayan insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. Our analysis reveals a substantial improvement in the Life insurance business over this period, as well as the significant relative importance of the IPG within the Life insurance business.

Lastly, Chart 3.2.8-m shows the capacity of the Paraguayan insurance market to close the insurance gap, based on a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG set for 2017 over the coming ten years. The Paraguayan insurance market registered average annual growth of 15.4% over the last ten years, comprising an annual growth rate of 21.6% in the Life insurance segment and of 14.7% in the case of Non-Life insurance. Were the rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Paraguayan insurance market would be sufficient to accomplish the objective (i.e. close the gap) but only in the case of the Non-Life insurance business. Meanwhile, for the Life insurance segment the growth rate would fall 13.8 percentage points short of closing the gap. Significantly, this shortfall has increased when compared with the reading taken in 2016.

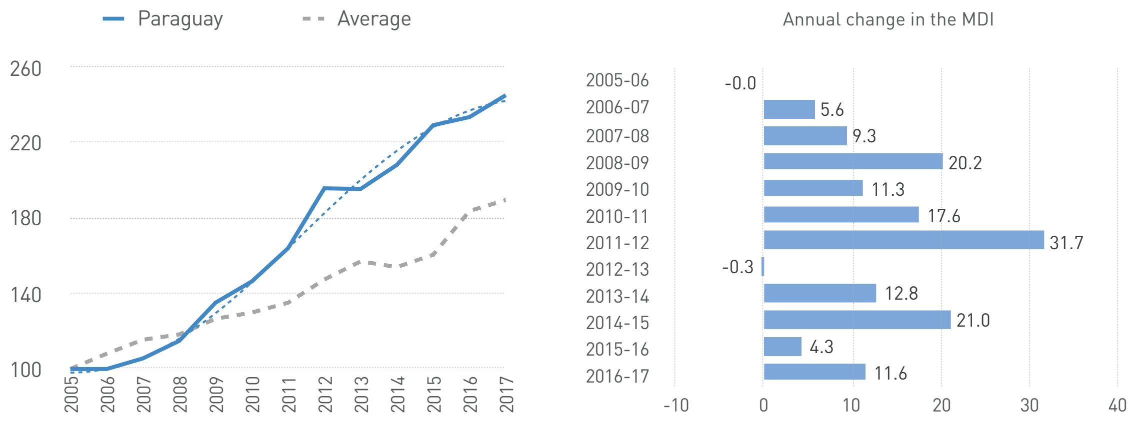
Market Development Index (MDI)

Chart 3.2.8-n provides an estimate of the Market Development Index (MDI) for the Paraguayan insurance industry. In this particular case, the MDI (which is used as an indicator of general patterns shaping the performance and maturity of insurance markets) performed positively between 2007 and 2017. The trend is for the most part above the average level observed for all Latin American insurance markets.

Comparative analysis of structural ratios

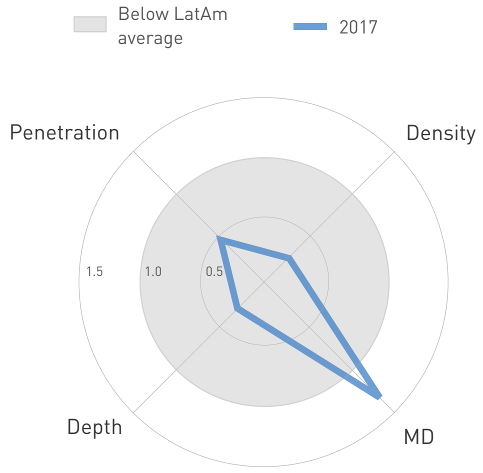
To round things off, Chart 3.2.2-o outlines the state of the Paraguayan insurance market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, all dimensions of the Paraguayan insurance market fall well short of the regional average, with the exception of the MDI, which was above the average for Latin American markets in that year.

Chart 3.2.8-n
Paraguay: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Chart 3.2.8-o
Paraguay: comparative analysis of structural ratios* vs. average for Latin America, 2017



Fuente: Servicio de Estudios de MAPFRE
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

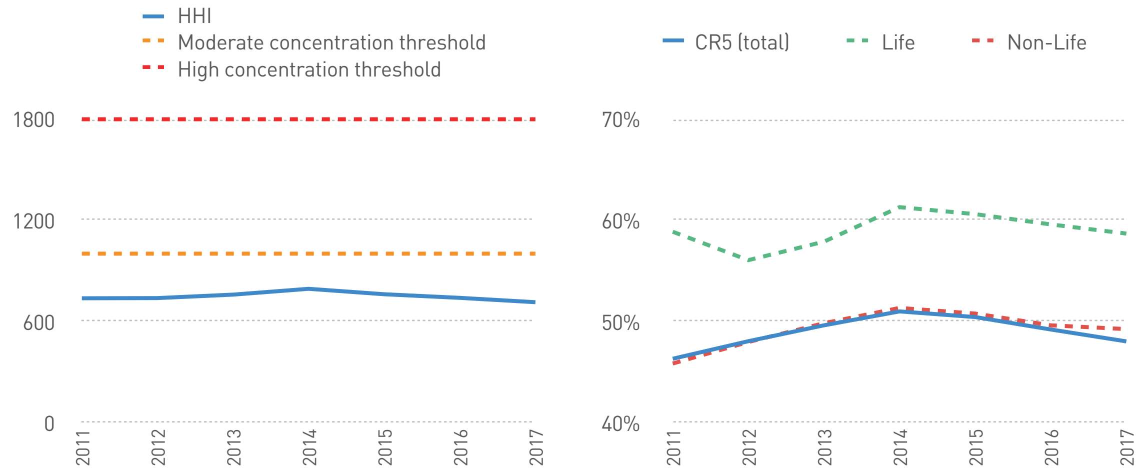
Insurance market rankings

Overall ranking

A total of 37 insurance companies were operating in Paraguay at the end of 2017. Concentration is not high within the industry. The Herfindahl index dipped again in 2017 to end the year at 711 points, compared with 737 in 2016, meaning it is below the moderate concentration threshold. The upward trend in concentration observed in the CR5 index (market share of the five largest companies) over the period appears to slow in 2015 and in 2017 the top five companies accounted for 48% of the entire market (see Chart 3.2.8-p).

Turning our attention to the 2017 overall ranking of insurance groups in Paraguay, topping the table we have MAPFRE, with a market share of 17.7%, followed some way behind by Aseguradora del Este (11.0%) and La Consolidada (9.5%). Moving out of the top three, Tajy Propiedad Cooperativa overtakes Aseguradora Yacyreta (both with a market share of 4.9%). Moving further down the table, Sancor and Seguridad overtake Patria Cenit joins the ranking, relegating Grupo General Seguros into last place (see Chart 3.2.8-q).

Chart 3.2.8-p
Paraguay: insurance industry concentration, 2011-2017
(Herfindahl index; CR5 index, percent)



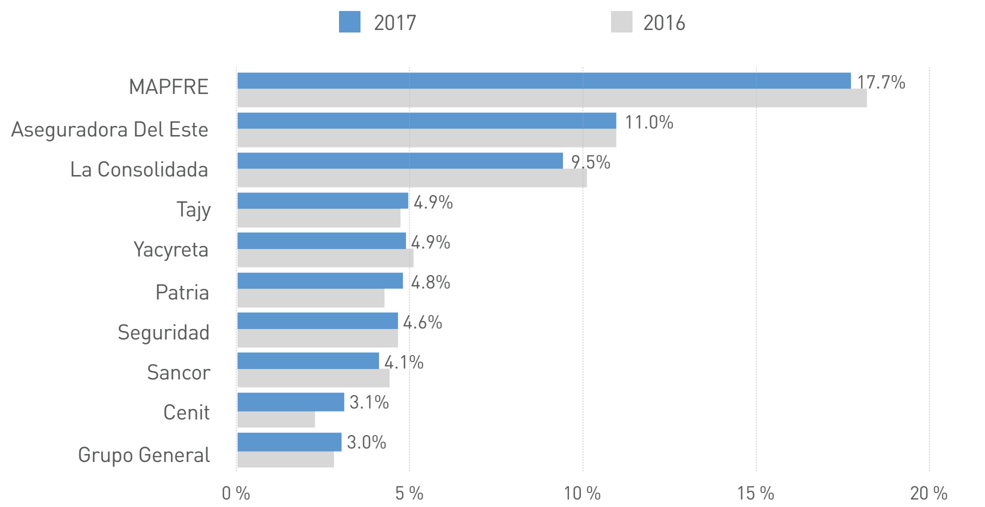
Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Life and Non-Life rankings

The 2017 Non-Life ranking tells a similar story to the 2016 ranking. MAPFRE holds on to the top spot, with 20% of total premiums, followed some distance behind by La Consolidada (9.9%), Aseguradora del Este (8.8%) and Yacyreta (5.3%).

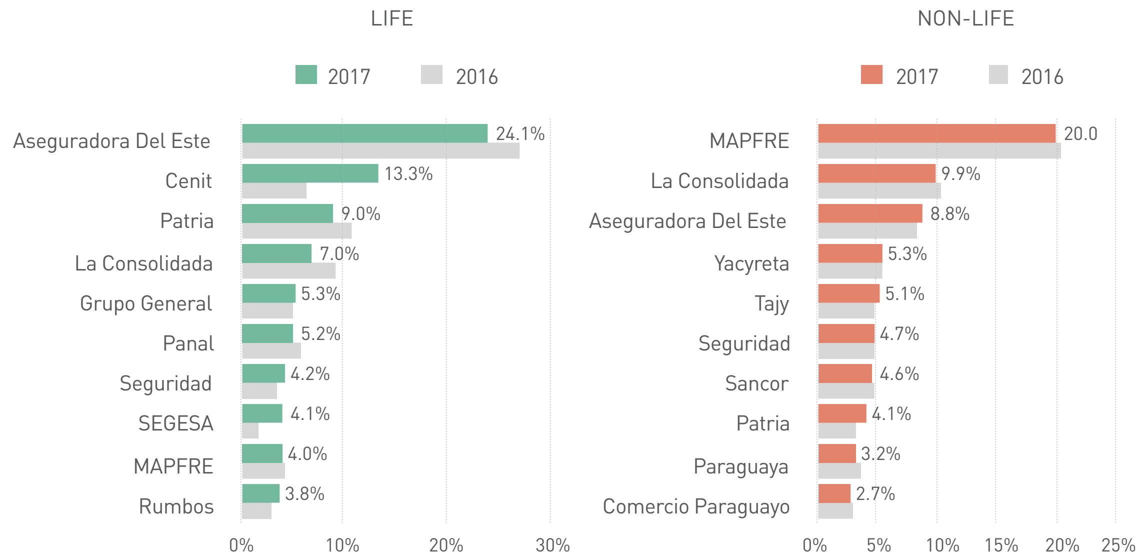
Changes were seen in the following positions: Tajy and Seguridad both climb a spot to rank fifth and sixth, respectively. In seventh position we have Sancor, which drops two places compared with 2016. Patria moves past Aseguradora Paraguaya and El Comercio remains in tenth place (see Chart 3.2.8-r).

Chart 3.2.8-q
Paraguay: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

Chart 3.2.8-r
Paraguay: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)

In the Non-Life ranking, only the top spot is unchanged, which goes to Aseguradora del Este with 24.1% of premiums, followed at a considerable distance by Cenit (13.3%), which overtakes Patria (9%) and La Consolidada (7%). Meanwhile, Grupo General takes over Panal's position and the companies Seguridad and SEGESA enter the ranking by pushing MAPFRE down into ninth place and leaving the last spot to Rumbos, which joins the ranking for the first time.

Key regulatory aspects

The regulatory framework in Paraguay is governed by the Superintendency of Insurance and underwent several changes in 2017 in many key areas, all needed in order to optimize the insurance business in the country. These changes are summarized in Table 3.2.8-b below.

Of these changes, the following are of particular note:

- The investment options of insurance companies were effectively broadened by updating the risk rating limits of issuers.
- In relation to reinsurance, a risk cession and retrocession policy is now required; reinsurance contracts must be renewed before the preceding contract expires so as to ensure unbroken coverage; and non-proportional reinsurance contracts must now include a set of minimum terms and conditions due to the numerous limitations they typically contain.
- The rules on the filing of insurance plans were also updated. Insurers are now required to present the technical terms and conditions relating to asset protection insurance plans, which must be designed and signed by experts in actuarial science or similar fields, since only highly qualified individuals are able to thoroughly understand the technical side of the insurance business.

Table 3.2.8-b
Paraguay: recent regulatory developments in the insurance industry

Regulation	Main aspects
6/30/2017 Resolution SS.SG. No. 130/2017	Amends Article 11 of the Resolution SS.SG. No. 132/2015 "System governing coverage of Technical Reserves, investment in eligible funds and corporate governance", such amendment relating to the global limit on investment in instruments that fall short of the ratings set out in the Regulation.
9/12/2017 Resolution SS.SG. No. 158/17	Amends the rules on data reporting to the Information Center of the Superintendency of Insurance, partially adjusting and modifying Resolutions SS.SG. numbers 115/06, 165/06, 173/06, 196/06 and 170/07. These amendments are intended to enhance the quality of available information for the purposes of ex situ supervision.
09/18/2017 Resolution SS.SG. No. 161/2017	Amends the forms attached to Resolution SS.SG. No. 133/15, clarifying the disclosure of data for the representation of the Guarantee Fund - Resolution SS.SG. No. 252/16.
10/27/2017 Resolution SS.SG. No. 178/17	Amends the rules on data reporting to the Accounting Unit of the Superintendency of Insurance and partially amends Resolution SS.SG. No. 166/06. These amendments are intended to enhance the quality of available information for the purposes of ex situ supervision.
10/30/2017 Resolution SS.SG. No. 179/17	Contains new rules on the management of reinsurance for insurance companies. This Resolution introduces a number of changes, notably: limitation on the probative value of confirmation slips signed by brokers; the obligation to have a "reinsurance policy" as a new feature of corporate governance; the obligation to renew reinsurance contracts before they expire; a higher rating is now needed for those reinsurers that operate under fronting arrangements with local companies; the concept of "unsecure practices" is introduced; the minimum information to be held by insurers; new internal control mechanisms; new automated information systems needed to control risk management, accumulations and excess retentions; further rules on the meaning of proportional reinsurance contracts and new requirements for non-proportional insurance (event logging); and a ban on using them for surety insurance.
11/15/2017 Resolution SS.SG. No. 135/17	Partially updates the approved Accounts Plan and Manual. These amendments are intended to enhance the quality of available information for the purposes of ex situ supervision.
12/26/2017 Resolution SS.SG. No. 209/17	Amends the rules on data reporting to the Information Center of the SIS. These amendments are intended to enhance the quality of available information for the purposes of ex situ supervision.
12/28/2017 Resolution SS.SG. No. 213/2017	Rules on the filing, revocation and renewal of registration of reinsurance companies on the register kept by the Superintendency of Insurance. This regulation makes numerous changes to the rules on the filing of reinsurers: i) rules on the filing of reinsurance firms either by the firm itself or by agents or attorneys-in-fact in the case of pools, groups, syndicates or corporations, which may be requested by any member (in the case of Lloyds syndicates); ii) new requirements regarding the documentation to be presented at the time of filing; iii) when a reinsurer is rated by more than one risk rating agency, the lowest rating will be taken. Under these new rules, reinsurance companies must, in order to filed and/or renew their registration, present a document evidencing that they possess at least one of the following international ratings: "BBB" by Standard & Poor's; or "B+" by AM Best; or "Baa" by Moody's Investors Service; or BBB by Fitch Ratings. For Lloyds of London syndicate, the group's rating will be taken. Reinsurers that have no international ranking may no longer be registered, as was permitted under the previous regulations; iv) grounds for revoking authorization have been introduced, such as when the company's rating falls below the minimum required rating, when it fails to respond to requests for information received from the Superintendency of Insurance, when it is shown to have breached obligations contained in the contracts it has signed, or when regulatory sanctions have yet to be reflected in its international rating; v) insurers are required to maintain strict control of the general status and rating of the reinsurers with which they operate, whether directly or through authorized intermediaries, so so as to ensure that corrective action is taken in the event of any change of rating that places a reinsurer outside the minimum required ranges; vi) legal requirements must be strictly observed in respect of all documentation from outside the country.
12/28/2017 Resolution SS.SG. No. 214/2017	Imposes the following new rules on reinsurance brokers: registration requirements, the duty to renew registration, obligations on reinsurance intermediaries, those that may not act as reinsurance intermediaries, minimum information to be retained by brokers and reinsurance brokers, the information to be sent to the Superintendency, prohibitions and cancellation of enrollment.
12/28/2017 Resolution SS.SG. No. 215/2017	Introduces new rules on the registration of insurance plans and the issuance of coverage instruments. The regulation clearly states that the company is responsible and liable for ensuring that registered standard policy documents comply with all pertinent legal requirements. It also defines and explains policies containing specific or special terms and conditions and insists that part of the documentation presented be made public and that another part be for for the exclusive use of the Superintendency. It also introduces a mortality table and contains detailed provisions on the information to be included in the insurance plans presented the standard policy documents.

Source: Superintendency of Insurance, Central Bank of Paraguay.

3.2.9 Argentina

Macroeconomic environment

The Argentine economy posted 2.8% GDP growth in 2017, having retreated

1.7% a year earlier. This recovery was a product of both domestic support factors —increased consumption and investment— and external growth drivers, mainly a rallying export sector (see Chart 3.2.9-a).

The current account deficit expanded in 2017 to reach 4.8% of GDP (2.7% in 2016). High levels of external debt and currency pressures in real terms continue to undermine the country's deficit. The inflation rate (calculated by the City of Buenos Aires and published by the National Institute of Statistics and Census as an Alternative CPI) stood at 25.7%. Meanwhile, the labor market showed an improvement, with unemployment falling to 7.2%. Fiscal policy remained expansionary in 2017 in response to rising public spending in real terms. The fiscal deficit came to 5.8% of GDP (5.7% in 2016), while gross public debt accounted for 53.3% of GDP at the end of 2017 (51.9% in 2016). As in previous years, the government resorted to external financing in a bid to cover both deficits, leaving the economy exposed to changes in international borrowing conditions as monetary policy returns to normal.

In this context, MAPFRE Economic Research expects the Argentine economy to post 1.3% growth in 2018, while the IMF predicts growth of between 1.9% and 2.0%.

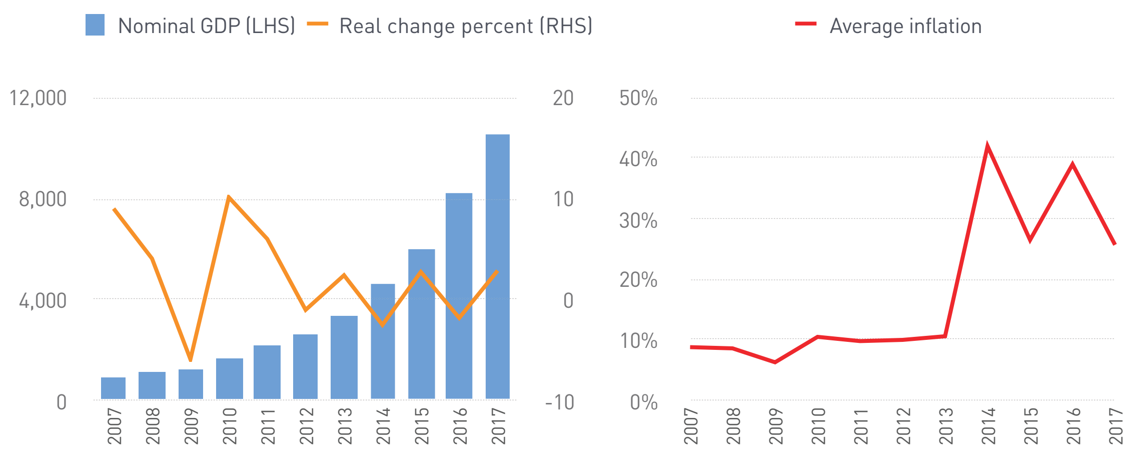
Insurance market

Growth

The Argentine insurance market achieved a premium volume (annualized at December 2017) of 302.31 billion pesos (18.25 billion dollars), up 24.1% in nominal terms but down 1.3% in real terms when compared with the same period of the previous year (see Table 3.2.9 and Chart 3.2.9-b).

Life insurance premiums, which account for 14.1% of the total market, were up 12.1% in nominal terms but down 10.8% in real terms, reaching 42.57 billion pesos (2.57 billion dollars). All Life insurance modalities experienced nominal increases, led by Retirement, which was the only line to report a real increase in premiums of 5.9%.

Chart 3.2.9-a
Argentina: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



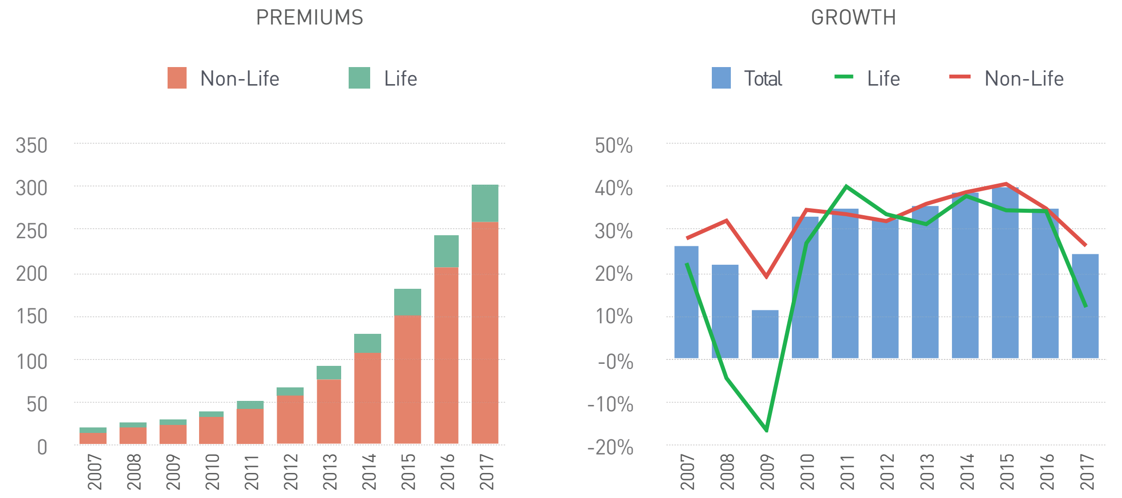
Source: MAPFRE Economic Research (based on IMF and OEF data)

Table 3.2.9
Argentina: premium volume[1] by line of business, 2017

Line of business	Millions of pesos	Millions of USD	Increase	
			Nominal (%)	Real (%)
Total	**302,312**	**18,253**	**24.1**	**-1.3**
Life	**42,577**	**2,571**	**12.1**	**-10.8**
Group Life	29,503	1,781	6.3	-15.4
Individual Life	7,840	473	24.4	-1.0
Retirement	5,235	316	33.1	5.9
Non-Life	**259,734**	**15,683**	**26.3**	**0.5**
Automobile	112,175	6,773	26.9	0.9
Other damages	14,955	903	33.6	6.3
Fire	9,103	550	5.8	-15.8
Family combined	12,940	781	32.6	5.5
Agricultural insurance	3,831	231	3.5	-17.6
Personal accident	7,012	423	33.4	6.2
Third-party liability	4,272	258	27.3	1.3
Transport	3,623	219	12.4	-10.6
Credit and surety	3,807	230	18.6	-5.6
Health	666	40	31.4	4.5
Workplace accidents	87,352	5,274	27.7	1.6

Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)
1/ Premiums and surcharges issued

Chart 3.2.9-b
Argentina: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)



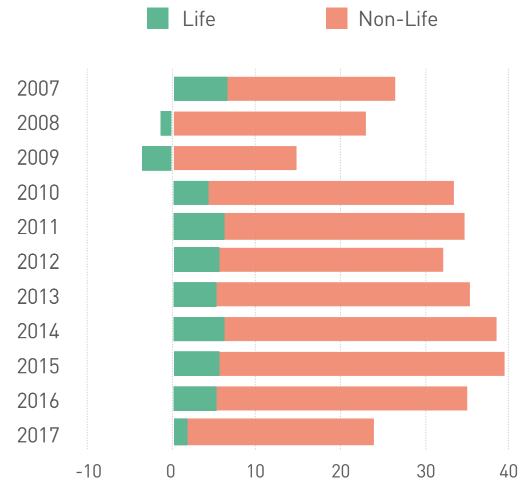
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Non-Life insurance premiums, which account for 85.9% of the market, were up 26.3% in nominal terms (+0.5 in real terms) to reach 259.73 billion pesos (15.68 billion dollars). All lines registered positive growth in 2017, though Agricultural insurance (-17.6%), Fire (-15.8%), Transport

(-10.6%) and Credit and surety (-5.6%) were down in real terms.

