

# The Latin American insurance market in 2015



Jorge González Camarena Presence of Latin America, 1965

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## Introduction

The aim of this report is to provide a review of the insurance situation in Latin America. The report starts with a general overview of the macroeconomic context of the region in 2015, based on which it addresses the insurance industry's situation from the perspectives of both the region in general and each individual market within it.

Among other aspects, the report deals with the main magnitudes and trends in Latin American insurance markets. In this respect, it analyses aspects such as the growth in premiums, the main factors of the aggregate balance sheet at a sector level, the technical performance, and the results and profitability of the insurance industry. It is worth noting that the analysis presented in this study not only focuses on the market performance in 2015 but also includes a mid-term analysis of the sector's progress over the last decade.

Thus the report includes a review of the main structural trends in each insurance market in Latin America, examining the progress of the indicators for penetration, density and depth of insurance. It also includes an estimate of the Insurance Protection Gap for both the region as a whole and each individual country, detailing the characteristics of its scale and structure. As a supplementary feature, the report provides an estimate of the Market Development Index (MDI), an indicator whose purpose is to capture trends in the progress and maturity of insurance markets and allows comparisons to be made between the progress of a specific market and the trend observed for the region as a whole.

In addition, for each of the markets analyzed, the report includes the total Life and Non-Life rankings for 2015 as well as an analysis of the levels and trends of the industry's concentration. Finally, it presents a brief description of the main regulatory changes during 2015 and, in the most relevant cases, a forecast of adjustments in the regulatory framework that are either envisaged for these markets in 2016 or are already being implemented.

We trust that the dissemination of this type of analysis will continue to contribute towards a better understanding of how the Latin American insurance market operates, with the aim of providing significant pointers to help the insurance industry continue to increase its importance in the region's economy and, by the same token, to continue supporting the economic and social development of Latin American countries.

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# 1. Summary

In 2015, the growth of the **global economy** was around 3.2%, with the expectation of a moderate slowdown in 2016. Developed economies grew by 2.1%, while emerging ones grew at a rate of 4%. However, these figures corroborated the weakness of the emerging economies in a context of uncertainty about growth in China, increased global volatility and an unfavorable cycle of raw materials, with a clear impact on Latin American economies.

The political context and an adverse external economic framework contributed to weakening optimism with regard to growth **forecasts for Latin America**, burdened by a weak labor market and currency depreciations, consequently pushing up inflation. These factors continued to weaken investments and consumption in most of the region's countries. The foreign sector was unable to offset the weakness of domestic demand, as it was also affected by the uncertainties about growth in China and the volatility of the price of raw materials. Thus growth of the Latin American economy was negative in 2015 (-0.03%), with the expectation that it would remain fairly stagnant in 2016 (-0.3% on average between 2015 and 2016).

While being quite strongly conditioned by the complex economic environment that characterized 2015, which caused the deceleration of economic growth and the depreciation of most of the region's currencies, the Latin American insurance market, while not performing as satisfactorily as it has in previous years, continued to show positive signs, especially when its underlying performance and dynamics are analyzed in terms of local currencies, isolating it from the monetary effect caused by their devaluation against the dollar.

In 2015, the **total volume of premiums** in the region rose to 150,818 million dollars (8.8% less than 2014), 58.9% of which corresponded to Non-Life insurance and the remaining 41.1% to Life. Measured in dollars, in 2015 the insurance markets of Brazil, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Uruguay and Venezuela all declined, while the markets of the other countries showed positive growth compared to the previous year.

Analyzing the **market by insurance segments**, Non-Life premiums dropped by 7.4% and Life by 10.8% compared to 2014. All the main segments in Non-Life declined, apart from Occupational Accidents and Health. The most important segment in terms of size, Automobile, which represents 21.8% of all premiums, shrank by 11.3%. In the Life segment, Individual and Group Life insurance premiums fell, as did Disability & Survivor and Pensions, with a particularly sharp drop in the former (-12,2%), representing 35.5% of all premiums.

All the markets in the region presented positive **net aggregate results**. However, the net aggregate result in 2015 (11,309 million dollars) contracted by 13.9% compared to the previous year, determined to a large extent by the unfavorable performance of the exchange rates of many local currencies against the dollar.

With regard to structural trends in the Latin American insurance industry, **the penetration index** (premiums/GDP) was 2.9% in 2015, 0.14 p.p. above the 2014 figure, and 0.88 points above the 2005 indicator. The increase in penetration between 2014 and 2015 was concentrated in Non-Life insurance, which accounted for 0.12 p.p. of the increase in this interval. Despite this, over the 2005-2015 period the biggest contributor to penetration growth was Life insurance, accounting for 0.51 p.p. of the total.

In 2015, the **density** (premiums per capita) was 251.1 dollars, 9.8% below the level achieved in 2014, having been strongly affected by the loss of value of most Latin American currencies. Most of the per person expenditure on insurance was concentrated in the Non-Life segment (147.8 dollars), with a drop of 9.4% compared to 2014, while the density of Life insurance was 103.3 dollars, 11.7% less than the previous year.

The **depth index** (the ratio between Life insurance premiums and total premiums) was 41.1% in 2015, 0.9 p.p. less than in 2014, maintaining the backward trend that started in 2012. However, the mid-term analysis for 2005-2015 points to an improvement,

with a cumulative increase of 7 p.p. and cumulative growth of 20.4% over this interval.

The Insurance Protection Gap for the Latin American insurance market in 2015 was 272 billion dollars, 15.4% less than the estimate for 2014. This drop, however, was strongly influenced by the devaluation of several Latin American currencies. From the point of view of its structure, the Insurance Protection Gap over the last decade shows the clear predominance of Life insurance. In 2015, 66.3% of premiums were for Life insurance (180.3 billion dollars), while Non-Life insurance represented 33.7% of the Gap, or 91.8 billion dollars. Thus the potential insurance market in Latin America (adding together the actual insurance market and the Insurance Gap) was 422.9 billion dollars, which represents 1.8 times the actual market in the region (150.8 billion dollars). In the evaluation of the capacity shown by the Latin American insurance sector to close the Insurance Protection Gap determined for 2015 over the next decade, it was concluded that in the case of the Life segment the growth rates observed over the 2005-2015 period would be insufficient to close the gap over this period.

Finally, with regard to the estimate of the **Market Development Index** for the Latin American insurance sector during the 2005-2015 period, the indicator showed sustained annual advances over the whole decade, which is consistent with the increase in the penetration and depth levels of insurance in the region.

This report also includes an analysis for each individual Latin American insurance market.

These individual reports make an evaluation of the macroeconomic environment before addressing the main magnitudes and trends in the insurance markets. The reports comprise an overview for the 2005-2015 period of the growth in premiums, the main items in the aggregate balance sheet at a sector level, the technical performance, and the results and profitability of the industry. They also include a review of the main structural trends in each market, analyzing the progress of the penetration, density and depth indicators of insurance. In order to adequately show the underlying dynamics of the main trends, the country-by-country analyses are done in local currencies in order to rule out the effect of the currency devaluations implemented by most countries in the region. In addition, each individual report includes an estimate of the Insurance Protection Gap, detailing the characteristics of its size and structure and giving an estimate of the Market Development Index which is used to compare the specific progress of the sector in each country with the trend observed for the region as a whole.

The individual reports are complemented by the full rankings for each market for 2015, as well as those corresponding to the Life and Non-Life segments. They also make an analysis of the concentration levels of the industry based on an estimate of the Herfindahl Index and the share ratio of the market of the five biggest insurance groups in each country. Finally, for each market studied there is a brief description of the main regulatory changes that took place in 2015 and details of any regulatory adjustments anticipated for 2016.

## 2. The Latin American insurance market in 2015

#### 2.1. Macroeconomic environment

#### Overall environment

In 2015, the overall growth of the economy was around 3.2%, in expectation of a moderate slowdown in 2016, with growth forecast at up to 3.1%. In this context, developed economies grew by 2.1% in 2015, while emerging ones did so at a rate of 4% (see Graph 2.1-a). These figures, however, corroborate the weakness of emerging economies in a context of uncertainty about growth in China, an increase in global volatility and an unfavorable raw materials cycle, with a clear impact on Latin American economies, especially in terms of prices and activity.

At the same time, global risks made it necessary to delay the normalization of monetary policy in the United States, deferring the first rise to the end of the year and anticipating a more gradual process in 2016. This indication of graduality was transferred to a moderate search for yields outside the United States (notably in Latin America), which

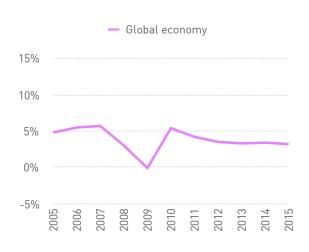
partially softened the depreciation of the region's

#### **Latin America**

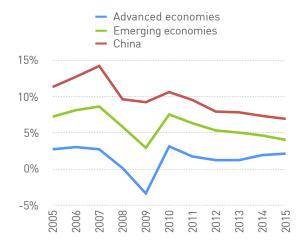
The political context and an adverse foreign economic framework contributed to weakening optimism with regard to growth forecasts in the region, burdened by a weak labor market and the depreciation of its currencies, with a consequent rise in inflation. These factors continued to weaken investments and consumption in most of the region's countries. The foreign sector was unable to offset the weakness of domestic demand, as it was also affected by the uncertainty over Chinese growth and the volatility of raw material prices. Thus the growth of the region's economy was negative in 2015 (-0.03%), with the expectation of remaining fairly stagnant in 2016 (-0.3% on average between 2015 and 2016).

These figures, however, conceal a dual reality in the region: Asymmetric growth, in which the strong recession in Brazil (which is expected to remain

Graph 2.1-a. Growth of global GDP, 2005-2015 (growth rate of the GDP at constant prices, %)



Source: MAPFRE Economic Research (with IMF data)



during 2015 and 2016, with an annual average of -3.6%) will not be able to be offset with the greater dynamism of the other big economies in the region (Mexico, 2.5%; Colombia, 3.1%; Peru, 3.3%; Chile, 2.3%) that showed positive growth in 2015 (see Graph 2.1-b), which is expected to continue in 2016.

It is to be expected that regional activity will reactivate by the end of 2016, driven by: (i) the upsurge in foreign demand thanks to global growth and a depreciated exchange rate; and (ii) the support of public investment which will bolster private demand. Thus the region should return to a similar path to its potential by the end of 2018.

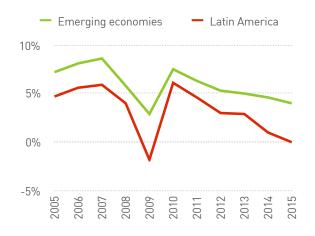
Inflation, meanwhile, is still above the target of several of the region's central banks, and with a slower convergence than anticipated, given the currency depreciation which forces inflation to be imported (passthrough), and the resistance of certain idiosyncratic factors such as shocks in food prices (Peru and Colombia) and the rise in administered prices (Brazil and Argentina). These factors have already had an impact on inflation forecasts, which have been on the rise since mid-2015.Only Mexico has remained outside this pattern, partly thanks to structural reforms and accurate communications from its central bank.

Forecasts of the risk of 'unanchored' inflation forced central banks in general to be more cautious

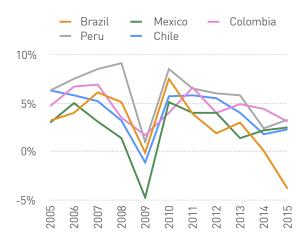
with their monetary policies. The Andes nations toughened up the tone of their monetary policies with increases in the benchmark rates, despite the slowdown of activity, while Brazil maintained its monetary policy in the restrictive zone (monetary policy rate above the natural rate). Mexico also kept its lending rate in line with the Federal Reserve.

In line with the 2015 scenario, increases in inflationist pressure and improvements in activity were forecast which would lead to more rises in 2016 (assuming the bias of the Federal Reserve remains unchanged), although with different strategies between the Andean countries and the rest. Brazil's monetary policy would be conditional upon the performance of domestic demand and the mismatch originating in its fiscal policy. With the start of increases in interest rates by the Federal Reserve, a less favorable foreign environment and a bigger slowdown in the region, there was a continued trend towards depreciation in the exchange rates of most countries. Beyond the context of lower prices of raw materials and uncertainties about growth in China, episodes of volatility linked to the normalization of monetary policy in the United States had a major effect, but it is foreseeable that the context of greater dynamism assumed for 2016 will help to stabilize currencies in the region.

Graph 2.1-b. Growth of Latin American GDP, 2005-2015 (GDP growth rate at constant prices, %)



Source: MAPFRE Economic Research (with data from the IMF)



The moderate prices of the main export raw materials kept a high foreign deficit in the region (except in Chile) and also pushed up fiscal deficits. Given the depreciation of exchange rates, the weakness of domestic demand and a certain recovery in trade terms, it was forecast that the foreign deficit would start evening out in 2016 in certain countries. A notable example is Brazil, where the forecasts for fiscal balances in particular dropped as a consequence of a stronger recession than anticipated, as well as the political impasse that made it difficult to adopt the necessary fiscal adjustment measures.

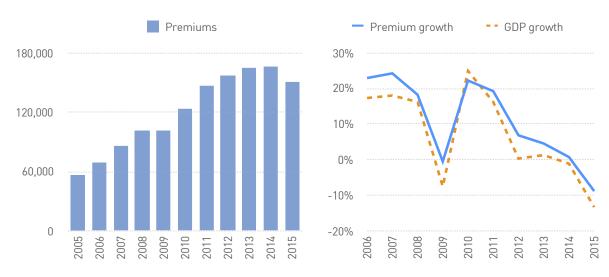
Two fundamental risks were envisaged for the region in 2016: (i) a bigger slowdown in China, and (ii) more aggressive monetary policy normalization by the Federal Reserve in the United States. In the first case, a pronounced slowdown in China (inevitably linked to new episodes of financial volatility) could have an impact on the region through a drop in the prices of raw materials and increased risk aversion. This would result in a context of little room for monetary maneuvering to buffer the shock of counter-cyclical policies and foreseeably a bigger erosion in confidence which is already at a very low level (Brazil, Colombia and Chile would be the countries most strongly affected by this risk). In the second case, faster monetary policy normalization than expected by the Federal Reserve could lead to a financial overreaction across all the sections of the North American curve, having an impact on the financing costs of many countries which are based on dollars and whose currency would be further depreciated in view of the portfolio flow dynamics that this movement might entail (relocation). The case of Mexico – which is less dependent on the Chinese cycle and raw materials— is a clear example of dependence on this second risk, which explains the objective of the Bank of Mexico to synchronize its monetary policy with that of the United States.

#### 2.2. The insurance environment

#### Growth

Being significantly affected by the complex economic environment that characterized 2015, which generated a slowdown in economic growth and the depreciation of most Latin American currencies, the performance of the region's insurance market in 2015 was not as satisfactory as in previous years (see Graphs 2.2-a and 2.2-b). Even so, it continues to show positive signs, especially when the underlying performance and dynamics are analyzed in terms of local currencies, thus isolating the monetary effect caused by their devaluation against the dollar.

Graph 2.2-a. Latin America: economic growth and the insurance market, 2005-2015 (premiums, in billions of USD; annual growth rates, %)



Source: MAPFRE Economic Research (with data from supervisory bodies and the IMF)

As mentioned in the individual reports on each insurance market included in this report, the volume of premiums expressed in local currencies grew in real terms in every market, with the sole exceptions of Venezuela, Ecuador (due to the economic crisis in the former and stagnation in the latter) and Costa Rica (due to the effect of a change in the accounting regulations for premiums).

Compared to the previous year, there was accelerated growth in real terms in the cases of Chile, Colombia, El Salvador, Honduras, Mexico, Peru and Puerto Rico, and slowdowns in the others. The cases of Puerto Rico, Peru and Argentina are worth noting, where the real growth in the insurance market achieved double-digit figures in 2015 (see Table 2.2-a).

#### Penetration and density by country

As in previous years, Puerto Rico continues to show the highest penetration figures (premiums/GDP) and density figures (premiums per capita) in the region, achieving figures of 11.8% and 3,289 dollars respectively. This is explained by the fact that the volume of premiums in this market includes Health insurance for the most disadvantaged population, which is managed by the private insurance sector and defrayed by the Government's budgets (see Graph 2.2-c).

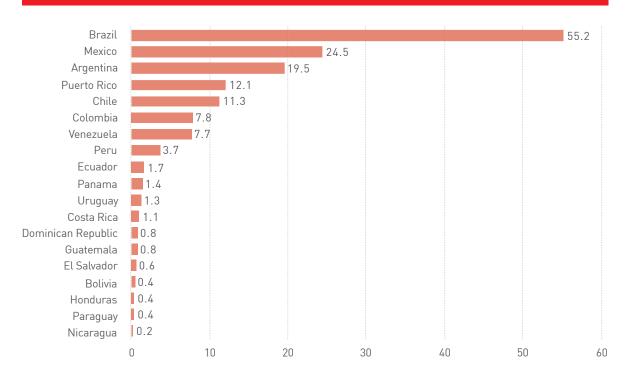
After Puerto Rico, Venezuela (with 5.5%), Chile (4.7%), Brazil (3.1%) and Argentina (3.1%) were the countries with the highest penetration levels in 2015. All of them, apart from Brazil, saw improvements in this indicator in 2015 compared to 2014. Meanwhile, the Dominican Republic and Guatemala, with a penetration index of 1.2%, were the lowest countries in this ranking.

Table 2.2-a. Latin America: variation in the volume of premiums, 2014-2015 (growth in local currency, %)

Country	% $\Delta$ nominal	% ∆ real
Argentina	39.6%	10%
Bolivia	7.6%	4.5%
Brazil	11.5%	0.7%
Chile	14.5%	9.7%
Colombia	13.0%	5.8%
Costa Rica	-9.4%	-8.7%
Ecuador	-2.2%	-5.4%
El Salvador	6.4%	5.4%
Guatemala	5.8%	2.6%
Honduras	9.6%	7.1%
Mexico	9.8%	7.5%
Nicaragua	12.6%	9.3%
Panama	3.4%	3.1%
Paraguay	10.4%	7.1%
Peru	15.7%	10.8%
Puerto Rico	21.5%	21.7%
Dominican Republic	7.3%	4.8%
Uruguay	15.3%	5.3%
Venezuela	131.7%	-17.5%

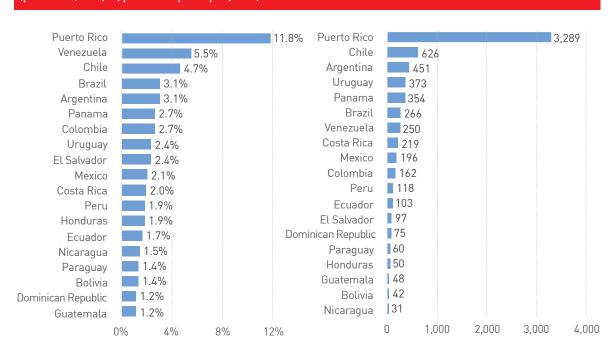
 ${\tt Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ regional\ supervisory\ bodies)}$ 

Graph 2.2-b. Latin America: premiums of insurance markets, 2015 (millions of USD)



Source: MAPFRE Economic Research (with data from regional supervisory bodies)

Graph 2.2-c. Latin America: penetration and density indicators, by country, 2015 (premiums/GDP, %; premiums per capita, USD)



Source: MAPFRE Economic Research (with data from regional supervisory bodies)

It can be seen in Graph 2.2-c that, after Puerto Rico, Chile and Argentina are the countries with the highest premium per capita in Latin America, with indicators of 626 and 451 dollars respectively, followed by Uruguay (\$373), Panama (\$354) and Brazil (\$266). As in previous years, the Latin American nations with the smallest per capita premium are Bolivia (\$42) and Nicaragua (\$31), though these figures are higher than those in 2014.

Notwithstanding the above, and as confirmed in the individual analyses of each market detailed in this report, in virtually all the markets we can see an increase in penetration and density levels, thus confirming the development trajectory of this industry in the region under observation over the past decade.

#### Premiums by branch of insurance

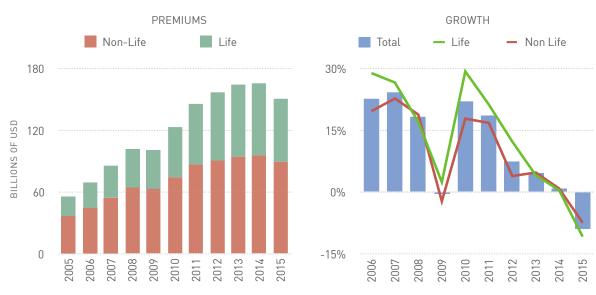
In 2015, the total volume of premiums in the region amounted to 150,818 million dollars, 58.9% of which corresponded to Non-Life and the remaining 41.1% to Life (see Graph 2.2-d).

Taken in dollars, the total premiums dropped by 8.8% compared to 2014. As mentioned earlier, this contraction is explained by the slowdown in Latin America's economic dynamism, and especially by the effect of the devaluation of many local currencies against the dollar, which was particularly significant in the case of the Brazilian real and the Colombian peso.

As confirmed by Table 2.2-b, when measured in dollars, there was a decline in the insurance markets of Brazil, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Uruguay and Venezuela in 2015, while the other regions grew compared to the previous year.

When differentiating the insurance business by segments, Non-Life premiums dropped by 7.4% and Life premiums by 10.8% compared to 2014. All the main segments in Non-Life declined, apart from Occupational Accidents and Health. The most important segment in terms of size, Automobile, which represents 21.8% of all premiums, shrank by 11.3%. In the Life segment, both individual and group life insurance premiums fell, as did Disability & Survivor and Pensions, the drop in the former being particularly sharp (-12.2%), which accounts for 35.5% of the total premiums (see Table 2.2-c).