Of the nominal 24.1% growth registered by the Argentine insurance market in 2017, the Life insurance segment contributed a positive 1.9 percentage points, while Non-Life insurance contributed an impressive 22.2 percentage points (see Chart 3.2.9-c).

Chart 3.2.9-c
Argentina: contribution to insurance market growth, 2007-2017
(percentage points, pp)



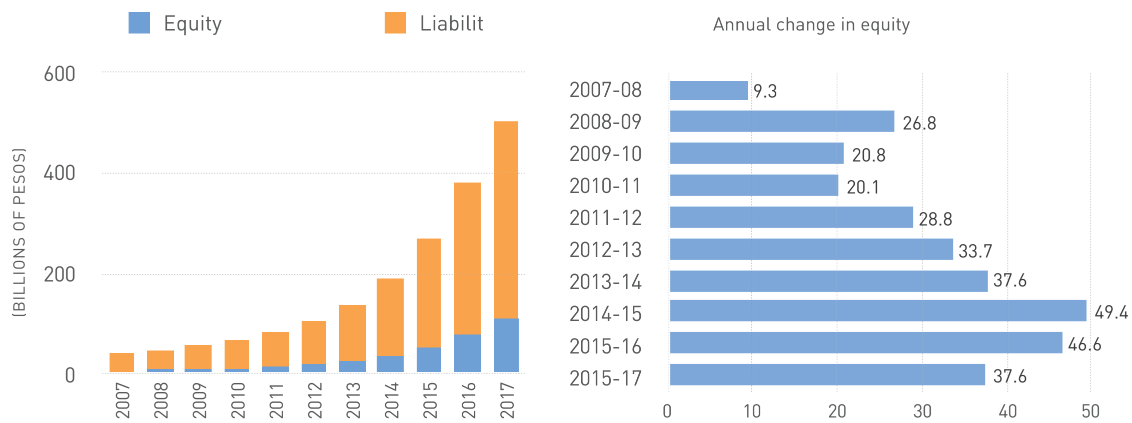
FSource: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Balance sheet and equity

Chart 3.2.9-d shows changes in the aggregate balance sheet of the Argentine insurance industry between 2007 and 2017. As can be seen, assets totaled 502 billion pesos (30.31 billion dollars), while equity stood at 111.39 billion pesos (6.72 billion dollars), up 37.6 percentage points on the previous year.

The Argentine insurance industry reported a capitalization level (measured as a percentage of total assets) of roughly 20% between 2007 and 2017, while the highest value in the time series came in 2017, when capitalization reached 22.2% of total assets.

Chart 3.2.9-d
Argentina: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



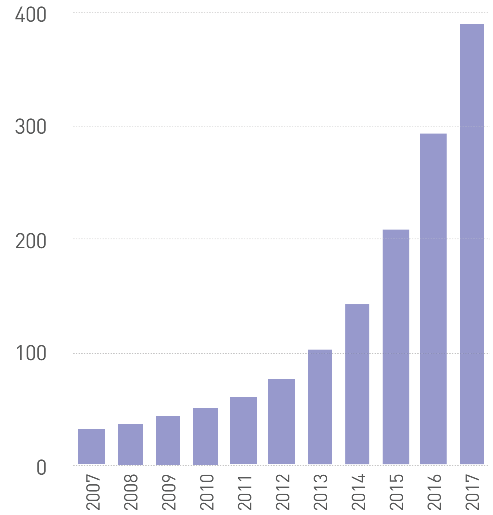
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Investment

Charts 3.2.9-e, 3.2.9-f and 3.2.9-g show the performance, structure and composition of the aggregate investment portfolio at sector level for the Argentine insurance industry between 2007 and 2017. In the last year of the period now under analysis, investment totaled 390.92 billion pesos (23.60 billion dollars), concentrated in fixed income (65.2%), mutual funds (24%), and, to a significantly smaller proportion, equity instruments (6.9%).

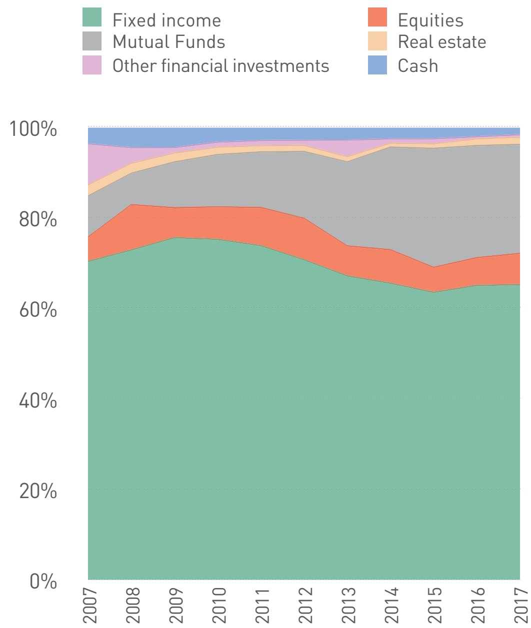
Our analysis of the aggregate investment portfolio reveals a gradual increase in investment managed through mutual funds, the relative value of which grew from 2008 onward, climbing from 10% of total investment in that year to 26.2% by the end of 2015. However, in 2016 and 2017 the percentage of investment in mutual funds dropped by 2.2 percentage points, with the correlative increase seen mainly in fixed income.

Chart 3.2.9-e
Argentina: insurance market investment, 2007-2017
(billions of pesos)



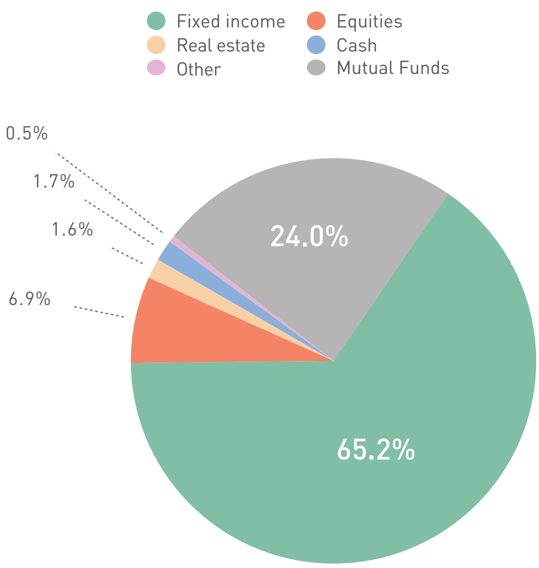
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-f
Argentina: structure of investment, 2007-2017
(%)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-g
Argentina: structure of investment, 2017 (%)
(%)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Technical provisions

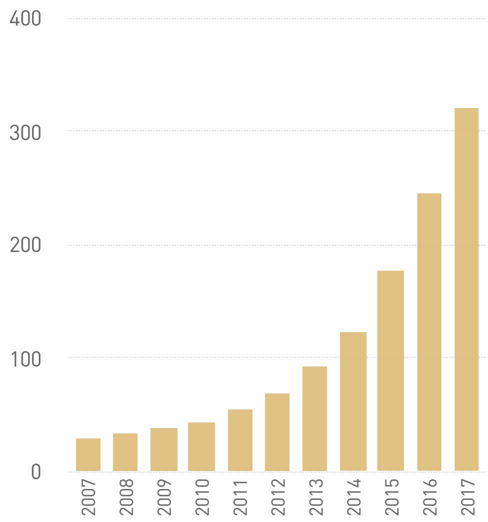
Charts 3.2.9-h, 3.2.9-i and 3.2.9-j show the performance and relative structure of technical provisions in the Argentine insurance industry. Technical provisions amounted to 321.40 billion pesos (19.40 billion dollars) in 2017. Of the total provisions, 27.6% related to Life insurance, 12.7% to provisions for unearned premiums and unexpired risks in Non-Life insurance and 59.7% to the provision for outstanding benefits.

As shown in Chart 3.2.9-i, Life insurance provisions experienced a significant relative loss of weight between 2008 and 2017, falling from 51.3% of total provisions in 2008 to 27.6% in 2017.

Technical performance

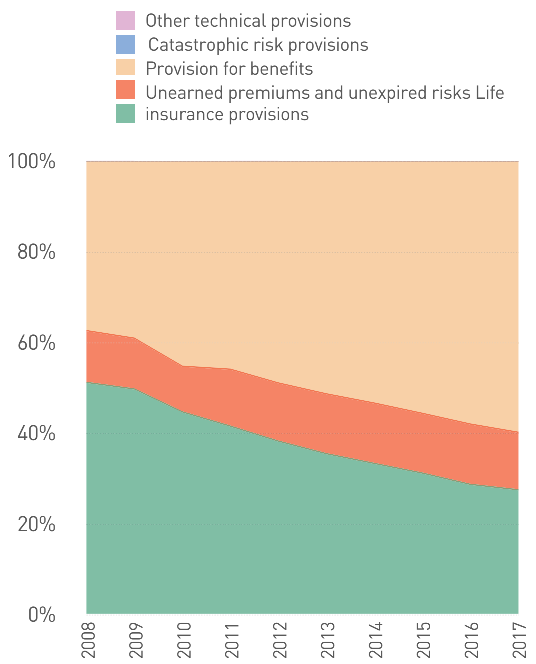
Once again, the Argentine insurance industry ended the year with a negative technical result. The combined ratio came to 109.7%, down 8.2 percentage points on the previous year. The expense ratio fell 1.6 percentage points while the loss ratio saw a -6.7 percentage point improvement, both making a positive contribution

Chart 3.2.9-h
Argentina: technical provisions of the insurance market, 2007-2017
(billions of pesos)



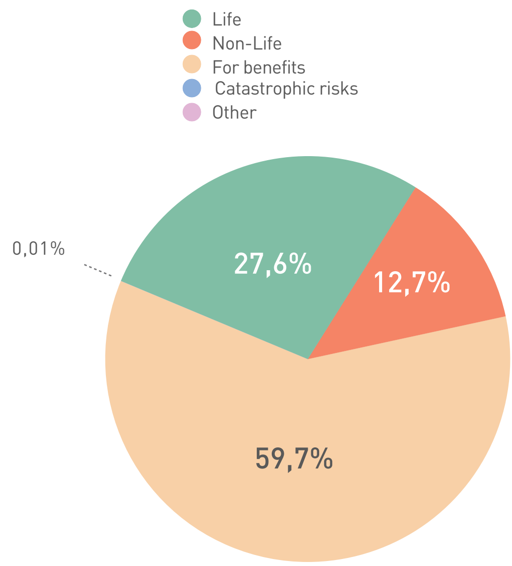
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-i
Argentina: structure of technical provisions, 2008-2017
(%)



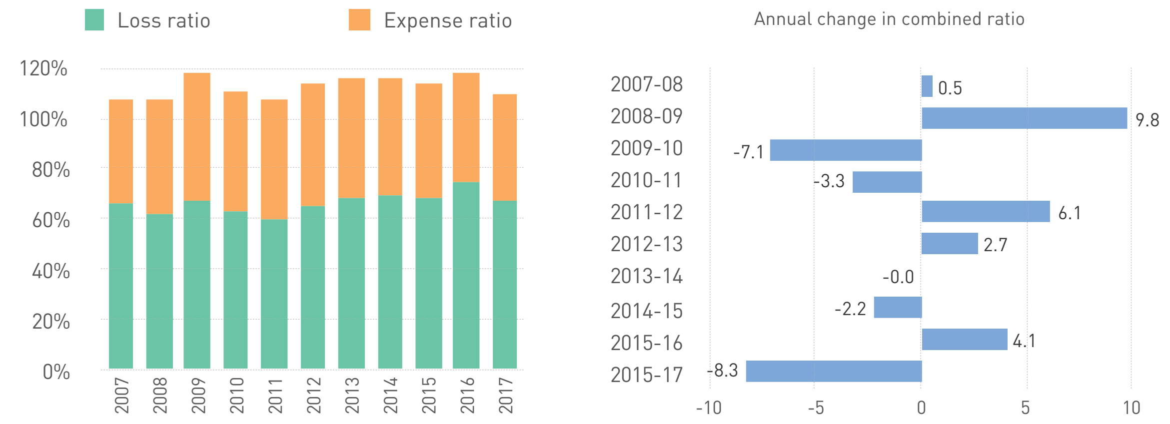
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-j
Argentina: structure of technical provisions, 2017
(%)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-k
Argentina: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

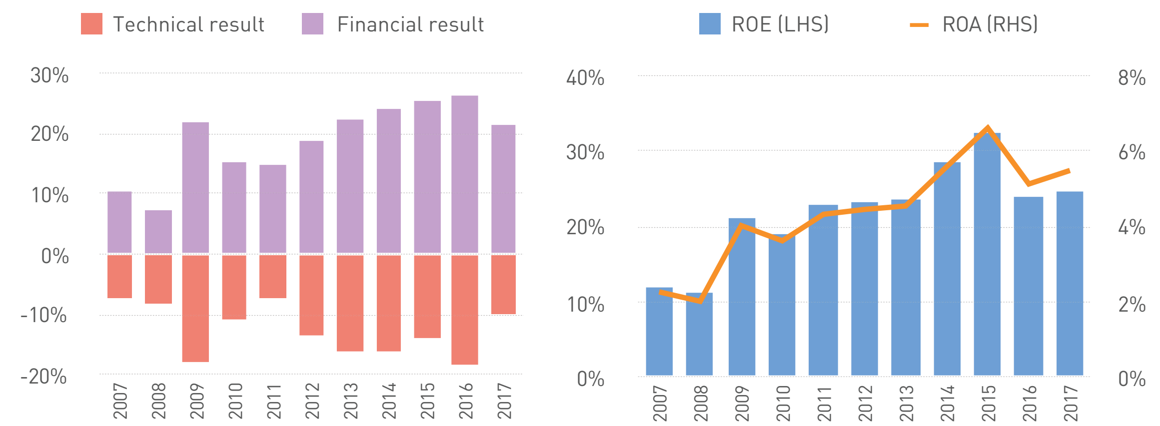
to the industry's technical performance, which still remains above 100% (see Chart 3.2.9-k).

Results and profitability

The Argentine insurance industry posted a net result (with data annualized at December) of 27.55 billion pesos (1.66 billion dollars), revealing a nominal increase of 41.4% when compared with the previous year. This was due to the positive effect of the financial result and an improved technical performance, as discussed in the previous section.

Turning to profitability, the industry achieved a return on equity (ROE) of 24.7% in 2017, up 0.7 percentage points year on year. In a similar vein, return on assets (ROA) amounted to 5.5%

Chart 3.2.9-l
Argentina: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

in 2017, up 0.4 percentage points on 2016 (see Chart 3.2.9-l).

Insurance penetration, density and depth

Chart 3.2.9-m shows the main structural trends shaping the development of the insurance industry in Argentina between 2007 and 2017. The penetration index (premiums/GDP) stood at 2.9% in 2017. The indicator grew steadily from 2008, in line with the wider trend observed across Latin America, only to lose ground in 2016 and 2017.

As mentioned previously in this report, the production cycle in the insurance industry is inverted in the sense that product prices are fixed not on the basis of an incurred cost but on the basis of a cost estimated to be incurred in the future. The most important component of this future cost is the loss ratio, which (particularly for Non-Life insurance) is strongly pegged to general prices within the economy. Accordingly, penetration is estimated by comparing the expected cost for the following year with the flow of production in the economy in the current year, which in high-inflation scenarios can lead to an overestimation of the indicator. Consequently, it would be wise to continue evaluating the behavior of the penetration index for the Argentine market in the coming years so as to determine whether the trend we have been observing so far continues once the general prices in the wider economy have stabilized, or to confirm that the increased penetration observed during part of the period now under analysis is an effect determined by the increase in prices one year in expectation of a rise in prices the following year.

Insurance density (premiums per capita) amounted to 6,852 pesos (414 dollars) in 2017, up 22.9% on the value reported in 2016 (5,573 pesos). As in the case of penetration, density has followed an upward path over the last ten years. Its cumulative growth in local currency terms is influenced by general price patterns, although it has shown now sign of slowing in recent years.

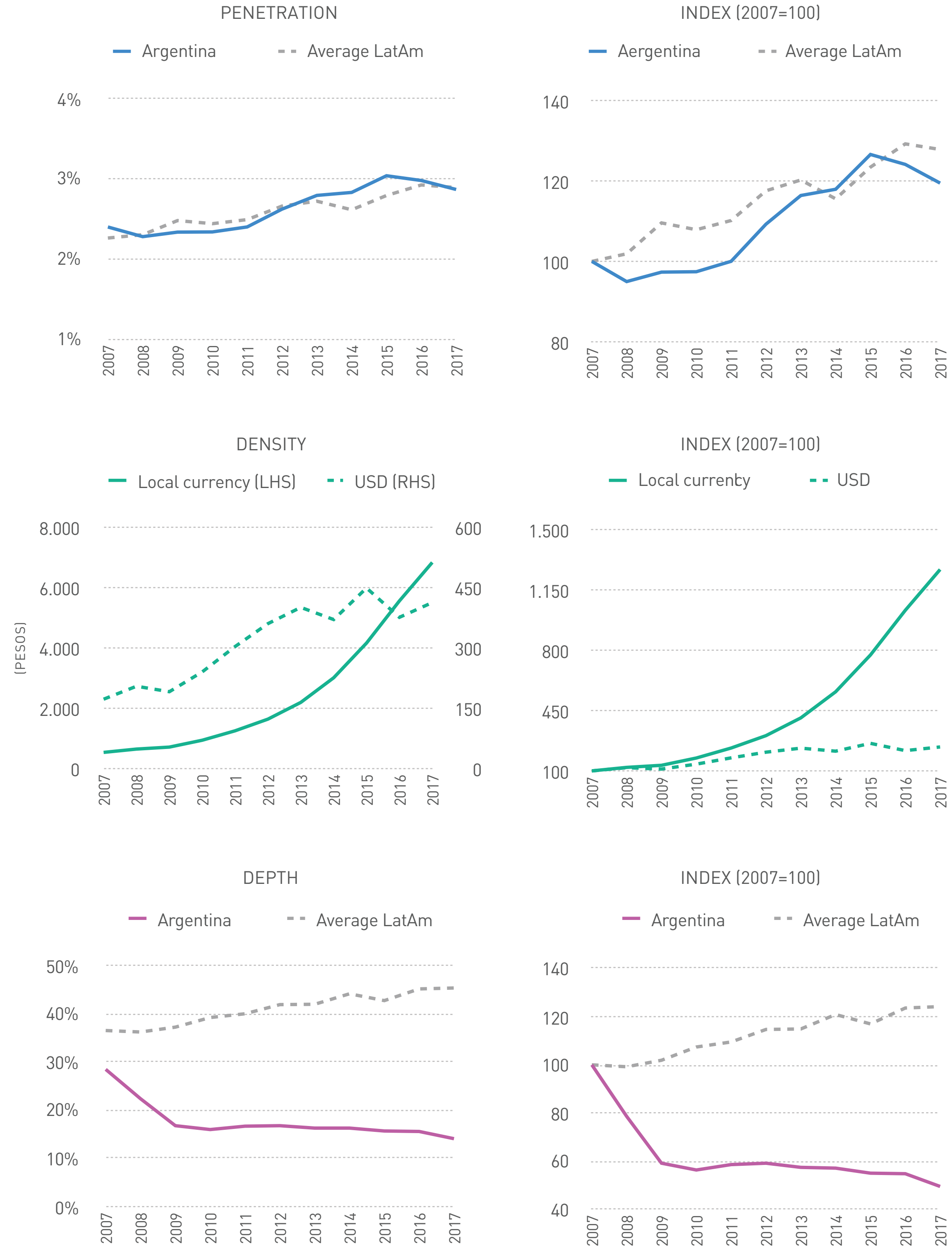
Turning our attention to depth (Life insurance premiums to total premiums), the indicator for 2017 came to 14.1%, 14.4 percentage points below the value observed in 2007. In this case, the Argentine insurance market diverges considerably from the average values observed across Latin America, illustrating the impairment of the Life insurance segment.

Estimation of the Insurance Protection Gap

Chart 3.2.9-n provides an estimate of the IPG for the Argentine insurance market between 2007 and 2017. The gap came to 492,94 billion pesos (29.67 billion dollars) in 2017, equivalent to 1.6 times the size of the actual insurance market at the end of that year. Life insurance was the key segment shaping the structure and performance of the IPG between 2007 and 2017. In 2007, 72.1% of the IPG was a product of Life insurance, equivalent to 37.73 billion pesos. However, in 2017 this percentage rose to 79.8% (393.27 billion pesos). By contrast, the contribution of Non-Life insurance to the IPG fell from 27.9% to 20.2% over the period (moving from 14.59 billion pesos to 99.67 billion pesos). Thus, the potential insurance market in Argentina in 2017 (sum of the actual market plus the IPG) is estimated at 795.26 billion pesos (48.01 billion dollars), some 2.6 times the size of the total insurance market that year.

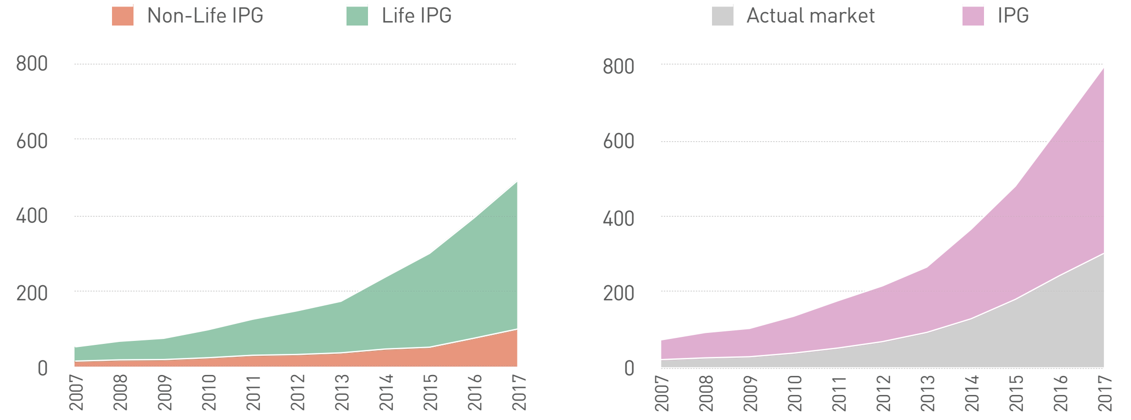
Chart 3.2.9-o provides an estimation of the IPG as a multiple of the actual market in each year. As explained previously, this comparison allows us to gauge trends and patterns in the gap. As a multiple of the real market, the IPG for the Argentine insurance industry has largely followed a downward trend over the last ten years, both for the overall market (falling from 2.4 to 1.6 times) and for the Non-Life segment (from 0.9 to 0.4 times). However, the trend is reversed in the case of the Life insurance segment, where the gap rose from 6.2 to 9.2 times between 2007 and 2017.

Chart 3.2.9-m
Argentina: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD; Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Chart 3.2.9-n
Argentina: Insurance Protection Gap and potential market, 2007-2017
(billions of pesos)



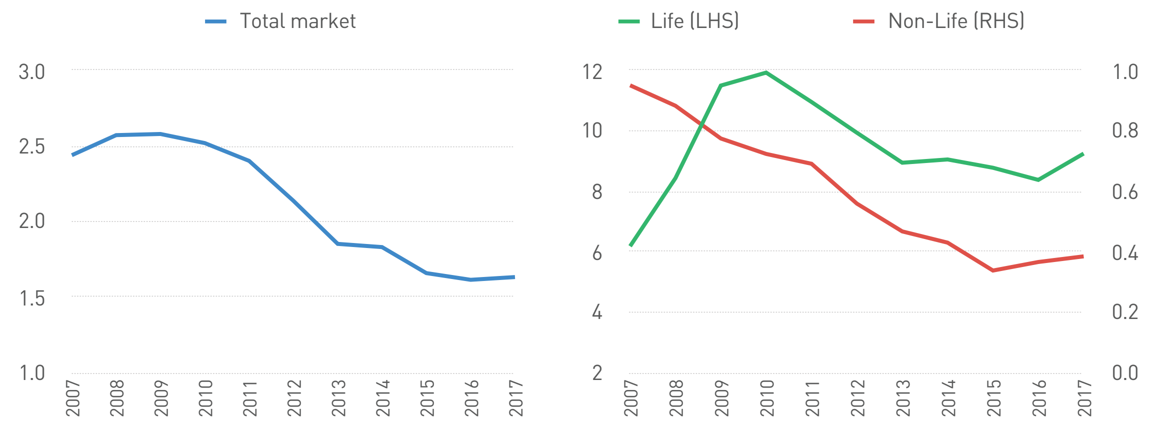
Source: MAPFRE Economic Research

Chart 3.2.9-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Argentine insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. As can be seen, only the Non-Life insurance business saw an improvement over the period, while the gap in the Life segment has grown over the last ten years.

Lastly, Chart 3.2.9-q outlines the capacity of the Argentine insurance market to close the gap, based on a comparative analysis between the growth rates observed in the market over the last ten years and the growth rates that would be needed in order to close the IPG calculated for 2017 over the coming ten years.

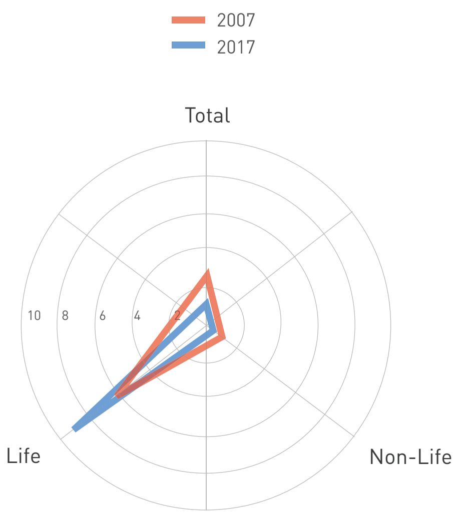
The Argentine insurance market posted average annual growth of 30.3% between 2007 and 2017. This was underpinned by average growth of 21.4% in the Life insurance segment, and of 32.7% in the Non-Life segment. Where this growth rate to continue over the next ten years, the growth rate for the total market would prove sufficient

Chart 3.2.9-o
Argentina: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.9-p
Argentina: the IPG as a multiple of the actual market, 2007 and 2017



Fuente: Servicio de Estudios de MAPFRE

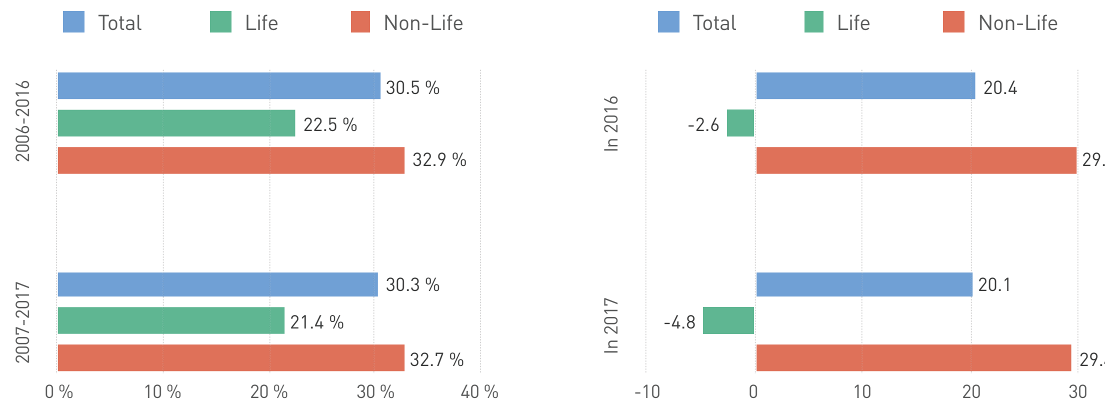
to close the IPG established in 2017 for the Non-Life segment. However, the Argentine insurance market would require an annual growth rate of 26.2% (4.8 percentage points higher than the value observed over the last ten years) over the next ten years in order to close the IPG estimated in 2017 in the case of the Life insurance segment. However, it is important to bear in mind that annual growth rates have been heavily influenced by the inflation rates observed in the Argentine economy over the period, meaning in any case that the effort needed to close the insurance gaps is an underestimate.

Market Development Index (MDI)

Chart 3.2.9-r provides an estimation of the Market Development Index (MDI) for the Argentine insurance industry. The aim of the MDI is to summarize trends shaping the performance and maturity of insurance markets.

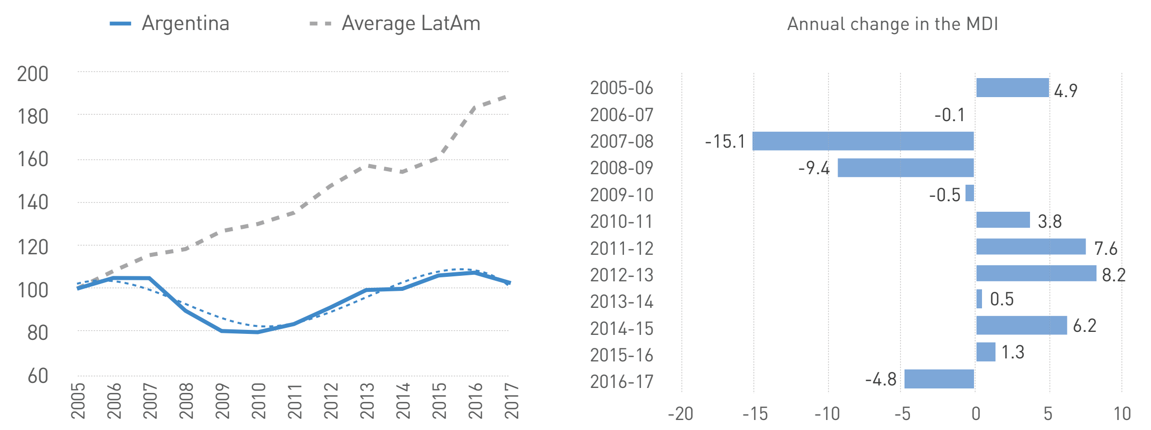
In the case of the Argentine insurance industry, the indicator diverges considerably from the pattern observed across Latin America as a whole. The MDI started falling in 2007 but returned to its reference value in recent years, only to fall again in 2017; a behavior strongly determined by the trends indicated above in relation to the performance of the Life insurance segment

Chart 3.2.9-q
Argentina: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.2.9-r
Argentina: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)

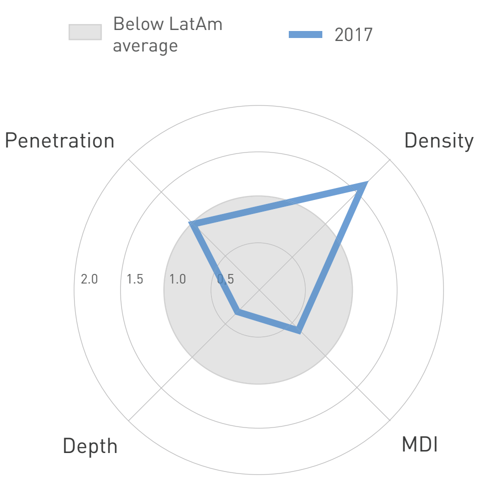


Source: MAPFRE Economic Research

Comparative analysis of structural ratios

Chart 3.2.9-s outlines the state of the Argentine market when compared with the average for Latin America, measured in terms of the various structural indicators featured in this report. It shows that both the MDI and depth are well below the regional average, while penetration is on par and density comes in above the average.

Chart 3.2.9-s
Argentina: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

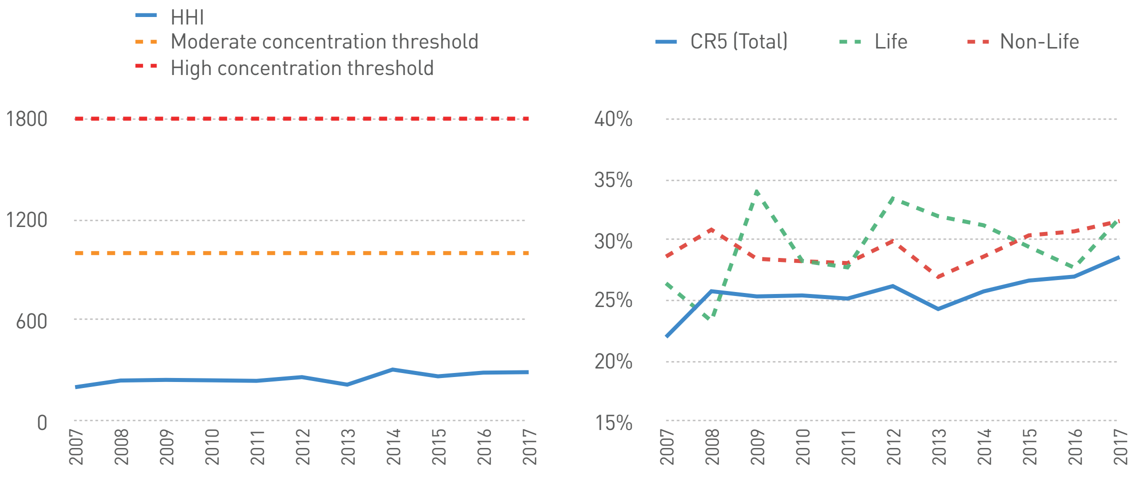
Insurance market rankings

Overall ranking

A total of 183 insurance companies were operating in Argentina in 2017. The Herfindahl and CR5 (market share of the five largest insurance companies operating in the market) indexes show a low degree of concentration, albeit with a slight upturn from 2007 and growing steeper from 2013 onwards (see Chart 3.2.9-t).

In the overall ranking of the largest insurance groups operating in Argentina in 2017, the top five is unchanged when compared with the previous year, with Sancor (10.2%), Provincia (8.2%) and Federación Patronal (7.3%) leading the ranking (see Chart 3.2.9-p). They are followed by Caja Seguros and San Cristóbal, on 5.9% and 5.4%, respectively. All the other positions are similar to those seen in 2016. Moving into the bottom half of the table, Segunda overtakes Galeno and Werthein, while Nación joins the ranking at the expense of Allianz.

Chart 3.2.9-t
Argentina: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



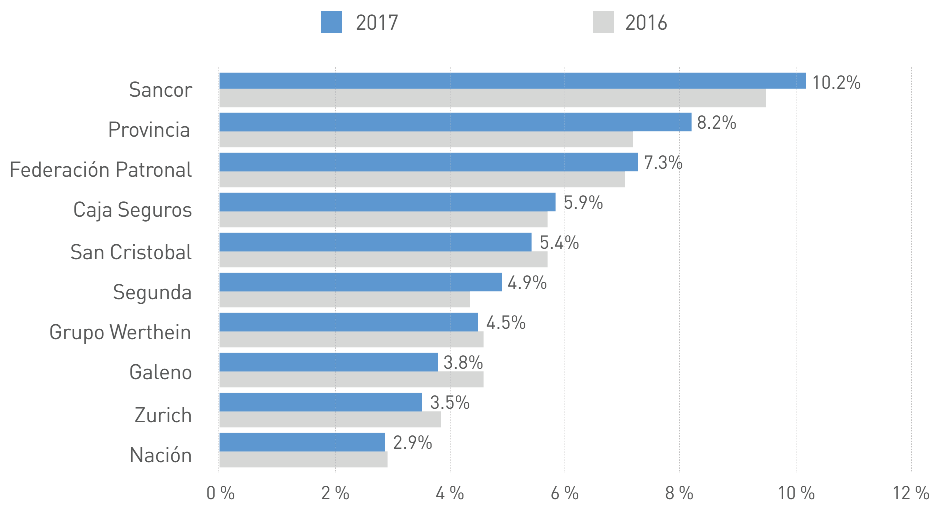
Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Non-Life and Life rankings

Given the importance of Non-Life insurance in Argentina, the companies featured in the 2017 Non-Life ranking are practically the same as those appearing in the overall ranking (see Chart 3.2.9-v). Sancor tops the table with 11.3% of total market premiums, followed by Provincia (8.4%) and Federación Patronal (8.3%), which swap places when compared with the 2016 ranking. All the other positions are unchanged, apart from Rivadavia, which overtakes Allianz at the bottom of the table.

Moving to the Life ranking, Zurich tops the table with 8.7% of premiums, followed by Werthein

Chart 3.2.9-u
Argentina: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

Box 3.2.9
Argentina: changes to the Occupational Risks Act

Financial inclusion in insurance

Since the enactment of the first ever legislation governing workplace accidents and work-related illnesses (Act 9688) in Argentina, numerous amendments have been made to a flawed system that has often seen high levels of litigation. That Act remained in effect until Act 24557 on Occupational Risks was passed in September 1995. The new law took effect on July 1, 1996, marking the start of a system of occupational risks based on social security, in line with the criteria of the International Labor Organization (ILO) and following a similar approach to countries such as United States, Spain, France, Chile and Colombia.

The Act requires all employers with workers who fall under the protection of the Act to take out an occupational risk insurance policy. They may self-insure provided they are able to show sufficient economic and financial solvency to pay out in the event of a claim. With the exception of the auto insurance system, management of insurance benefits and other actions envisioned in the Act is placed in the hands of private law companies known as Occupational Risk Insurers (ORIs), which must be pre-authorized by the Superintendency of Occupational Risks and by the National Superintendency of Insurance. These insurers are also entrusted with drawing up the workplace accident prevention plans and strategies to be implemented at the companies.

The new Act has brought with it significant benefits for workers and employers alike since its entry into force (such as improving coverage of the different occupational contingencies that can arise; providing clearer foresight of the labor costs to be met by employers; and leading to a reduction in work-related claims), yet on the subject of lawsuits and following several years of relative calm, several recent judgments of the Supreme Court of Justice have introduced changes to the functioning of the system and have once again opened the floodgates to claimants.

Plaintiffs are now able to pursue civil action to obtain compensation for injury sustained at work and workers can make claims before the ORIs and also before the courts after suffering a workplace accident.

Since its enactment in 1995, the Act has undergone various amendments with the main aim of improving the system and circumventing the problem of the numerous claims being brought before the courts. The first of these was Decree No. 1278/2000, which made a number of improvements to the benefits awarded to injured workers, since this was one of the most highly criticized aspects of the Act.

However, the amendment proved insufficient and in response to various rulings by the Supreme Court on the unconstitutionality of certain provisions of the Act, the executive issued a further set of regulations amending the Occupational Risk Prevention Act in the form of Decree 1694/2009, with which it aims to overcome the drawbacks of the system, based on the guidance contained in those judgments, the opinions of published experts and a review of the needs of the various players involved in the labor relations system, with the ultimate aim of achieving a broad consensus. The Decree increases the amount of monetary benefits paid out for permanent disability for work and death, while updating the additional lump-sum monetary compensation by removing the caps on compensation for all cases and establishing tiers below which the indemnity will not be recognized. It also creates a Register of Medical Health Care Providers.

Further down the line, Act 26773 was enacted in October 2012, on the system governing redress for injury deriving from workplace accidents and work-related illnesses". Article 1 lists the various provisions regulating redress for workplace accidents and work-related illnesses: "redress system means all elements contained in this Act, in Occupational Risks Act 24557 and modifications thereto, in Decree 1694/09 and related provisions and regulations, and in any other law or regulations that may amend or supersede these in future".

Box 3.2.9 (continued)
Argentina: changes to the Occupational Risks Act

The new regulations state that the victim will have to choose between receiving payment from the insurers (ORIs) or pursuing payment through the courts. Once the amount of compensation or the degree of disability has been determined, the affected party may accept the compensation proposed by the ORI or institute legal proceedings before the civil courts. Significantly, the amendments establish a general principle of compensation payable as a lump sum, superseding the previous system of periodic income payments and the payment of a further 20% on top of the monetary compensation envisaged under the workplace accident systems as compensation for any other damage not redressed through the mechanisms in place.

More recently, the National Congress passed a new reform in February 2017, in the form of Act 27348, further specifying the Occupational Risks Act. As on previous occasions, the new reform focuses on the procedural aspects whereby affected workers may pursue their claims.

Article 1 states that the actions of the jurisdictional medical committees shall constitute the preliminary administrative instance, which shall be mandatory in nature and preclude all other action, such that the affected work may request a finding as to the professional nature of his or her illness or circumstances, and as to his or her disability and the corresponding monetary benefits provided for under the Occupational Risks Act. Once no further action is possible in this instance, the parties may request a review of the administrative ruling before the Central Medical Committee. The worker will be entitled to lodge an appeal against the decision of the jurisdictional medical committee before the ordinary labor courts for the relevant provincial jurisdiction or the Autonomous City of Buenos Aires, whichever is competent based on the address of the medical committee that delivered the ruling.

The effectiveness of the Act is subject to the adherence of the Argentine provinces and of the Autonomous City of Buenos Aires so as not to contravene the federal system by encroaching upon powers that cannot be delegated (article 4). The Act took effect in March 2017 and has now been ratified and accepted by the Autonomous City of Buenos Aires and the provinces of Córdoba, Mendoza, Río Negro, Entre Ríos, San Juan, Provincia de Buenos Aires, Tierra del Fuego, Jujuy, Corrientes, Formosa, Salta and Chaco. The statistics of the Superintendency of Occupational Risks show that lawsuits involving workplace accidents were down 1.2% in 2017 when compared with 2016; the first year-on-year reduction since 2010, when the Register of Legal Action was set up.

Meanwhile, the new regulations require the Superintendency of Occupational Risks to send the Tripartite Advisory Council (comprising government representatives, workers and insurers) a Bill on Labor Protection and Occupational Risk Prevention. "The bill seeks to guarantee the right of all workers to enjoy safe and healthy working environment and terms of employment, in accordance with best practices and the general principles enshrined in international law. These working conditions must be adjusted specifically to each job and activity through collective bargaining agreements. It also advocates an enhanced legal framework governing occupational risk prevention by incorporating the approaches and principles established by the International Labor Organization (ILO)12".

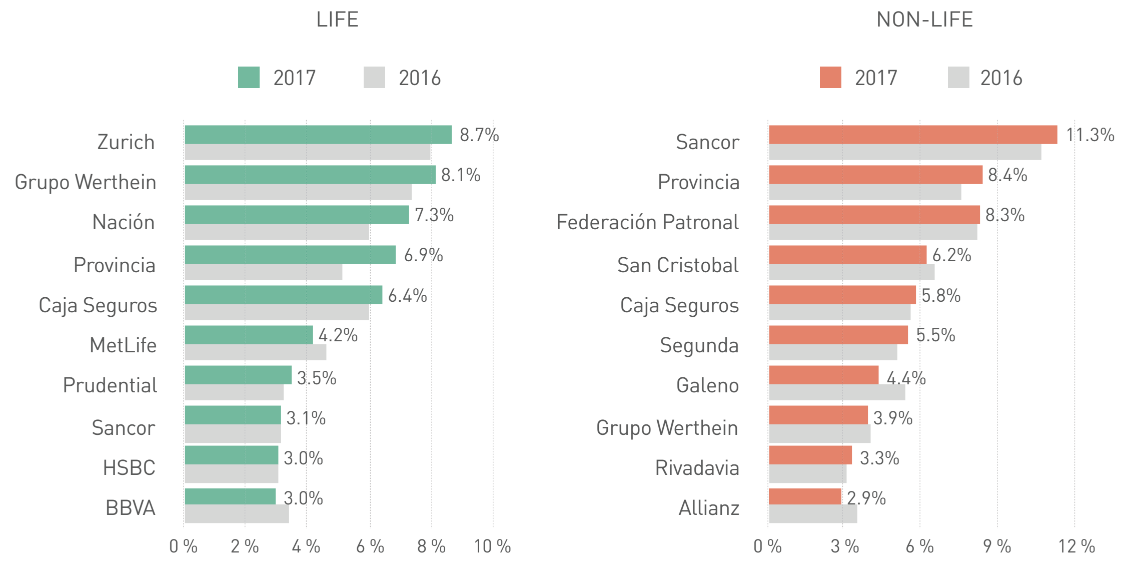
and Nación on 8.1% and 7.3%, respectively. Caja Seguros comes in fourth ahead of Provincia, while Sancor and HSBC are new entries in eighth and ninth place, respectively.

Key regulatory aspects

According to information obtained from the Argentine National Superintendency of Insurance (SSN), the following key regulatory developments unfolded in 2017:

- SNN Resolution 40422 of May 2017, setting increases in minimum capital that reinsurance companies must show.
- SSN Resolutions on rules, limits and weights for the purpose of determining eligible

Chart 3.2.9-v
Argentina: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)

capital for certain investments undertaken by insurance companies, especially Resolutions 41057 and 41208 released in November and December 2017, respectively.

- SSN Resolution 41155 of December 2017, introducing changes in the classification and calculation of reserves for outstanding benefits.
- SSN Resolution 40512 of May 2017, containing criteria on the valuation of lawsuits seeking fixed amounts of compensation for third-party liability.
- SSN Resolution 40273 of January 2017, on the special reserve to be posted by companies that provide environmental surety coverage for damage to collective assets so as to provide redress for adverse results arising specifically from the arrangement of this type of insurance.

3.2.10 Uruguay

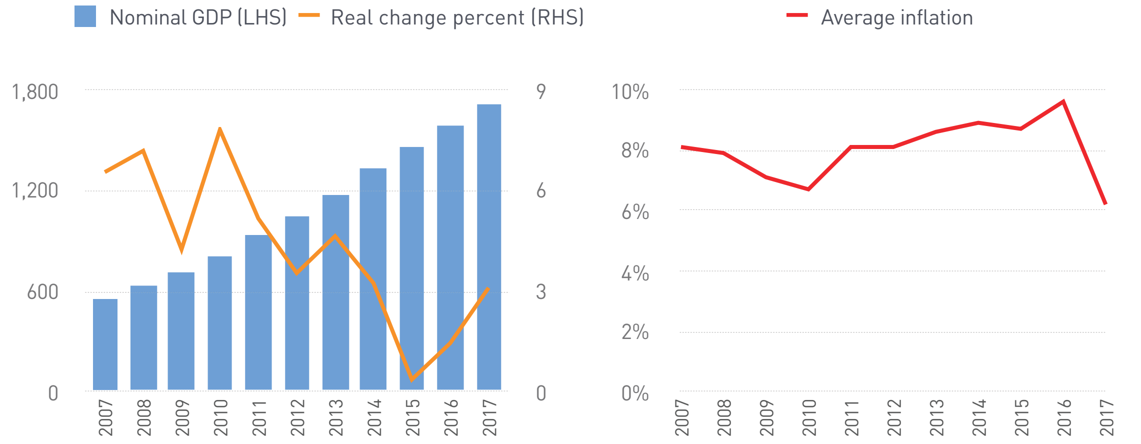
Macroeconomic environment

The Uruguayan economy grew 3.1% in real terms in 2017, compared with 1.5% the previous year (see Chart 3.2.10-a). This pick-up was down to stronger net external demand and rallying consumption, which were more than enough to offset the decline in gross capital formation. Tourism revenue was for the first time the main growth driver of the export sector of the economy.