Graph 2.2-d. Latin America: progress of growth in the insurance market, 2005-2015 (premiums in USD; growth rates, %)



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

Table 2.2-b. Latin America: volume of premiums by country, 2015 (premiums, in million USD)

Country	Non-Life	% Δ	Life	% Δ	Total	% Δ
Argentina	16,450	23.2%	3,053	17.9%	19,504	22.4%
Bolivia	330	4.8%	119	16.8%	449	7.7%
Brazil	21,943	-27.3%	33,292	-16.8%	55,235	-21.3%
Chile	4,385	-6.4%	6,939	4.5%	11,324	-0.0%
Colombia	5,532	-17.3%	2,299	-18.7%	7,831	-17.7%
Costa Rica	919	-9.4%	135	-5.2%	1,054	-8.9%
Ecuador	1,370	-4.0%	295	6.9%	1,665	-2.2%
El Salvador	376	8.5%	233	3.3%	609	6.4%
Guatemala	625	8.7%	154	0.0%	779	6.9%
Honduras	272	0.5%	128	8.3%	400	2.9%
Mexico	13,015	-6.9%	11,458	-9.1%	24,473	-7.9%
Nicaragua	157	7.6%	34	6.0%	191	7.3%
Panama	1,066	3.3%	323	3.7%	1,389	3.4%
Paraguay	341	-6.3%	54	1.4%	395	-5.3%
Peru	2,082	3.6%	1,606	2.5%	3,688	3.1%
Puerto Rico	10,861	24.4%	1,252	1.2%	12,113	21.5%
Dominican Republic	651	1.6%	140	14.5%	792	3.6%
Uruguay	852	-7.4%	428	11.1%	1,279	-2.0%
Venezuela	7,556	-17.7%	94	-37.0%	7,650	-18.0%
Total	88,784	-7.4%	62,034	-10.8%	150,818	-8.8%

Source: MAPFRE Economic Research (with data from regional supervisory bodies)

Table 2.2-c. Latin America: volume of premiums by segment, 2015	
(total premiums, millions of USD)	

	2014	2015	% Δ	% share
Life	69,535	62,034	-10.8%	41.1%
Individual and Group Life	61,010	53,585	-12.2%	35.5%
Disability & Survivor and/or Pensions	8,525	8,449	-0.9%	5.6%
Non-Life	95,874	88,784	-7.4%	58.9%
Occupational Accidents	6,244	7,426	18.9%	4.9%
Personal Accidents	5,000	4,094	-18.1%	2.7%
Automobile	37,088	32,890	-11.3%	21.8%
Credit and/or Surety	2,173	1,991	-8.4%	1.3%
Fire and/or Allied Lines	8,295	7,632	-8.0%	5.1%
Other Damages	14,057	12,145	-13.6%	8.1%
Civil Liability	2,483	2,282	-8.1%	1.5%
Health	16,948	17,292	2.0%	11.5%
Transport	3,585	3,032	-15.4%	2.0%
Total	165,408	150,818	-8.8%	100.0%

Source: MAPFRE Economic Research (with data from regional supervisory bodies)

#### Net result, capitalization and profitability

Table 2.2-d shows the structure of the profit and loss accounts of the Latin American insurance markets in 2015. This information shows that all the countries presented positive net aggregate results.

However, the net aggregate result of the Latin American insurance market in 2015 (at 11,309 million dollars) shrank by 13.9% compared to the previous year (see Table 2.2-e). As mentioned earlier, this contraction is due to a large extent to the unfavorable performance of local currency exchange rates against the dollar which occurred throughout 2015.

As shown in Table 2.2-e, profits in dollars rose compared to the previous year in Argentina, Bolivia, Chile, Costa Rica, Guatemala, Honduras, Nicaragua, Peru and the Dominican Republic, but fell in the other countries.

Table 2.2-d. Latin America: profit and loss accounts by country<sup>1</sup>, 2015 (in million USD)

Country	Premiums earned	Operating expenses:	Accident rate	Technical result	Financial result	Other income and expenses	Net result
Argentina	15,894.4	-7,195.6	-10,921.7	-2,222.8	4,030.4	131.8	1,939.3
Bolivia	292.9	-165.8	-117.7	9.3	435	-18.7	34.1
Brazil	24,837.5	-12,173.1	-11,482.7	1,181.7	5,494.7	-732.3	5,944.1
Chile	8,797.3	-2,363.3	-8,191.0	-1,757.0	2,139.3	274.0	656.2
Colombia	5,769.8	-2,792.2	-3,603.2	-625.6	1,066.3	-54.0	386.6
Costa Rica	854.2	-265.2	-596.9	-7.9	182.1	-72.2	102.0
Ecuador	877.2	-266.2	-409.6	201.4	41.1	-191.6	50.8
El Salvador²	373.5	-146.0	-222.6	4.9	21.7	-	43.9
Guatemala	497.5	-157.8	-306.3	33.5	49.4	3.9	86.8
Honduras	207.8	-76.1	-101.2	30.5	29.3	-18.2	41.5
Mexico	16,626.6	-5,193.8	-12,352.8	-920.0	3,001.2	-745.0	1,336.2
Nicaragua	117.6	-48.9	-52.9	15.8	9.9	-5.4	20.2
Panama	801.9	-319.5	-438.8	43.6	n.d.	n.d.	n.d.
Paraguay	313.1	-154.9	-143.7	14.5	27.0	-2.0	39.5
Peru	1,972.0	-1,125.0	-1,111.7	-264.6	628.5	-39.3	324.5
Dominican Republic³	408.4	193.4	196.7	18.3	40.7	-	59.0
Uruguay	1,136.6	-448.3	-740.8	-52.5	155.7	-71.4	31.8
Venezuela	4,516.0	-2,221.2	-2,533.9	-239.1	487.0	-36.3	211.6

Source: MAPFRE Economic Research (with data from regional supervisory bodies)

<sup>(1)</sup> There are no data on Puerto Rico due to non-availability of this information.

<sup>(2)</sup> The figures for El Salvador correspond to the result before taxes.

<sup>(3)</sup> Source: Latino Insurance.

Table 2.2-e. Latin America: net result by country <sup>1</sup> , 2015 (in million USD)						
Country	2014	2015	% Δ			
Argentina	1,300.3	1,939.3	49.1%			
Bolivia	28.0	34.1	21.8%			
Brazil	7,512.8	5,944.1	-20.9%			
Chile	592.1	656.2	10.8%			
Colombia	542.0	386.6	-28.7%			
Costa Rica	85.7	102.0	19.0%			
Ecuador	70.4	50.8	-27.8%			
El Salvador <sup>2</sup>	56.1	43.9	-21.7%			
Guatemala	83.0	86.8	4.6%			
Honduras	34.7	41.5	19.6%			
Mexico	1,910.7	1,336.2	-30.1%			
Nicaragua	17.3	20.2	16.7%			
Paraguay	41.6	39.5	-5.1%			
Peru	320.6	324.5	1.2%			
Dominican Republic	46.8	59.0	26.1%			
Uruguay	43.4	31.8	-26.6%			
Venezuela	444.0	211.6	-52.4%			
Total	13,129.6	11,308.3	-13.9%			

Source: MAPFRE Economic Research (with data from regional supervisory bodies) [1]Does not include data from Puerto Rico due to lack of available information.

Meanwhile, Graph 2.2-e illustrates the level of aggregate capitalization of the insurance sectors in each Latin American country, measured as the ratio between equity over total assets.

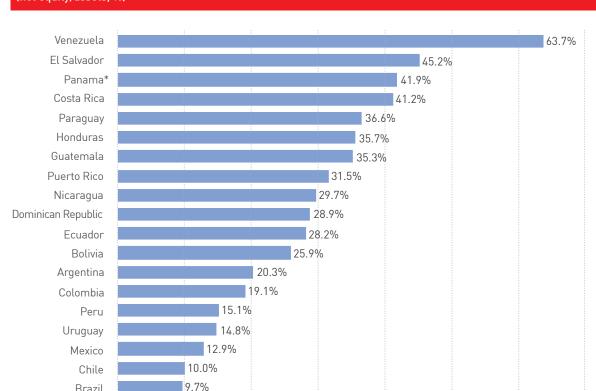
In general, it can be seen that the relatively smaller markets have higher levels of capitalization, while in the larger and more developed markets in the region (Mexico, Chile and Brazil) have lower capitalization levels.

It is worth noting that in the case of Venezuela (the market with the highest level of capitalization according to the given metrics), a large proportion of the accounted equity corresponds to unrealized capital gains in real estate investments and other financial instruments, also pushed up by the inflation rate of 2015 of 180.9%.

To complement this table, Table 2.2-f compares the levels of capitalization (equity/assets) with two profitability indicators: return on equity (ROE) and return on assets (ROA).

<sup>(2)</sup> The figures for El Salvador correspond to results before tax.

70%



30%

40%

Graph 2.2-e. Latin America: capitalization level by country, 2015 (net equity/assets, %)

Source: MAPFRE Economic Research (with data from regional supervisory bodies)

20%

\*The data from Panama correspond to 2014.

0%

The above information shows that the markets of Brazil (27.7%), Nicaragua (23.6%), Guatemala (21.7%) and Argentina (20.9%) had a higher ROE – in the case of Brazil and Argentina, with double-digit inflation rates. In contrast, the insurance markets of Costa Rica (6.8%), Uruguay (6.1%), Puerto Rico (4.6%) and Venezuela (2.5%) were those with the lowest levels of this indicator; in the last case, with triple-digit inflation.

# Structural trends in the Latin American insurance market

With regard to the structural trends in the insurance market in Latin America, analyzed as a whole, the penetration index (premiums/GDP) came to 2.9% in 2015, 0.14 p.p. above the 2014 figure and 0.88 points above the 2005 figure. The first figure confirms the

growth trend observed consistently throughout the last decade (see Graph 2.2-f).

50%

60%

The explanation for the increase in penetration between 2014 and 2015 can be found in the Non-Life insurance segment, which contributed 0.12 p.p. of the penetration increase over this period. Despite this, over the 2005-2015 period the biggest contribution to penetration growth came from the Life insurance segment, with 0.51 p.p. of the total.

Thus over the past decade the total penetration in the region rose by 42.9% (going from 2.1 to 2.9%). In the case of the penetration of the Life insurance segment, cumulative growth rose by 72.1% (from 0.7 to 1.2%), while in the Non-Life segment, cumulative growth over this period rose by 27.8% (from 1.4 to 1.7%).

Table 2.2-f. Latin America: profitability by country, 2015 (growth in local currencies, %)

Country	Net equity /assets	ROE	ROA	Inflation
Argentina	20.3%	32.5%	6.6%	26.9%
Bolivia	25.9%	13.8%	3.6%	3.0%
Brazil	9.7%	27.7%	2.7%	10.7%
Chile	10%	11.6%	1.2%	4.4%
Colombia	19.1%	10.8%	2.1%	6.8%
Costa Rica	41.2%	6.8%	2.8%	-0.8%
Ecuador	28.2%	8.9%	2.5%	3.4%
El Salvador	45.2%	9.7%	4.4%	1.0%
Guatemala	35.3%	21.7%	7.7%	3.1%
Honduras	35.7%	19.0%	6.8%	2.4%
Mexico	12.9%	14.1%	1.8%	2.1%
Nicaragua	29.7%	23.6%	7.0%	3.1%
Panama <sup>1</sup>	41.9%	7.5%	3.1%	1.0%
Paraguay	36.6%	19.7%	7.2%	3.1%
Peru	15.1%	17.4%	2.6%	4.4%
Puerto Rico	31.5%	4.6%	1.5%	-0.2%
Dominican Republic	28.9%	19.7%	5.7%	2.3%
Uruguay	14.8%	6.1%	0.9%	9.4%
Venezuela	63.7%	2.5%	1.6%	180.9%

Source: MAPFRE Economic Research (with data from regional supervisory bodies)

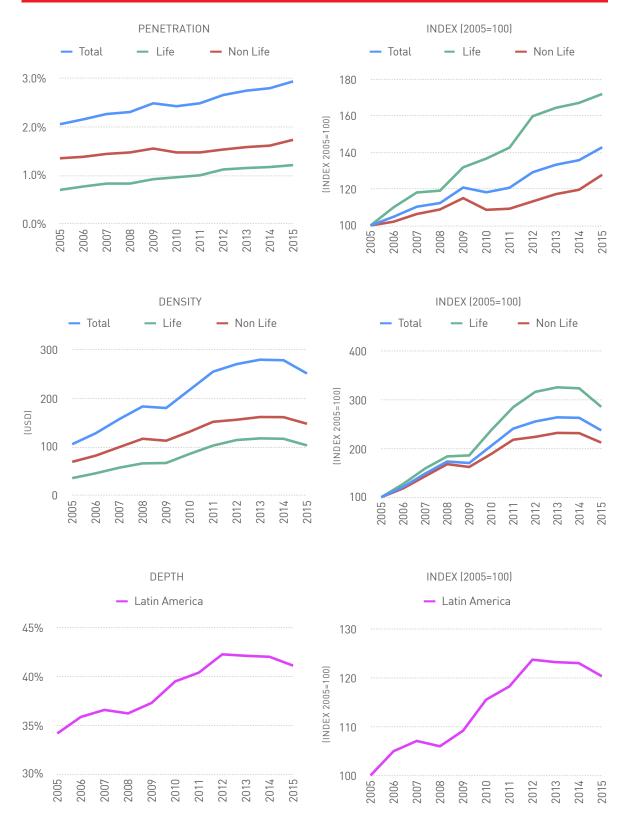
(1) This figure correspond to 2014

Meanwhile, density (premiums per capita measured in dollars) was affected by the drop in value of most Latin American currencies. In 2015, density amounted to 251.1 dollars, 9.8% below the level reached in 2014. Most of the per-capita expenditure on insurance was concentrated in the Non-Life segment (147.8 dollars), showing a drop of 8.4% compared to 2014. The density of Non-Life insurance was 103.3 dollars, 11.7% less than the previous year.

In spite of the drop in 2015 (strongly influenced by the devaluation of Latin American currencies), in a medium term analysis density showed a trend towards growth in the region. Between 2005 and 2015, the total indicator grew by 137.4% (going from 105.8 to 251.1 dollars). In the case of the Life insurance market segment, the cumulative increase over this period was 185.8% (rising from 36.1 to 103.3 dollars), while in the case of Non-Life insurance the cumulative growth was 112.3% (going from 69.6 dollars in 2005 to 147.8 dollars in 2015).

This trend in terms of density was confirmed in an individual analysis of each of the markets considered in this report, in which a growing trend towards density was observed over the last few years when the measurement was made in local currencies.

Graph 2.2-f. Latin America: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, in USD; total premiums/Life premiums, %; 2005 index = 100)



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

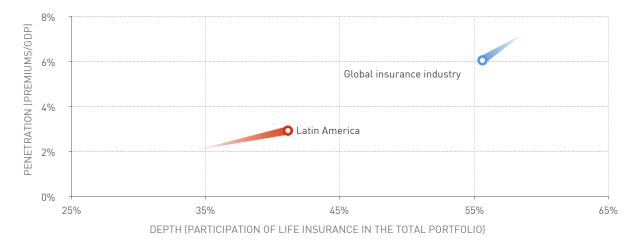
Finally, the depth index of insurance (the ratio between Life insurance premiums and total premiums) came to 41.1% in 2015, 0.9 p.p. less than in 2014, maintaining the trend towards contraction which started discreetly in 2012. However, in the medium-term analysis for 2005 and 2015, the indicator showed an improvement, with a cumulative increase of seven p.p. and cumulative growth of 20.4% in this interval.

Finally, Graph 2.2-g shows a dispersion analysis which allows us to identify the development trend of the Latin American insurance market during the 2005-2015 period, based on the evolution of the penetration and depth indexes of insurance.

In contrast to the global insurance industry, which during this period contracted in terms of both penetration and depth (strongly influenced by the international economic and financial crisis), the Latin American insurance sector showed a positive trend with increases in both penetration and depth levels.

This structural trend is an element that differentiates the region's insurance industry from others and is a factor that also indicates future prospects for the development of the insurance sector in Latin America.

Graph 2.2-g. Latin America: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

#### **Estimate of the Insurance Protection Gap**

The Insurance Protection Gap represents the difference between the insurance coverage that is economically necessary and beneficial to society and the amount of coverage effectively acquired. Determining this gap allows us to identify not only the underwriting gap of a society but also the potential insurance market, which would be

represented by the size of the market that could be achieved if this underwriting gap were to disappear.

The Insurance Protection Gap (IPG) is not a static concept that implies an invariable amount of time. This potential insurance coverage gap is constantly changing in accordance with both general economic growth and the emergence of new risks which are inherent to economic and social development.

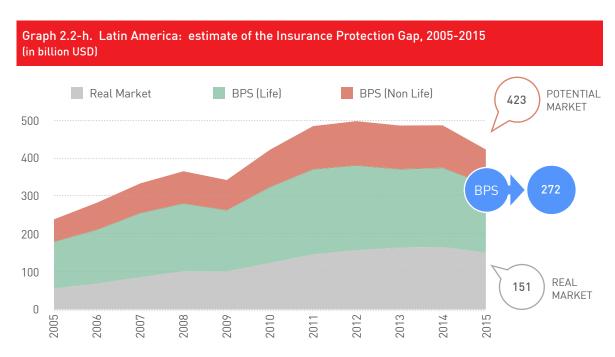
Because of its characteristics, the IPG is strongly correlated with market growth. In quantitative terms, the gap grows smaller as and when the penetration index increases, and in qualitative terms the gap also tends to shrink when markets become more sophisticated and mature.

Consequently, factors such as sustained economic growth, inflation control, an increase in disposable personal income, the general development of the financial system, an efficient regulatory framework and the implementation of public policies geared towards promoting inclusion and financial education are all factors that stimulate a reduction in the IPG.

From a methodological point of view, there are two ways of measuring this gap. From an *ex-post* approach (based on observed losses), the gap can be estimated as the difference between the economic losses recorded over a specific period and the portion of those losses that was covered by the insurance compensation mechanism. Alternatively there is the *ex-ante approach*, *whereby* 

the IPG can be calculated based on the optimum levels of protection estimated as the difference between the socially and economically acceptable level of risk coverage compared to the actual level of protection. For the periods under consideration in this report, the second approach was used, simplifying the measurement of the optimum level and the actual level of protection as the differential in the penetration indexes of each of the markets analyzed in terms of the average observed by advanced economies.

In this way, the IPG for the Latin American insurance market<sup>1</sup> in 2015 amounted to 272 billion dollars, 15.4% less than the estimated figure for 2014 (see Graph 2.2-h). As with the other figures analyzed in this section of the report, it is important to note that this drop between 2014 and 2015 can be explained mainly by the devaluation of Latin American currencies, given that, as confirmed in the individual analyses of each Latin American market, the IPG in local currency increased in every case in relation to the 2014 estimate.



Source: MAPFRE Economic Research

<sup>&</sup>lt;sup>1</sup> The estimate of the IPG for the Latin American market differs from the one in our report *Growth trends in Latin American markets for 2016*, published in May 2016, by virtue of: (i) the inclusion of data on the Puerto Rico market, and (ii) minor adjustments to the individual estimates for certain markets due to modifications to official figures on the issue of premiums or the Gross Domestic Product for 2015.

With regard to their structure, the IPG over the last decade has shown a clear bias towards Life insurance. In 2015, 66.3% of the IPG corresponded to Life insurance (180.3 billion dollars), while the Non-Life segment accounted for 33.7% of the gap, representing 91.8 billion dollars.

The potential of the Latin American insurance market (the sum of the actual insurance market and the IPG) amounted to 422.9 billion dollars, which would signify 1.8 times the region's current market (150.8 billion dollars).

In this respect, Graph 2.2-i shows the results of comparing the IPG as a multiple of the real market for the 2005-2015 period. As you can see, the gap has shown a clear tendency to diminish over the last decade, whether analyzing the total market or the Life and Non-Life segments, which is indicative of the development trend of the industry in the region. Thus while in 2005 the IPG represented 3.2 times the real insurance market in the region, by 2015 this proportion had dropped to 1.8 times. A similar situation occurs when analyzing the Life and Non-Life segments; in the first case,

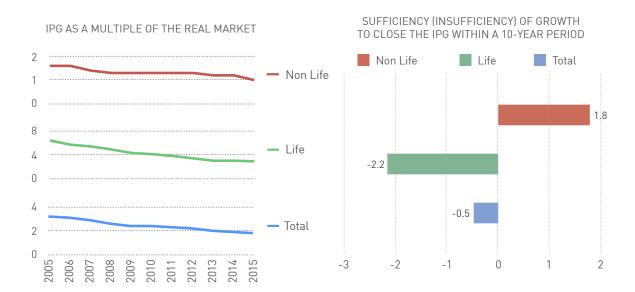
the multiple drops from 6.4 to 2.9, while in the second it falls from 1.6 to 1.0 during this interval.

Despite this, it is worth reiterating that part of this behavior (especially in 2014-2015) is due to the impact of the devaluation of certain currencies in the region. Thus although the general trend is maintained, when analyzing each of the insurance markets individually the speed of the fall of the indicator is slightly lower in most cases as the calculations are done in local currencies.

Finally, Graph 2.2.-i illustrates the evaluation of the capacity of the insurance market in Latin America to close the IPG. For this purpose, a comparative analysis was made between the growth rates observed during the 2005-2015 period compared to the growth rates that would be necessary to close the IPG determined in 2015 over the next decade.

During the 2005-2015 period, the region's insurance market showed an average annual growth (in dollars) of 10.4%. In the case of the Life segment, the average annual growth was 12.4%, while in the Non-Life segment it was 9.1%.

Graph 2.2-i. Latin America: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market in USD, times; p.p.)



Source: MAPFRE Economic Research

Should the same growth dynamic continue in the sector over the next decade, the growth rate of the market as a whole would cover the IPG determined in 2015. The same applies in the Non-Life segment. However, in the case of Life insurance, the rate observed in 2005-2015 would be insufficient to achieve this target over the next ten years by 2.2 p.p..

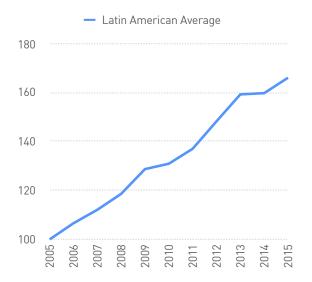
#### Market Development Index (MDI)

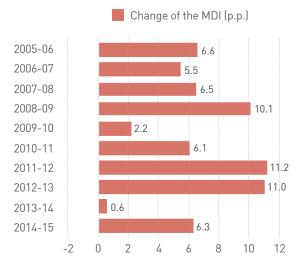
Finally, Graph 2.2-j illustrates the estimated Market Development Index (MDI) for the insurance sector in Latin America. The MDI is an indicator intended to summarize the trend in the evolution and maturity of insurance markets. It is a compound index made up of four individual indexes with a base in 2005: the penetration index (premiums/

GDP); the depth index (life insurance premiums over total market premiums); an IPG growth index (inverse IPG index as a multiple of the market); and a growth IPG index for Life insurance (inverse IPG index for Life insurance as a multiple of said market). For the purposes of this report, this indicator is also used as a comparison parameter in the individual analysis of the development trends of each insurance market in the region.

As Graph 2.2-j illustrates, for the aggregate case of the Latin American market, the MDI shows a clearly positive trend throughout the 2005-2015 period<sup>2</sup>. In this case, the indicator shows sustained annual advances over the last decade, which is also consistent with the dispersion analysis illustrated previously in Graph 2.2-g.

Graph 2.2-j. Latin America: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)





Source: MAPFRE Economic Research

#### **Summary of Corporate M&A Activity**

With regard to the most important business movements recorded in Latin American markets, over the year some significant agreements were announced in terms of mergers and acquisitions which have impacted on the positioning of the different insurance groups in each country and in the region as a whole.