The fiscal deficit remains high at around 3.6%, following an increase in payments and benefits under the Social Security system and because the country has now completed the process of providing universal access to the National Health Fund. Public debt to GDP ended the year at above 50% and the government is now making efforts to reduce this deficit.

By sector, telecoms was the biggest contributor to economic growth, with additional support from

Chart 3.2.10-a
Uruguay: changes in economic growth and inflation, 2007-2017
(GDP in local currency, billions of pesos; real growth rate, percent; annual inflation rate, percent)



Source: MAPFRE Economic Research (based on IMF and OEF data)

commerce, the restaurant and hotel trades and the primary sector. Meanwhile, manufacturing, energy and construction turned in negative performances.

Average inflation in 2017 came to 6.2% (9.6% in 2016), within the target band sought by monetary policy (between 3% and 7%). Unemployment was largely unchanged year on year at 8%. The central bank continued with its expansionary monetary policy.

Turning to growth projections for 2018, ECLAC estimates growth of around 3% on the assumption that the conditions that accommodated growth in 2017 will persist throughout 2018, and also because public investment in infrastructure is on the rise. The IMF estimates economic growth of 3.4% for Uruguay in 2018.

Insurance market

Growth

Uruguay's insurance market has continued to grow strongly after slowing in 2015 and 2016. Premium volume amounted to 45.20 billion pesos (1.57 billion dollars) in 2017, giving a nominal increase of 17.3% and a 10.5% gain in real terms compared with the previous year (see Chart 3.2.10-b and Table 3.2.10). In 2017, the Life insurance business, which accounts for 42.2% of the total market, grew sharply in both nominal and real terms, while the Non-Life business, which represents the remaining 57.8% of the market, also grew in nominal and real terms but to a lesser extent.

Life insurance business lines grew steeply in 2017 (29.7% nominal and 22.1% real) to reach 19.07 billion pesos (666 million dollars). Pension insurance fared particularly well, with a real increase of 34.7% in premium volume. Non-Life premiums totaled 26.13 billion pesos (912 million dollars), up 9.7% in nominal terms and up 3.3% in real terms year on year. In the Non-Life segment, virtually all modalities reported growth, though in real terms Other (-12.9%), Theft (-4.3%) and Third-party liability (-3.7%) were all down in the period.

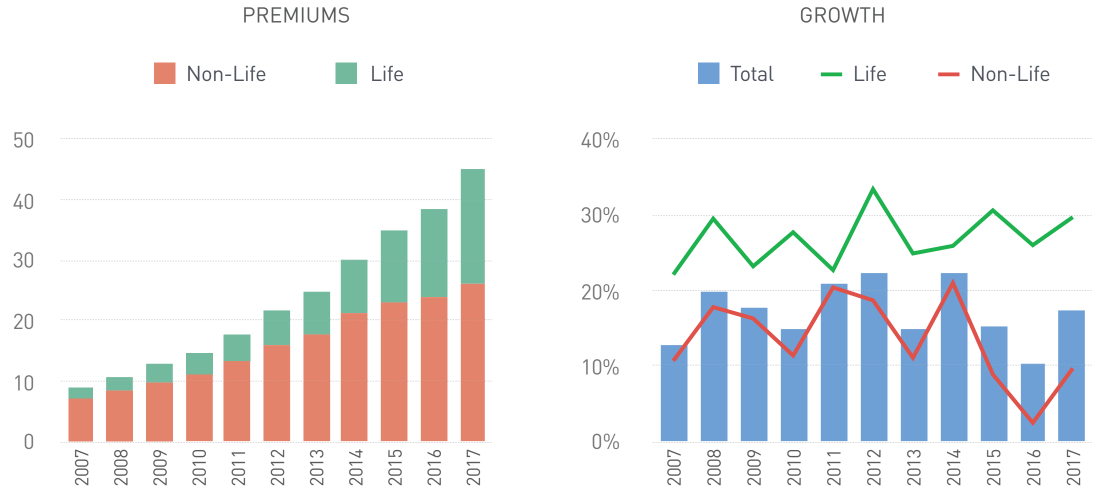
Of the 17.3% nominal growth reported by the Uruguayan insurance market in 2017, Life insurance contributed a positive 11.3 percentage points, while Non-Life insurance contributed a similarly positive 6 percentage points (see Chart 3.2.10-c).

Table 3.2.10
Uruguay: premium volume[1] by line of business, 2017

Line of business	Millions of pesos	Millions of USD	Increase Nominal (%)	Increase Real (%)
Total	**45,207**	**1,578**	**17.3**	**10.5**
Life	**19,075**	**666**	**29.7**	**22.1**
Pension	13,512	472	43.1	34.7
Non-pension/social protection	5,563	194	5.7	-0.5
Non-Life	**26,132**	**912**	**9.7**	**3.3**
Automobile	10,596	370	5.4	-0.8
Other lines	2,201	77	-7.5	-12.9
Fire	1,981	69	10.9	4.4
Transport	848	30	13.1	6.5
Third-party liability	553	19	2.3	-3.7
Theft	522	18	1.6	-4.3
Surety and credit	565	20	26.4	19.0
Workplace accidents[2]	8,865	309	20.6	13.5

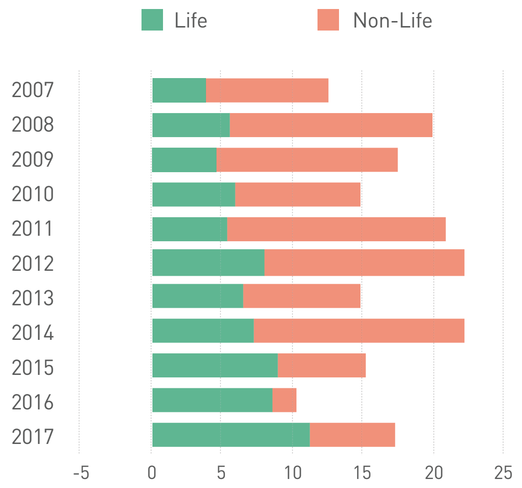
Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)
1/ Premiums written net of cancellations
2/ Premium volume for Workplace accidents refers to Banco de Seguros del Estado

Chart 3.2.10-b
Uruguay: growth developments in the insurance market, 2007-2017
(premiums, billions of pesos; nominal annual growth rates, percent)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-c
Uruguay: contribution to insurance market growth, 2007-2017
(percentage points, pp)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Balance sheet and equity

Chart 3.2.10-d shows changes in the aggregate balance sheet of the Uruguayan insurance industry between 2007 and 2017. As can be seen, total assets amounted to 140.14 billion pesos (4.89 billion dollars) in 2017, while equity came to 18.43 billion pesos (644 million dollars), up 17 percentage points on the value observed in 2016.

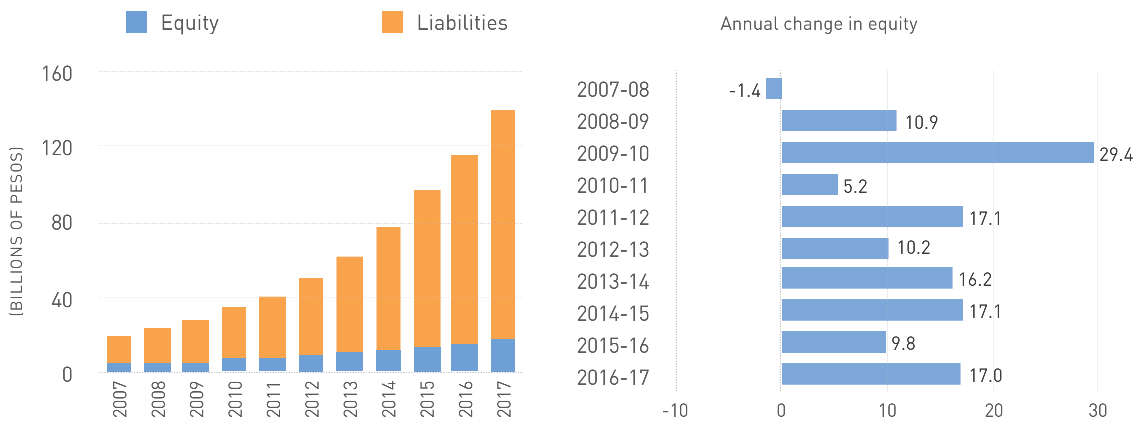
Aggregate capitalization levels in the Uruguayan insurance industry (relative to total assets) also merit special mention, having steadily fallen from around 27% in 2006-2007 to 13.2% of total assets by the end of 2017.

Investment

Charts 3.2-10-e, 3.2.10-f and 3.2.10-g show investment trends in the Uruguayan insurance industry between 2007 and 2017.

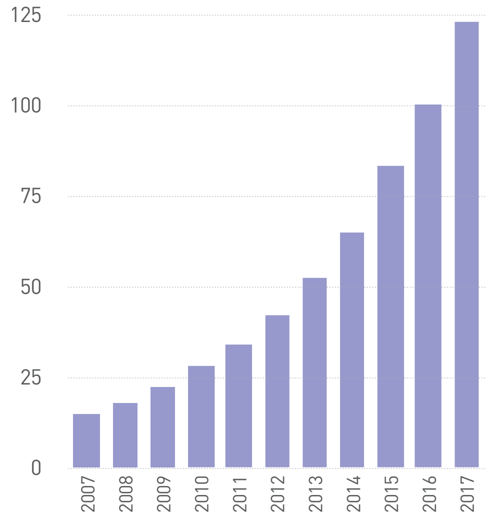
Investment totaled 123.08 billion pesos (4.29 billion dollars) in 2017, with 87.7% concentrated in fixed income and equities, 11.9% in other financial investments (mainly bank deposits), 0.4% in real estate investments and the remaining 0.02% in cash. Our analysis of the aggregate investment portfolio reveals a change in the relative weight of real estate investments, which represented 6% of the portfolio in 2007 but just 0.4% in 2017.

Chart 3.2.10-d
Uruguay: changes in the insurance industry's aggregate balance sheet, 2007-2017
(amounts in local currency; change in equity, percentage points)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-e
Uruguay: insurance market investment, 2007-2017
(billions of pesos)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

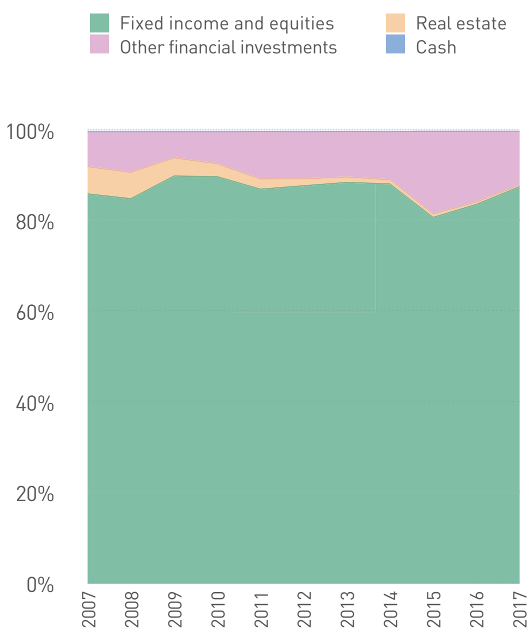
Technical provisions

Charts 3.2.10-h, 3.2.10-i and 3.2.10-j show the performance and relative structure of technical provisions in the Uruguayan insurance industry between 2007 and 2017.

As can be seen, technical provisions amounted to 113.05 billion pesos (3.94 billion dollars) in 2017. Of the total provisions, 65.2% related to Life insurance, 5.9% to provisions for unearned premiums and unexpired risks in Non-Life insurance and the remaining 28.8% to the provision for outstanding benefits.

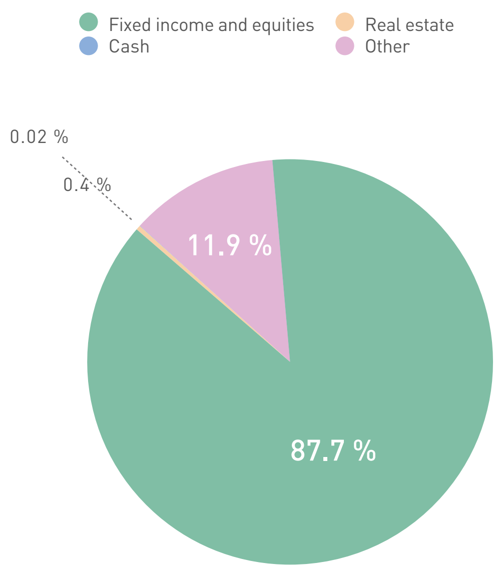
Technical provisions in the Life insurance segment experienced a significant relative weight gain between 2007 and 2017, climbing from 47.7% of total provisions in 2007 to 65.2% in 2017.

Chart 3.2.10-f
Uruguay: structure of investment, 2007-2017
(%)



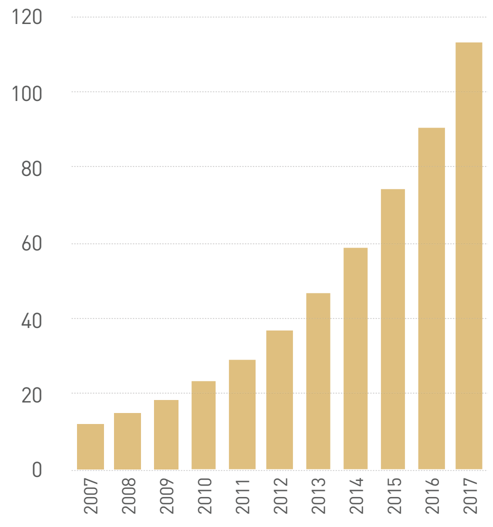
Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-g
Uruguay: structure of investment, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-h
Uruguay:technical provisions of the insurance market, 2007-2017
(billions of pesos)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Technical performance

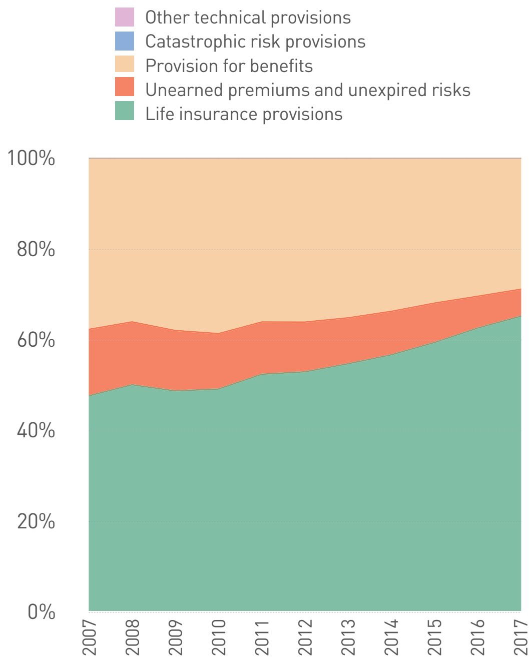
Despite a reduction of nearly 3 percentage points in the expense ratio in 2017, which ended the year at 35.1%, a correlative increase in the loss ratio brought it to 70.8%, meaning the combined ratio for the Uruguayan market was the same as in 2016 at 105.9%. Taking a longer-term perspective, expenses have followed a slight downward trajectory while the trend is upward in the case of the loss experience (see Chart 3.2.10-k).

Results and profitability

The net result for 2017 was 2.17 billion pesos (75 million dollars), up 185% on the previous year. This increase was down to the positive effect of the financial result (+46.2%), which was able to offset the industry's negative technical result (see Chart 3.2.10-l).

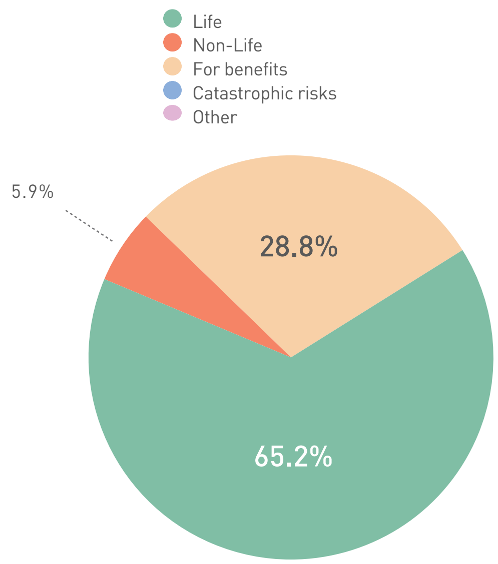
Turning to profitability, return on equity (ROE) came to 11.8% in 2017, up 7 percentage points in comparison with 2016. In similar fashion,

Chart 3.2.10-i
Uruguay: structure of technical provisions, 2007-2017
(%)



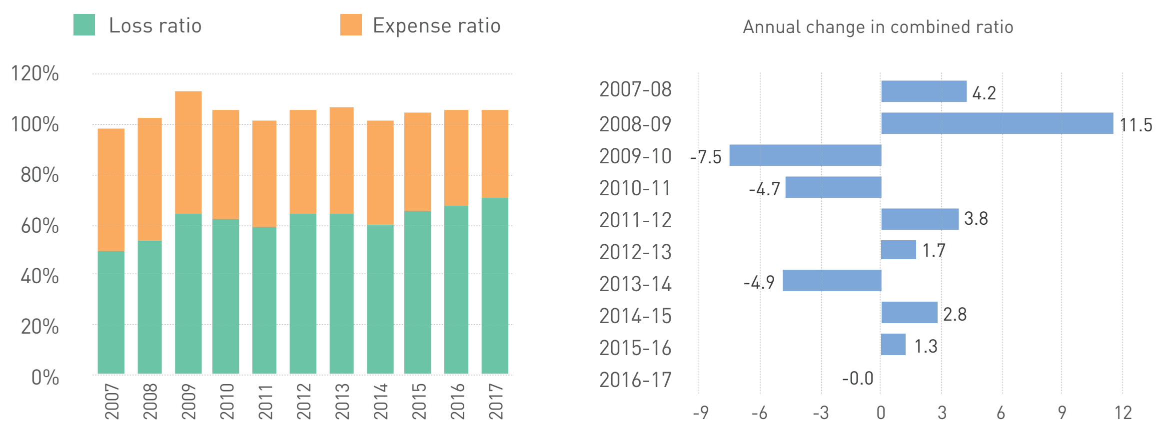
Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-j
Uruguay: structure of Amend borders, 2017
(%)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-k
Uruguay: changes in market technical performance, 2007-2017
(total combined ratio, percent; annual change in combined ratio, percentage points)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

return on assets (ROA) stood at 1.6% in 2017, up 0.9 percentage points on 2016 as insurance industry returns finally reversed the downward trend that had prevailed since 2013.

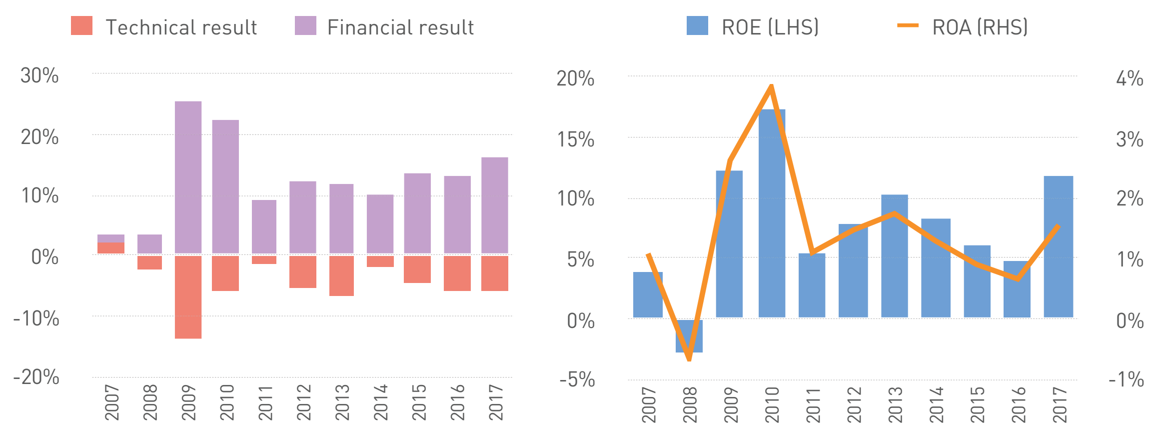
Insurance penetration, density and depth

Chart 3.2.10-m shows the main structural trends shaping the development of the Uruguayan insurance industry between 2007 and 2017.

The penetration index (premiums/GDP) stood at 2.6% in 2017, 1 percentage point above the level reported in 2007. In general, the penetration index for the Uruguayan market grew steadily over the period under analysis but still lags behind the average absolute values of the other markets in the region.