In July 2015, the ACE Group announced its intention to buy the US company Chubb, which was approved

<sup>&</sup>lt;sup>2</sup> The estimate of the MDI for the Latin American insurance market differs from the presentation in our report *Growth trends in Latin American markets for 2016*, published in May 2016, by virtue of: (i) the inclusion of details on the Puerto Rico market, and (ii) adjustments to the individual estimates in certain markets of the penetration indexes and IPG based on minor modifications to the official figures on the issue of premiums and the Gross Domestic Product for 2015.

by the shareholders of both groups in October of the same year. This transaction was concluded in 2016 following the approval of the regulators in the respective jurisdictions. The resulting company will use the name Chubb.

Meanwhile, Liberty announced in July 2015 that it had reached an agreement with the Chilean group Penta to purchase its general insurance company, Penta Security.

In August 2014, the Werthein and Generali groups reached an agreement to separate their assets and reorganize their insurance business in Argentina. Pursuant to this agreement, the Werthein Group acquired all the share capital in La Caja Aseguradora de Riesgos del Trabajo, La Estrella Compañía de Seguros de Retiro and La Caja de Seguros de Retiro, and transferred to Generali all its shares in La Caja de Ahorro y Seguro, Caja de Seguros and Europ Assistance Argentina.

Subsequently, in November 2015, Generali and the Argentinian group Indalo announced in a press release the signing of an agreement whereby the latter would acquire 100% of the shares of Generali Argentina, whose name was changed in 2016 to Providencia. Meanwhile, the Italian group transferred most of the international corporate portfolio of Generali Argentina to its subsidiary La Caja de Ahorro y Seguro.

The Werthein Group, through its subsidiary La Caja Aseguradora de Riesgos del Trabajo, continued to increase its market share in this particular segment with the acquisition of QBE Argentina ART, the subsidiary of the Australian holding company QBE. The operation was announced in early 2015 and by September that year it had been approved by the National Superintendence of Insurance.

Also in September 2015, the Colombian group Suramericana announced it had reached an agreement with RSA to acquire the latter's business in Latin America. The British group had a long-standing presence in Chile, Argentina, Brazil, Mexico, Colombia and Uruguay.

Finally, in October, the Panama-based ASSA group reached an agreement with AIG to take over all its insurance operations in the four Central American countries in which it operates: Guatemala, Honduras, El Salvador and Panama. ASSA was already operating in Panama, Nicaragua, El Salvador and Costa Rica.

# Individual analyses of Latin American insurance markets

The next section of this report includes an individual analysis of each Latin American insurance market.

These individual reports make an initial evaluation of the macroeconomic environment of each country in 2015 before examining the key figures and trends of their respective insurance markets. In general terms, the individual reports comprise an overview of the 2005-2015 period of growth in premiums, the main items of the aggregate balance sheet at a sector level, the technical performance and the results and profitability of the insurance industry.

Later on they include a review of the main structural trends in each market, analyzing the development of the insurance market's penetration, density and depth figures. In order to properly illustrate the underlying dynamic of the main trends in each market, the individual country analyses have been done in local currencies to offset the effect of the devaluation of most Latin American currencies in 2015.

In addition, each of the individual reports includes an estimate of the IPG, describing the characteristics of its size and structure.

As well as an analysis of the development trends in insurance markets, each individual report makes an estimate of the Market Development Index (MDI), comparing the specific evolution of the indicator against the trend observed for the region as a whole.

The individual reports are complemented by the rankings of insurance groups in each market for 2015 as well as those corresponding to the Life and Non-Life segments. They also include an analysis of the concentration levels of the industry, based on an estimate of the Herfindahl Index, and of the market share ratio of the five biggest insurance entities in each country.

Finally, for each of the markets under analysis there is a brief description of the main regulatory changes that have taken place in 2015 and, in the most important cases, information on changes to the regulatory framework that are anticipated or already taking place in these markets in 2016.

# 3. Country-by-country analyses

#### 3.1. North America and Central America

#### 3.1.1. Mexico

#### Macroeconomic environment

In 2015, the Mexican economy grew by 2.5%, two decimal points more than the previous year. This slightly accelerated growth was driven by the dynamic performance of private consumption and investment, which counteracted the poor performance of exports, particularly oil-related. In terms of supply, there was notable growth in agriculture and services. Like the previous year, the Mexican economy was very much affected by the fall in oil prices which led to a drop in exports and has created a more complex environment for the plans to reform and liberalize the energy sector. It also had a negative effect on the modest growth of the United States economy, which is Mexico's most important

trading partner, and on the significant slowdown in the Chinese economy.

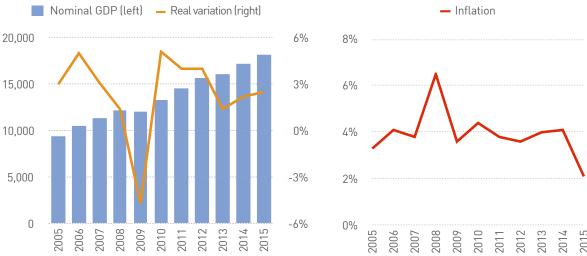
Despite the depreciation of the Mexican peso, the inflation rate by the end of 2015 had dropped by two points to 2.1%, the lowest figure in the last 45 years (see Graph 3.1.1.-a). The unemployment rate also dropped by four-tenths to 4.4%.

With regard to the foreign sector, the current account deficit grew by nine-tenths in 2015, reaching 2.8% of the Gross Domestic Product (GDP) due to the drop in oil exports (-45%), which has not been offset by the increase in non-oil exports (0.8%).

For 2016, both the Economic Commission for Latin America and the Caribbean (CEPAL) and the International Monetary Fund (IMF) estimate that growth of the Mexican economy will be around 2.1%.

Graph 3.1.1-a. Mexico: evolution of economic growth and inflation, 2005-2015
[GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %]

Nominal GDP (left) — Real variation (right) — Inflation



Source: MAPFRE Economic Research (with data from the IMF)

#### The insurance market

#### Growth

The volume of premiums in the Mexican insurance market in 2015 amounted to 388,545 million pesos (24,473 million dollars), which represents a nominal increase of 9.8% and a real increase of 7.5% (see Table 3.1.1-a and Graph 3.1.1-b). Some 46.8% of premiums corresponded to Life and Pensions, with the remaining 53.2% being Non-Life insurance, whose relative importance has declined continuously over the last few years.

Premiums for Life insurance grew by a nominal figure of 8.5% and a real figure of 6.2%, reaching 181,918 million pesos (11,458 million dollars). There was strong growth in individual Life insurance (7.3%)

nominal) and Group Life (15.5%), but Pensions insurance continued to fall (-3.9%), reaching 19,719 million pesos (1,242 million dollars). The recent approval of tax incentives for long-term savings opens up optimistic prospects for the dynamism of the future development of Life insurance in Mexico.

Non-Life insurance premiums grew in 2015 by a nominal 11% and a real 8.7%, reaching 206,628 million pesos (13,015 million dollars). In contrast to the previous year, all the different types of insurance grew, the only exception being Agriculture, whose premiums dropped by 56.7%. The two most important Non-Life segments, Automobile and Health, grew by 10.3% and 4.6% respectively, the former managing to overcome its impasse in 2014. The Fire branch grew by 14.1% due to the renewal of the two-yearly policy for Petróleos Mexicanos (Pemex).

Table 3.1.1-a. Mexico: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

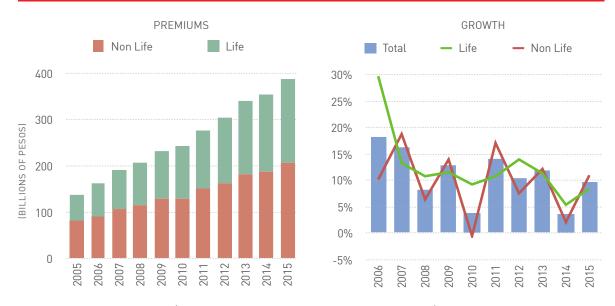
Branch	Millions of pesos	Millions of USD	% ∆	%∆real
Total	388,545	24,473	9.8	7.5
Life	181,918	11,458	8.5	6.2
Personal Life	101,836	6,414	7.3	5.1
Group Life	60,363	3,802	15.5	13.0
Pensions	19,719	1,242	-3.9	-5.9
Non-Life	206,628	13,015	11.0	8.7
Automobile	75,665	4,766	10.3	8.0
Health <sup>2</sup>	54,021	3,403	4.6	2.4
Fire	12,683	799	14.1	11.8
Earthquakes and other catastrophic risks	16,288	1,026	36.3	33.5
Miscellaneous	19,726	1,242	15.7	13.3
Transport	10,852	684	18.2	15.7
Civil Liability	8,930	562	29.0	26.3
Personal Accidents <sup>2</sup>	5.374	338	11.6	9.3
Agrarian³	1,604	101	-56.7	-57.6
Credit	1,484	93	30.4	27.7

<sup>(1)</sup> Direct premiums

<sup>[2]</sup> Branch of Accident and Illness

<sup>[3]</sup> The premiums in the agrarian insurance sector do not consider the information from the insurance company Protección Agropecuaria, whose data have not yet been included in the journal "Actualidad en Seguros y Fianzas" corresponding to the end of December 2015.

Graph 3.1.1-b. Mexico: evolution of the growth of the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

#### Balance sheet and equity

The evolution of the size of the aggregate balance sheet at a sector level for the 2005-2015 period is illustrated in Graph 3.1.1-c. As you can see, the total

assets of the insurance sector in Mexico in 2015 amounted to 1,164.8 billion pesos (73,370 million dollars), while the net equity came to 150.1 billion pesos (9,452 million dollars), 5.7% higher than the figure for 2014.

Graph 3.1.1-c. Mexico: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



#### Investments

Graph 3.1.1-d shows the evolution of investments and the composition of the aggregate investment portfolio at a sector level in 2015. During the year, investments reached 906.1 billion pesos (57,070 million dollars), primarily in fixed income (75.2%) and by a considerably smaller proportion (11.3%) in Equity instruments.

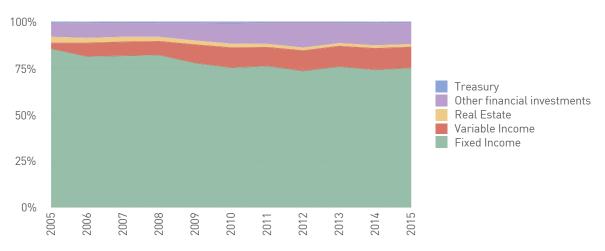
Despite being the largest asset class, over the 2005-2015 period one can see a gradual reduction in the weight of investments in fixed income products and an increase in Equity, which went from representing just 3.2% of the total portfolio in 2005 to 11.3% in 2015 (see Graph 3.1.1-e).

Graph 3.1.1-d. Mexico: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

Graph 3.1.1-e. Mexico: evolution in the structure of investments, 2005-2015 (composition, %)



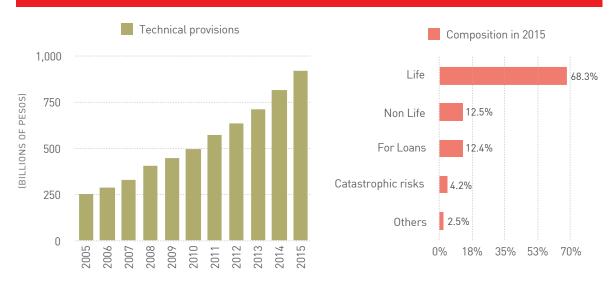
#### Technical provisions

The relative composition of technical provisions at the close of 2015 in the Mexican insurance sector is shown in Graph 3.1.1-f. In 2015, technical provisions amounted to 920.4 billion pesos (57,974 million dollars). Some 68.3% of the total corresponded to Life insurance, with 12.5% for provisions for unearned premiums and current risks in Non-Life insurance, 12.5% for technical provisions for

claims, 4.2% for catastrophic reserves, and the remaining 2.5% for other technical provisions.

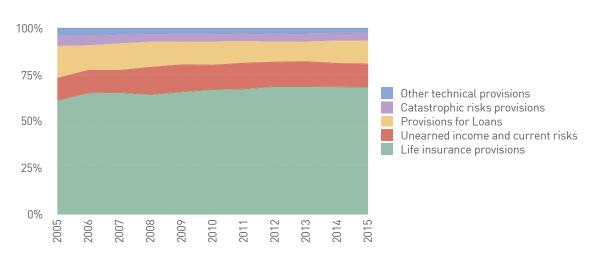
Over the course of the 2005-2015 period there was a noticeable increase in the relative weight of Life insurance provisions, going from 61.1% in 2005 to 68.3% in 2015, though there was a tendency to stabilize from 2012 at around 68.6% (see Graph 3.1.1-q).

Graph 3.1.1-f. Mexico: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

Graph 3.1.1-g. Mexico: evolution in the structure of technical provisions, 2005-2015 (composition, %)



#### Results and profitability

Graph 3.1.1-h shows the evolution of the technical performance of the insurance sector in Mexico over the 2005-2015 period. The combined ratio (calculated from the net earned premium) came to 105.5% in 2015, showing an improvement of 0.6 p.p. compared to this figure in 2014 (106.1%).

The change of the indicator in 2015 stemmed from the combined effect, on the one hand, of a reduction in the accident rate ratio (-1.1 p.p.) and, on the other, a deterioration in the expenditure ratio (0.6 p.p.).

Graph 3.1.1-h. Mexico: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

Taking a consolidated figure for the Mexican insurance market as a whole, the net result of 2015 was 21,214 million pesos (1,336 million dollars), 16.6% less than the previous year, due primarily to the drop in the financial result.

As indicated, despite the increase in expenditure by 0.6 points, the combined ratio dropped by sixtenths to 105.5% due to the fall in accident rates. In this respect, over the last six years there has been a trend towards falling accident rates from the maximum point reached in 2009, and a corresponding improvement in the combined ratio, which, however, continues to stand at over 100%.

Meanwhile, the financial result for 2015 (as a percentage of the net earned premium) came to 18.1% - in other words, 3.3 p.p. below the level reached the previous year (see Graph 3.1.1-i).

With regard to profitability, the return on equity (ROE) came to 14.1% in 2015, dropping by 3.8 p.p. compared to the figure for 2014. A similar situation can be seen in the return on assets (ROA), which reached a level of 1.8% in 2015, indicating a drop of 0.6 p.p. compared to the figure reached in 2014.

Technical result Financial result ROE (left) ROA (right) 30% 20% 4% 20% 15% 3% 10% 10% 2% 0% 5% 1% -10% 0% 0% 2008 2010 2009 2012 2011

Graph 3.1.1-i. Mexico: evolution of results and profitability, 2005-2015 [technical and financial results over net earned premium, %; ROE, %; ROA, %]

Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

#### Penetration, density and depth of insurance

Graph 3.1.1-j shows the main structural trends in the evolution of the Mexican insurance sector over the 2005-2015 period.

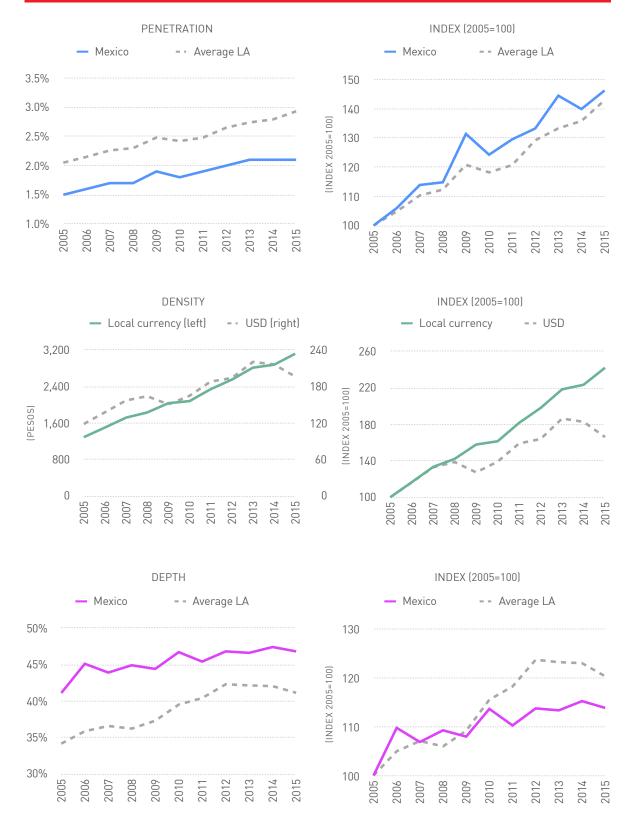
In the first instance, the penetration index (premiums/GDP) in 2015 was 2.1%. Over the 2005-2015 period, the indicator tended to rise, in line with the general trend observed in the Latin American region as a whole. However, it can be seen that the penetration of the Mexican market is still below the absolute average levels of Latin America.

With regard to the density levels of insurance in 2015 (premiums per capita), the indicator stands at 3,118 pesos (196.4 dollars), 8.4% higher than the figure for 2014 (2,877.1 pesos). As in the case of the penetration index, the density index tended to rise over the last decade, showing cumulative growth in local currency of 142%.

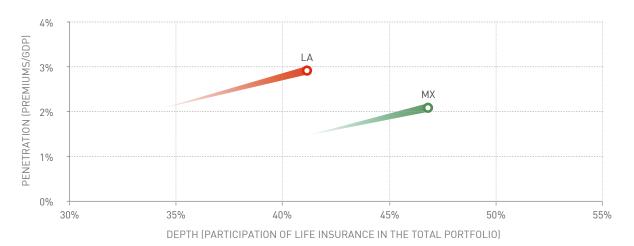
With regard to the depth index (measured for the purposes of this report as the ratio between the premiums of Life insurance and the total premiums), the indicator stood at 46.8%; in other words, 5.7 p.p. above the figure achieved in 2005. In this case, the tendency towards depth in the Mexican insurance market is above the average of Latin American insurance markets as a whole.

The dispersion analysis shown in Graph 3.1.1-k illustrates the joint effect of the progress of the Mexican insurance market in relation to the regional insurance market from the perspective of the overall change in penetration and depth levels. This analysis (which will be used for each of the markets studied in this report) confirms a general advance in the progress of the Mexican market, with a similar trend to that observed for the Latin American market as a whole.

Graph 3.1.1-j. Mexico: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index = 100)



Graph 3.1.1-k. Mexico: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

#### Estimate of the Insurance Protection Gap

The calculation of the IPG for the insurance market in Mexico over the period 2005-2015 is shown in Graph 3.1.1-l. In 2015, this came to 1,101.5 billion pesos, a sum equivalent to 2.8 times the real insurance market at the end of that year.

The structure and evolution of the IPG over the last decade shows how Life insurance predominates. In 2015, 61% of the IPG corresponded to Life insurance, representing a sum of 671.9 billion pesos. On the other hand, Non-Life insurance represented 39% of the gap, with the sum of 429.6 billion pesos.

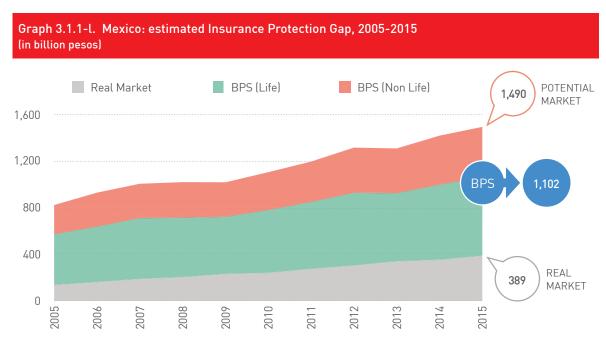
Thus the potential insurance market in Mexico (measured for the purposes of this report as the sum of the actual market and the IPG) came to 1,490.1 billion pesos; in other words, 3.8 times the country's real market.

Graph 3.1.1-m shows the estimate of the IPG as a multiple of the real market for each year. This comparison enables us to determine the performance trend of the gap. In the case of the

Mexican insurance market, the IPG, as a multiple, shows a clear declining trend over the past decade, both when analyzing the total market and examining the Life and Non-Life segments separately.

Though in 2005 the IPG in the Mexican market was 4.9 times the actual market, in 2015 this proportion had dropped to 2.8 times. The same situation occurs when analyzing the Life and Non-Life segments. In the first case, the multiple drops from 7.6 to 3.7, while in the second the drop was from 3.1 to 2.1 over the decade.

Finally, Graph 3.1.1-m summarizes the capacity of the Mexican insurance market to close the IPG. This has been achieved by a comparative analysis of growth rates observed over the last ten years in this market in relation to the growth rates that would be required in order to close the IPG established in 2015 over the next decade. During the 2005-2015 period, the Mexican insurance market showed annual average growth of 10.9%. This dynamic was determined by an average rate of 12.3% for the Life segment and 9.7% for the Non-Life insurance segment.

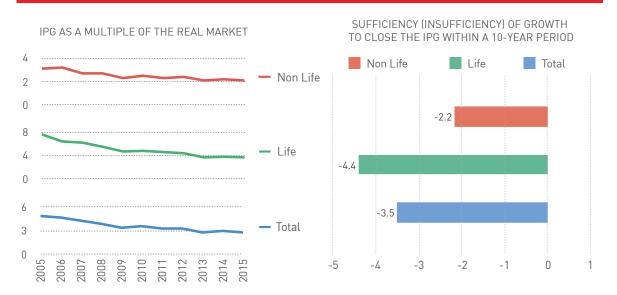


Source: MAPFRE Economic Research

According to this analysis, if the same growth dynamic is maintained for the next ten years, the growth rate of the market as a whole would be insufficient by 3.5 p.p. to cover the IPG determined in 2015. In other words, the Mexican insurance market would need an average growth rate of 14.4% over the next ten years to close the Insurance Protection Gap estimated in 2015.

A similar situation arises when analyzing the Life and Non-Life segments separately. In the case of Life insurance, the shortfall would be 4.4 p.p., while in the Non-Life segment it would be 2.2 points. Thus, covering the respective gaps would require the Mexican insurance market to grow annually by an average of 16.7 and 11.9% respectively over the next decade.

Graph 3.1.1-m. Mexico: Insurance Protection Gap data, 2005-2015 (multiple of real market, times; p.p.)



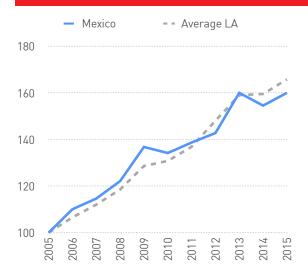
Source: MAPFRE Economic Research

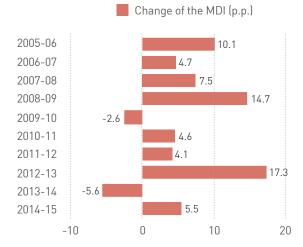
#### Market Development Index (MDI)

Graph 3.1.1-n shows an estimate of the Market Development Index (MDI) for the Mexican insurance sector. As mentioned earlier, the purpose of the MDI is to summarize the development trend and maturity of insurance markets.

In the case of the Mexican insurance market, the indicator shows a positive trend over the last decade, standing above the Latin American market average, although in 2015 it reached a similar value to the regional average. It is worth pointing out that apart from 2010 and 2014 the index showed positive progress over the whole decade.







Source: MAPFRE Economic Research

#### Insurance market rankings

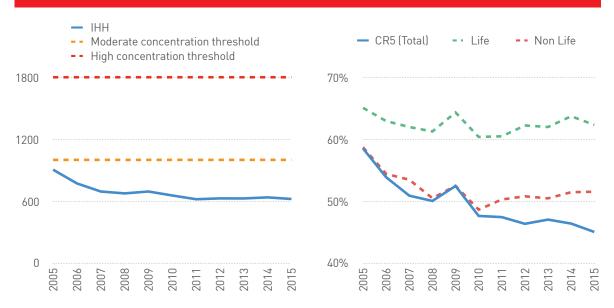
#### Total ranking

At the end of 2015, the Mexican insurance market comprised 102 institutions, 53 of which had mainly foreign capital.

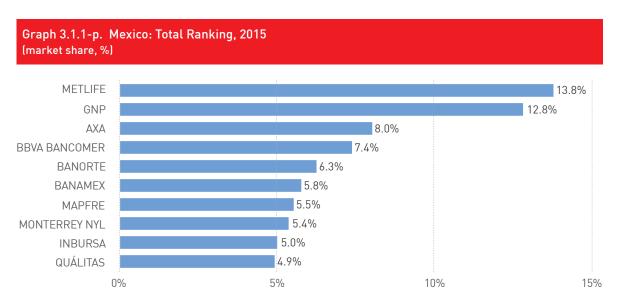
The five leading insurance institutions accounted jointly for 45% of all premiums, 1.4 p.p. lower than the previous year. Over the last ten years, there has been a tendency towards a decline in the market concentration, which was interrupted at certain points but clearly resumed in 2015, as illustrated in the evolution of the Herfindahl and CR5 indexes (see Graph 3.1.1-o).

With regard to the overall ranking of the groups, the three main insurance groups in Mexico in 2015 were the same as in previous years. The leading institution was MetLife, with 13.8% of premiums, followed by Grupo Nacional Provincial (12.8%) and AXA (8.0%). With regard to the rest of the ranking, BBVA Bancomer and Banorte improved their relative positions, while those of Seguros Banamex, Seguros Inbursa, Monterrey New York Life and Quálitas dropped. MAPFRE was in seventh position in the 2015 ranking with a market share of 5.5% (see Graph 3.1.1-p).

Graph 3.1.1-o. Mexico: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

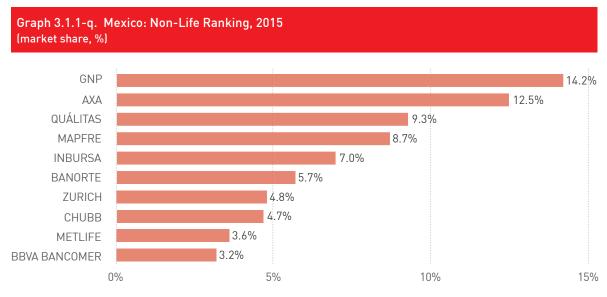


Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

# Non-Life Ranking

At the end of 2015, there were 84 insurance companies operating in the Non-Life segment in Mexico. As in the previous year, the group ranking was headed by Grupo Nacional Provincial (GNP), with 14.2% of the total premiums, followed by

AXA (12.5%) and Quálitas (9.3%). In the rest of the ranking, MAPFRE improved its relative position while Inbursa, Banorte and MetLife dropped positions and Zurich and BBVA Bancomer remained in the same positions as in 2014. Finally, Chubb entered the ranking in eighth place, displacing Seguros Atlas (see Graph 3.1.1-q).

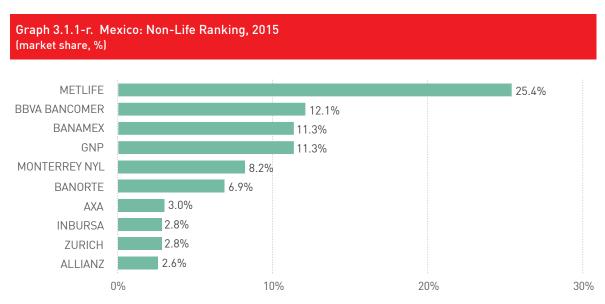


Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

# Life Ranking

At the end of 2015 there were 54 insurance companies operating in the Life segment in the Mexican market. The top ten groups were the same as the previous year, though there were changes in their relative positions.

Once again, the market was led by MetLife, with a share of 25.4%, but second position went to BBVA Bancomer, with 12.1%, pushing Seguros Banamex (11.3%) down to third place. With regard to the rest of the Life ranking, Seguros Banorte improved its position, AXA and Zurich lost positions, and GNP, Monterrey New York Life, Seguros Inbursa and Allianz remained in the same positions (see Graph 3.1.1-r).



Source: MAPFRE Economic Research (with data from the National Insurance and Surety Commission)

## Important regulatory aspects

On 4 April 2013, the regulatory framework applicable to insurance and financial companies in Mexico was reformed with the passing of a new Insurance and Surety Companies Law (LISF). The implementation of the new law formed part of a general reform of the Mexican financial system instigated by the current federal administration, which is seeking to boost the economy's growth rate.

The LISF establishes a regulatory framework that seeks to achieve five main objectives. In the first instance, to modernize the solvency system applicable to insurance and surety operations in order to strengthen the financial position of these institutions and the regulatory and supervisory work that is the responsibility of the National Insurance and Bonding Commission (CNSF). Secondly, the regulatory reform seeks to promote, based on the intensification of the solvency system based on risk, the healthy development of the insurance industry with the aim of helping to extend the coverage of these financial services to the majority of the population. Thirdly, the regulatory adjustment includes the objective of encouraging greater competition as a means of stimulating innovation and efficiency in the insurance market, seeking to create better pricing and quality conditions for users. Fourthly, insurance legislation is brought in line with other financial regulations in the aspects that should be applicable as a general rule to the financial system. And finally, the Mexican regulatory reform seeks to strengthen the system for protecting the users of these financial services, based on a plan for greater transparency and disclosure of information by insurance institutions as a means of stimulating the more effective operation of the market's disciplinary mechanism.

In this context, the general design underlying the new LISF is looking at a Solvency II type model which groups the disciplinary mechanisms supporting the solvency system into three main pillars. The first pillar comprises the quantitative requirements for technical reserves, capital, investments and reassurance. The second pillar comprises qualitative requirements in terms of corporate governance and inspections by the supervisory body. And the third pillar includes elements such as transparency and disclosure of information, as well as the market's review mechanisms.

Meanwhile, the set of secondary regulations stemming from the LISF is included in the Unified Insurance and Surety Circular (CUSF), which was published in the Official Federal Gazette of Mexico on 19 December 2014. These provisions complement and enforce the new legal framework, identifying the specific aspects and mechanisms which must be adhered to in insurance institutions' operations.

Although the LISF went into force generally on 4 April 2015, the regulatory requirements of the three pillars went into effect on different dates, in accordance with the transitory provisions of the LISF itself (see Table 3.1.1-b).

As a complement to this, since 4 April 2015 the Mexican supervisory body (CNSF) has undertaken various activities in coordination with the insurance companies and their representative associations with the aim of ensuring the efficient and harmonious implementation of this new legislation and facilitating an orderly transition towards the new regulatory framework, optimizing its positive effects.

Finally, as part of the implementation process, the supervisory authorities coordinated the preparation of various administrative regulations and provisions which complement the new legal framework. These new regulations include the "Regulations of Insurance and Surety Agents", the "Regulations of Group Life Insurance and Collective Insurance for Accidents and Illnesses" and the "Regulations for the Inspection and Supervision of the National of Insurance and Surety Commission".

Table 3.1.1-b. Mexico: entry into force of the pillars of the new solvency framework Pillar Date Remarks I. Quantitative requirements 1 January 2016 Technical provisions Solvency Capital Requirement 1 January 2016 II. Qualitative requirements Delivery of the ORSA (Own Risk and 4 April 2015 Solvency Assessment) and Risk Manual Corporate governance (second semester of 2016) III. Transparency and disclosure of information Financial statements (with notes) 4 April 2015 Auditors' reports 4 April 2015 First SFCR (with financial statements at Solvency and Financial Condition Report 4 April 2015 (SFCR) the end of 2016) First mandatory credit rating in 2016 Rating 4 April 2015 based on financial statements for 2015

Source: National Insurance and Surety Commission

## 3.1.2. Guatemala

## **Macroeconomic environment**

The economy of Guatemala grew by 4.1% in 2015 (very similar to the 4.2% growth of 2014), thanks to the good performance of domestic demand, most notably private consumption and investments (see Graph 3.1.2-a). All the main productive sectors grew, headed up by financial intermediation, insurance and auxiliary services (which grew by 10.6% in 2015).

Inflation rose by two tenths but remained at a moderate level (3.1% in 2015), while unemployment dropped half a p.p., reaching 2.4% around mid-2015.

With regard to the foreign sector in 2015, the export value dropped (-1.1%) due to the fall in the price of sugar, and the import value also dropped (-3.5%) as a result of the drop in the prices of fuel and oil derivatives. As a result of the greater drop in imports

compared to exports, the current account deficit fell to 0.3% of the GDP compared to 2.1% the previous year. According to CEPAL, the Guatemalan economy will grow by 3.3% in 2016, a forecast that the IMF raised to 3.5%.

#### The insurance market

#### Growth

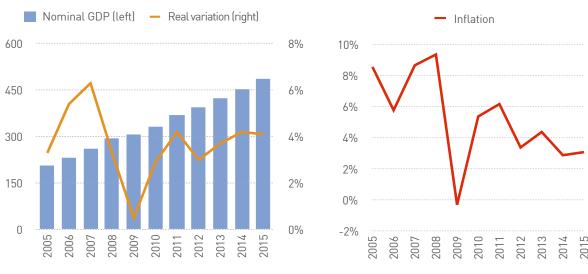
Insurance market premiums in the Guatemalan market in 2015 rose to 5,966 million quetzals (779 million dollars), which represents a nominal increase of 5.8% and a real increase of 2.6%. The market continues to grow, though at a lower rate than in 2014, when it achieved a rate of 8.1% (see Graph 3.1.2-b).

This performance varied in the different insurance segments, as premiums grew in Non-Life (which represents 80.3% of the total market) and dropped in Life (see Table 3.1.2-a).

The premiums in the Life segments dropped by 1.0% to 1,176 million quetzals (154 million dollars), a fall that contrasts with the growth of 12.3% the previous year. Premiums in the Non-Life segments

rose by 7.6% in 2015 (compared with 7% the previous year), reaching 4,790 million quetzals (625 million dollars). The two biggest segments, Health and Automobile, grew by 14.4 and 6.4% respectively.

Graph 3.1.2-a. Guatemala: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, in billions of quetzals; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with data from the IMF)

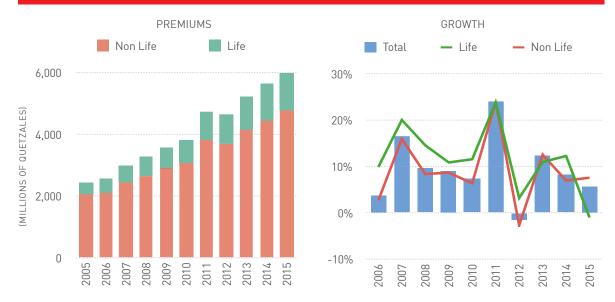
Table 3.1.2-a. Guatemala: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of quetzals	Millions of USD	% ∆	% ∆ real
Total	5,966	779	5.8	2.6
Life	1,176	154	-1.0	-3.9
Non-Life	4.790	625	7.6	4.4
Health	1,345	176	14.4	11.0
Automobile	1,242	162	6.4	3.3
Fire and associated lines	439	57	8.6	5.4
Earthquake	511	67	9.6	6.3
Other segments	369	48	7.3	4.1
Transport	250	33	0.3	-2.7
Surety	211	28	-13.1	-15.7
Technical risks	167	22	-0.4	-3.4
Personal Accidents	138	18	4.9	1.8
Civil Liability	117	15	14.4	11.0

Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

(1) Net direct premiums from direct insurance

Graph 3.1.2-b. Guatemala: evolution of the growth of the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



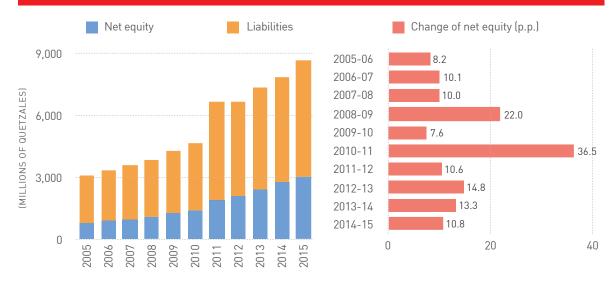
Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

#### Balance sheet and equity

The evolution in the size of the aggregate balance sheet in the Guatemalan insurance sector for the 2005-2015 period is shown in Graph 3.1.2-c. The total assets of the insurance industry in Guatemala in 2015 came to 8,685.6 million quetzals (1,134 million dollars) while net equity came to 3,066.7 million quetzals (400 million dollars), 10.8% higher than the previous year.

It is worth noting the aggregate capitalization levels of the Guatemalan insurance sector (measured against total assets) which came to over 26% between 2005 and 2011, exceeding 30% in the 2012-2015 period. At the end of 2015, they represented 35.31% of the total assets.

Graph 3.1.2-c. Guatemala: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

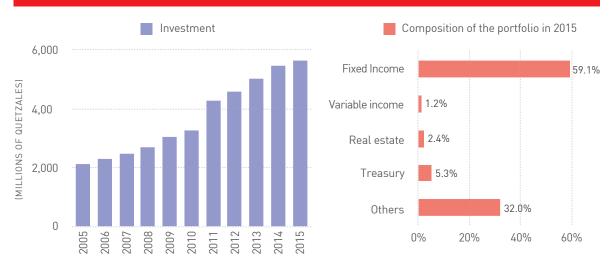
#### Investments

Graph 3.1.2-d shows the evolution of investments as well as the composition of the aggregate investment portfolio at a sector level during 2015. Investments reached 5,640.2 million quetzals (736.5 million dollars), concentrated on fixed income (59.1%), which in turn can be broken down into 54.2% for public fixed income and 4.9% for private fixed income instruments. The weight of other financial investments (primarily bank deposits) is also significant, amounting to 32% of the portfolio. Consequently, debt instruments predominated,

with almost residual aggregate investment (1.2%) in variable income instruments.

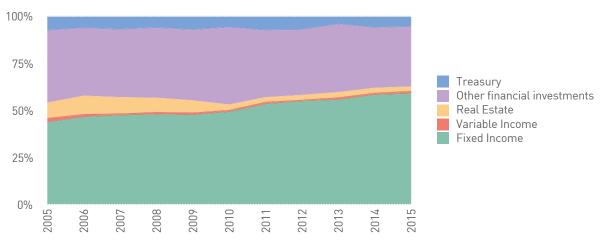
From the analysis of the evolution of the portfolio, what stands out is the progressive increase in the proportion of public fixed income investments during the 2005-2015 period, going from 38.4% in 2005 to 54.2% in 2015. Meanwhile, during this interval the percentage of other financial investments (essentially bank deposits) increased from 38.6% in 2005 to 41.2% in 2010. Since then a changing trend can be noted, falling progressively to 32% by the end of 2015 (see Graph 3.1.2-e).

Graph 3.1.2-d. Guatemala: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

Graph 3.1.2-e. Guatemala: evolution in the structure of investments, 2005-2015 (composition, %)



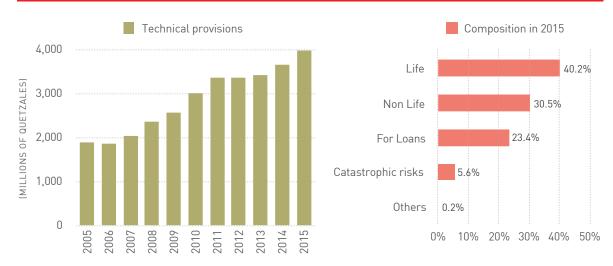
Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

## Technical provisions

The composition of technical provisions in the Guatemalan insurance sector by the end of 2015 is shown in Graph 3.1.2-f. In 2015, technical provisions came to 3,992.9 million quetzals (521.4 million dollars). Of this total, 40.2% corresponded to Life insurance, 30.5% to the provision of unearned premiums and current risks of Non-Life insurance, 23.4% to provisions for benefits, 5.6% to provisions for catastrophic risks, and the remaining 0.2% to other technical provisions.

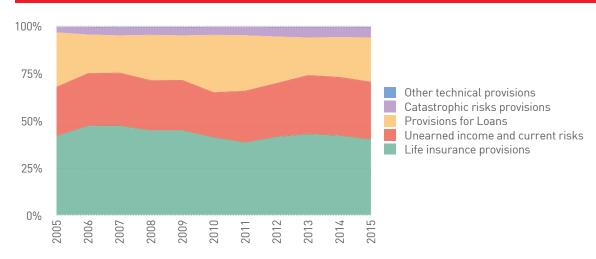
During the 2005-2015 period there was sustained growth in technical provisions in absolute terms in both the Life and Non-Life segments. If we consider the proportion over the total provisions, a significant drop can be seen in the proportion of Life insurance in 2010 and 2011, partly recovering later on to account for 40% of the total provisions, with a tendency to fall in recent years (see Graph 3.1.2-q).

Graph 3.1.2-f. Guatemala: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

Graph 3.1.2-g. Guatemala: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

## Results and profitability

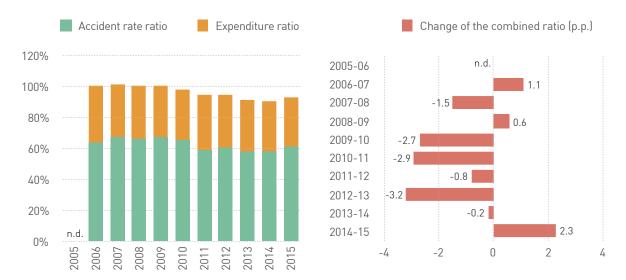
Graph 3.1.2-h illustrates the evolution of the technical performance of the insurance sector in Guatemala over the 2005-2015 period. The combined ratio rose by 2.3 p.p. to 93.3%, with a positive technical result although lower than the previous year due to the increase in accident rates. The figures for this last ratio have increased in recent years, though these increases have been partially offset by the downward trend of expenses.

Meanwhile, the net result of the insurance business in Guatemala in 2015 was 665 million quetzals (87 million dollars), 3.5% more than the previous year.

The technical result for the Guatemalan market in 2015 was 6.7% of the net earned premium, lower by 2.3 p.p. than the previous year's figure. This result of the technical management of the business was complemented by a positive financial result which reached 9.9% of the net earned premium that year, barely 0.3 p.p. less than in 2014 (see Graph 3.1.2-h).

With regard to profitability, the return on net equity (ROE) came to 21.7% in 2015, dropping by 1.52 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 7.7% in 2015, representing a fall of 0.48 p.p. compared to 2014.

Graph 3.1.2-h. Guatemala: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

# Penetration, density and depth of insurance

Graph 3.1.2-j illustrates the main structural trends in the evolution of the Guatemalan insurance sector over the 2005-2015 period.

In the first instance, the penetration index (premiums/GDP) in 2015 was 1.2%. It is important to highlight the fact that during the 2005-2015 period, this indicator remained stable with growth of barely 3.7% during this interval. Thus the penetration level in 2015 was practically the same as the figure for 2005.

Technical result Financial result ROE (left) ROA (right) 20% 30% 9% 15% 20% 6% 10% 5% 10% 3% 0% -5% 0% 0% 2013 2012 2011

Graph 3.1.2-i. Guatemala: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)

Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

As a result of the above, its size was very much below the average of Latin American insurance markets, and the trend over the past decade has also diverged from other countries in the region, where penetration grew by an average of 42.9%.

With regard to density levels (premiums per capita), the indicator came to 364.2 quetzals (47.6 dollars), 96.7% more than the figure for 2005 (185.2 quetzals). In contrast to the performance of the penetration index, density has tended towards growth over the past decade which indicates that while the per capita purchase of insurance has grown in a sustained way (with a very significant increase, due to the fact that it started from a relatively small base), it has not done so at a rate that would allow the insurance to reach a more significant proportion of the country's economic activities as a whole.

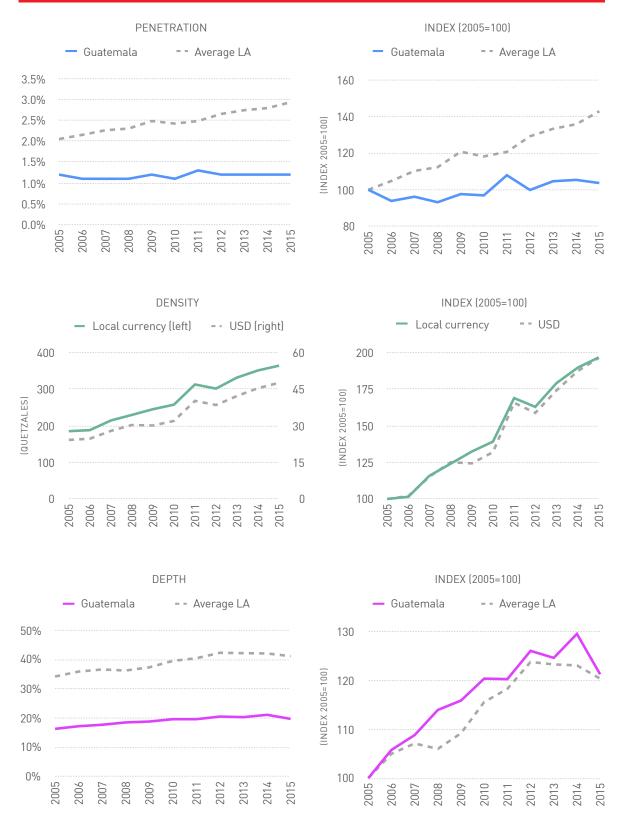
With regard to depth levels (measured as the ratio between Life insurance premiums and total

premiums), the indicator came to 19.7%, 1.3 p.p. below the 2014 figure, though 3.5 p.p. higher than the 2005 figure. As with the penetration index, the depth index of the Guatemalan insurance market is below the Latin American average, with a slightly divergent trend.