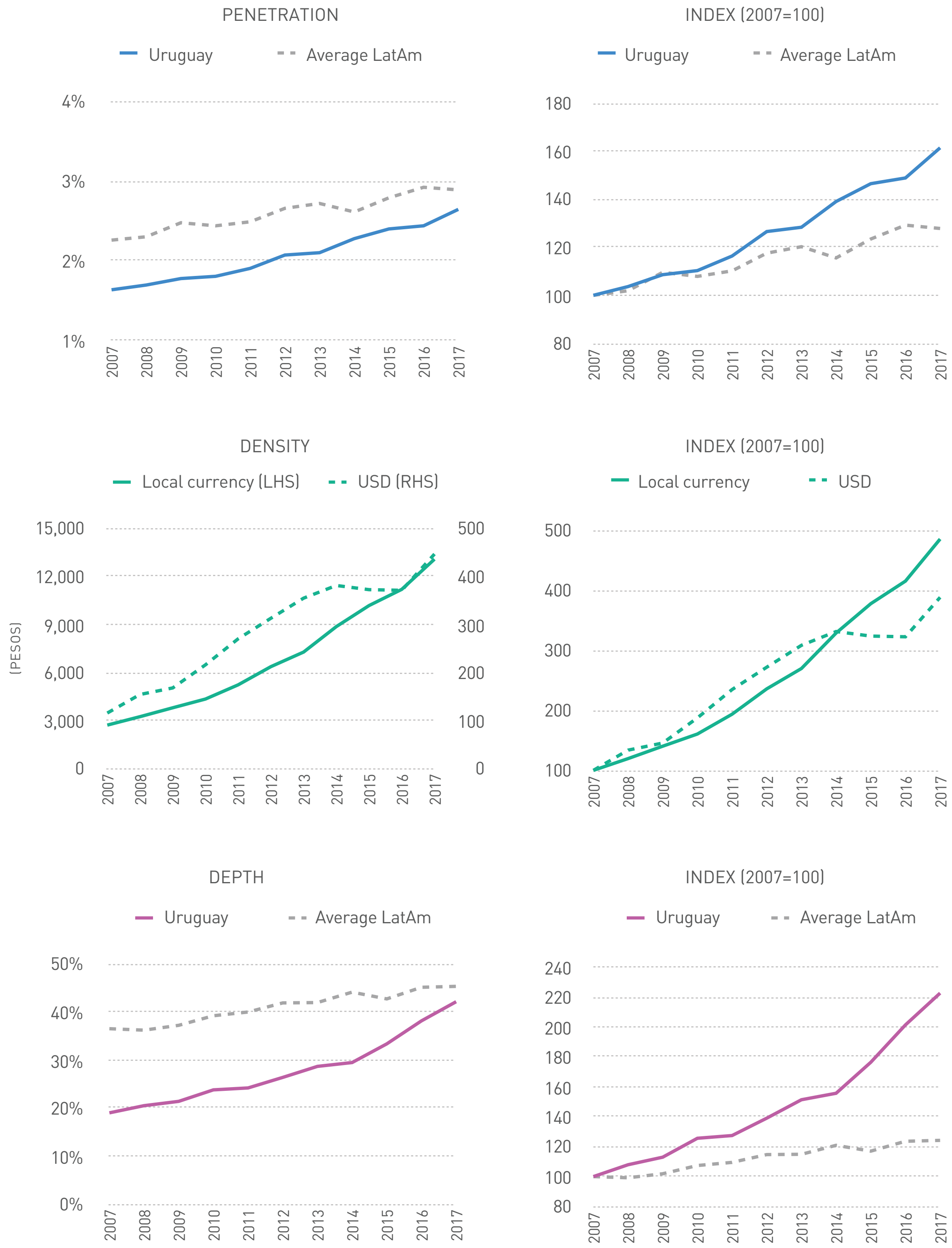
Insurance density in Uruguay (premiums per capita) amounted to 13,082 pesos (457 dollars) in 2017, up 16.9% on the level reported in 2016

Gráfica 3.2.10-l
Uruguay: changes in results and profitability, 2007-2017
(technical and financial results over net accrued premium, percent; ROE, percent; ROA, percent)



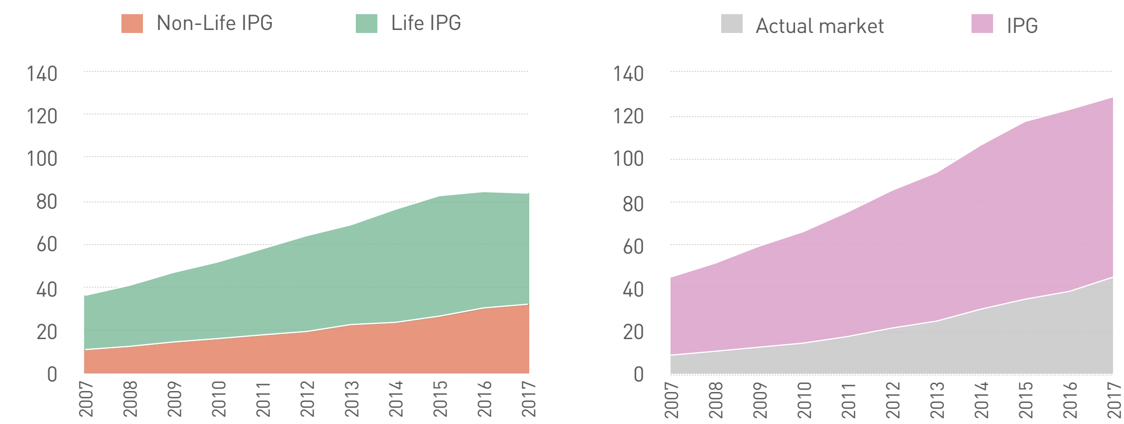
Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-m
Uruguay: changes in penetration, density and depth, 2007-2017
(premiums/GDP, percent; premiums per capita, pesos and USD;
Life insurance premiums/total premiums, percent, index 2007=100)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

Chart 3.2.10-n
Uruguay: Insurance Protection Gap and potential market, 2007-2017
(billions of pesos)



Source: MAPFRE Economic Research

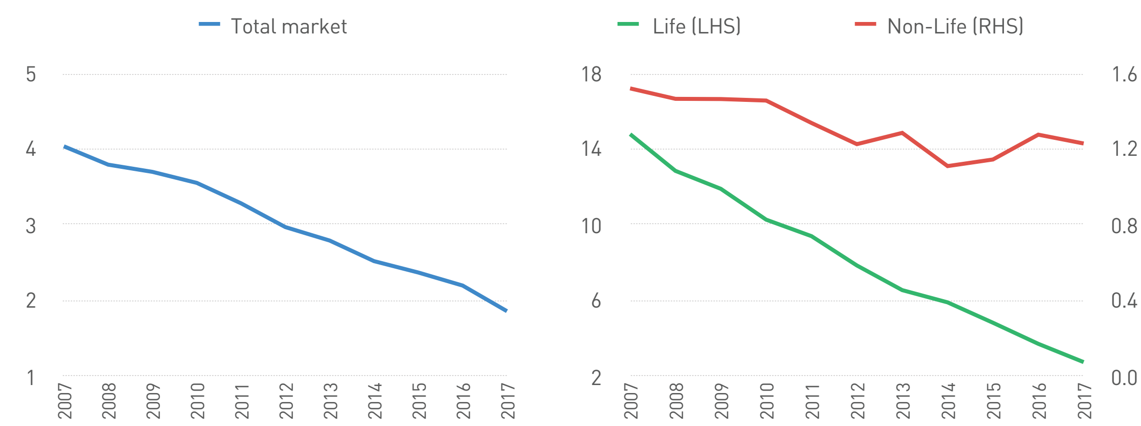
(11,192 pesos). The density of the Paraguayan market (measured in local currency) steadily increased over the period under analysis, registering cumulative growth of 386.3% between 2007 and 2017.

Meanwhile, depth of insurance in the Uruguayan market (Life insurance premiums relative to total premiums) came to 42.2%, up 23.2 percentage points on the level registered in 2007. The depth growth of the Uruguayan insurance market has closely followed the average trend observed across all Latin American markets.

Estimation of the Insurance Protection Gap

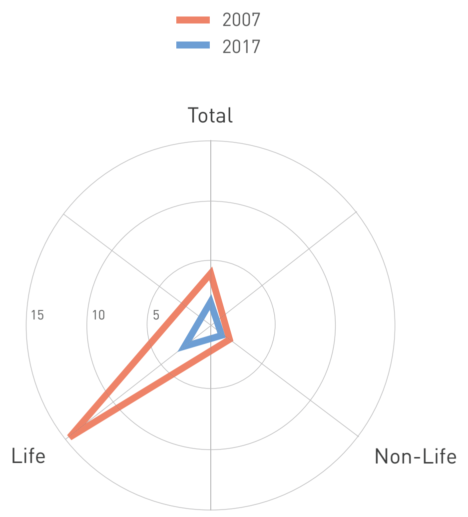
Chart 3.2.10-n provides an estimate of the IPG for the Uruguayan insurance market between 2007 and 2017, revealing that the insurance gap

Chart 3.2.10-o
Uruguay: the IPG as a multiple of the actual market, 2007-2017
(number of times actual insurance market)



Source: MAPFRE Economic Research

Chart 3.2.10-p
Uruguay: the IPG as a multiple of the actual market, 2007 and 2017



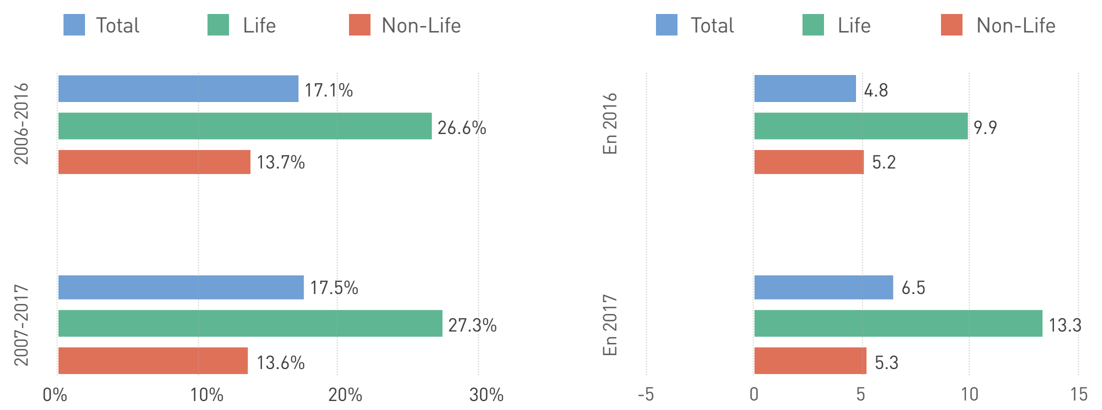
Source: MAPFRE Economic Research

stood at 83.62 billion pesos (2.91 billion dollars) in 2017, 1.8 times the size of the actual insurance market in Uruguay at the end of that year. The structure and performance of the IPG over the period under analysis are shaped mainly by the Life insurance segment. At the close of 2017, Life insurance accounted for 61.6% of the IPG (51.53 billion pesos), 7.8 percentage points below the share for this segment in 2007. The remaining 38.4% of the insurance gap in 2017 is a product of the Non-Life insurance segment (32.09 billion pesos). Accordingly, the potential insurance market in Uruguay at the end of 2017 (the sum of the actual insurance market plus the IPG) was estimated at 128.83 billion pesos (4.49 billion dollars), representing 2.9 times the size of the total insurance market that year.

Chart 3.2.10-o provides an estimation of the insurance gap as a multiple of the actual insurance market in Uruguay. As a multiple of the real market, the IPG fell steadily between 2007 and 2017, both for Life insurance (falling from 14.8 to 2.7 times) and, to a lesser extent, the Non-Life segment (dropping from 1.5 to 1.2 times).

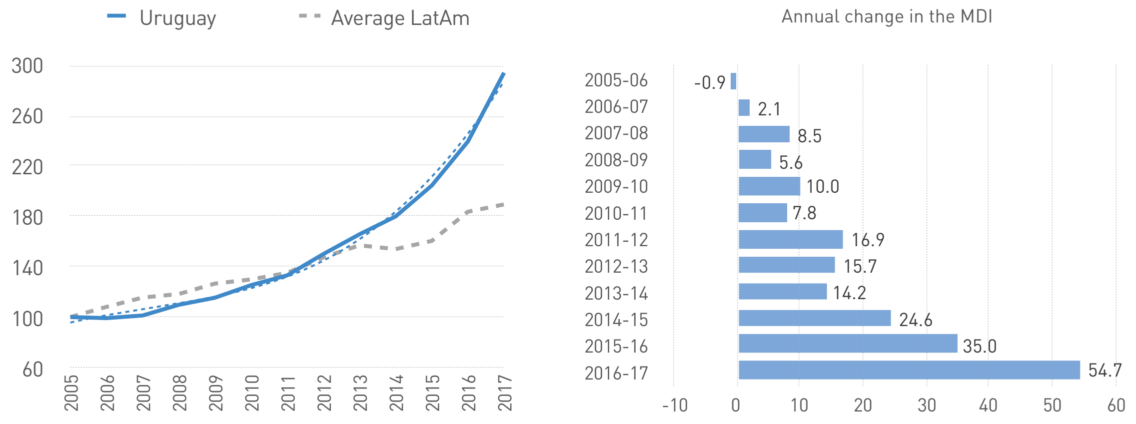
Chart 3.2.10-p shows the change in the IPG as a multiple of the actual market for the Life and Non-Life segments and for the total Uruguayan insurance market over the last ten years, comparing the situation in 2017 with the state of the market in 2007. While the Life insurance business in Uruguay improved significantly in terms of the IPG, the same cannot be said of the Non-Life segment, which was barely able to show any improvement.

Chart 3.2.10-q
Uruguay: capacity to close the IPG, 2007-2017
(average annual growth rate, percent; sufficiency or insufficiency, pp)



Source: MAPFRE Economic Research

Chart 3.2.10-r
Uruguay: Market Development Index (MDI), 2005-2017
(index 2005=100; annual change)



Source: MAPFRE Economic Research

Meanwhile, Chart 3.2.10-q provides an overview of the capacity of the Uruguayan insurance market to close the IPG, based on a comparison between the growth rates observed over the last ten years and the growth rates that would be required in order to close the IPG for 2017 over the coming ten years. The Uruguayan insurance market registered average annual growth of 17.5%, comprising an annual growth rate of 27.3% in the Life insurance segment and of 13.6% in the case of Non-Life insurance. The analysis shows that were the same rate of growth observed over the last ten years to continue over the next ten years, the growth rate of the Uruguayan insurance market would be enough to close the IPG estimated for 2017 over that period of time.

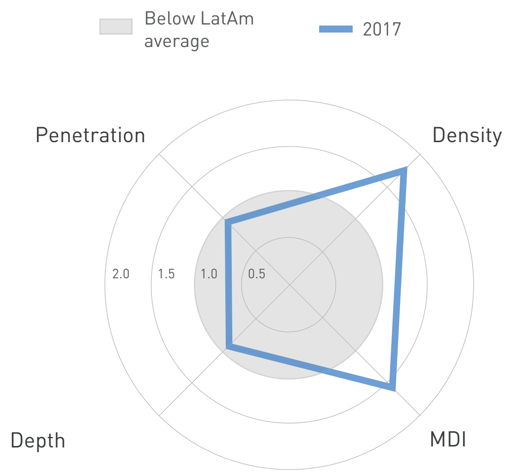
Market Development Index (MDI)

Chart 3.2.10-r provides an estimation of the Market Development Index (MDI) for the Uruguayan insurance industry. In this case, the MDI follows a positive trajectory between 2007 and 2017 and from 2013 onwards even surpasses the average performance of Latin American insurance markets.

Comparative analysis of structural ratios

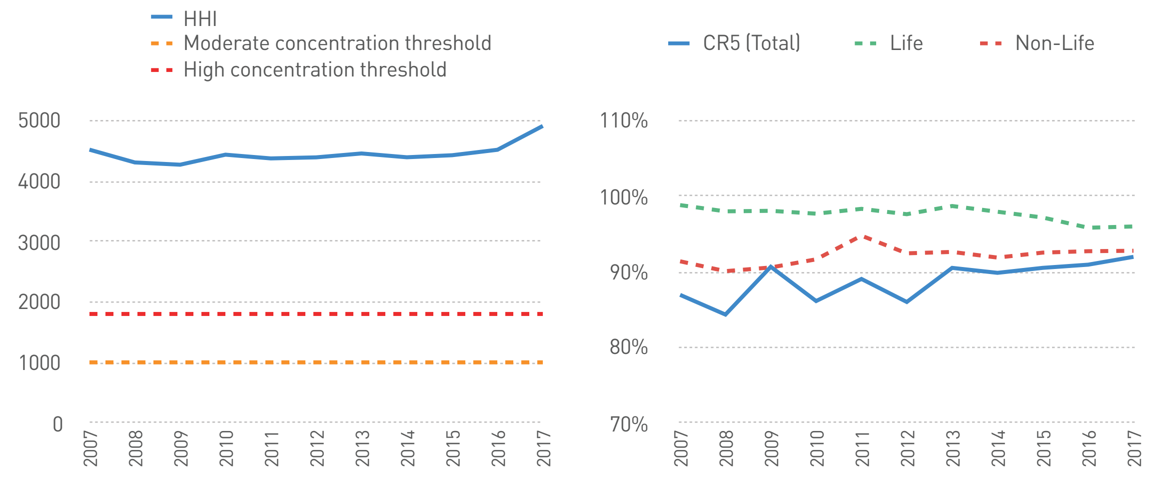
Lastly, Chart 3.2.10-s summarizes the state of the Uruguayan insurance market in comparison with the average for Latin America, measured in terms of the various structural indicators featured in this report. As can be seen, penetration and depth come in both slightly below the regional average, while density and the estimated MDI both exceed the regional average.

Chart 3.2.10-s
Uruguay: comparative analysis of structural ratios* vs. average for Latin America, 2017



Source: MAPFRE Economic Research
* Indexes calculated as the coefficient of the country's structural ratio to the average values of the coefficient in question for the entire Latin American market. The unit's performance is equivalent to the regional average.

Chart 3.2.10-t
Uruguay: insurance industry concentration, 2007-2017
(Herfindahl index; CR5 index, percent)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

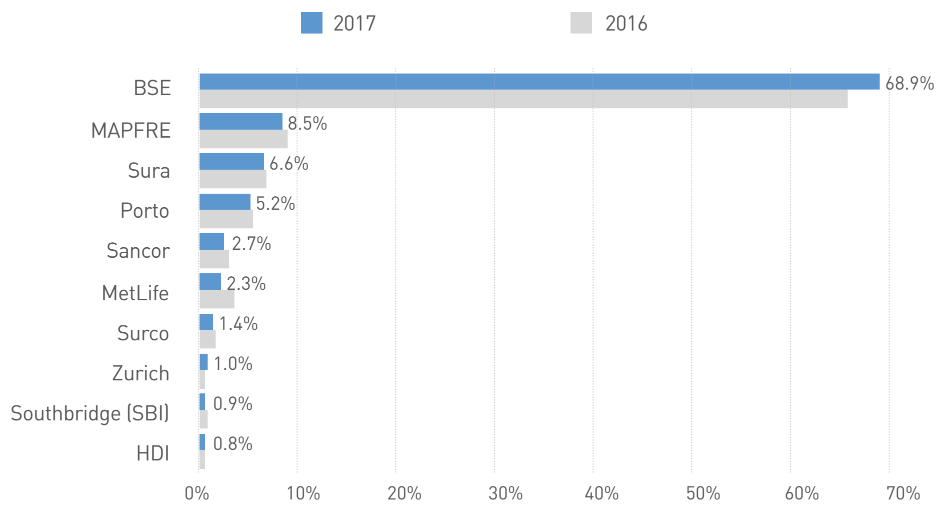
Insurance market rankings

Overall ranking

There were 16 insurance companies operating in Uruguay at the end of 2017, comprising 15 private and one state-owned company (Banco de Seguros del Estado, or BSE for short), which has a monopoly in the Workplace accidents line.

The market is highly concentrated, showing elevated under both the Herfindahl and CR5

Chart 3.2.10-u
Uruguay: overall ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

indexes over the period under analysis, mainly due to the high market share enjoyed by state-owned company BSE (see Chart 3.2.10-s).

Starting with the overall ranking of the Uruguayan insurance market in 2017, BSE accounted for 68.9% of all premiums, followed a long distance behind by MAPFRE (8.5%) and Sura (6.6%). All the other companies in the table occupy the same positions as in 2016, with the exception of MetLife, which moves past Sanco into fourth spot, and Southbridge (formerly AIG) and Zurich, which enter the ranking in ninth and tenth place (see Chart 3.2.10-u).

Non-Life and Life rankings

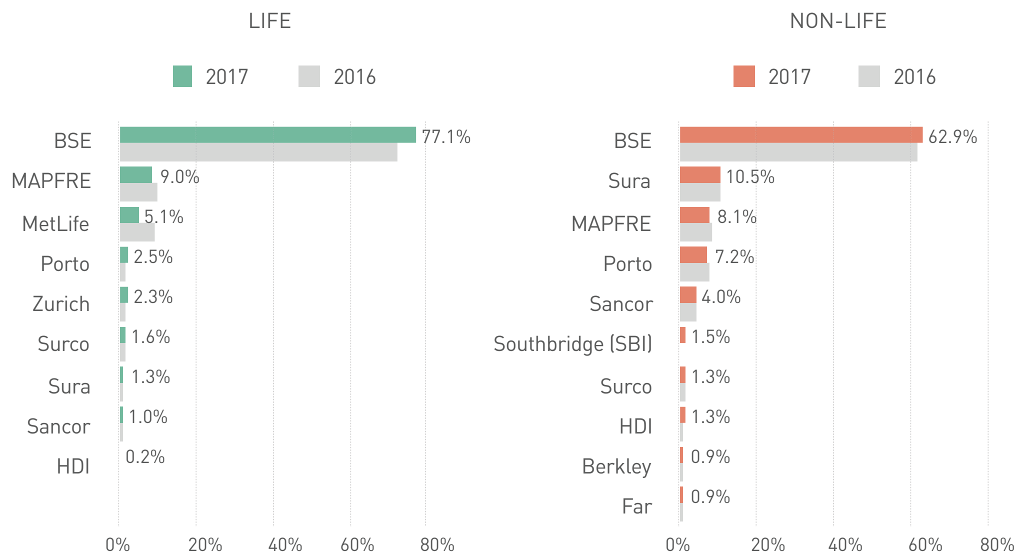
Turning to the Non-Life ranking for 2017, BSE tops the table with 62.9% of the total market, well clear of Sura (10.5%) and MAPFRE (8.1%). The other companies retain their 2016 positions, with the exception of Berkley, which overtakes Far to take ninth place (see Chart 3.2.10-v). As with the overall and Non-Life rankings, BSE tops the Life table with 77.1% of premiums, followed by MAPFRE (9%) and MetLife (5.1%).

Key regulatory aspects

With more 20 years having now passed since the individual savings pillar was made an integral part of the pensions system in Uruguay (during which time a significant number of workers completed the savings accumulation stage), a new stage of the process has arrived. In the coming years, a significant number of generations and therefore workers will be reaching the age of retirement, meaning the functioning of the pension income market will be of key importance to workers adhered to the Social Security system, who will have to arrange their pension Life annuities.

Because of this situation, the Superintendency of Financial Services and the Bank of Uruguay (BoU) are strategically planning to assess the functioning of this fledgling market so as to detect and flag any opportunities for improvement that would require changes in the law and regulations. It should be noted that the legislators entrusted the BoU with the task of fixing the actuarial review parameters for determining pension income and the BoU originally opted to define a set of minimum benefit tables. These minimum

Chart 3.2.10-v
Uruguay: Life and Non-Life ranking, 2016-2017
(market shares, percent)



Source: MAPFRE Economic Research (based on data from the Central Bank of Uruguay)

benefits were gradually becoming obsolete as time passed because the information on the life expectancy of individuals was not being updated and nor for that matter were the reference interest rates.

Circular No. 2287 was released in October 2017, introducing new mechanisms to ensure that the actuarial review parameters are technically correct and their values are suitable. The ultimate aim here was to minimize uncertainty when establishing the initial income, while providing companies with further incentives to offer better income. The Circular includes new mortality tables by age and gender. These tables are drawn up by Banco de Previsión Social (Uruguayan social security institute) since it possesses the best available information on the population of system beneficiaries. Dynamic tables have now been introduced so as to reflect observed increases in life expectancy, thus allowing the Superintendency to update the tables every year. It also features a new table on the probability of leaving beneficiaries, which is prepared with updated information provided by Banco de Seguridad Social.

On the subject of the benchmark interest rate, it was decided that the calculation should include only the financial return on assets indexed to the Average Wage Index (AWI), less the corresponding margin of the insurer. It used to be the case that the benchmark rate would include an estimate of the margin needed to cover the administration costs of the companies concerned so as to make benefits viable. However, because that minimum margin was estimated by the regulator there was no proper incentive for each insurer to be transparent when fixing the price and therefore to be competitive.

In addition, different reference horizons for the rate were added on the assumption that doing so would provide a more accurate calculation for the update process. Since no instruments are presently indexed to the AWI, the benchmark rates curve was estimated on the basis of equivalent instruments denominated in Indexed Units (indexed to inflation), assuming a theoretical arbitrage or matching to real wages based on expected long-term changes in work productivity, which has been estimated at 1.7% per annum. Meanwhile, the Governing Board of the BoU published Circular No. 2288, establishing a minimum value for the benchmark interest rate defined as the rate arising from the reference yield curve less a percentage of 0.75% in each node.

Another important change is the introduction of Pure Theoretical Income (Renta Teórica Pura), which is calculated on the basis of the current actuarial parameters discussed previously. This income would be the amount that could theoretically be obtained by a person who administered their own retirement by investing exclusively in low-risk securities. Since the approved modifications mean that there will no longer be a table establishing initial minimum income, Pure Theoretical income will be the new regulatory parameter that insurers must use to report their gross income.

On another note, the new Circular No. 2302 champions best practices when it comes to customer relations by enhancing the regulatory framework relating to mandatory third-party liability insurance. This type of insurance provides coverage for damage or injury suffered by third parties due to an accident caused by a motor vehicle or towed trailer. The new provisions require insurance and mutual insurance companies to respond in writing (whether by letter or e-mail) or by telephone (provided they have call recording systems) to all claims for compensation they receive, doing so in all cases within the legally established term. The new law also establishes the channels through which the response may be given and dictates the minimum information to be provided.