Finally, Graph 3.1.2-k illustrates the joint effect of the progress of the Guatemalan insurance market compared to the insurance market in the region as a whole in terms of joint levels of penetration and depth.

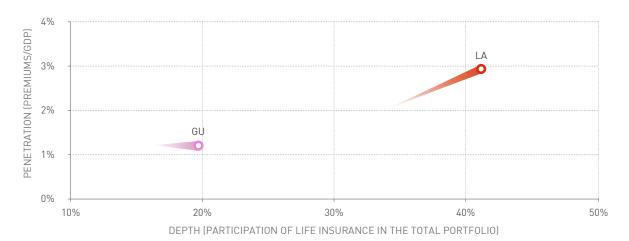
In this dispersion analysis, it can be seen how the development trajectory of the Guatemalan insurance market has remained below that of the Latin American average, showing stagnation in its penetration levels and a less-than-proportional advance in the depth index compared to the average of other Latin American countries over the past decade.

Graph 3.1.2-j. Guatemala: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, quetzals and USD; total premiums/Life premiums, %; 2005 index = 100)



Source: MAPFRE Economic Research (using data from the Superintendence of Banks)

Graph 3.1.2-k. Guatemala: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPERE Economic Research

# Estimate of the Insurance Protection Gap

Graph 3.1.2-l shows the estimate of the IPG for the Guatemalan insurance market for the period 2005-2015. From this information, it can be seen that in 2015 the IPG was 34,175 million quetzales, an amount equivalent to 5.7 times the real insurance market at the end of 2015.

Similar to the majority of Latin American insurance markets, the structure and evolution of the IPG was predominated by Life insurance. In 2015. 63.9% of the gap corresponded to Life insurance (21,825) million quetzales. On the other hand, Non-Life insurance represented 36.1% of the IPG (12,351 million quetzales).

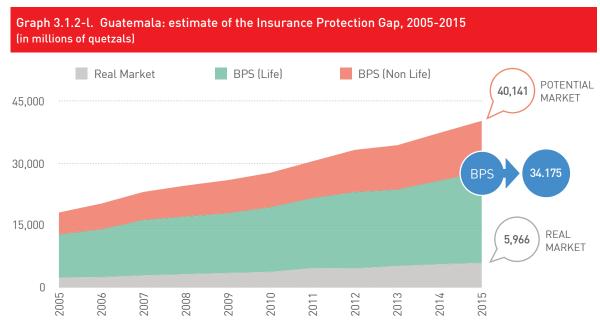
The potential insurance market in Guatemala (measured as the sum of the real market and the IPG) was set at 40,141 million quetzales; that is, 6.7 times the current market in Guatemala.

Graph 3.1.2-m, shows the estimate of the IPG as a multiple of the real market each year of the period under analysis. For the Guatemalan insurance market, the IPG (measured as a multiple) showed a slight tendency to decrease over the 2005-2015

period, both in the total market and in the Life sector.

While in 2005, the IPG of the Guatemalan market represented 6.4 times the real market, by 2015, this proportion had reduced to 5.7 times. A similar situation is found in the Life sector. In this case, the multiple reduced from 26.1 to 18.6 times. Regarding the Non-Life insurance sector, however, a relative stagnation is observed: whereas in 2005, the multiple was 2.5, in 2015 it had risen to 2.6 times.

Finally, Graph 3.1.2-m gives the assessment made regarding the capacity of the Guatemalan insurance market to close the IPG. This is done through a comparative analysis between the growth rates observed over the past ten years in this market, compared to the growth rates that would be necessary to close the IPG, determined in 2015, throughout the next decade. Over the period 2005-2015, the insurance market in Spain recorded an average annual growth rate of 9.3%. This dynamic was determined by an average rate of 11.4% for the Life segment and 8.9% for the Non-Life insurance segment.

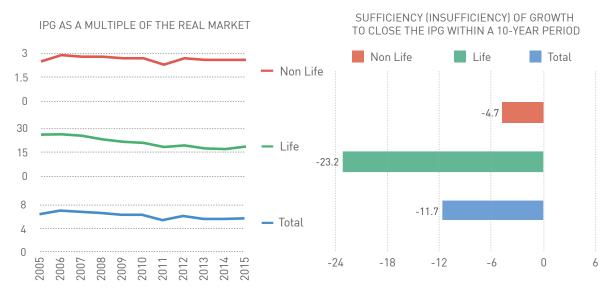


Source: MAPFRE Economic Research

According to this analysis, if the same growth dynamic is maintained for the next ten years, the growth rate of the market as a whole would be insufficient by 11.7 p.p. to cover the IPG determined in 2015. This means that the insurance market would need an average growth rate of 21.0% over the next decade, in order to close the IPG estimated in 2015.

A similar situation occurs with the Life and Non-Life segments. In the case of Life insurance, the shortfall would be 23.2 p.p., while in the Non-Life segment it would be 4.7 points. Therefore, to close the respective gaps would mean that the Guatemalan insurance market would have to grow at a yearly average of 34.6% and 13.6% over the following decade.

Graph 3.1.2-m. Guatemala: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



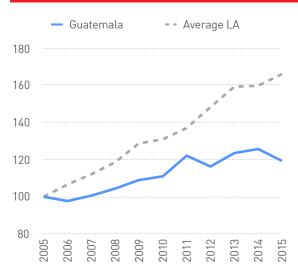
Source: MAPFRE Economic Research

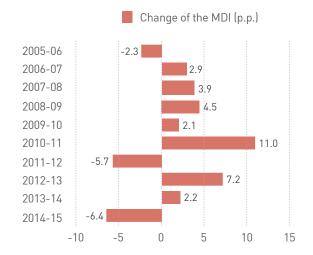
## Market Development Index (MDI)

The estimate of the Market Development Index (MDI) for the Guatemalan insurance sector is given in Graph 3.1.2-n. In general terms, the indicator shows a positive trend throughout the past ten years, with annual impairments in 2005-06 and 2011-12 and 2014-15.

Nevertheless, it should be pointed out that the level is below the average of the Latin American market, and its growing trend appears to have come to a standstill from 2011.

Graph 3.1.2-n. Guatemala: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)





Source: MAPFRE Economic Research

# Insurance market rankings

# **Total Ranking**

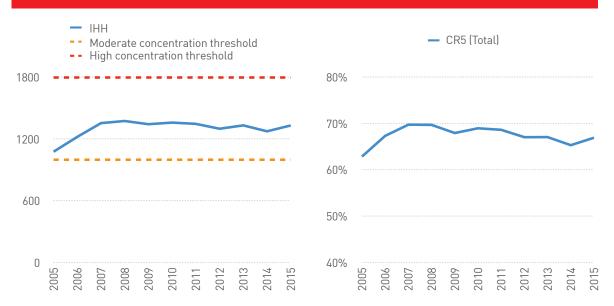
In 2015, the Guatemalan insurance sector was formed by 28 insurance companies. The first five companies amounted to 67% of the total premiums, 1.6% higher than in 2014.

An increase in the levels of concentration of the market is observed over the past decade. The Herfindahl index, given in Graph 3.1.2-o, shows that the concentration levels have been maintained

above the technical threshold, indicating the start of moderate concentration levels. A similar situation can be seen when analyzing the CR5 index, which went from 62.9% in 2005 to 67% in 2015.

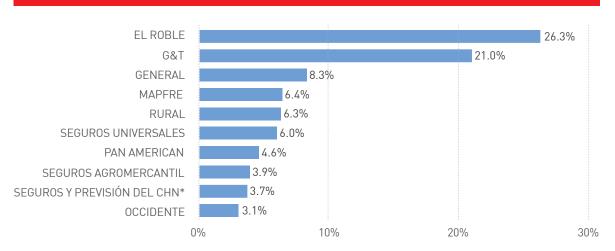
The two most important insurance groups in the Guatemalan market are still El Roble, with 26.3% of premiums and G&T, with a market share of 21.0%. They are followed at a certain distance by Aseguradora General (8.3%), MAPFRE (with 6.4%, which improved its position from 2014) and Aseguradora Rural (6.3%).

Graph 3.1.2-o. Guatemala: evolution in the concentration of the insurance sector, 2005-2015 [Herfindahl index; CR5 index, %]



Source: MAPFRE Economic Research (using data from the Superintendence of Banks)

Graph 3.1.2-p. Guatemala: Overall Ranking, 2015 (market share, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks)

#### Relevant regulatory aspects

In 2015, a significant aspect was the issue of two regulations referring to insurance Firstly, the Resolution of the Monetary Board JM-73-2015 (Regulation for the Mass Marketing of Insurance), which repealed resolution JM-1-2011. This regulation includes provisions that

should be observed by insurance companies in the mass marketing of insurance. It includes establishing the categories of insurance and their characteristics, the requirements and impediments of the marketer, the documents to be obtained by insurance companies, the minimum content of marketing trade agreements, and the skills of the marketer.

<sup>\*</sup> Department of Insurance and Pension-related Cover of the Crédito Hipotecario Nacional Bank

In second place, Agreement number 36-2015 of the Superintendence of Banks, that stipulates the General Provisions to Send Information to the Superintence of Banks by Insurance and Reinsurance companies.

This regulation repeals Agreement number 2-2011 and updates the requirement for information on operations, and the financial situation of insurance and reinsurance companies, with the aim of strengthening the supervision process. It also establishes the frequency and the means of remittance. It is possible to present it, depending on the type of information, by electronic means and through the web portal enabled for companies.

#### 3.1.3. Honduras

#### Macroeconomic environment

The Honduran economy increased by 3.6% in 2015, half a p.p. more than the previous year. This was the result of the strong performance of investment and private consumption, along with favorable external conditions (see Graph 3.1.3-a).

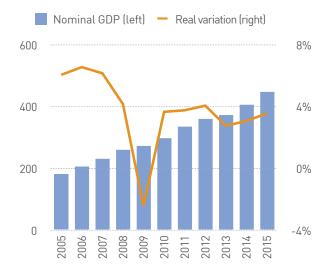
The most dynamic of the economical sectors were financial intermediation, electricity and water, and communications, along with the agricultural sector. This was basically owing to the recovery of the coffee industry.

On the other hand, the fall in oil prices and its derivatives made the inflation rate of the Honduran economy decrease at the end of 2015, down to 2.4% (compared to 5.8% recorded at the end of 2014), below the goals set by the central bank. The unemployment rate increased by two p.p., to reach 7.3%.

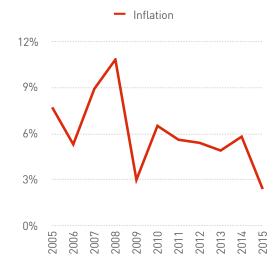
With regard to foreign trade, the current account deficit of the Honduran economy improved by over one p.p., up to 6.4% of the GDP. This was basically a result of the increase of remittances and the decrease in the value of oil imports.

The CEPAL forecasts that in the coming year, the Honduran economy will grow by 3.5% in 2016. Meanwhile, the FMI estimates a growth of just one tenth more, at 3.6%.

Graph 3.1.3-a. Honduras: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion lempiras; actual growth rate, %; annual inflation rate, %)







#### Insurance market

#### Growth

The volume of premiums of the Honduran insurance market in 2015, rose to 8,726 million lempiras (400 million dollars), with a nominal increase of 9.6%, and a real increase of 7.1%, compared to the previous year (see Table 3.1.3-a and Graph 3.1.3-b). Growth of the sector has accelerated compared to the previous year. Premiums increased by 6.2% in nominal terms.

Life insurance premiums increased by 15.4% in 2015 (compared to 4.6% the previous year), to reach 2,792 million lempiras (128 million dollars). Non-Life insurance premiums increased by 7.1% (compared to 6.9% in 2014), up to 5,934 million lempiras (272 million dollars).

The good performance of group Life insurance was notable, while the three main categories of Non-

Life, Fire, Health and Automobile, grew by 5.9%, 9.5% and 3.0% respectively. The only downturn was in Transport insurance (-0.5%).

## Balance sheet and equity

Graph 3.1.3-c illustrates the evolution of the aggregate balance sheet of the insurance sectorin Honduras over the 2005-2015 period. Total assets rose to 13,400.5 million lempiras (614 million dollars), while net equity amounted to 4,779 million lempiras (219 million dollars), showing positive changes throughout the period, except in 2013.

Aggregate capitalization levels of the Honduran insurance sector are noteworthy (measured on total assets), which were at levels of around 40% during the 2005-2012 period. They experienced a slight drop from then on, representing 35.66% over the total assets in 2015.

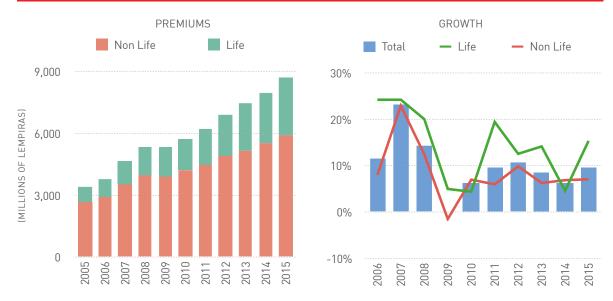
Table 3.1.3-a. Honduras: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Million lempiras	Million USD	% ∆	%∆real
Total	8,726	400	9.6	7.1
Life	2,792	128	15.4	12.7
Non-Life	5,934	272	7.1	4.6
Fire and associated lines	1,893	87	5.9	3.5
Automobile	1,311	60	3.0	0.6
Health	1,510	69	9.5	7.0
Other Damages	518	24	7.2	4.7
Transport	232	11	-0.5	-2.8
Personal Accidents	185	8	10.1	7.5
Civil liability	120	5	14.1	11.5
Surety	122	6	45.6	42.3
Professional risks	42	2	53.2	49.7

Source: MAPFRE Economic Research (with data from the National Commission of Banking and Insurance)

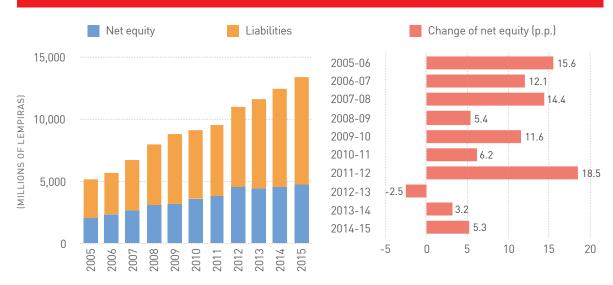
(1) Premiums net of returns and cancellations

Graph 3.1.3-b. Honduras: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

Graph 3.1.3-c. Honduras: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

#### Investments

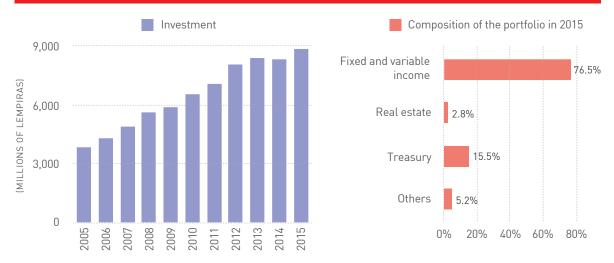
Graph 3.1.3-d shows the evolution of investments of the Honduran insurance industry, along with the composition of the aggregate insurance portfolio at sector level in 2015.

In 2015, investments reached 8,876.5 million lempiras (406 million dollars), concentrated in debt

and equity instruments with 76.5% of the total, 15.5% in treasury and the remaining 5.2% in other financial investments.

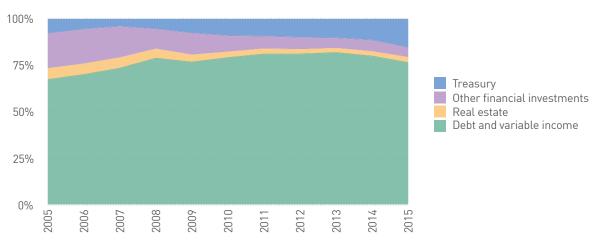
In general terms, a growth tendency is observed in the participation of investments in debt and equity (which appears to reverse from 2013), along with growth in treasury investments (see Graph 3.1.3-e).

Graph 3.1.3-d. Honduras: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

Graph 3.1.3-e. Honduras: evolution in the structure of investments, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

## Technical provisions

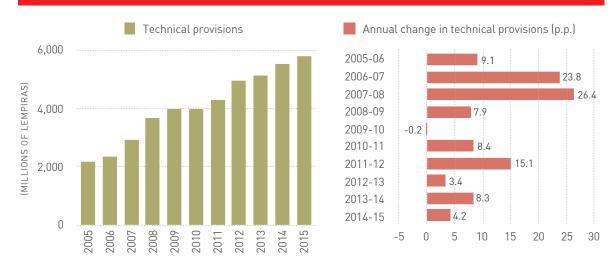
The evolution and annual change of technical provisions of the Honduran insurance sector are given in 3.1.3-f. Technical provisions in 2015 amounted to 5,764.8 million lempiras (264 million dollars).

With the available information, it has not be possible to make an analysis with a greater level

of deaggretation of the composition of technical provisions at sector level.

Nevertheless, throughout the period 2005-2015, sustained growth is observed in absolute terms at aggregate level. The only exception is in 2010 when a slight fall was noted. In 2005, total technical provisions rose to 2,156.5 million lempiras (124 million dollars).

Graph 3.1.3-f. Honduras: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

## Technical performance

Graph 3.1.3-g shows the evolution of the technical performance of the Honduran insurance sector throughout the 2005-2015 period, based on the analysis of the combined ratio of the market.

In 2015. this technical coefficient was placed at 85.3%, 6.7 p.p. below the level reached in 2014 (92%). This improvement was chiefly owing to the fall in expenditure, from 43.1% in 2014 to 36.6% in 2015. The accident rate improved by two tenths, to 48.7%, showing a tendency to decrease in recent years, particularly between 2009 and 2015 when it was reduced from 57.3% to 48.7%.

## Results and profitability

The net result of the Honduran insurance sector in 2015 was 906 million lempiras (41 million dollars), meaning an increase of 27.4% over the previous year.

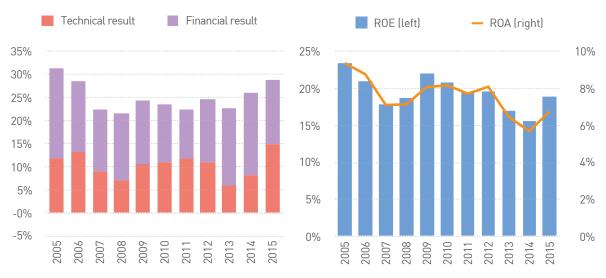
With regard to profitability, the return on net equity (ROE) stood at 18.95% in 2015, an increase of 3.29 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 6.76% in 2015, representing an increase of 1.06 p.p. compared to 2014 (see Graph 3.1.3-e).

Graph 3.1.3-g. Honduras: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of the combined ratio, p.p.)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

Graph 3.1.3-h. Honduras: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)



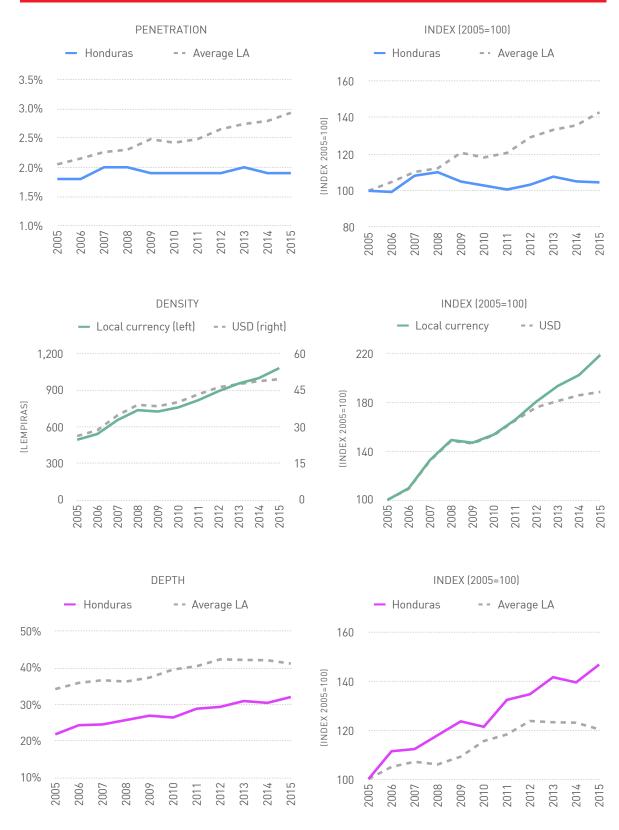
Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

# Penetration, density and depth of insurance

The main structural trends in the progress of the insurance sector over the 2005-2015 period for the Honduran market are shown in Graph 3.1.3-j. The penetration index (premiums/GDP) in 2015 stood at

1.9%, barely 0.1 p.p. above the level observed in 2005. As can be seen in the graph, the penetration index of the Honduran market has maintained a stable trend throughout the last decade, differing from the average trend recorded in the Latin American market as a whole.

Graph 3.1.3-i. Honduras: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, lempiras and USD; total premiums/Life premiums, %; 2005 index = 100)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

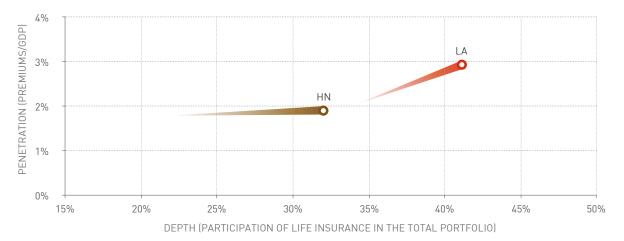
Insurance density in Honduras (premiums per capita) amounted to 1,080.6 lempiras (49.5 dólares), which represents an increase of 8.1% over the level reached in 2014 (999.5 lempiras). Density in Honduras (measured in local currency) shows a tendency to increase, with an accmulated growth of 118.9% throughout the 2005-2015 period.

As regards the depth in the Honduran market (measured as premiums of Life insurance compared to total premiiums), the respective index in 2015 was 32%; that is, 10.2 p.p. above the value recorded in 2005. It is in line with the overall trend in Latin American markets, although below the

absolute values of the indicator for the average of countries of the region.

Finally, Graph 3.1.3-j illustrates the performance of the Honduran insurance market. A dispersion analysis is used, which considers the joint effect of the development of this insurance market, compared to the Latin American insurance market, based on the joint change of penetration and depth levels. The analysis shows that the development trend of the Honduran insurance market is in line with the average trend of Latin America, regarding depth. Howver this is not the case regarding the average penetration level of the region during this time.

Graph 3.1.3-j. Honduras: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)

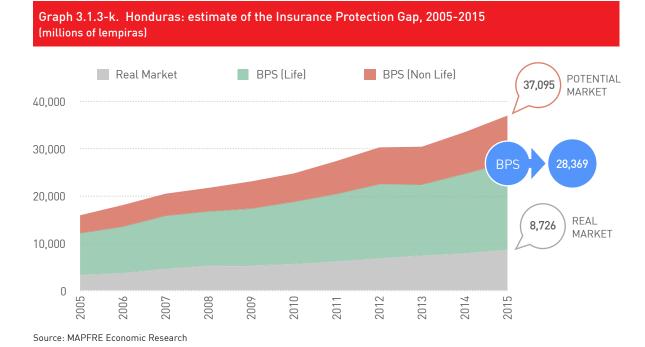


Source: MAPFRE Economic Research

#### ¡Estimate of the Insurance Protection Gap

The estimated IPG for the insurance market in Honduras between 2005 and 2015 is shown in Graph 3.1.3-k. According to this analysis, the IPG stood at 28,369 million lempiras, representing a value 3.3 times the size of the real insurance market at the close of that year.

As with most Latin American markets, the structure and evolution of the IPG throughout the period analyzed shows that the contribution of Life insurance predominated. Thus, at the close of 2015, Life insurance policies accounted for 65.1% of the IPG (18,463 million lempiras), which is 4.9 p.p. down on that sector's contribution in 2005. Additionally, the contribution of the Non-Life insurance sector (9,906 million lempiras) accounts for the remaining 34.9% of the insurance gap.



Therefore, the potential insurance market in Honduras at the close of 2015 (calculated as the sum of the real market and the IPG), was estimated at 37,095 million lempiras, which is 4.3 times the total insurance market in Honduras for that year.

On the other hand, Graph 3.1.3-l shows the IPG estimate as a multiple of the real market in Honduras. The insurance gap as a multiple shows a sustained downward trend throughout the period 2005-2015 for the Life insurance sector (reducing from times 11.9 to 6.6). It is not the same in the case of the Non-Life insurance sector where the insurance gap shows a positive trend during the period analyzed, rising from a multiple of 1.4 to 1.7 times.

Finally, the same Graph 3.1.3-l shows a summary of the assessment regarding the capacity of the Honduran insurance market to close the insurance gap, using for this purpose a comparative analysis between the growth rates observed over the last ten years and the growth rates needed to close the gap identified in 2015 over the following ten years. The Honduran insurance market grew at an average annual rate of 9.9%; growth that incorporated an annual rate of 14.2% in the Life insurance sector and an average annual rate of 8.4% in the case of Non-Life insurance.

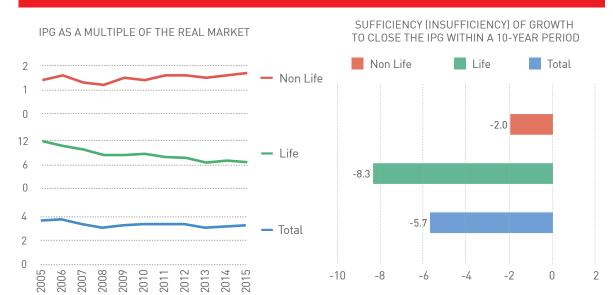
The conclusion from the analysis carried out is that if the same growth dynamic observed over the past decade is maintained over the following ten years, the growth in the Honduran insurance market will not be sufficient to achieve the stated goal. In the case of the Life insurance sector, the rate observed would fall short by 8.3 p.p., whilst the shortfall in the Non-Life insurance sector would be 2 p.p..

## Market Development Index (MDI)

The estimate of the Market Development Index (MDI) for the Honduras insurance industry is shown in Graph 3.1.3-m.

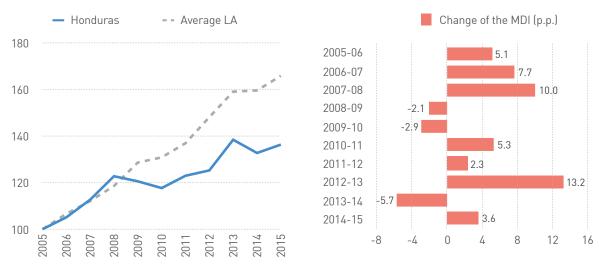
In the case of the Honduras insurance industry the MDI (which is used as an indicator of the general trend observed in the evolution and maturity of insurance markets) reflects a positive trend over the period analyzed. This trend is broadly in line with the average noted for Latin American markets, with contractions in some years (2009, 2010 and 2014) and showing a growing divergence with the average performance of the region.

Graph 3.1.3-l. Honduras: details of the Insurance Protection Gap, 2005-2015 [multiple of the real market, times; p.p.]



Source: MAPFRE Economic Research

Graph 3.1.3-m. Honduras: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)



Source: MAPFRE Economic Research

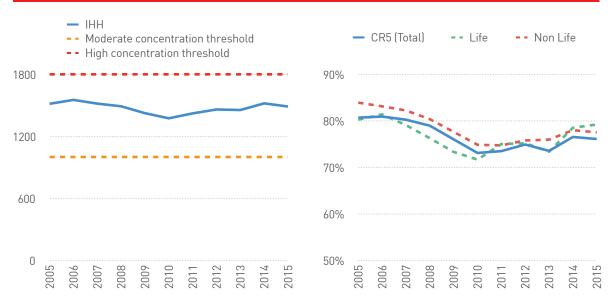
## Overall Ranking

Twelve insurance companies operated in Honduras throughout 2015, the same ones as in 2014. The concentration level of the industry has remained stable over recent years, although values that indicate relevant levels show an upward trend since 2010. The Herfindahl index has been higher than the threshold of moderate concentration over the

last decade. Meanwhile, the five leading insurance companies jointly accounted for 76.1% of premiums in 2015 (see Graph 3.1.-n).

Graph 3.1.3-o shows the ranking of the groups in the Honduras market which continues to be headed up by Interamericana, with a market share of 25.4%, followed by MAPFRE (18.6%), which moves up to second place, and Atlántida (15.3%).

Graph 3.1.3-n. Honduras: evolution of the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

Graph 3.1.3-o. Honduras: Overall Ranking, 2015 (market share, %) INTERAMERICANA 25.4% **MAPFRE** 18.6% **ATLANTIDA** 15.3% **PALIC** 8.4% **DEL PAÍS** 8.3% **BOLÍVAR** 8.1% **CREFISA** 4.2% **LAFISE** 4.2% **EQUIDAD** 3.1% AIG 2.3% 0% 10% 20% 30%

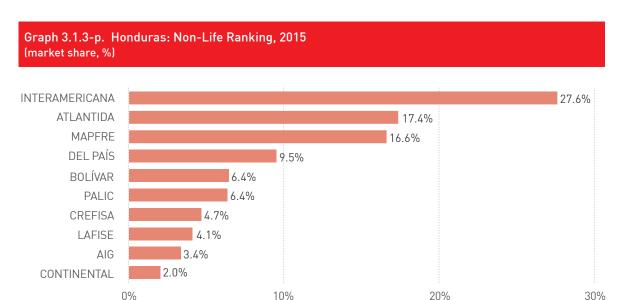
Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

# Non-Life Ranking

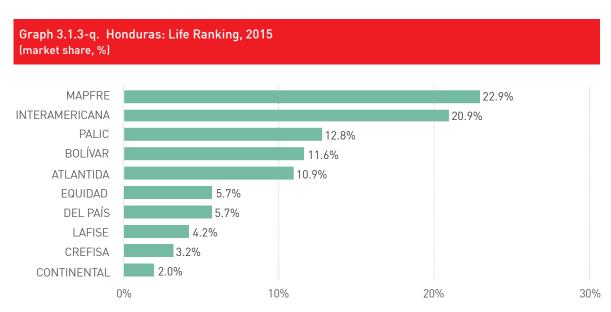
With regard to the Non-Life ranking of the Honduran market, it is also led by Interamericana, accounting for a 27.6% share of premiums. It is followed in the league table by Atlántida with 17.4% and by MAPFRE with 16.6% (see Graph 3.1.3-p).

# Life Ranking

Lastly, with regard to Life ranking, MAPFRE holds the top position with 22.9% of total premiums, followed by Interamericana with 20.9% and Palic with 12.8% of the premiums in this market segment (see Graph 3.1.3-q).



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)



Source: MAPFRE Economic Research (using data from the National Commission on Banking and Insurance)

## **Relevant Regulatory Aspect**

Noteworthy among regulations issued in 2015 was January's resolution by the Honduran National Commission on Banking and Insurance (Spanish acronym CNBS), through Circular 7/2015, to establish a general guideline for Honduran financial institutions, including insurance companies, to implement the necessary policies, procedures and controls to comply with their obligations under the Agreement between the Government of the United States of America and the Government of the Republic of Honduras concerning the implementation of the Foreign Account Tax Compliance Act (FATCA) and improving international tax compliance.

Similarly, in February 2016 the CNBS, with Circular 3/2016, decided to extend the deadline for insurance institutions to adopt and implement International Financial Reporting Standards (IFRS) from 1 January 2018 up until 31 December of the same year, establishing 2017 as a transition year for implementing IFRS rules.

Finally, it is worth highlighting that with Circular 30/2016 of July 2016, the Honduran CNBS agreed to establish a minimum set of measures for managing risks and internal controls, specifying the responsibilities in this respect of the governing bodies of the institutions they supervise.

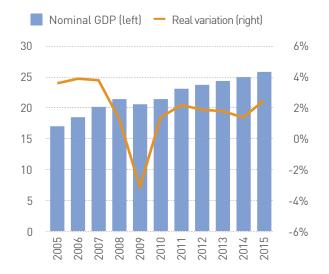
#### 3.1.4. El Salvador

# **Macroeconomic environment**

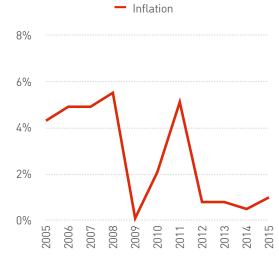
El Salvador's economy grew by 2.5% in 2015 (against 1.4% the previous year), driven by domestic demand and especially by private consumption and investment (see Graph 3.1.4-a).

Growth was noted across all economic sectors, led by the manufacturing industry, driven by the demand for goods from the United States, and the commercial sector thanks to the dynamism of consumer expenditure. Inflation rose half a p.p. at the end of 2015 to reach 1.0%, and thus remains at a moderate level.

Graph 3.1.4-a. El Salvador: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion USD; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)



With regard to foreign trade, exports increased in 2015 while imports decreased due to the fall in the price of oil and its derivatives. As a result, the country's current account deficit stands at 3.6 of GDP, compared with 5.2% in 2014.

The CEPAL estimates that the Salvadorian economy will grow by 2.2% in 2016; a forecast that the IMF has raised by 0.2 p.p. to position it at 2.4%.

#### The insurance market

#### Growth

The volume of premiums in El Salvador's insurance market grew by a nominal rate of 6.4% (5.4% en real terms), to reach 609 million dollars (see Table 3.1.4-a and Graph 3.1.4-b).

Life insurance premiums, which represented 38.3% of the total market, grew by a nominal 3.3% to 233 million dollars, and Non-Life premiums grew 8.5% to 376 million dollars.

By category, individual and group insurance grew by 6.0%, while disability and survivor premiums and pensions contracted by 1.9%. Growth was achieved in all categories of Non-Life insurance led by Other Damage, (16.0%) and Accident and Sickness (12.6%).

## Balance sheet and equity

Graph 3.1.4-c shows the evolution of the aggregated balance sheet of the insurance industry in El Salvador during the period 2005-2015. The total assets of the sector in 2015 stood at 840.6 million dollars, 8.5% higher than the previous year.

Notable in the sectoral analysis of the aggregated balance of the Salvadorian market are the levels of capitalization measured against total assets. This indicator was more than 40% during the period 2006 to 2015, reaching a maximum of 52.3% in 2010, and decreasing slightly since then to stand at 45.2% of the total assets in 2015.

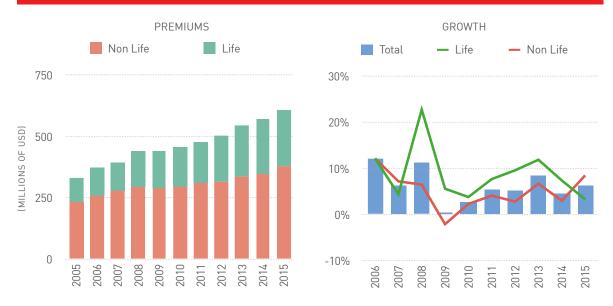
Table 3.1.4-a. El Salvador: volume of premiums<sup>1</sup> by branch, 2015 (premiums in USD; nominal and real growth rates, %)

Branch	Million USD	% ∆	%∆real
Total	609	6.4	5.4
Life	233	3.3	2.2
Disability and Survivor Insurance and Pensions	77	-1.9	-2.9
Individual and Group	156	6.0	5.0
Non-Life	376	8.5	74
Fire and/or associated lines	94	1.9	0.9
Other Damages	86	16.0	14.8
Accidents and sickness	107	12.6	11.4
Automobile	75	5.1	4.0
Credit and/or Surety	13	1.1	0.1

 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Superintendence\ of\ the\ Financial\ System)$ 

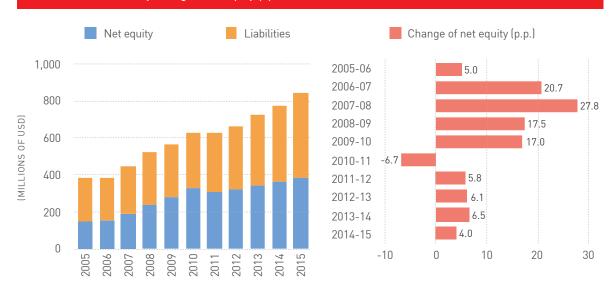
(1) Premiums issued net of returns and cancellations

Graph 3.1.4-b. El Salvador: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

Graph 3.1.4-c. El Salvador: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (using data from the Superintendence of Banks)

#### Investments

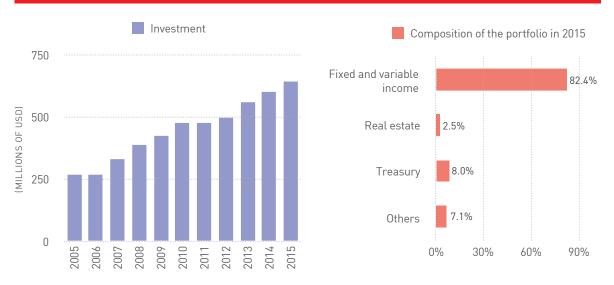
Graph 3.1.4-d shows the evolution of investments as well as the composition of the aggregated investment portfolio by each sector of the Salvadorian insurance market.

In 2015, investments reached 645 million dollars, with 82.4% of investments being concentrated in

debt and equity instruments, 8% in treasury, 2.5% in real estate and 7.1% in other financial investments.

It can be seen that, following a decline in debt and equity investments in 2010, the sectoral structure of investments re-established itself and maintained a stable composition throughout the period 2005-2015 (see Graph 3.1.4-e).

Graph 3.1.4-d. El Salvador: evolution of the investments of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

Graph 3.1.4-e. El Salvador: evolution of the structure of investments, 2005-2015 (composition, %) 100% 75% Treasury Other financial investments 50% Real Estate Debt and variable income 25% 0% 2010 2013 2014 2015 2011 2007 201

Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

## Technical provisions

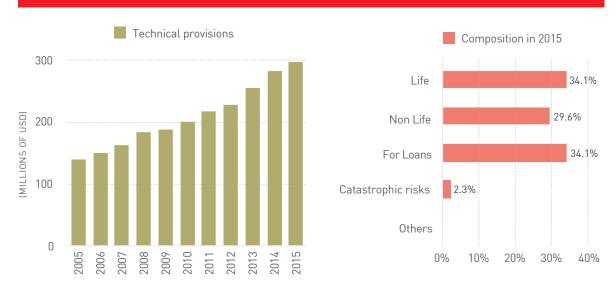
The evolution and composition of the technical provisions of the Salvadoran insurance industry are illustrated in Graphs 3.1.4-f and 3.1.4-q.

In 2015, technical provisions stood at 295.2 million dollars. 34.1% of the total relating to Life insurance, 29.6% to unearned premiums and current risks

on Non-Life insurance, 34.1% to provision against claims and the remaining 2.3% as provision against catastrophic risks.

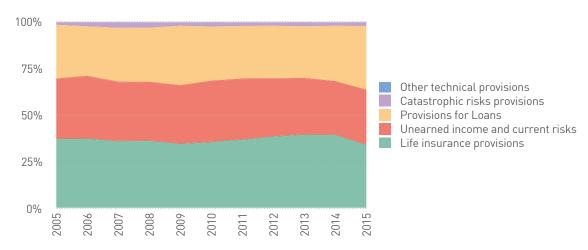
Over the period 2005-2015 there was a general sustained increase in the absolute values of all technical provisions except in provisions for Life insurance which fell slightly in 2009 and 2015.

Graph 3.1.4-f. El Salvador: evolution in the technical provisions of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Superintendence\ of\ the\ Financial\ System)$ 

Graph 3.1.4-g. El Salvador: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

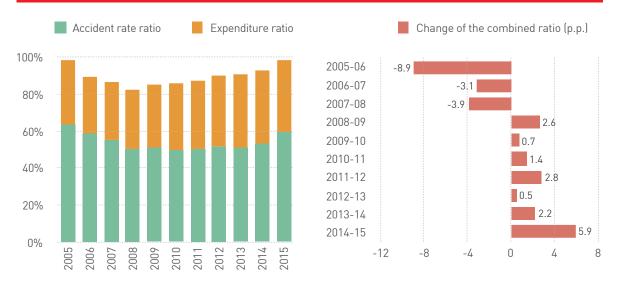
## Technical performance

The aggregate technical results of the insurance sector in El Salvador remained positive in 2015, despite the combined ratio rising by nearly six p.p. to reach 98.7% (see Graph 3.1.4-h). This increase in the technical indicator was due to a major increase

in the accident rate which grew by 11.9% between 2014 and 2015.

In general, from 2008 onwards, there was an upward trend in the combined ratio, driven by increases in both the expenditure and accident rate ratios.

Graph 3.1.4-h. El Salvador: evolution of the market's technical performance, 2005-2015 (total combined ratio, %; annual change in combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

#### Results and profitability

The pre-tax profit for the insurance business of El Salvador in 2015 was 44 million dollars, 21.7% less than the previous year, mainly due to the fall in the technical result for that year. As can be seen in Graph 3.1.4-i, there was a steady drop in the technical result from 2008 which affected the profitability of the industry.

As evidence of this, the return on equity (ROE) of the Salvadoran market stood at 9.7% in 2015, a reduction of 3.2 p.p. compared to 2014 and nearly 6.2 points from what it had been in 2005.

A similar situation occurs when analyzing the return on assets (ROA). In 2015, the indicator reached 4.4%, representing a reduction of 1.7 p.p. compared to 2014.

#### Penetration, density and depth of insurance

Graph 3.1.4-j shows the main structural trends in the development of the insurance sector in El Salvador during the period 2005-2015. Firstly, the penetration index (premiums/GDP) in 2015 stood at 2.4%, a little over 0.4 p.p. above the level observed in 2005. The penetration index for the Salvadoran insurance market showed a trend of sustained growth, albeit divergent and below the average growth in Latin American markets.

Meanwhile, the density indicator (premiums per capita) stood at 96.6 dollars, 6% higher than the level achieved in 2014 (91.2 dollars). Market density in El Salvador shows a growth trend throughout the whole period analyzed, with an accumulated growth of 76.8% from 2005-2015.

-10%

Technical result

Financial result

ROE (left)

ROA (right)

20%

15%

10%

5%

0%

2007

Graph 3.1.4-i. El Salvador: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)

Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

With respect to the degree of depth in the Salvadoran market (measured as the ratio of Life insurance premiums to total premiums), the 2015 index stood at 38.2%, 7.7 p.p. above the value achieved in 2005 and with a sustained increase up until 2014, but still below the absolute values of the indicator of average values for the countries of the region.

Graph 3.1.4-k illustrates the performance of El Salvador's insurance market. A dispersion analysis is employed for this purpose which takes into consideration the overall effect of the progress of El Salvador's market compared to the region's insurance market as a whole, based on the overall change in levels of penetration and depth. In broad terms, the development trend in the Salvadoran market is very close to the average trend in the Latin American insurance markets over this period.

#### Estimate of the Insurance Protection Gap

Graph 3.1.4-l shows an estimate of the IPG for the Salvadoran insurance market between 2005 and 2015. Thus, the insurance gap in 2015 was 1,516.2 million USD, representing 2.5 times the real insurance market in El Salvador at the end of that year.

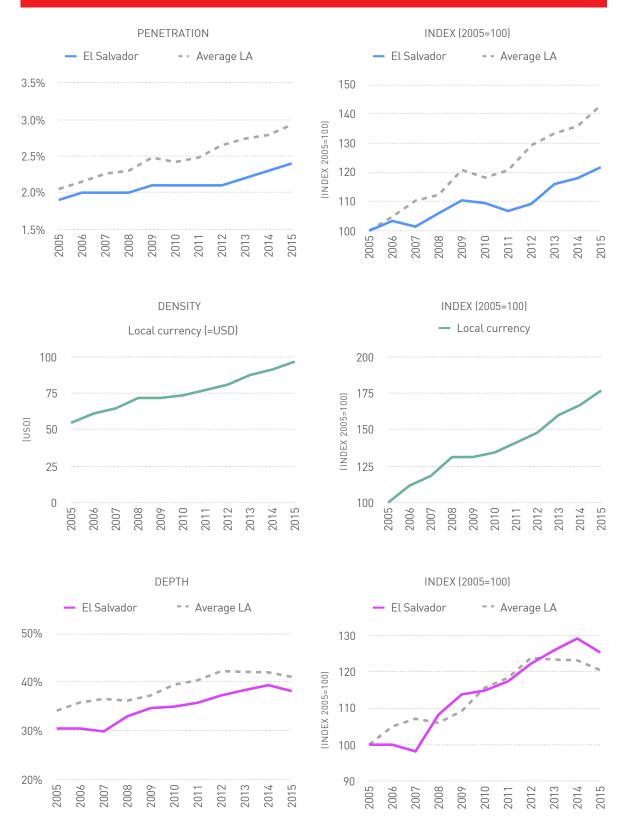
The structure and evolution of the IPG over the period analyzed shows the predominance of the contribution of Life insurance policies. At the end of 2015, 65% of the insurance gap related to Life insurance policies (985 million USD), 3.2 p.p. less than the share observed in 2005. The remaining 35% of the IPG is explained by the contribution from the Non-Life insurance sector (531 million USD).

El Salvador's insurance market potential at the end of 2015 (the real market plus the IPG), was estimated at 2,124.9 million USD, which is equivalent to 3.5 times the total size of the Salvadoran insurance market for that year.