Index of tables, charts and boxes

Tables

Charts

Boxes

References

1/ Source: Swiss Re

2/ United Nations - World Population

3/ The data on penetration, density and depth, as well as those data relating to the measurement of the Insurance Protection Gap (IPG) and Market Development Index (MDI) in 2016 and previous years, may differ from the information presented in our report titled "The Latin American Insurance Market in 2016". These changes may arise where supervisory bodies report updated figures on premium volume for Latin American insurance markets, or where the relevant bodies and organizations in each country adjust their published figures on gross domestic product, or where insurance market penetration parameters used to estimate the IPG are adjusted in order to update figures on insurance premiums and gross domestic product.

4/ The insurance protection gap (IPG) is not a static concept and will therefore change over time. The potential insurance coverage gap is constantly changing in response to the economic growth of each country and the emergence of new risks that must be covered and that are inherent to the economic and social development of nations. Due to its nature, the IPG bears a strong relationship with market growth. The gap narrows quantitatively as the penetration index increases, while it tends to narrow qualitatively as markets become more sophisticated and mature. Factors such as sustained economic growth, controlled inflation, increases in personal disposable income, the general development of the financial system, an efficient regulatory framework, and the pursuit of public policies aimed at increasing financial inclusion and education all help to narrow the IPG.

5/ Methodologically speaking, the IPG can be estimated in two ways. The first is an ex-post approach, based on observed losses. In this case, the IPG would be the difference between recorded economic losses over a certain period and the portion of those losses that was covered by the insurance compensation mechanism. And the second is an ex-ante approach, analyzing the optimum level of protection, estimated as the difference between the socially and economically appropriate level of risk coverage and the real level of protection. The second approach has been used in this report, identifying the difference between the optimum level and the actual level of protection as the difference in the penetration indexes of each Latin American insurance market in relation to the average for advanced markets (United States, Canada, Japan and 27 countries of the European Union).

3/ The Market Development Index (MDI) is a composite index constructed from four individual indicators based on 2006: (i) the penetration index, (ii) the depth index, (iii) an index showing changes in the IPG (inverse index of the IPG as a multiple of the market), and (iv) an index showing the performance of the Life insurance IPG (inverse index of the Life insurance IPG as a multiple of that market).

7/ According to data published by the Central American Monetary Council.

8/ http://ssf.gob.sv/index.php/temas/normativa/Marco%20Legal/1170-resoluciones-de-pensiones-d-l-no-787

9/ The Costa Rican Insurance Market Regulation Act took effect in July 2008, liberalizing and opening up the country's insurance market, which had hitherto operated as a monopoly (the only insurance company being the National Insurance Institute - Instituto Nacional de Seguros). The Act also set up the General Superintendency of Insurance (known as SUGESE). Accordingly, the balance sheet and income statement data published by the Superintendency is only available for 2010 onward.

10/ Type of insurance envisaged in the laws of Costa Rica that feature simple contracts and can be marketed and sold through channels other than traditional insurance intermediaries. These products may take the form of standard type agreements that can be mass marketed and sold and their launch and release do not require a preliminary risk analysis and selection process.

11/ The combined ratio and loss ratio are net of tax.

12/ Superintendency of Occupational Risks. Retrieved from: https://www.srt.gob.ar/index.php/2018/02/07/primera-reunion-del-ano-del-comite-consultivo-para-la-nueva-ley-de-prevencion/

Statistical

Table A.1. Mexico: main insurance market figures and indicators, 2007-2017
(millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	190,330	83,634	106,696	16.3%	11.9%	444,793	356,609	373,820	330,464	70,973	102.0	-2,732	18,789	17.7%	2.8%
2008	206,253	92,688	113,565	8.4%	3.1%	533,536	413,945	454,299	406,936	79,237	109.7	-13,447	31,024	16.4%	2.4%
2009	232,901	103,431	129,470	12.9 %	7.2 %	590,308	460,415	498,970	444,101	91,338	108.3	-12,678	35,126	17.9 %	2.8%
2010	241,891	113,033	128,858	3.9 %	-0.3 %	653,738	520,469	549,120	493,603	104,618	109.1	-14,616	38,030	14.4 %	2.3 %
2011	276,185	125,260	150,925	14.2 %	10.4 %	760,855	593,981	640,174	572,675	120,681	107.6	-13,356	40,627	14.3 %	2.3 %
2012	305,194	142,809	162,385	10.5 %	6.1 %	834,069	663,036	703,352	635,864	130,718	106.4	-12,289	46,402	18.2 %	2.9 %
2013	341,277	159,058	182,219	11.8 %	7.7 %	927,429	726,451	791,825	714,968	135,604	105.2	-11,465	43,024	16.9 %	2.5 %
2014	353,821	167,701	186,120	3.7 %	-0.3 %	1,038,144	806,795	896,113	812,993	142,031	106.1	-14,431	50,546	17.9 %	2.4%
2015	388,545	181,918	206,628	9.8 %	6.9 %	1,164,846	906,063	1,014,786	920,402	150,060	105.5	-14,606	47,648	14.1 %	1.8 %
2016	440,512	207,125	233,388	13.4 %	10.3 %	1,333,539	1,022,961	1,147,457	1,027,596	186,082	104.1	-12,612	63,719	20.8 %	2.9 %
2017	482,816	213,518	269,297	9.6 %	3.4 %	1,456,244	1,111,609	1,254,968	1,122,988	201,276	108.0	-25,958	86,262	23.4 %	3.2 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.7%	0.7%	0.9%	1,717	755	963	43.9%	756,748	479,168	277,580	4.0	5.7	2.6
2008	1.7%	0.8%	0.9%	1,830	823	1,008	44.9%	796,942	499,935	297,007	3.9	5.4	2.6
2009	1.9 %	0.9 %	1.1 %	2,033	903	1,130	44.4 %	781,446	492,633	288,814	3.4	4.8	2.2
2010	1.8 %	0.8%	1.0 %	2,079	972	1,108	46.7 %	855,204	532,853	322,350	3.5	4.7	2.5
2011	1.9 %	0.9 %	1.0 %	2,340	1,061	1,279	45.4 %	918,294	574,355	343,939	3.3	4.6	2.3
2012	1.9 %	0.9 %	1.0 %	2,550	1,193	1,357	46.8 %	993,075	618,802	374,273	3.3	4.3	2.3
2013	2.1 %	1.0 %	1.1 %	2,812	1,311	1,502	46.6 %	952,648	577,970	374,678	2.8	3.6	2.1
2014	2.0 %	1.0 %	1.1 %	2,877	1,364	1,513	47.4 %	1,043,042	638,129	404,913	2.9	3.8	2.2
2015	2.1 %	1.0 %	1.1 %	3,118	1,460	1,658	46.8 %	1,105,682	678,119	427,563	2.8	3.7	2.1
2016	2.2 %	1.0 %	1.2 %	3,489	1,641	1,849	47.0 %	1,121,566	665,965	455,601	2.5	3.2	2.0
2017	2.2 %	1.0 %	1.2 %	3,776	1,670	2,106	44.2 %	1,155,460	684,354	471,106	2.4	3.2	1.7

Source: MAPFRE Economic Research (based on data from the National Insurance and Bonding Commission).
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.2. Guatemala: main insurance market figures and indicators, 2007-2017

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	2,968	525	2,443	16.7 %	9.3 %	3,594	2,465	2,618	2,024	976	101.8	-36	165	16.8 %	4.6 %
2008	3,249	602	2,647	9.5 %	-1.7 %	3,879	2,703	2,804	2,346	1,074	100.3	-8	180	17.4 %	4.8 %
2009	3,543	667	2,876	9.1 %	7.1 %	4,279	3,054	2,968	2,552	1,311	100.9	-21	208	17.5 %	5.3 %
2010	3,805	745	3,060	7.4 %	3.4 %	4,665	3,276	3,254	3,005	1,410	98.1	48	230	18.0 %	5.4 %
2011	4,718	923	3,796	24.0 %	16.8 %	6,662	4,277	4,737	3,366	1,925	95.3	135	283	21.2 %	6.1 %
2012	4,646	952	3,694	-1.5 %	-5.1 %	6,671	4,591	4,543	3,340	2,128	94.5	170	310	21.2 %	6.8 %
2013	5,219	1,057	4,162	12.3 %	7.6 %	7,359	5,041	4,916	3,398	2,443	91.2	293	343	24.6 %	8.2 %
2014	5,639	1,187	4,452	8.1 %	4.5 %	7,889	5,463	5,121	3,648	2,768	91.0	318	363	23.2 %	8.1 %
2015	5,966	1,176	4,790	5.8 %	3.3 %	8,686	5,640	5,619	3,993	3,067	93.3	256	378	21.7 %	7.7 %
2016	6,313	1,271	5,042	5.8 %	1.3 %	9,132	5,951	5,817	4,964	3,314	93.3	284	389	19.7 %	7.2 %
2017	6,802	1,418	5,384	7.7 %	3.2 %	9,973	6,382	6,380	4,775	3,593	92.1	357	407	21.0 %	7.6 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.1 %	0.2 %	0.9%	222	39	183	17.7 %	18,582	12,281	6,301	6.3	23.4	2.6
2008	1.1 %	0.2 %	0.9%	237	44	193	18.5 %	20,778	13,591	7,186	6.4	22.6	2.7
2009	1.2 %	0.2 %	0.9%	253	48	205	18.8 %	22,141	14,425	7,715	6.2	21.6	2.7
2010	1.1 %	0.2 %	0.9%	265	52	214	19.6 %	23,535	15,351	8,184	6.2	20.6	2.7
2011	1.3 %	0.2 %	1.0 %	322	63	259	19.6 %	25,500	16,776	8,723	5.4	18.2	2.3
2012	1.2 %	0.2 %	0.9%	310	64	247	20.5 %	27,751	18,053	9,698	6.0	19.0	2.6
2013	1.2 %	0.2 %	1.0 %	341	69	272	20.3 %	28,415	18,101	10,314	5.4	17.1	2.5
2014	1.2 %	0.3 %	1.0 %	361	76	285	21.1 %	30,663	19,755	10,908	5.4	16.6	2.5
2015	1.2 %	0.2 %	1.0 %	375	74	301	19.7 %	33,382	21,472	11,910	5.6	18.3	2.5
2016	1.2 %	0.2 %	1.0 %	389	78	311	20.1 %	34,301	21,429	12,872	5.4	16.9	2.6
2017	1.2 %	0.3 %	1.0 %	411	86	326	20.8 %	35,634	21,840	13,794	5.2	15.4	2.6

Source: MAPFRE Economic Research (based on data from the Banking Superintendency)

[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.3. Honduras: main insurance market figures and indicators, 2007-2017
(millions of lempiras)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	4,674	1,143	3,531	23.3 %	15.3 %	6,707	4,881	4,041	2,911	2,666	91.0	204	304	17.9 %	7.1 %
2008	5,344	1,373	3,971	14.3 %	2.6 %	7,979	5,605	4,930	3,681	3,050	92.9	202	410	18.7 %	7.1 %
2009	5,353	1,441	3,912	0.2 %	-5.0 %	8,782	5,905	5,568	3,970	3,214	89.7	353	480	22.1 %	8.1 %
2010	5,693	1,505	4,187	6.3 %	1.6 %	9,132	6,554	5,546	3,962	3,586	89.0	361	406	20.8 %	8.2 %
2011	6,237	1,799	4,438	9.6 %	2.6 %	9,591	7,061	5,784	4,293	3,807	88.2	434	387	19.5 %	7.7 %
2012	6,903	2,026	4,877	10.7 %	5.2 %	10,974	8,057	6,461	4,939	4,513	89.1	440	548	19.7 %	8.1 %
2013	7,499	2,315	5,184	8.6 %	3.3 %	11,622	8,371	7,220	5,107	4,402	94.0	255	713	17.1 %	6.5 %
2014	7,961	2,421	5,541	6.2 %	0.1 %	12,477	8,328	7,937	5,533	4,540	92.0	337	756	15.7 %	5.7 %
2015	8,726	2,792	5,934	9.6 %	6.2 %	13,401	8,877	8,622	5,765	4,779	85.3	665	639	19.0 %	6.8 %
2016	9,581	3,288	6,294	9.8 %	6.9 %	14,910	9,648	9,454	6,165	5,456	84.5	755	591	19.3 %	7.1 %
2017	10,362	3,179	7,184	8.1 %	4.1 %	16,561	10,057	10,406	7,189	6,155	81.3	893	580	17.5 %	6.5 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.0 %	0.5 %	1.5 %	611	149	462	24.5 %	14,554	10,283	4,271	3.1	9.0	1.2
2008	2.0 %	0.5 %	1.5 %	685	176	509	25.7 %	15,966	11,215	4,750	3.0	8.2	1.2
2009	1.9 %	0.5 %	1.4 %	673	181	492	26.9 %	17,634	12,067	5,567	3.3	8.4	1.4
2010	1.9 %	0.5 %	1.4 %	702	186	517	26.4 %	18,872	12,957	5,916	3.3	8.6	1.4
2011	1.9 %	0.5 %	1.3 %	756	218	538	28.8 %	21,051	14,183	6,867	3.4	7.9	1.5
2012	1.9 %	0.6 %	1.3 %	822	241	581	29.3 %	22,755	15,373	7,383	3.3	7.6	1.5
2013	2.0 %	0.6 %	1.4 %	878	271	607	30.9 %	22,433	14,735	7,698	3.0	6.4	1.5
2014	1.9 %	0.6 %	1.3 %	917	279	638	30.4 %	25,189	16,703	8,486	3.2	6.9	1.5
2015	1.9 %	0.6 %	1.3 %	990	317	673	32.0 %	28,387	18,569	9,818	3.3	6.7	1.7
2016	1.9 %	0.7 %	1.3 %	1,071	368	704	34.3 %	28,829	18,181	10,648	3.0	5.5	1.7
2017	1.9 %	0.6 %	1.3 %	1,142	350	792	30.7 %	30,282	19,097	11,185	2.9	6.0	1.6

Source: MAPFRE Economic Research (based on data from the National Commission of Banks and Insurance)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.4. El Salvador: main insurance market figures and indicators, 2007-2017
(millions of USD)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	394	118	276	6.3 %	1.7 %	443	329	257	163	186	86.4	25	20	18.9 %	7.9 %
2008	439	145	294	11.4 %	3.8 %	520	390	282	183	238	82.5	38	21	18.3 %	8.4 %
2009	441	153	288	0.4 %	-0.1 %	567	427	287	188	280	85.1	35	18	18.1 %	8.9 %
2010	453	159	295	2.8 %	1.6 %	625	475	298	200	327	85.9	36	12	14.2 %	7.4 %
2011	478	171	307	5.4 %	0.2 %	629	479	323	216	305	87.3	35	14	15.0 %	7.3 %
2012	503	187	315	5.2 %	3.5 %	663	497	340	228	323	90.0	30	19	14.2 %	6.9 %
2013	546	210	336	8.6 %	7.8 %	724	561	381	254	343	90.6	31	19	13.8 %	6.6 %
2014	572	225	347	4.7 %	3.5 %	775	600	410	282	365	92.8	25	20	12.9 %	6.1 %
2015	609	233	376	6.4 %	7.2 %	841	645	461	295	380	98.7	5	22	9.7 %	4.4 %
2016	621	216	405	2.0 %	1.4 %	817	607	448	299	369	98.8	5	25	8.1 %	3.7 %
2017	616	215	401	-0.8 %	-1.8 %	855	632	476	307	380	97.6	9	24	9.3 %	4.1 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.0 %	0.6 %	1.4 %	65	19	45	29.9 %	1,261	865	395	3.2	7.3	1.4
2008	2.0 %	0.7 %	1.4 %	72	24	48	33.0 %	1,301	883	418	3.0	6.1	1.4
2009	2.1 %	0.7%	1.4 %	72	25	47	34.7 %	1,282	859	423	2.9	5.6	1.5
2010	2.1 %	0.7 %	1.4 %	73	26	48	35.0 %	1,304	876	428	2.9	5.5	1.5
2011	2.1 %	0.7%	1.3 %	77	28	50	35.8 %	1,407	933	474	2.9	5.5	1.5
2012	2.1 %	0.8%	1.3 %	81	30	51	37.3 %	1,452	959	493	2.9	5.1	1.6
2013	2.2 %	0.9 %	1.4 %	87	34	54	38.4 %	1,390	893	497	2.5	4.3	1.5
2014	2.3 %	0.9 %	1.4 %	91	36	55	39.4 %	1,431	930	501	2.5	4.1	1.4
2015	2.3 %	0.9 %	1.4 %	97	37	60	38.2 %	1,491	976	515	2.5	4.2	1.4
2016	2.3 %	0.8%	1.5 %	98	34	64	34.9 %	1,462	948	514	2.4	4.4	1.3
2017	2.2 %	0.8 %	1.4 %	97	34	63	34.9 %	1,495	942	553	2.4	4.4	1.4

Source: MAPFRE Economic Research (based on data from the Superintendency of the Financial System)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.5. Nicaragua: main insurance market figures and indicators, 2007-2017
(millions of cordobas)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	1,834	270	1,563	19.5 %	7.6 %	2,368	1,529	1,887	1,339	481	103.4	-33	91	22.1 %	4.5 %
2008	2,090	340	1,750	14.0 %	-4.9 %	2,860	1,894	2,254	1,639	606	94.4	69	127	25.0 %	5.3 %
2009	2,255	359	1,897	7.9 %	4.1 %	3,272	2,170	2,458	1,823	814	91.9	110	150	30.8 %	7.7 %
2010	2,478	367	2,110	9.9 %	4.2 %	3,667	2,530	2,646	1,949	1,021	94.5	82	180	26.6 %	7.4 %
2011	2,765	418	2,347	11.6 %	3.3 %	4,193	3,003	2,929	2,217	1,264	99.5	8	174	22.7 %	6.8 %
2012	3,255	514	2,741	17.7 %	9.8 %	4,944	3,486	3,490	2,598	1,453	94.4	103	166	17.8 %	5.2 %
2013	3,878	668	3,210	19.1 %	11.2 %	5,793	4,096	4,190	2,997	1,603	89.6	236	178	22.3 %	6.2 %
2014	4,615	823	3,792	19.0 %	12.2 %	6,795	4,788	4,820	3,450	1,975	87.2	350	213	22.8 %	6.6 %
2015	5,198	916	4,282	12.6 %	8.3 %	7,857	5,533	5,521	3,916	2,336	86.6	431	269	23.6 %	7.0 %
2016	5,848	1,111	4,737	12.5 %	8.7 %	9,268	6,493	6,529	4,709	2,738	89.1	403	347	21.4 %	6.3 %
2017	6,618	1,295	5,324	13.2 %	9.0 %	11,132	7,597	7,684	5,571	3,448	82.8	718	431	27.4 %	8.5 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.3 %	0.2 %	1.1 %	332	49	283	14.7 %	9,441	6,430	3,011	5.1	23.8	1.9
2008	1.3 %	0.2 %	1.1 %	374	61	313	16.3 %	11,276	7,556	3,721	5.4	22.2	2.1
2009	1.3 %	0.2 %	1.1 %	398	63	335	15.9 %	11,821	7,913	3,908	5.2	22.1	2.1
2010	1.3 %	0.2 %	1.1 %	432	64	368	14.8 %	12,875	8,671	4,204	5.2	23.6	2.0
2011	1.3 %	0.2 %	1.1 %	476	72	404	15.1 %	15,087	10,038	5,049	5.5	24.0	2.2
2012	1.3 %	0.2 %	1.1 %	554	87	466	15.8 %	17,099	11,427	5,672	5.3	22.2	2.1
2013	1.4 %	0.2 %	1.2 %	652	112	540	17.2 %	17,707	11,627	6,080	4.6	17.4	1.9
2014	1.5 %	0.3 %	1.2 %	767	137	630	17.8 %	20,042	13,401	6,641	4.3	16.3	1.8
2015	1.5 %	0.3 %	1.2 %	854	150	704	17.6 %	22,811	15,205	7,605	4.4	16.6	1.8
2016	1.5 %	0.3 %	1.3 %	951	181	770	19.0 %	23,580	15,337	8,243	4.0	13.8	1.7
2017	1.6 %	0.3 %	1.3 %	1,064	208	856	19.6 %	24,451	15,733	8,718	3.7	12.2	1.6

Source: MAPFRE Economic Research (based on data from the Superintendency of Banks and Other Financial Institutions)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.6. Costa Rica: main insurance market figures and indicators, 2007-2017
(millions of colones)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	253,674	8,396	245,278	22.5%	12.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2008	336,365	12,817	323,548	32.6%	16.9%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2009	353,823	32,879	320,944	5.2%	-2.5%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2010	377,750	33,235	344,515	6.8%	1.0%	1,155,893	N/A	689,849	545,786	466,044	101.8	-4,378	61,717	9.2%	3.7%
2011	401,191	42,428	358,762	6.2 %	1.3 %	1,340,977	1,012,246	806,556	602,105	534,421	106.4	-17,020	70,042	10.2 %	4.1 %
2012	466,156	55,542	410,614	16.2 %	11.2 %	1,484,494	1,121,715	897,830	670,748	586,664	104.4	-14,203	83,428	8.4 %	3.3 %
2013	517,980	69,625	448,355	11.1 %	5.6 %	1,634,857	1,259,540	956,010	709,259	678,847	112.7	-45,863	80,619	6.0 %	2.5 %
2014	622,592	76,621	545,972	20.2 %	15.0 %	1,851,783	1,350,464	1,114,450	818,676	737,333	110.8	-44,132	100,903	6.3 %	2.5 %
2015	564,060	72,182	491,878	-9.4%	-10.1%	1,946,158	1,451,305	1,144,461	801,335	801,698	111.1	-50,555	97,502	6.8%	2.8%
2016	654,715	101,881	552,835	16.1 %	16.1 %	2,128,211	1,542,933	1,273,229	827,324	854,982	105.4	-27,856	90,305	6.4 %	2.6 %
2017	749,330	111,184	638,146	14.5 %	12.6 %	2,263,997	1,646,678	1,320,973	863,940	943,024	99.5	2,815	97,525	7.5 %	3.1 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.8 %	0.1 %	1.8 %	57,946	1,918	56,028	3.3 %	883,763	667,527	216,236	3.5	79.5	0.9
2008	2.1 %	0.1 %	2.0 %	75,796	2,888	72,908	3.8 %	971,818	759,973	211,845	2.9	59.3	0.7
2009	2.0 %	0.2 %	1.8 %	78,677	7,311	71,366	9.3 %	1,107,393	825,779	281,614	3.1	25.1	0.9
2010	1.9 %	0.2 %	1.8 %	82,926	7,296	75,630	8.8 %	1,230,741	913,723	317,019	3.3	27.5	0.9
2011	1.9 %	0.2 %	1.7 %	86,994	9,200	77,794	10.6 %	1,339,410	977,053	362,356	3.3	23.0	1.0
2012	2.0 %	0.2 %	1.8 %	99,896	11,902	87,993	11.9 %	1,452,091	1,069,770	382,321	3.1	19.3	0.9
2013	2.1 %	0.3 %	1.8 %	109,764	14,754	95,010	13.4 %	1,458,295	1,056,074	402,221	2.8	15.2	0.9
2014	2.3 %	0.3 %	2.0 %	130,509	16,061	114,448	12.3 %	1,554,214	1,179,147	375,068	2.5	15.4	0.7
2015	1.9 %	0.2 %	1.7 %	117,006	14,973	102,033	12.8 %	1,794,897	1,285,570	509,326	3.2	17.8	1.0
2016	2.1 %	0.3 %	1.8 %	134,443	20,921	113,522	15.6 %	1,764,370	1,250,214	514,156	2.7	12.3	0.9
2017	2.3 %	0.3 %	2.0 %	152,377	22,609	129,768	14.8 %	1,711,971	1,237,755	474,217	2.3	11.1	0.7

Source: MAPFRE Economic Research (based on data from the General Superintendency of Insurance)

[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.7. Panama: main insurance market figures and indicators, 2007-2017
(millions of balboas)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	607	182	424	22.3 %	17.4 %	1,013	754	663	476	350	96.7	12	52	15.8 %	5.4 %
2008	774	222	552	27.5 %	17.2 %	1,145	819	760	528	386	96.6	15	49	10.9 %	3.7 %
2009	847	239	608	9.5 %	6.9 %	1,339	960	893	600	444	95.4	22	64	15.0 %	5.0 %
2010	919	233	686	8.5 %	4.8 %	1,390	1,099	921	655	468	95.5	24	51	11.8 %	4.0 %
2011	1,053	234	819	14.6 %	8.2 %	1,588	1,157	984	673	604	94.9	31	56	10.4 %	4.0 %
2012	1,139	255	884	8.2 %	2.3 %	1,899	1,374	1,143	689	756	96.5	21	79	12.1 %	4.8 %
2013	1,244	280	965	9.3 %	5.1 %	2,389	1,549	1,483	982	906	98.5	11	68	8.0 %	3.0 %
2014	1,343	312	1,032	7.9 %	5.2 %	2,602	1,679	1,513	1,080	1,089	97.6	18	75	7.5 %	3.1 %
2015	1,389	323	1,066	3.4 %	3.3 %	2,729	1,747	1,627	1,129	1,102	94.6	44	64	7.9 %	3.2 %
2016	1,396	346	1,050	0.5 %	-0.2 %	2,888	1,869	1,715	1,209	1,173	92.5	66	75	10.3 %	4.2 %
2017	1,471	378	1,093	5.4%	4.5%	N/A	N/A	N/A	N/A	N/A	91.2	84	N/A	N/A	N/A

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.8 %	0.8 %	1.9 %	176	53	123	30.1 %	1,192	887	305	2.0	4.9	0.7
2008	3.0 %	0.9 %	2.2 %	221	63	158	28.7 %	1,302	1,004	298	1.7	4.5	0.5
2009	3.1 %	0.9 %	2.2 %	238	67	171	28.2 %	1,464	1,119	345	1.7	4.7	0.6
2010	3.0 %	0.8%	2.3 %	254	64	190	25.3 %	1,556	1,224	331	1.7	5.3	0.5
2011	2.9 %	0.7%	2.3 %	286	64	222	22.2 %	1,866	1,476	390	1.8	6.3	0.5
2012	2.7 %	0.6 %	2.1 %	304	68	236	22.4 %	2,280	1,750	529	2.0	6.9	0.6
2013	2.7 %	0.6 %	2.1 %	327	74	254	22.5 %	2,469	1,836	634	2.0	6.6	0.7
2014	2.6 %	0.6 %	2.0 %	347	81	267	23.2 %	2,753	2,051	701	2.0	6.6	0.7
2015	2.6 %	0.6 %	2.0 %	353	82	271	23.3 %	2,990	2,197	793	2.2	6.8	0.7
2016	2.4 %	0.6 %	1.8 %	350	87	263	24.8 %	3,098	2,165	932	2.2	6.3	0.9
2017	2.4 %	0.6 %	1.8 %	363	93	270	25.7 %	3,187	2,175	1,011	2.2	5.8	0.9

Source: MAPFRE Economic Research (based on data from the Superintendency for Insurance and Reinsurance)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.8. Dominican Republic: main insurance market figures and indicators, 2007-2017
(millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	19,587	2,081	17,506	13.6 %	7.0 %	20,399	9,320	14,544	7,767	5,800	95.0	517,160	466,056	21.2 %	6.0 %
2008	21,770	2,467	19,303	11.1 %	0.5 %	22,348	10,349	15,206	8,689	7,142	96.1	455,099	634,697	19.1 %	6.1 %
2009	23,194	3,378	19,816	6.5 %	5.0 %	25,614	12,603	17,194	9,718	8,422	96.3	453,843	873,735	18.3 %	6.0 %
2010	24,797	3,506	21,291	6.9 %	0.5 %	28,273	14,318	19,094	10,973	9,179	97.3	353,230	893,892	16.5 %	5.4 %
2011	26,828	3,957	22,871	8.2 %	-0.2 %	31,425	16,808	21,573	12,091	9,852	98.7	177,655	1,180,658	18.0 %	5.7 %
2012	29,201	4,464	24,737	8.8 %	5.0 %	34,550	18,243	24,130	13,570	10,421	100.9	-136,509	1,441,191	16.6 %	5.0 %
2013	30,893	5,002	25,891	5.8 %	0.9 %	37,514	20,800	26,261	14,639	11,253	102.0	-295,739	1,403,593	15.6 %	4.7 %
2014	33,207	5,326	27,881	7.5 %	4.4 %	42,397	21,532	29,980	15,533	12,417	99.7	54,272	1,625,913	16.4%	4.8 %
2015	35,628	6,314	29,315	7.3 %	6.4 %	46,790	23,991	33,261	16,652	13,529	98.1	358,319	1,846,167	19.7 %	5.7 %
2016	40,589	7,453	33,136	13.9 %	12.1 %	52,191	26,620	37,257	19,747	14,935	99.6	92,195	2,074,308	18.1 %	5.2 %
2017	49,354	8,480	40,875	21.6 %	17.7 %	58,605	29,683	42,151	23,215	16,454	99.3	202,395	2,235,793	20.0 %	5.6 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.3 %	0.1 %	1.2 %	2,061	219	1,842	10.6 %	100,478	69,268	31,210	5.1	33.3	1.8
2008	1.3 %	0.1 %	1.2 %	2,259	256	2,003	11.3 %	113,164	77,243	35,921	5.2	31.3	1.9
2009	1.3 %	0.2 %	1.1 %	2,374	346	2,028	14.6 %	121,588	81,701	39,888	5.2	24.2	2.0
2010	1.3 %	0.2 %	1.1 %	2,505	354	2,151	14.1 %	137,896	92,275	45,621	5.6	26.3	2.1
2011	1.2 %	0.2 %	1.0 %	2,675	395	2,281	14.7 %	152,988	101,363	51,625	5.7	25.6	2.3
2012	1.2 %	0.2 %	1.0 %	2,875	440	2,436	15.3 %	166,493	110,337	56,156	5.7	24.7	2.3
2013	1.2 %	0.2 %	1.0 %	3,004	486	2,518	16.2 %	175,048	112,303	62,745	5.7	22.5	2.4
2014	1.2 %	0.2 %	1.0 %	3,191	512	2,679	16.0 %	193,950	125,718	68,232	5.8	23.6	2.4
2015	1.2 %	0.2 %	1.0 %	3,383	600	2,784	17.7 %	211,694	136,038	75,655	5.9	21.5	2.6
2016	1.2 %	0.2 %	1.0 %	3,810	700	3,111	18.4 %	215,755	135,825	79,930	5.3	18.2	2.4
2017	1.4 %	0.2 %	1.1 %	4,582	787	3,795	17.2 %	218,954	138,569	80,385	4.4	16.3	2.0

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance)

[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.9. Puerto Rico: main insurance market figures and indicators, 2007-2017
(millions of USD)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	9,254	750	8,503	11.2%	6.7%	6,581	N/A	4,467	N/A	2,114	N/A	N/A	N/A	15.1 %	4.9 %
2008	9,297	716	8,582	0.5 %	-4.5 %	6,460	N/A	4,357	N/A	2,103	N/A	N/A	N/A	14.0 %	4.6 %
2009	9,805	706	9,098	5.5 %	5.2 %	6,912	N/A	4,533	N/A	2,378	N/A	N/A	N/A	16.5 %	5.7 %
2010	10,428	801	9,626	6.4%	3.8%	7,135	5,752	4,732	3,275	2,403	N/A	N/A	N/A	16.3 %	5.5 %
2011	11,059	898	10,161	6.1%	3.1%	7,143	5,824	4,691	3,238	2,452	N/A	N/A	N/A	15.0 %	5.1 %
2012	10,577	980	9,597	-4.4 %	-5.6 %	7,477	6,136	4,835	3,321	2,643	N/A	N/A	N/A	12.8 %	4.5 %
2013	10,518	1,053	9,465	-0.6 %	-1.6 %	7,463	6,091	4,906	3,278	2,557	N/A	N/A	N/A	12.0 %	4.1 %
2014	9,967	1,237	8,730	-5.2 %	-5.8 %	7,437	5,841	4,994	3,127	2,443	N/A	N/A	N/A	4.8 %	1.6 %
2015	12,113	1,252	10,861	21.5 %	22.5 %	8,106	6,122	5,549	3,452	2,557	N/A	N/A	N/A	4.6 %	1.5 %
2016	12,869	1,265	11,605	6.2 %	6.6 %	8,241	6,294	5,749	3,400	2,492	N/A	N/A	N/A	6.8 %	2.1 %
2017	12,778	1,153	11,625	-0.7 %	-2.5 %	9,439	7,249	6,819	3,680	2,620	N/A	N/A	N/A	12.9 %	3.6 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	10.3%	0.8%	9.5%	2,471	200	2,270	8.1%	3,629	3,629	-	0.4	4.8	-
2008	9.9%	0.8%	9.2%	2,489	192	2,297	7.7 %	3,776	3,776	-	0.4	5.3	-
2009	10.2 %	0.7 %	9.4 %	2,631	189	2,442	7.2 %	4,018	4,018	-	0.4	5.7	-
2010	10.6 %	0.8%	9.8 %	2,806	216	2,590	7.7 %	3,952	3,952	-	0.4	4.9	-
2011	11.0 %	0.9 %	10.1 %	2,983	242	2,741	8.1%	3,889	3,889	-	0.4	4.3	-
2012	10.4 %	1.0 %	9.4 %	2,861	265	2,596	9.3 %	3,910	3,910	-	0.4	4.0	-
2013	10.3%	1.0%	9.2%	2,851	285	2,566	10.0%	3,586	3,586	-	0.3	3.4	-
2014	9.7 %	1.2 %	8.5 %	2,708	336	2,372	12.4 %	3,488	3,488	-	0.3	2.8	-
2015	11.7 %	1.2 %	10.5 %	3,297	341	2,956	10.3 %	3,534	3,534	-	0.3	2.8	-
2016	12.3 %	1.2 %	11.0 %	3,509	345	3,164	9.8 %	3,298	3,298	-	0.3	2.6	-
2017	12.9 %	1.2 %	11.8 %	3,488	315	3,174	9.0 %	2,926	2,926	-	0.2	2.5	-

Source: MAPFRE Economic Research (based on data from the Office of the Insurance Commissioner of Puerto Rico)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.10. Colombia: main insurance market figures and indicators, 2007-2017
(millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	8,526,256	2,313,598	6,212,657	12.9%	6.9%	16,605,512	11,625,445	12,075,509	9,819,597	4,530,003	104.1	-264,194	692,191	14.7%	4.0%
2008	10,470,809	3,515,479	6,955,330	22.8%	14.8%	23,378,291	17,510,697	18,089,952	15,206,359	5,288,338	109.0	-636,820	1,415,345	13.3%	3.0
2009	11,436,694	3,535,050	7,901,643	9.2 %	4.8 %	27,176,830	20,876,177	20,506,159	17,479,795	6,670,671	113.5	-1,080,246	2,442,565	18.1 %	4.5 %
2010	11,849,969	3,344,106	8,505,863	3.6%	1.3%	30,723,343	23,604,933	22,887,250	19,540,989	7,836,093	110.4	-889,033	2,131,454	15.4%	3.9%
2011	13,581,554	3,819,524	9,762,029	14.6 %	10.8 %	34,160,398	25,735,842	26,131,154	22,356,789	8,029,244	109.2	-890,427	1,495,277	7.7 %	1.8 %
2012	15,964,766	4,764,043	11,200,722	17.5 %	13.9 %	38,485,408	28,997,894	29,305,428	25,324,006	9,179,981	110.6	-1,216,912	2,405,145	12.1 %	2.9 %
2013	18,833,416	6,690,847	12,142,569	18.0 %	15.6 %	42,857,016	32,926,391	33,746,620	29,208,392	9,110,396	108.6	-1,129,101	1,822,198	6.4 %	1.4 %
2014	19,036,166	5,656,006	13,380,160	1.1 %	-1.8 %	47,590,990	36,689,492	37,599,677	32,297,179	9,991,312	110.4	-1,523,216	2,747,916	10.9 %	2.3 %
2015	21,508,936	6,313,957	15,194,979	13.0 %	7.6 %	51,585,889	38,230,909	41,720,926	35,213,941	9,864,962	110.8	-1,718,318	2,928,678	10.8 %	2.1 %
2016	23,849,424	7,461,856	16,387,568	10.9 %	3.1 %	58,252,927	43,438,209	47,104,482	40,622,613	11,148,445	111.8	-2,251,876	2,126,952	14.9 %	2.9 %
2017	26,003,162	8,436,839	17,566,323	9.0 %	4.5 %	64,888,076	49,249,885	52,706,747	46,421,894	12,181,329	111.3	-2,104,869	1,878,021	14.8 %	2.8 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.0 %	0.5 %	1.4 %	192,152	52,141	140,012	27.1 %	26,961,920	18,775,291	8,186,630	3.2	8.1	1.3
2008	2.2 %	0.7 %	1.4 %	233,200	78,295	154,905	33.6 %	28,514,718	19,514,652	9,000,068	2.7	5.6	1.3
2009	2.3 %	0.7%	1.6 %	251,819	77,837	173,982	30.9 %	30,649,754	21,196,311	9,453,443	2.7	6.0	1.2
2010	2.2 %	0.6 %	1.6 %	258,067	72,828	185,240	28.2 %	32,876,686	22,987,566	9,889,120	2.8	6.9	1.2
2011	2.2 %	0.6 %	1.6 %	292,667	82,306	210,360	28.1 %	36,907,478	25,752,253	11,155,220	2.7	6.7	1.1
2012	2.4 %	0.7 %	1.7 %	340,533	101,618	238,914	29.8 %	38,553,848	27,218,513	11,335,332	2.4	5.7	1.0
2013	2.7 %	0.9 %	1.7 %	397,798	141,323	256,474	35.5 %	37,646,237	25,480,333	12,165,906	2.0	3.8	1.0
2014	2.5 %	0.7 %	1.8 %	398,302	118,343	279,959	29.7 %	41,492,020	29,261,808	12,230,219	2.2	5.2	0.9
2015	2.7 %	0.8 %	1.9 %	445,979	130,917	315,062	29.4 %	42,923,476	30,771,604	12,151,874	2.0	4.9	0.8
2016	2.8 %	0.9 %	1.9 %	490,220	153,377	336,843	31.3 %	42,632,121	29,696,555	12,935,566	1.8	4.0	0.8
2017	2.8 %	0.9 %	1.9 %	530,037	171,973	358,064	32.4 %	42,727,740	29,231,769	13,495,975	1.6	3.5	0.8

Source: MAPFRE Economic Research (based on data from Financial Superintendency of Colombia)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.11. Venezuela: main insurance market figures and indicators, 2007-2017
(millions of bolivars)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	15,399	383	15,016	46.7 %	23.6 %	12,924	9,953	8,653	6,040	4,271	92.9	787	475	16.9 %	5.6 %
2008	22,334	555	21,779	45.0 %	10.3 %	17,865	14,563	11,431	8,823	6,434	98.6	220	1,085	16.0 %	5.8 %
2009	27,550	685	26,865	23.4 %	-2.1 %	21,920	17,361	13,859	10,633	8,061	100.1	-21	1,207	11.0 %	4.0 %
2010	36,924	878	36,045	34.0 %	4.6 %	33,121	25,844	21,015	14,352	12,107	98.0	559	1,308	19.8 %	7.2 %
2011	46,471	913	45,558	25.9 %	-0.2 %	42,562	33,832	27,838	18,555	14,724	97.1	1,016	1,942	16.4 %	5.7 %
2012	59,692	1,132	58,560	28.4 %	6.1 %	51,984	41,106	33,802	23,074	18,182	97.5	1,112	3,085	20.4 %	7.1 %
2013	85,624	1,568	84,056	43.4 %	-0.1 %	80,103	64,892	48,035	33,107	32,068	99.4	362	3,753	15.7 %	6.3 %
2014	142,413	2,279	140,133	66.3 %	5.7 %	157,474	131,215	81,824	57,172	75,649	101.1	-992	5,517	9.0 %	4.3 %
2015	329,970	4,055	325,914	131.7 %	9.4 %	583,874	478,371	211,901	132,590	371,973	105.3	-10,312	21,005	2.5 %	1.6 %
2016	871,509	10,081	861,428	164.1%	-25.5%	1,797,185	1,460,759	630,383	303,608	1,166,803	107.9	-39,588	21,627	3.3%	2.1%
2017	3,830,156	39,764	3,790,392	339.5%	-63.0%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	3.1 %	0.1 %	3.0 %	564	14	550	2.5 %	25,319	23,813	1,505	1.6	62.2	0.1
2008	3.3 %	0.1 %	3.2 %	806	20	786	2.5 %	32,690	31,950	741	1.5	57.6	0.0
2009	3.9 %	0.1 %	3.8 %	979	24	955	2.5 %	33,976	33,976	-	1.2	49.6	-
2010	3.6 %	0.1 %	3.5 %	1,293	31	1,262	2.4 %	48,257	48,257	-	1.3	55.0	-
2011	3.4 %	0.1 %	3.4 %	1,604	32	1,573	2.0 %	64,093	63,845	248	1.4	69.9	0.0
2012	3.6 %	0.1 %	3.6 %	2,032	39	1,994	1.9 %	77,614	77,614	-	1.3	68.6	-
2013	3.8 %	0.1 %	3.7 %	2,876	53	2,823	1.8 %	100,123	100,123	-	1.2	63.9	-
2014	4.7 %	0.1 %	4.6 %	4,721	76	4,645	1.6 %	137,529	137,529	-	1.0	60.3	-
2015	5.5 %	0.1 %	5.4 %	10,800	133	10,667	1.2 %	275,501	275,501	-	0.8	67.9	-
2016	3.7%	0.0%	3.6%	28,172	326	27,846	1.2%	974,412	1,021,656	-	1.1	101.3	0.0
2017	1.3 %	0.0 %	1.3 %	122,324	1,270	121,055	1.0 %	18,269,234	12,072,012	6,197,224	4.8	303.6	1.6

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance Activity)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.12. Brazil: main insurance market figures and indicators, 2007-2017 (millions of reals)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	58,443	29,028	29,415	17.9 %	13.7 %	204,980	181,225	163,228	143,815	41,752	97.8	679	5,833	21.9 %	4.5 %
2008	67,816	33,410	34,407	16.0 %	9.8 %	230,574	201,481	189,204	170,883	41,370	96.7	1,173	5,080	21.4 %	3.8 %
2009	76,611	41,368	35,243	13.0 %	7.7 %	291,557	249,732	236,625	216,903	54,932	94.6	2,171	5,854	17.7%	3.3 %
2010	90,089	49,616	40,473	17.6 %	12.0 %	345,903	300,020	283,074	262,177	62,829	94.7	2,413	6,366	18.1 %	3.3 %
2011	105,001	58,511	46,490	16.6 %	9.3 %	409,926	354,677	344,088	317,384	65,838	97.3	1,465	13,278	19.1 %	3.1 %
2012	129,401	77,147	52,255	23.2 %	16.9 %	499,599	433,224	424,253	391,208	75,346	96.3	2,210	14,177	18.0 %	2.7 %
2013	145,184	83,357	61,828	12.2 %	5.6 %	547,428	470,528	475,329	442,642	72,098	92.8	4,985	11,888	21.8 %	2.9 %
2014	165,235	94,153	71,082	13.8 %	7.0 %	637,696	549,907	562,118	520,471	75,579	95.2	3,630	16,682	23.4 %	2.8 %
2015	184,201	111,024	73,177	11.5 %	2.2 %	740,603	643,058	668,983	624,843	71,620	95.2	3,941	19,422	27.7 %	2.7 %
2016	205,480	130,722	74,757	11.6 %	2.6 %	873,463	776,339	792,216	753,576	81,247	95.3	4,074	18,932	22.0 %	2.0 %
2017	212,155	135,709	76,446	3.2 %	-0.2 %	1,004,977	946,850	917,710	874,484	87,248	93.7	5,574	16,611	19.8 %	1.7 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.1 %	1.1 %	1.1 %	305	151	153	49.7 %	165,341	103,956	61,385	2.8	3.6	2.1
2008	2.2 %	1.1 %	1.1 %	350	172	177	49.3 %	184,567	115,682	68,885	2.7	3.5	2.0
2009	2.3 %	1.2 %	1.1 %	391	211	180	54.0 %	201,099	121,824	79,276	2.6	2.9	2.2
2010	2.3 %	1.3 %	1.0 %	454	250	204	55.1 %	228,687	138,055	90,632	2.5	2.8	2.2
2011	2.4 %	1.3 %	1.1 %	524	292	232	55.7 %	251,423	150,249	101,174	2.4	2.6	2.2
2012	2.7 %	1.6 %	1.1 %	640	382	258	59.6 %	265,799	154,692	111,107	2.1	2.0	2.1
2013	2.7 %	1.6 %	1.2 %	711	408	303	57.4 %	278,549	158,005	120,545	1.9	1.9	1.9
2014	2.9 %	1.6 %	1.2 %	802	457	345	57.0 %	296,733	172,350	124,383	1.8	1.8	1.7
2015	3.1 %	1.9 %	1.2 %	887	534	352	60.3 %	299,027	167,109	131,918	1.6	1.5	1.8
2016	3.3 %	2.1 %	1.2 %	981	624	357	63.6 %	280,789	141,067	139,722	1.4	1.1	1.9
2017	3.2 %	2.1 %	1.2 %	1,005	643	362	64.0 %	281,804	135,010	146,794	1.3	1.0	1.9

Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.13. Ecuador: main insurance market figures and indicators, 2007-2017 (millions of USD)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	678	107	572	10.1 %	7.6 %	509	279	314	90	195	84.3	39	15	14.2 %	5.4 %
2008	884	141	743	30.3 %	20.2 %	651	366	425	122	226	80.6	59	15	14.4 %	5.0 %
2009	943	157	786	6.6 %	1.4 %	720	395	468	135	252	80.7	66	17	14.2 %	5.0 %
2010	1,108	181	926	17.5 %	13.5 %	849	480	548	162	301	76.7	96	18	16.7 %	5.9 %
2011	1,337	231	1,105	20.7 %	15.5 %	1,045	583	697	199	348	74.0	130	21	19.1 %	6.4 %
2012	1,485	255	1,230	11.1 %	5.7 %	1,356	674	970	384	385	75.8	147	31	11.9 %	3.4 %
2013	1,659	282	1,377	11.7 %	8.8 %	1,645	761	1,223	546	422	76.6	164	33	9.3 %	2.4 %
2014	1,703	276	1,427	2.6 %	-0.9 %	1,853	847	1,372	607	482	70.5	214	37	14.6 %	3.8 %
2015	1,665	295	1,370	-2.2 %	-6.0 %	2,017	919	1,448	663	569	76.5	208	41	8.9 %	2.5 %
2016	1,618	347	1,271	-2.8 %	-4.5 %	2,321	952	1,704	895	617	74.9	250	40	10.3 %	2.7 %
2017	1,631	370	1,261	0.8 %	0.4 %	2,247	1,059	1,647	831	600	74.8	254	44	11.7 %	3.1 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.3 %	0.2 %	1.1 %	48	8	40	15.7 %	3,521	2,389	1,132	5.2	22.4	2.0
2008	1.4 %	0.2 %	1.2 %	61	10	51	15.9 %	4,132	2,822	1,310	4.7	20.0	1.8
2009	1.5 %	0.3 %	1.3 %	64	11	53	16.6 %	4,271	2,907	1,364	4.5	18.5	1.7
2010	1.6 %	0.3 %	1.3 %	74	12	62	16.4 %	4,601	3,180	1,422	4.2	17.5	1.5
2011	1.7%	0.3 %	1.4 %	88	15	73	17.3 %	5,120	3,551	1,570	3.8	15.4	1.4
2012	1.7%	0.3 %	1.4 %	96	17	80	17.2 %	5,732	3,979	1,753	3.9	15.6	1.4
2013	1.7 %	0.3 %	1.4 %	106	18	88	17.0 %	5,903	4,025	1,878	3.6	14.3	1.4
2014	1.7%	0.3 %	1.4 %	107	17	90	16.2 %	6,430	4,416	2,014	3.8	16.0	1.4
2015	1.7%	0.3 %	1.4 %	103	18	85	17.7 %	6,339	4,312	2,027	3.8	14.6	1.5
2016	1.6 %	0.4 %	1.3 %	99	21	78	21.4 %	6,046	3,937	2,109	3.7	11.4	1.7
2017	1.6 %	0.4 %	1.2 %	98	22	76	22.7 %	6,075	3,853	2,221	3.7	10.4	1.8