Graph 3.1.4-m shows an estimate of the insurance gap as a multiple of the real insurance market in El Salvador for the period 2005-2015. The IPG for the Life insurance sector, as a multiple, shows a steadily decreasing trend over the period analyzed (going from 7.8 to 4.2 times), while in the case of the Non-Life insurance sector there is also a downward trend but less pronounced (from 1.6 to 1.4 times during the period).

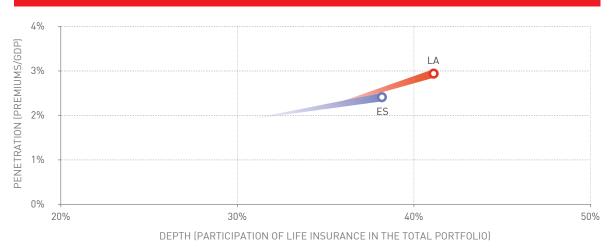
0%

Graph 3.1.4-j. El Salvador: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, USD; total premiums/Life premiums, %; 2005 index = 100)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Superintendence\ of\ the\ Financial\ System)$ 

Graph 3.1.4-k. El Salvador: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

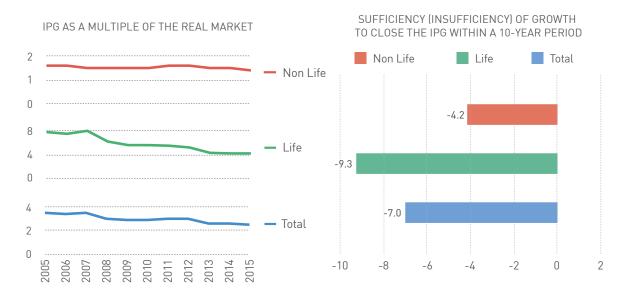
Source: MAPFRE Economic Research

Graph 3.1.4-l. El Salvador: estimate of the Insurance Protection Gap, 2005-2015 (million USD) Real Market BPS (Life) BPS (Non Life) POTENTIAL 2,124.9 2,500 **MARKET** 2,000 1,500 1,000 500 REAL 609.6 MARKET 0 2015 2009 2010 2012 2013 2014 2011

Graph 3.1.4-m also summarizes an assessment of the capacity of the Salvadoran insurance market to close the IPG by using a comparative analysis between growth rates noted over the last ten years and the growth rates needed to close the gap identified in 2015 during the course of the following decade. The Salvadoran insurance market grew at an average annual rate of 6.3% between 2005 and 2015; the Life insurance sector achieved an annual average rate of 8.7%, while the Non-Life insurance annual rate was 5.1%.

If the same growth dynamic observed over the last decade were to be maintained throughout the coming one, the annual growth rate of the Salvadoran insurance market would not be sufficient to close the insurance gap either in the Life insurance sector (in which the shortfall would be 9.3 p.p.), or in the Non-Life insurance sector (with a shortfall of 4.2 p.p.).

Graph 3.1.4-m. El Salvador: details of the Insurance Protection Gap, 2005-2015 [multiple of the real market, times; p.p.]



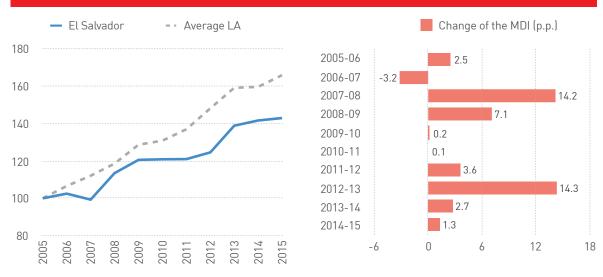
Source: MAPFRE Economic Research

## Market Development Index (MDI)

As previously mentioned in this report, the Market Development Index (MDI) is used as an indicator of the general trends in the evolution and maturity of insurance markets. The result of the calculation for the Salvadoran insurance sector is shown in Graph 3.1.4-n.

In general, the indicator displays a positive and growing trend over the period 2005-2015, although from 2009 it is below and divergent from the average performance demonstrated by Latin American markets in general.

Graph 3.1.4-n. El Salvador: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)



Source: MAPFRE Economic Research

## Overall Ranking

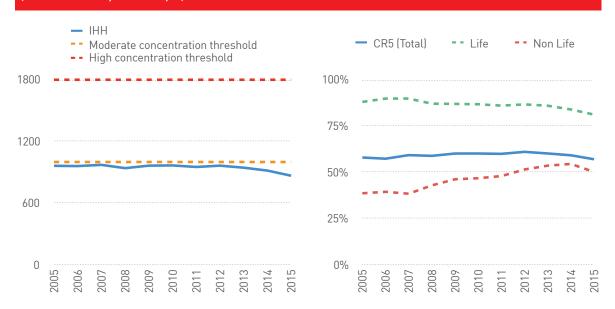
In 2015 there were 24 insurance companies working in El Salvador, two more than the year before. The Herfindahl and CR5 indexes (see Graph 3.1.4-o) show that the level of concentration in the Salvadoran market declined from 2012 onwards.

Nevertheless, over the course of the last decade, the Herfindahl index has stayed practically in

line with the theoretical threshold which would indicate that the insurance industry is entering into moderate levels of concentration.

In the overall ranking of insurance groups in 2015 (see Graph 3.1.4-p), the first place is still held by Seguros e Inversiones (SISA), with a market share of 20.5%, followed by Aseguradora Suiza Salvadoreña (19.3%) and Aseguradora Agrícola Comercial (13.8%).

Graph 3.1.4-o. El Salvador: evolution of the concentration of the insurance sector, 2005-2015 [Herfindahl index; CR5 index, %]



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

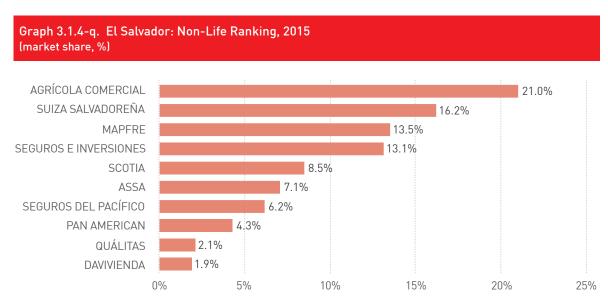
Graph 3.1.4-p. El Salvador: Overall Ranking, 2015 (market share, %) **SEGUROS E INVERSIONES** 20.5% SUIZA SALVADOREÑA 19.3% AGRÍCOLA COMERCIAL 13.8% **MAPFRE** 9.6% **ASSA** 9.6% 5.9% **SCOTIA** 5.0% PAN AMERICAN 4.1% SEGUROS DEL PACÍFICO DAVIVIENDA 3.5% LA CENTRAL 1.9% 0% 5% 10% 15% 20% 25%

Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

## Non-Life Ranking

In terms of Non-Life ranking in the Salvadoran insurance market, Aseguradora Agrícola Comercial

is the leader with 21% of the premiums, followed by Aseguradora Suiza Salvadoreña with 16.2% and then MAPFRE with a market share of 13.5% (see Graph 3.1.4-q).

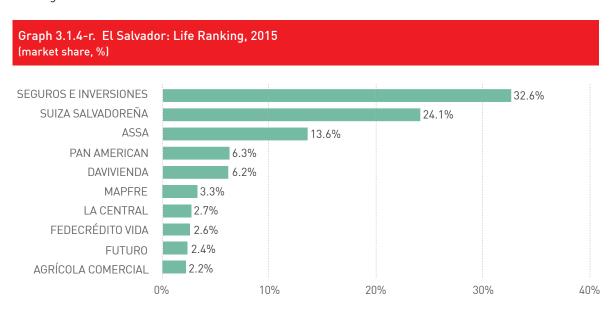


Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

## Life Ranking

Finally, the top three positions in the Life insurance rankings for the Salvadoran insurance market are

held by Seguros e Inversiones with a market share of 32.6%, Aseguradora Suiza Salvadoreña with 24.1%, and ASSA with 13.6% (see Graph 3.1.4-r).



Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System)

## Relevant regulatory aspects

According to information from El Salvador's regulatory and supervisory authorities, the Superintendence of the Financial System (Superintendencia del Sistema Financiero or SSF) and the Central Reserve Bank of El Salvador (Banco Central de Reserva de El Salvador or BCR), are currently preparing the following draft laws relating to the insurance market:

#### Draft of the General Insurance Law

The purpose of the draft is to adapt the legal framework to the recommendations of international bodies, ensuring that the revised legal text is in line with internationally recognized prudential criteria, to in order to obtain a change in the quality of the solvency model for insurers, to facilitate sustainable growth in the insurance sector, to provide a base to move towards risk-based supervision of insurers and other regulated people, to support the development of capital markets, to strengthen consumer protection and the transparent and fair treatment by insurers and other regulated people.

The main topics expected to be covered by the draft bill are the following:

- Regulations covering corporate governance.
- Key control functions (risk, actuarial, compliance and internal audit management).
- Regulation to ensure that insurers have a risk management system in place that, as a minimum, covers the following: credit risk, market risk, liquidity risk, operational risk, reputational risk, risk of money-laundering, and technical risk.
- New minimum amounts of start-up share capital.
- With the aim of progressing towards international standards of solvency, capital requirements for unforeseen losses through credit, market and operational risks. With respect to the capital requirement for technical risk it is anticipated that the existing Solvency I type model will be maintained, but updating the confounding factors of the accident rate.
- Preventative measures that will be applied when insurers show signs of difficulties in complying with the required technical ratios of them or

else show poor management of risks that could affect their level of liquidity or solvency.

- With regard to consumer protection, regulation to ensure that insurers have policies in place to prevent insurance fraud, to uphold the provision of fair treatment towards customers and to cover the administration of claims. Also, it would be a requirement for insurers to provide financial education to policyholders and potential customers.
- Appointing the figure of an Insurance Guarantor, with the aim of understanding and giving free and personalized attention to any disputes arising from payments of policyholders' claims as a result of their rights derived from insurance.
- Provisions to register insurance adjusters with the SSF.
- Provisions to commercialize micro insurance through agents.
- Procedures to authorize segments of foreign insurers in El Salvador and Salvadoran insurers abroad

The aforementioned draft bill is at the stage of being discussed with the insurance industry in the hope that the final version of the legislative proposal represents as close a consensus as possible with the insurance sector. The authorities anticipate having the final version of the legislative proposal ready in November 2016.

## Draft of the Law of Insurance Contracts

Meanwhile, the SSF and BCR are in the planning stage of the draft bill for the Law of Insurance Contracts, which would repeal the current provisions contained in the Commercial Code relating to this subject that have never been modified since it was issued in 1970.

The objective is to modernize the regulation in line with best international practice, which represents an important step forward in insurance consumer rights. Additionally, it seeks to contribute to the development of the insurance market by introducing much more dynamic measures. The drawing up of the draft bill is expected to be completed during the first half of 2017.

Among the main subjects the draft will cover are the following:

- Extending the general provisions. Regulation on simplifying policies.
- Prior information that the insurer should provide to the policyholder.
- Regulation on taking out insurance policies through digital media, land-line and mobile telephones or any other suitable media or electronic device.
- The taking out of collective, group or mass insurance.
- Provisions for micro-insurance cover.
- Regulation on types of insurance not currently covered, such as: index insurance, loss of income insurance, theft insurance, unemployment insurance, bond/security insurance, personal accident insurance, hospitalization, surgery and maternity insurance, funeral insurance and debt insurance, among others.

## 3.1.5. Nicaragua

## **Macroeconomic environment**

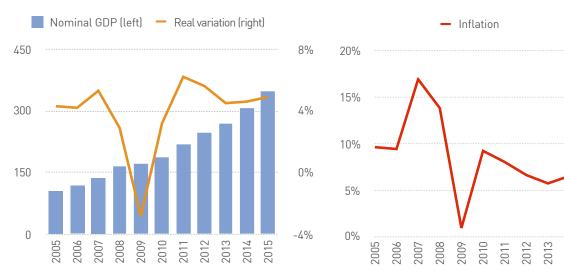
The Nicaraguan economy grew by 4.9% in 2015, 0.3 p.p.more than the previous year, boosted by public and private investment and by household consumption (see Graph 3.1.5-a). By sectors of production, the stand-out performers were construction and trade, whose dynamism counteracted the slowdown in manufacturing during that year.

There was a sharp deceleration in inflation in Nicaragua, standing at 3.1% at the end of 2015, as opposed to the 6.5% registered a year before. The main explanation for the fall in the general price index was the drop in the price of oil and its derivatives.

As for foreign trade, the reduction of exports and the slowdown in remittances provoked half a p.p. increase in the Nicaraguan economy's current account deficit, which reached 8.2% of GDP.

The CEPAL and the IMF estimate that the economy of Nicaragua will grow by 4.5% in 2016.

Graph 3.1.5-a. Nicaragua: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billions córdobas; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

#### Insurance market

## Growth

Premiums paid in the Nicaraguan insurance market in 2015 came to 5,198 million córdobas (191 million dollars), with a nominal increase of 12.6% and a real one of 9.3% compared with the previous year (see Table 3.1.5-a).

Graph 3.1.5- shows that the Nicaraguan insurance market experienced a slowdown compared to 2014, during which there was nominal growth of 19%.

In terms of market segments, the Life segments, representing 17.6% of the total grew by 11.3% (against 23.2% the previous year), to reach 916 million córdobas (34 million dollars).

Meanwhile, premiums from Non-Life segments grew 12.9% (against 18.1% in 2014), rising to 4,282 million córdobas (157 million dollars). The two most important categories, Automobile and Fire, grew nominally by 16.5% and 7.6% respectively, with Transport being the only category to decrease (-15.8%).

Table 3.1.5-a. Nicaragua: premium volume<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Million córdobas	Million USD	% ∆	real ∆%
Total	5,198	191	12.6	9.3
Life	916	34	11.3	8.0
Non-Life	4,282	157	12.9	9.6
Automobile	1,194	44	16.5	13.1
Fire and associated lines	1,308	48	7.6	4.4
Other Segments	931	34	16.9	13.5
Health	332	12	19.4	15.9
Personal Accident	169	6	10.2	6.9
Credit and/or security	124	5	23.6	19.9
Transport	109	4	-15.8	-18.2
Civil liability	114	4	23.3	19.6

Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

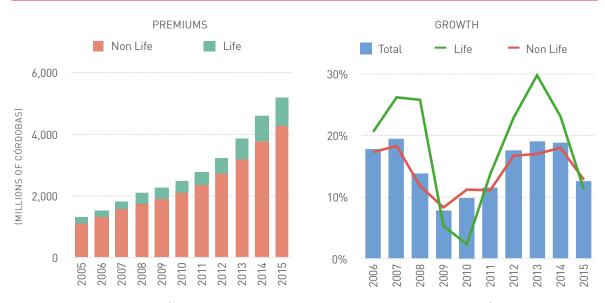
## Balance sheet and equity

The aggregated sectoral balance sheet for the Nicaraguan insurance industry over the period 2005-2015 is shown in Graph 3.1.5-c.

Total assets stood at 7,857.3 million córdobas in 2015, while net equity reached 2,336.2 million córdobas (18.3% more than in 2014).

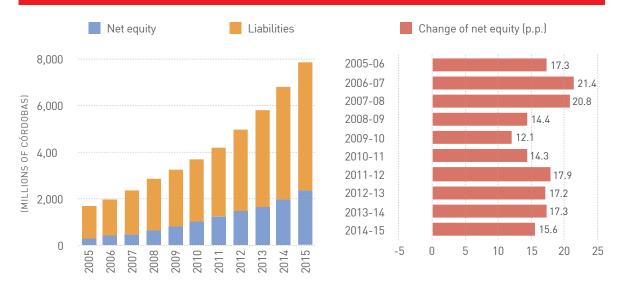
<sup>1)</sup> Net premiums issued

Graph 3.1.5-b. Nicaragua: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

Graph 3.1.5-c. Nicaragua: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

Worthy of note is the aggregate increase in levels of capitalization in the Nicaraguan insurance industry, measured against total assets. In 2005, the level of

capitalization was 18.2%, progressively increasing over the period 2005-2015 to finish up representing 29.7% of total assets at the end of 2015.

#### Investments

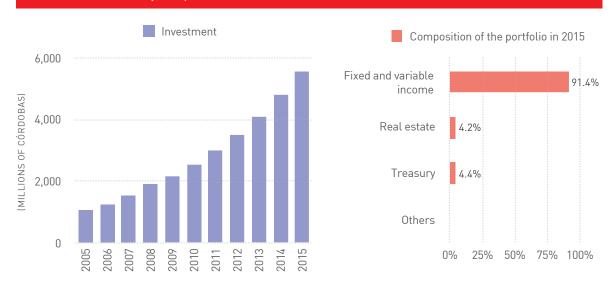
Graph 3.1.5-d shows the evolution of investments, as well as the composition of the aggregated portfolio on a sectoral level for 2015.

Investments in that year reached 5,553 million córdobas (203 million dollars), with 91.4 of the investments concentrated in debt and equity

instruments, 4.4% in treasury and the remaining 4.2% in real estate investments.

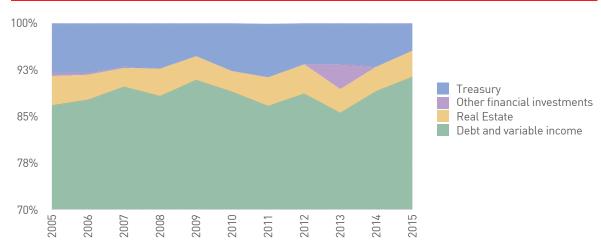
Meanwhile, Graph 3.1.5-e illustrates the evolution of the composition of the investment portfolio throughout the period 2005-2015. In general, there is clear predominance of investments in debt and equity instruments.

Graph 3.1.5-d. Nicaragua: evolution of the investments of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

Graph 3.1.5-e. Nicaragua: evolution of the structure of investments, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

## Technical provisions

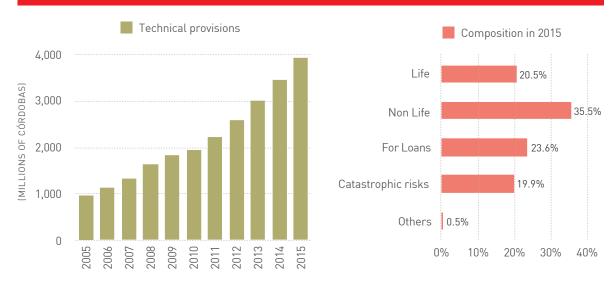
Graphs 3.1.5-f and 3-1-5-g show the evolution and relative composition of the technical provisons of the Nicaraguan insurance sector over the period 2005-2015.

In 2015, technical provisions stood at 3,916 million córdobas (144 million dollars). Of this total, 20.5% corresponded to Life insurance, 35.5% to the provision of unearned premiums and current risks of Non-Life insurance, 23.6% to provisions

for benefits, 19.9% to provisions for catastrophic risks, and the remaining 0.5% to other technical provisions.

During the 2005-2015 period there was sustained growth in technical provisions in absolute terms in both the Life and Non-Life segments. The relative weight of Life insurance in 2008 suffered a fall compared to Non-Life insurance, representing 16.8% of the total provisions, only to gradually recover afterwards before hitting values of around 20.5 for the last two years of the period analyzed.

Graph 3.1.5-f. Nicaragua: evolution in the technical provisions of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

## Technical performance

With regard to the technical performance of the Nicaraguan insurance industry, Graph 3.1.5-h shows the evolution of the total combined ratio of the sector over the period 2005-2015. As can be

seen, the combined ratio improved by 0.6 p.p. in 2015 reaching 86.6%, thanks to a two p.p. reduction in costs. Meanwhile, the accident rate increased by 1.3 p.p., rising to 45.0%. Despite that, the overall technical performance of the sector has shown a steady improvement since 2011.

Graph 3.1.5-h. Nicaragua: evolution of the market's technical performance, 2005-2015 (total combined ratio, %; annual change in combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

#### Results and profitability

In Nicaragua, the net income from the insurance business was 551 million córdobas (20 million dollars), 22.5% better than the previous year, based on positive technical and financial results (see Graph 3.1.5-i).

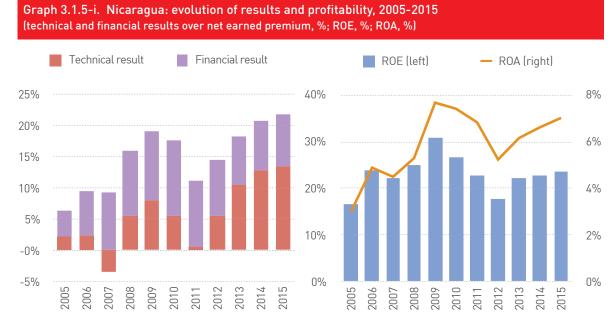
In terms of profitability, the net return on equity (ROE) was 23.6% in 2015, an increase of 0.81 p.p. on 2014. A similar scenario arises when analyzing the return on assets (ROA) which reached 7.0% in 2015, representing an increase of 0.39 p.p. compared with 2014.

Generally speaking, the insurance sector in Nicaragua shows consistent improvement from 2012 based on the better technical performance achieved from that year on.

## Penetration, density and depth of insurance

Graph 3.1.5-j. shows the main structural tendencies in the development of the Nicaraguan insurance sector over the period 2005-2015. The penetration index (premiums/GDP) in 2015 stood at 1.5%, 0.3 p.p. above the level observed in 2005. As can be seen, the penetration index for the Nicaraguan market maintained a stable trend until 2012, diverging from the average trend registered for the Latin American insurance market as a whole.

The density of insurance in Nicaragua (premiums per capita) stood at 854.2 córdobas (31.3 dollars), representing an increase of 6.1% compared with the level achieved in the previous year (766.8 córdobas). Unlike penetration, density (measured in local currency) showed a tendency towards growth, with an accumulated increase of 253.2% over the period 2005-2015.



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

With regard to the level of depth in the Nicaraguan market (Life insurance premiums relative to total premiums), the 2015 index stood at 17.6%, meaning a 4 p.p. increase on the level observed in 2005 and, in general, in line with the whole group of Latin American markets, though with some major oscillations in certain years (2008, 2009 and 2013) as a result of the growth shown in the Life insurance sector.