Source: MAPFRE Economic Research (based on data from the Superintendency of Companies, Securities and Insurance)

[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.14. Peru: main insurance market figures and indicators, 2007-2017
(millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	3,712	1,465	2,247	4.7 %	2.9 %	10,970	9,526	8,921	7,925	2,049	134.9	-732	1,097	20.8 %	3.9 %
2008	4,331	1,642	2,690	16.7 %	10.3 %	12,746	10,898	10,659	9,406	2,087	126.8	-672	703	4.4 %	0.7 %
2009	5,190	1,803	3,388	19.8 %	16.4 %	14,137	12,041	11,335	9,933	2,803	109.4	-288	872	17.5 %	3.5 %
2010	6,552	2,889	3,663	26.2 %	24.3 %	17,359	15,259	13,598	11,852	3,761	111.7	-393	1,107	15.9 %	3.4 %
2011	7,212	3,092	4,120	10.1 %	6.5 %	19,786	17,371	15,680	13,568	4,106	113.8	-540	1,481	21.9 %	4.5 %
2012	7,906	3,306	4,600	9.6 %	5.8 %	22,261	19,397	17,634	15,275	4,627	119.0	-809	1,545	14.8 %	3.1 %
2013	9,069	3,750	5,320	14.7 %	11.6 %	28,172	22,282	23,607	20,482	4,564	117.1	-867	1,591	15.1 %	2.4 %
2014	10,154	4,450	5,704	12.0 %	8.4 %	33,303	26,271	27,770	24,073	5,534	115.9	-861	1,840	16.4%	2.7 %
2015	11,744	5,118	6,626	15.7 %	11.7 %	39,373	31,116	33,437	28,771	5,936	113.4	-843	2,001	17.4 %	2.6 %
2016	11,256	4,592	6,664	-4.2 %	-7.5 %	42,187	33,725	35,056	30,676	7,131	116.4	-1,082	2,214	14.4 %	2.4%
2017	11,327	4,811	6,517	0.6 %	-2.1 %	45,169	35,146	38,084	33,247	7,084	120.6	-1,291	2,200	11.8 %	1.9 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.2 %	0.5 %	0.7 %	131	52	79	39.5 %	22,607	14,175	8,431	6.1	9.7	3.8
2008	1.2 %	0.5 %	0.8 %	151	57	94	37.9 %	24,550	15,419	9,130	5.7	9.4	3.4
2009	1.4 %	0.5 %	0.9%	179	62	117	34.7 %	25,202	16,057	9,145	4.9	8.9	2.7
2010	1.6 %	0.7 %	0.9%	223	98	125	44.1 %	27,769	17,317	10,452	4.2	6.0	2.9
2011	1.6 %	0.7%	0.9%	242	104	138	42.9 %	30,645	19,081	11,564	4.2	6.2	2.8
2012	1.6 %	0.7 %	0.9%	262	110	152	41.8 %	33,008	20,696	12,312	4.2	6.3	2.7
2013	1.7%	0.7%	1.0 %	297	123	174	41.3 %	33,436	20,462	12,975	3.7	5.5	2.4
2014	1.8 %	0.8%	1.0 %	328	144	184	43.8 %	35,936	22,138	13,797	3.5	5.0	2.4
2015	1.9 %	0.8 %	1.1 %	374	163	211	43.6 %	37,643	23,308	14,335	3.2	4.6	2.2
2016	1.7%	0.7 %	1.0 %	354	145	210	40.8 %	40,013	24,064	15,950	3.6	5.2	2.4
2017	1.6 %	0.7%	0.9%	352	150	203	42.5 %	41,534	24,160	17,373	3.7	5.0	2.7

Source: MAPFRE Economic Research (based on data from the Superintendence of Banking, Insurance and PFA)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.15. Bolivia: main insurance market figures and indicators, 2007-2017 (millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	v	228	996	-17.6 %	22.8 %	4,040	3,551	3,250	2,878	790	113.2	-74	150	14.8 %	2.9 %
2008	1,409	279	1,130	15.2 %	1.0 %	4,512	3,985	3,537	3,076	975	93.6	52	81	17.2 %	3.7 %
2009	1,428	290	1,138	1.3 %	-2.0 %	4,752	4,019	3,684	3,147	1,069	105.2	-48	208	16.2 %	3.6 %
2010	1,595	341	1,254	11.7 %	9.0 %	4,902	4,052	3,788	3,167	1,056	98.1	20	220	12.4 %	2.7 %
2011	1,841	400	1,441	15.4 %	5.0 %	5,176	4,251	4,097	3,395	1,078	103.4	-41	193	10.5 %	2.2 %
2012	2,194	473	1,721	19.1 %	14.0 %	5,346	4,445	4,167	3,206	1,179	102.3	-33	180	11.1 %	2.4%
2013	2,569	617	1,952	17.1 %	10.8 %	5,624	4,543	4,294	3,165	1,326	92.9	130	133	14.2 %	3.4 %
2014	2,883	705	2,178	12.2 %	6.1 %	5,957	4,635	4,485	3,121	1,472	95.4	87	263	13.2 %	3.2 %
2015	3,103	822	2,281	7.6 %	3.4 %	6,600	4,895	4,893	3,179	1,707	96.8	64	300	13.8 %	3.6 %
2016	3,228	915	2,313	4.0 %	0.4 %	6,953	5,183	5,164	3,214	1,789	100.5	-11	280	13.2 %	3.4 %
2017	3,340	1,020	2,320	3.5 %	0.6 %	6,978	5,302	5,101	3,280	1,877	101.3	-28	238	11.3 %	3.1 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index4	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.2 %	0.2 %	1.0 %	130	24	106	18.6 %	7,257	4,812	2,445	5.9	21.1	2.5
2008	1.2 %	0.2 %	0.9%	147	29	118	19.8 %	8,392	5,511	2,881	6.0	19.8	2.5
2009	1.2 %	0.2 %	0.9%	147	30	117	20.3 %	8,724	5,676	3,048	6.1	19.6	2.7
2010	1.2 %	0.2 %	0.9%	161	34	127	21.4 %	9,721	6,321	3,400	6.1	18.5	2.7
2011	1.1 %	0.2 %	0.9%	183	40	143	21.7 %	11,698	7,530	4,168	6.4	18.8	2.9
2012	1.2 %	0.3 %	0.9%	214	46	168	21.6 %	13,167	8,539	4,629	6.0	18.1	2.7
2013	1.2 %	0.3 %	0.9 %	247	59	188	24.0 %	14,272	8,976	5,297	5.6	14.5	2.7
2014	1.3 %	0.3 %	1.0 %	273	67	206	24.4 %	15,346	9,811	5,535	5.3	13.9	2.5
2015	1.4 %	0.4 %	1.0 %	289	77	212	26.5 %	15,279	9,758	5,521	4.9	11.9	2.4
2016	1.4 %	0.4 %	1.0 %	296	84	212	28.3 %	14,927	9,233	5,694	4.6	10.1	2.5
2017	1.3 %	0.4 %	0.9%	302	92	210	30.5 %	15,841	9,492	6,349	4.7	9.3	2.7

Source: MAPFRE Economic Research (based on data from the Pension and Insurance Oversight and Control Authority)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.16. Chile: main insurance market figures and indicators, 2007-2017 (millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	3,058,946	1,879,597	1,179,348	21.7%	16.5%	16,418,015	19,985,551	14,318,494	13,630,641	2,099,521	122.9	-548,433	876,345	10.1%	1.3%
2008	3,638,056	2,174,445	1,463,611	18.9%	9.4%	18,691,752	21,036,181	16,604,169	15,866,311	2,087,583	118.8	-547,596	469,363	-6.0%	-0.7%
2009	3,491,354	2,084,863	1,406,491	-4.0 %	-5.4 %	19,416,520	22,256,545	17,009,252	16,209,583	2,407,269	127.5	-721,408	1,221,828	16.5 %	2.0 %
2010	4,228,291	2,558,164	1,670,127	21.1 %	19.4 %	21,417,926	23,766,697	18,665,080	17,813,497	2,752,846	119.0	-609,520	1,269,471	17.0 %	2.2 %
2011	5,027,445	2,996,333	2,031,111	18.9 %	15.1 %	23,278,241	25,082,990	20,493,396	19,451,724	2,784,845	111.7	-409,867	697,379	6.4 %	0.8 %
2012	5,471,147	3,268,621	2,202,526	8.8 %	5.7 %	26,865,447	26,737,945	23,715,846	22,259,531	3,149,601	118.0	-771,039	1,225,596	13.1 %	1.5 %
2013	5,799,279	3,460,278	2,339,001	6.0 %	4.0 %	28,983,911	28,463,050	25,762,739	24,171,607	3,221,172	120.2	-926,618	1,190,212	9.1 %	1.0 %
2014	6,223,280	3,648,398	2,574,881	7.3 %	2.8 %	32,735,709	30,259,750	29,381,835	27,347,299	3,353,874	129.4	-1,380,138	1,495,595	10.1 %	1.0 %
2015	7,408,342	4,539,451	2,868,891	19.0 %	14.1 %	37,046,460	32,821,107	33,332,714	30,994,962	3,713,746	120.0	-1,149,424	1,399,500	11.6 %	1.2 %
2016	8,301,283	5,260,639	3,040,644	12.1 %	8.0 %	40,583,576	36,493,884	36,532,471	34,358,555	4,051,105	119.0	-1,240,876	1,870,502	12.3 %	1.2 %
2017	8,268,352	5,081,617	3,186,734	-0.4 %	-2.5 %	43,853,552	39,657,529	39,521,405	37,292,101	4,332,147	122.8	-1,450,732	2,247,955	14.4 %	1.4 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	3.4 %	2.1 %	1.3 %	184,285	113,236	71,049	61.4 %	4,402,710	2,554,500	1,848,210	1.4	1.4	1.6
2008	3.9 %	2.3 %	1.6 %	216,905	129,643	87,262	59.8 %	3,978,358	2,324,841	1,653,518	1.1	1.1	1.1
2009	3.6 %	2.2 %	1.5 %	206,042	123,038	83,004	59.7 %	4,560,618	2,646,737	1,913,881	1.3	1.3	1.4
2010	3.8 %	2.3 %	1.5 %	247,044	149,464	97,579	60.5 %	4,914,685	2,824,529	2,090,156	1.2	1.1	1.3
2011	4.1 %	2.5 %	1.7 %	290,875	173,360	117,515	59.6 %	4,904,273	2,820,742	2,083,529	1.0	0.9	1.0
2012	4.2 %	2.5 %	1.7 %	313,551	187,324	126,227	59.7 %	5,193,363	2,987,560	2,205,802	0.9	0.9	1.0
2013	4.2 %	2.5 %	1.7 %	329,325	196,500	132,825	59.7 %	5,161,924	2,783,295	2,378,629	0.9	0.8	1.0
2014	4.2 %	2.5 %	1.7 %	350,300	205,363	144,937	58.6 %	5,659,392	3,206,539	2,452,854	0.9	0.9	1.0
2015	4.6 %	2.8 %	1.8 %	413,482	253,360	160,121	61.3 %	5,457,620	2,865,850	2,591,770	0.7	0.6	0.9
2016	4.9 %	3.1 %	1.8 %	459,535	291,214	168,321	63.4 %	4,851,536	2,090,843	2,760,694	0.6	0.4	0.9
2017	4.6 %	2.8 %	1.8 %	454,090	279,078	175,012	61.5 %	5,271,003	2,338,751	2,932,252	0.6	0.5	0.9

Source: MAPFRE Economic Research (based on data from the Financial Market Commission)

[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.17. Paraguay: main insurance market figures and indicators, 2007-2017 (millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	557,466	46,971	510,495	14.5 %	5.8 %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2008	695,203	60,967	634,237	24.7 %	13.2 %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2009	833,972	75,340	758,632	20.0 %	16.9 %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2010	1,001,832	102,823	899,009	20.1 %	14.8 %	1,321,113	389,444	890,240	594,659	430,874	N/A	N/A	N/A	16.5 %	5.4 %
2011	1,212,157	132,555	1,079,602	21.0 %	11.8 %	1,634,863	526,164	1,088,238	739,285	546,625	91.4	80,701	36,172	20.0 %	6.7 %
2012	1,434,355	177,160	1,257,195	18.3 %	14.1 %	1,944,590	641,682	1,279,459	860,589	665,132	90.3	109,222	48,618	22.2 %	7.6 %
2013	1,634,685	193,270	1,441,415	14.0 %	11.0 %	2,266,305	763,105	1,474,367	978,520	791,938	92.0	103,509	80,826	21.9 %	7.7 %
2014	1,862,298	236,639	1,625,659	13.9 %	8.5 %	2,502,884	884,133	1,579,631	1,071,207	923,253	93.1	100,904	89,640	20.1 %	7.4 %
2015	2,056,627	279,820	1,776,807	10.4 %	7.1 %	2,856,288	1,038,009	1,811,512	1,201,741	1,044,776	95.4	75,641	140,355	19.7 %	7.2 %
2016	2,168,768	301,748	1,867,020	5.5 %	1.3 %	3,078,466	1,130,586	1,912,605	1,269,155	1,165,861	95.6	74,631	84,295	13.7 %	5.2 %
2017	2,338,258	331,425	2,006,833	7.8 %	4.1 %	3,386,526	1,290,608	2,116,130	1,394,368	1,270,395	97.3	49,135	91,367	13.4 %	5.0 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	0.8 %	0.1 %	0.7 %	93,438	7,873	85,565	8.4 %	5,158,079	3,349,498	1,808,581	9.3	71.3	3.5
2008	0.9 %	0.1 %	0.8 %	114,971	10,082	104,888	8.8 %	5,860,873	3,811,940	2,048,933	8.4	62.5	3.2
2009	1.1 %	0.1 %	1.0 %	136,108	12,296	123,812	9.0 %	5,764,225	3,801,974	1,962,251	6.9	50.5	2.6
2010	1.1 %	0.1 %	0.9%	161,330	16,558	144,771	10.3 %	6,790,248	4,484,564	2,305,684	6.8	43.6	2.6
2011	1.2 %	0.1 %	1.0 %	192,555	21,057	171,498	10.9 %	7,356,418	4,886,119	2,470,298	6.1	36.9	2.3
2012	1.3 %	0.2 %	1.2 %	224,765	27,761	197,004	12.4 %	7,498,236	5,063,015	2,435,220	5.2	28.6	1.9
2013	1.3 %	0.2 %	1.2 %	252,722	29,879	222,842	11.8 %	8,314,062	5,473,602	2,840,461	5.1	28.3	2.0
2014	1.4 %	0.2 %	1.2 %	284,126	36,103	248,022	12.7 %	9,154,780	6,118,950	3,035,831	4.9	25.9	1.9
2015	1.4 %	0.2 %	1.3 %	309,772	42,147	267,625	13.6 %	9,390,242	6,308,690	3,081,553	4.6	22.5	1.7
2016	1.4 %	0.2 %	1.2 %	322,610	44,886	277,724	13.9 %	9,916,938	6,453,295	3,463,644	4.6	21.4	1.9
2017	1.4 %	0.2 %	1.2 %	343,592	48,701	294,891	14.2 %	10,197,144	6,538,719	3,658,426	4.4	19.7	1.8

Source: MAPFRE Economic Research (based on data from the Superintendency of Insurance, Bank of Paraguay)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.18 Argentina: main insurance market figures and indicators, 2007-2017 (millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	21,488	6,118	15,370	26.4 %	16.1 %	40,575	31,854	32,821	28,150	7,754	107.4	-1,194	1,659	11.9 %	2.3
2008	26,157	5,852	20,305	21.7 %	12.1 %	47,771	37,367	39,295	33,188	8,476	107.9	-1,577	1,494	11.4 %	2.0 %
2009	29,097	4,898	24,198	11.2 %	4.7 %	56,132	43,780	45,386	38,042	10,746	117.7	-4,004	4,897	21.0 %	4.0 %
2010	38,784	6,218	32,566	33.3 %	20.7 %	67,612	52,114	54,630	42,329	12,982	110.7	-3,290	4,758	18.9 %	3.6 %
2011	52,213	8,704	43,509	34.6 %	22.6 %	82,077	61,866	66,480	55,231	15,597	107.4	-3,139	6,259	22.8 %	4.3 %
2012	69,062	11,625	57,437	32.3 %	20.2 %	105,071	78,310	84,977	69,572	20,094	113.5	-7,662	10,685	23.3 %	4.5 %
2013	93,389	15,262	78,127	35.2 %	22.2 %	139,358	103,916	112,499	92,121	26,858	116.2	-12,274	16,772	23.6 %	4.5 %
2014	129,421	21,032	108,389	38.6 %	-2.4 %	188,896	142,120	151,932	123,804	36,964	116.2	-16,835	24,876	28.6 %	5.6 %
2015	180,672	28,285	152,387	39.6 %	10.4 %	271,656	208,840	216,415	175,855	55,241	114.0	-20,591	37,335	32.5 %	6.6 %
2016	243,602	37,979	205,622	34.8 %	-3.0 %	379,860	292,721	298,885	245,173	80,975	118.1	-35,988	52,057	24.1 %	5.1 %
2017	302,312	42,577	259,734	24.1 %	-1.3 %	502,009	390,929	390,617	321,404	111,392	109.8	-34,258	75,805	24.7 %	5.5 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	2.4 %	0.7%	1.7 %	539	153	385	28.5 %	52,356	37,765	14,592	2.4	6.2	0.9
2008	2.3 %	0.5 %	1.8 %	649	145	504	22.4 %	67,201	49,298	17,903	2.6	8.4	0.9
2009	2.3 %	0.4 %	1.9 %	715	120	594	16.8 %	74,978	56,259	18,719	2.6	11.5	0.8
2010	2.3 %	0.4 %	2.0 %	943	151	792	16.0 %	97,608	74,079	23,528	2.5	11.9	0.7
2011	2.4 %	0.4 %	2.0 %	1,256	209	1,047	16.7 %	125,264	95,245	30,019	2.4	10.9	0.7
2012	2.6 %	0.4 %	2.2 %	1,644	277	1,368	16.8 %	147,450	115,388	32,062	2.1	9.9	0.6
2013	2.8 %	0.5 %	2.3 %	2,201	360	1,841	16.3 %	172,778	136,348	36,430	1.9	8.9	0.5
2014	2.8 %	0.5 %	2.4 %	3,019	491	2,528	16.3 %	236,682	190,168	46,515	1.8	9.0	0.4
2015	3.0 %	0.5 %	2.6 %	4,173	653	3,519	15.7 %	299,321	247,986	51,335	1.7	8.8	0.3
2016	3.0 %	0.5 %	2.5 %	5,573	869	4,704	15.6 %	392,803	317,725	75,078	1.6	8.4	0.4
2017	2.9 %	0.4 %	2.5 %	6,852	965	5,887	14.1 %	492,949	393,272	99,676	1.6	9.2	0.4

Source: MAPFRE Economic Research (based on data from the National Superintendency of Insurance)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

Table A.19. Uruguay: main insurance market figures and indicators, 2007-2017 (millions of pesos)

Year	Premiums			Premium growth		Assets	Investment	Liabilities	Technical provisions	Equity	Combined ratio[1]	Technical result	Financial result	ROE[2]	ROA[3]
	Total	Life	Non-Life	Nominal	Real										
2007	8,987	1,704	7,284	12.7 %	4.2 %	20,064	15,295	14,570	12,120	5,494	97.8	173	85	3.9 %	1.1 %
2008	10,784	2,206	8,578	20.0 %	11.2 %	23,677	17,687	18,261	15,009	5,416	102.0	-178	299	-2.8 %	-0.6 %
2009	12,693	2,719	9,975	17.7 %	9.9 %	28,006	22,027	21,999	18,592	6,007	113.5	-1,452	2,733	12.2 %	2.6 %
2010	14,581	3,472	11,109	14.9 %	7.7 %	35,109	28,237	27,334	23,547	7,775	106.0	-743	2,801	17.3 %	3.8 %
2011	17,637	4,261	13,377	21.0 %	11.9%	40,986	33,942	32,806	29,069	8,180	101.3	-192	1,455	5.5 %	1.1 %
2012	21,564	5,684	15,880	22.3 %	13.1 %	50,863	42,461	41,286	36,799	9,576	105.1	-963	2,343	7.8 %	1.5 %
2013	24,749	7,100	17,648	14.8 %	5.7 %	62,405	52,154	51,851	46,470	10,554	106.8	-1,470	2,595	10.3 %	1.7 %
2014	30,285	8,937	21,347	22.4 %	12.4 %	77,793	65,068	65,535	58,548	12,259	101.9	-487	2,699	8.2 %	1.3 %
2015	34,910	11,672	23,238	15.3 %	6.1 %	96,715	83,041	82,363	74,257	14,352	104.6	-1,432	4,249	6.1 %	0.9 %
2016	38,531	14,707	23,824	10.4 %	0.7 %	115,866	99,900	100,114	90,779	15,752	105.9	-2,073	4,641	4.8 %	0.7 %
2017	45,207	19,075	26,132	17.3 %	10.5 %	140,142	123,081	121,707	113,058	18,435	105.9	-2,426	6,782	11.8 %	1.6 %

Year	Penetration (premiums/GDP)			Density (premiums per capita, pesos)			Depth index[4]	Insurance Protection Gap			IPG as multiple of actual market		
	Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life
2007	1.6 %	0.3 %	1.3 %	2,690	510	2,180	19.0 %	36,248	25,177	11,071	4.0	14.8	1.5
2008	1.7%	0.3 %	1.3 %	3,218	658	2,560	20.5 %	40,874	28,310	12,564	3.8	12.8	1.5
2009	1.8 %	0.4 %	1.4 %	3,775	809	2,967	21.4 %	46,897	32,298	14,598	3.7	11.9	1.5
2010	1.8 %	0.4 %	1.4 %	4,322	1,029	3,293	23.8 %	51,745	35,576	16,170	3.5	10.2	1.5
2011	1.9 %	0.5 %	1.4 %	5,212	1,259	3,953	24.2 %	57,813	39,931	17,882	3.3	9.4	1.3
2012	2.1 %	0.5 %	1.5 %	6,351	1,674	4,677	26.4 %	63,896	44,450	19,446	3.0	7.8	1.2
2013	2.1 %	0.6 %	1.5 %	7,265	2,084	5,181	28.7 %	68,921	46,254	22,667	2.8	6.5	1.3
2014	2.3 %	0.7 %	1.6 %	8,860	2,615	6,245	29.5 %	76,091	52,429	23,662	2.5	5.9	1.1
2015	2.4 %	0.8 %	1.6 %	10,177	3,403	6,775	33.4 %	82,446	55,875	26,570	2.4	4.8	1.1
2016	2.4 %	0.9 %	1.5 %	11,192	4,272	6,920	38.2 %	84,348	53,974	30,374	2.2	3.7	1.3
2017	2.6 %	1.1 %	1.5 %	13,082	5,520	7,562	42.2 %	83,626	51,533	32,093	1.8	2.7	1.2

Source: MAPFRE Economic Research (based on data from the Superintendency of Private Insurance)
[1] Estimate relative to net accrued premium; [2] Return on equity; [3] Return on assets; [4] Life insurance premiums / total premiums

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