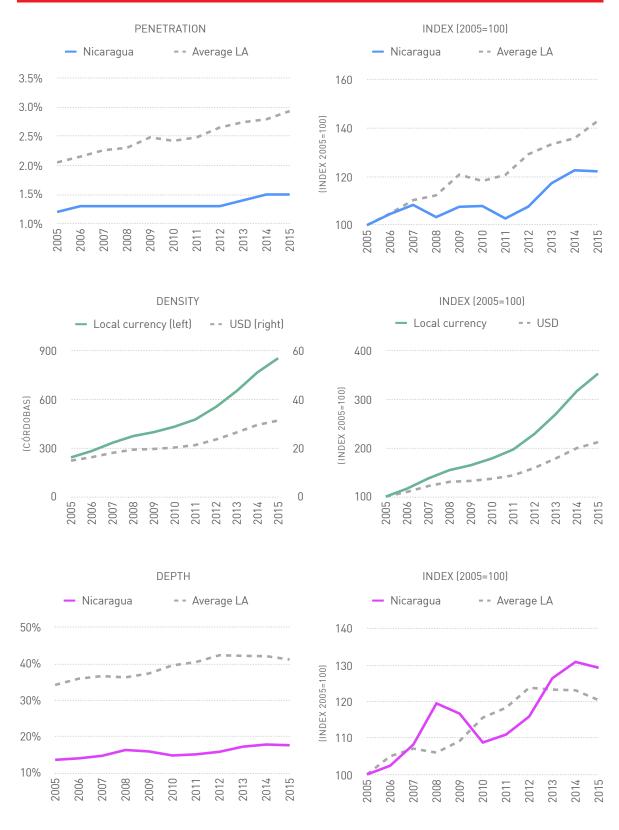
Graph 3.1.5-k illustrates the performance of the Nicaraguan insurance market, using a dispersion analysis that considers the overall effect of the progress of that insurance market compared to the Latin American average based on the overall change in levels of penetration and depth. The analysis shows that the trend in the development of the Nicaraguan insurance market is in line with the average trend for Latin America, but that it still has absolute levels of penetration and depth that are very much below the region's averages.

### Estimate of the Insurance Protection Gap

The estimate of the IPG for the Nicaraguan insurance market is shown in Graph 3.1.5-l. The insurance gap for 2015 stood at 23,240 million córdobas, representing 4.5 times the real insurance market in Nicaragua at the close of that year.

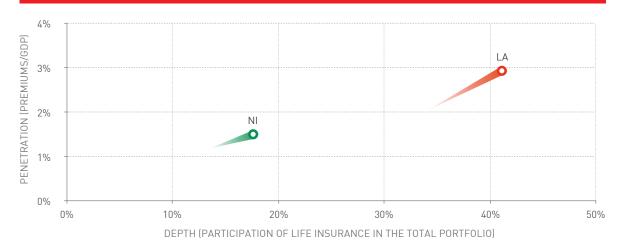
The structure and the evolution of the IPG over the period 2005-2015 shows a predominance of the contribution of Life insurance. At the end of 2015, 66.2% of the IPG related to Life insurance (15,379 million córdobas), which is 1.2 p.p. less than this sector was contributing in 2005. Meanwhile, the remaining 33.8% of the insurance gap is explained by the contribution of the Non-Life insurance sector (7,861 million córdobas).

Graph 3.1.5-j. Nicaragua: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, córdobas and USD; total premiums/Life premiums, %; 2005 index = 100)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

Graph 3.1.5-k. Nicaragua: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

Thus, the potential insurance market in Nicaragua at the close of 2015 (the sum of the real market and the IPG), was estimated at 28,438 million córdobas, which represents 5.5 times the total insurance market in that year.

Graph 3.1.5-m shows the estimate for the insurance gap as a multiple of the real insurance market in Nicaragua. The IPG as a multiple shows a sustained downward trend over the period 2005-2015 both in the case of the Life insurance sector (going from 30 to 16.8 times), and Non-Life insurance (that went from 2.3 to 1.8 times).

2015

2014

Graph 3.1.5-l. Nicaragua: estimate of the Insurance Protection Gap, 2005-2015

(million córdobas)

Real Market

BPS (Life)

BPS (Non Life)

28,438

POTENTIAL
MARKET

20,000

10,000

FEAL
MARKET

2010

2009

Source: MAPFRE Economic Research

2008

2008

2007

0

2005

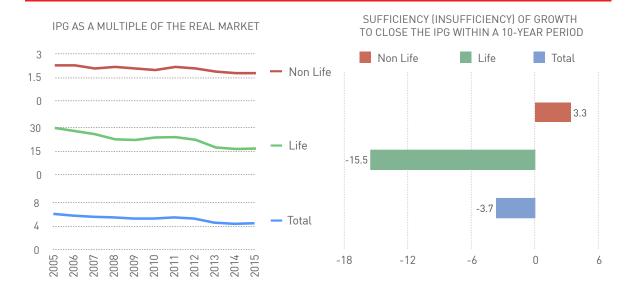
2012

2013

Lastly, the same Graph 3.1.5-m shows the summary of the assessment on the capacity of Nicaragua's insurance market to close the IPG, by using a comparative analysis between the rates of growth observed over the last ten years and the rates of growth needed to close the gap as identified in 2015 over the following decade. In this respect, the Nicaraguan insurance market grew at an annual average rate of 14.9%; growth made up of an annual rate of 17.8% in the Life insurance sector, and an average annual rate of 14.3% in the case of Non-Life insurance.

From the analysis carried out it can be deduced that if the same growth dynamic observed over the last decade is maintained over the next ten years then the rate of growth of the Nicaraguan insurance market will be sufficient to achieve the stated goal in the case of Non-Life insurance only. In the case of the Life insurance sector, the growth rate observed would result in a shortfall of 15.3 p.p.

Graph 3.1.5-m. Nicaragua: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



Source: MAPFRE Economic Research

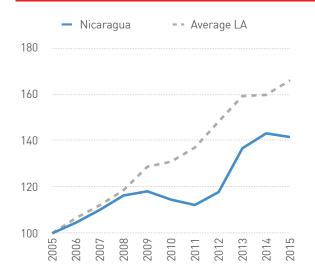
# Market Development Index (MDI)

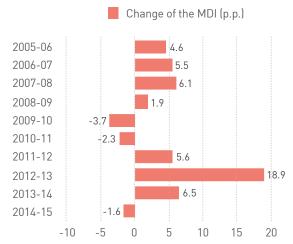
The estimate of the Market Development Index (MDI) for the Nicaraguan insurance sector is shown in Graph 3.1.5-n.

In this case the MDI (which is used as an indicator of the general trend observed in the evolution and

maturity of insurance markets) shows a positive trend over the period 2005-2015. In general terms, the trend follows the average noted for Latin American insurance markets, with a shrinkage in 2009-2011, followed by the recovery of a positive trend from those years onwards.

Graph 3.1.5-n. Nicaragua: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)





Source: MAPFRE Economic Research

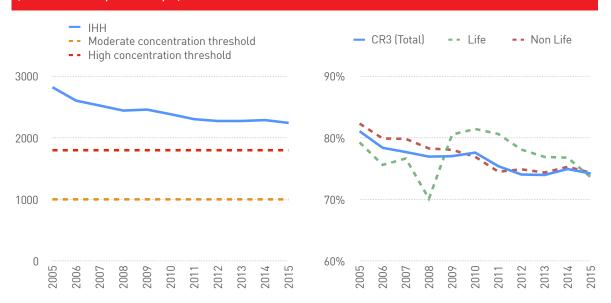
# Overall Ranking

In 2015, the Nicaraguan insurance sector consisted exclusively of five insurance companies. Throughout this last decade, the concentration levels of the market have tended to reduce slightly (see Graph 3.1.5-o). Despite this downward trend, the Herfindahl index was higher than the theoretical

threshold that indicates high levels of concentration over the period 2005-2015.

The same thing happens when reviewing the CR3 index constructed for the Nicaraguan market, which shows the reduction of concentration levels in the industry over the period analyzed, but still maintaining relatively high levels.

Graph 3.1.5-o. Nicaragua: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR3 index, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

With regard to the Nicaraguan market's overall ranking in 2015, América holds first place with a market share of 29.2. The next two places are held by INISER, with a share of 24.9%, and by Lafise with 20.1% (see Graph 3.1.5-p).

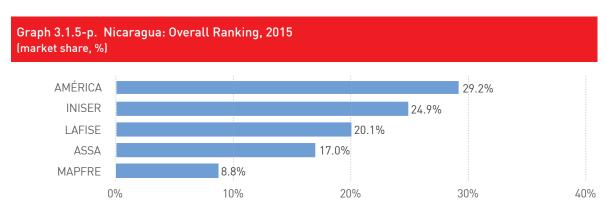
## Non-Life Ranking

The market leader for 2015 in the Non-Life ranking was also América with a share of 30% of the market,

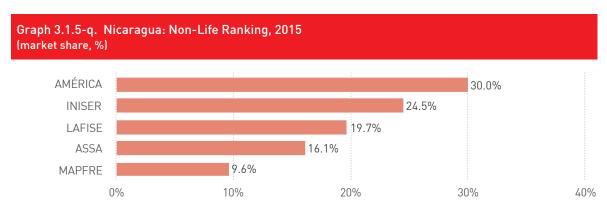
while second and third places were occupied by INISER and Lafise with market shares of 24.5% and 19.7% respectively (see Graph 3.1.5-q).

## Life Ranking

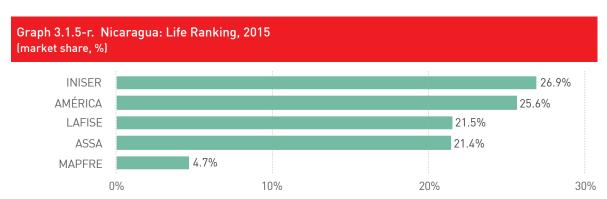
Lastly, heading up the Life rankings for 2015 is INISER with 26.9% of the market, while América is in second place, followed by Lafise, with shares of 25.6% and 21,5% respectively.



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)



Source: MAPFRE Economic Research (with data from the Superintendence of Banks and Other Financial Institutions)

## Relevant regulatory aspects

On 22 September 2015 Resolution CD-SI-BOIF-908-1-SEPT22-2015 was issued with the purpose of regulating the investments that insurance, reassurance and financial institutions are allowed to make to cover their technical and mathematical reserves, share capital, reserves and other funds to ensure that such institutions comply with the security, liquidity and profitability requirements established by the General Insurance Law of Nicaragua. Specifically, requirements regarding investments are defined, the maximum and minimum that can be made domestically and abroad, the assignment or transfer of investments and the limitations on types of investment.

Meanwhile, on 6 September 2016 the new regulation came into force that defines the requirements for authorizing insurance policies. This particular provision lays out the requisites in respect of information, the minimum documentation to be submitted to the supervisor, general and specific conditions that apply to insurance companies, and it also explains the obligations such institutions must adhere to in respect of their policyholders. Additionally, it should be noted that on 18 March 2016, Nicaragua's

Superintendence of Banks and other Financial Institutions issued a new regulation establishing the requirements for preparing technical notes and actuarial reports with the objective that insurance companies can substantiate the calculations of their premium tariffs and other technical support documents used in their operations.

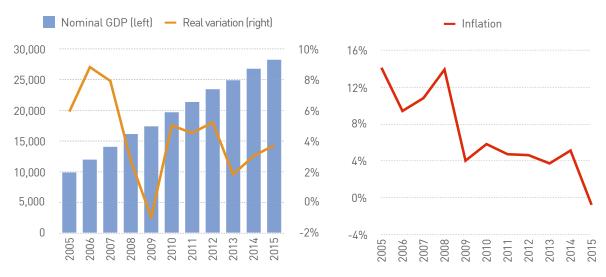
This regulation obliges Life insurance and equity institutions to calculate their premiums based on tables relating to mortality, survival, accidents or disability. If alternative tables are used, these must be preapproved by the supervisory body. Furthermore, the same regulation establishes the objective, principles and content of the aforementioned actuarial reports.

## 3.1.6. Costa Rica

#### Macroeconomic environment

The economy of Costa Rica grew 3.7% in 2015, seven tenths of a percentage point more than the previous year, driven by the strong performance of investment and private consumption (see Graph 3.1.6-a).

Graph 3.1.6-a. Costa Rica: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, million colones; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

Analyzed by economic sector, 2015 was notable for the dynamism of services, particularly financial services, insurance and real estate, and transport and communications, whose growth counteracted the stagnation of manufacturing and the contraction of the agricultural sector.

The fall in the price of oil and its derivatives reduced the inflation rate by nearly six p.p., to the point of putting it into negative territory (-0.8%) at the end of 2015. The unemployment rate of the Costa Rican economy was 9.6%, a similar level to the previous year.

The value of imports decreased nearly 10% due to the lower cost of fuel and other petroleum products, which led to an improvement of one p.p.

in the current account deficit, which stood at 4.2% of GDP at the end of 2015.

Lastly, with regard to growth predictions, the CEPAL and the IMF estimate that the Costa Rican economy will grow by 4.2% in 2016.

#### Insurance market

#### Growth

The volume of premiums of the Costa Rican insurance market in 2015 stood at 564,060 million colones (1,054 million dollars), which represents a nominal decrease of 9.4% and a real one of 8.7% compared to the previous year (see Table 3.1.6-a).

Table 3.1.6-a. Costa Rica: premium volume<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Million colones	Million USD	% ∆	real ∆%
Total	564,060	1,054	-9.4	-8.7
Life	72,182	135	-5.8	-5.0
Non-Life	491,878	919	-9.9	-9.2
Automobile	151,451	283	-14.4	-13.7
Fire and associated lines	75,325	141	-3.0	-2.3
Accidents and health	71,927	134	-7.2	-6.4
Other segments	32,303	60	7.0	7.9
Transport	9,210	17	-9.9	-9.1
Civil liability	10,591	20	5.5	6.3
Credit and Surety	6,136	11	4.5	5.4
Agriculture and livestock	650	1	57.5	58.8
Occupational accidents	134,285	251	-14.6	-13.9

Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

(1) Gross premium (direct insurance plus accepted reinsurance)

This reduction, which is in contrast to the robust growth registered in 2014 (20.2%), is due to the modification of the criterion for accounting for premiums implemented in 2015 by the National Insurance Institute (Instituto Nacional de Seguros or INS) of Costa Rica (the insurer with the biggest market share), in order for it to comply with current legislation<sup>3</sup>. The changes made, however, make it difficult to compare statistical data from 2015 with previous years, in terms of both the premium income variable as well as the balance sheet and results statements.

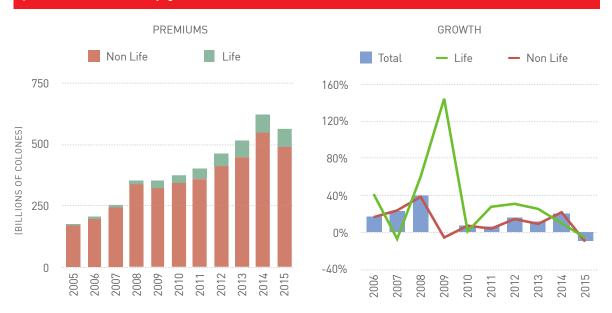
Using data provided by the General Insurance Superintendence of Costa Rica, an exercise was carried out to standardize the accounting methodologies to be able to analyze, with comparable figures, the underlying growth of the Costa Rican insurance industry. Based on this exercise, the Costa Rican insurance market is estimated to have grown by 5.2% in 2015. Furthermore, in the section of this report that reviews the penetration, density and depth of insurance, this set is used to eliminate the

effect of the aforementioned accounting adjustment in order for an appropriate analysis to be made of the structural trends in the evolution of the insurance sector in Costa Rica.

Meanwhile, as can be seen in Graph 3.1.6-b, Life insurance premiums, which represent 12.8 of the total, fell 5.8% in 2015 to stand at 72,182 million colones (135 million dollars), and Non-Life premiums fell 9.9% to 491,878 million colones (919 million dollars).

The biggest falls registered were in the two most important insurance categories, Automobile (-14.4%) and Occupational Accidents (-14.6%), which account for 30.8% and 27.3% respectively of the total of Non-Life premiums. Once again, in analyzing these falls, changes made to the accounting criterion used the INS need to be taken into account, because the segments most effected by the change were Occupational Accidents, Compulsory Motor Vehicle Insurance (Spanish acronym SOA), collective Life insurance and voluntary Automobile insurance.

Graph 3.1.6-b. Costa Rica: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

<sup>&</sup>lt;sup>3</sup> The accounting adjustment arises because the National Insurance Institute began to account for the total income generated by Occupational Risk Insurance from the moment the policy went into effect, and not according to premium installments as they were received, as they had previously been registered. Also, income from advance premium payments began to be registered from the time the cover came into effect and not when the payments were actually received.

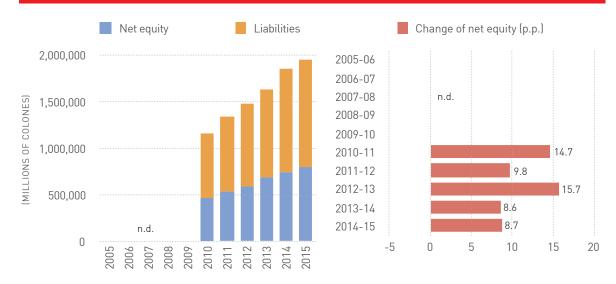
## Balance sheet and equity

In July 2008, the Insurance Market Regulatory Statute came into effect establishing the liberalization of the Costa Rican insurance market which, up to that point, had been operating as a monopoly (whose only insurance organization was the National Institute of Insurance or INS). This legal measure also established the creation of the Superintendencia General de Seguros (SUGESE) known in English as the General Insurance Superintendence. Due to the foregoing, the Superintendence has only published data relative to the balance sheet and results report of the insurance industry since the 2010 financial year.

The aggregate balance sheet of the Costa Rican insurance sector for the period 2010-2015 is shown in Graph 3.1.6-c. Total assets in 2015 amounted to 1,946,158 million colones (3,635 million dollars), while the net assets for that year stood at 801,698 million colones (1,497 million dollars).

Additionally, aggregated capitalization levels for the Costa Rican insurance sector (measured on total assets) were at around 40% over the period 2010 to 2015, representing 41.2% of total assets in 2015.

Graph 3.1.6-c. Costa Rica: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

# Investments

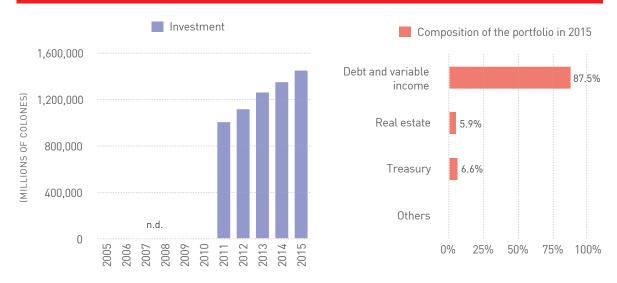
Graphs 3.1.6-d and 3.1.6-e, show the evolution of investments as well as the composition of the aggregated portfolio on a sectoral level of the insurance industry of Costa Rica.

In the year 2015, total investments reached 1,451,305 million colones (2,711 million dollars),

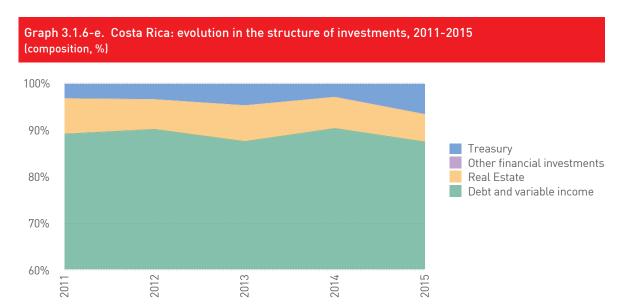
concentrated in debt and equity instruments with 87.5%, 6.6% in treasury and the remaining 5.9% in real estate investments.

On the other hand, throughout the period 2010-2015 it is clear that the structure of insurance sector investments showed no major changes, with debt and equity investments predominating.

Graph 3.1.6-d. Costa Rica: evolution of the investments of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

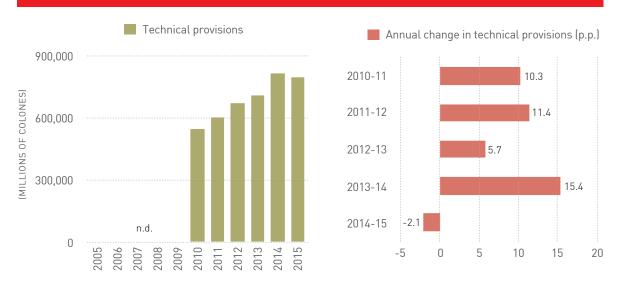
## Technical provisions

The technical provisions of the Costa Rican insurance sector are shown in Graph 3.1.6-f.

In 2015, technical provisions stood at 801,335 million colones (1,496 million dollars). In 2010, total

technical provisions had reached 545,786 million colones (1,019 million dollars). Over the period 2010-2015, these provisions grew steadily in absolute terms on an aggregate level, with the only exception being 2015 when they fell slightly (2.1%).

Graph 3.1.6-f. Costa Rica: evolution in the technical provisions of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

## Technical performance

Graph 3.1.6-g shows the evolution of the technical performance of the insurance industry in Costa Rica over the period 2010-2015. A seven p.p. increase can be seen in the accident rate which, in 2015, continued the upward path of recent years, rising to 69.9% putting the value of the combined ratio at 100.9% and the technical performance into negative levels.

## Results and profitability

Meanwhile, the net result of the Costa Rican insurance sector in 2015 was 54,621 million colones (102 million dollars),18% more than the previous year.

For its part, financial performance continued to be very satisfactory and continued above 20% (21.3%), the same as in previous years, thereby compensating the negative effect of the technical performance (see Graph 3.1.6-h).

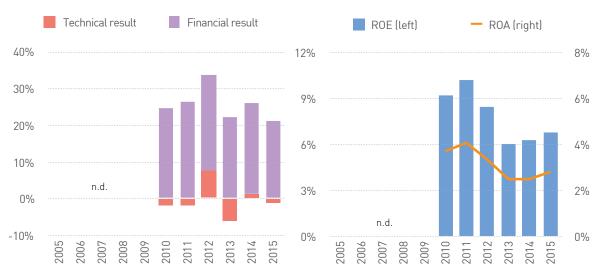
With regard to profitability, the indicators show a trend towards growth from 2013 onwards. The net return on equity (ROE) stood at 6.8% in 2015, an increase of 0.55 p.p. compared to 2014. The same situation happened with the return on assets (ROA) which reached 2.8% in 2015, representing an increase of 0.31 p.p. compared to 2014.

Graph 3.1.6-g. Costa Rica: evolution of the market's technical performance, 2005-2015 (total combined ratio, %; annual change in combined ratio, p.p.)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

Graph 3.1.6-h. Costa Rica: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)



Source: MAPFRE Economic Research (using data from the General Insurance Superintendence)

## Penetration, density and depth of insurance

The main structural trends in the development of the Costa Rican insurance sector during the period 2005-2015 are presented in Graph 3.1.6-i. The penetration index (premiums/GDP) in 2015 stood at 2%, showing an increase of 0.2 p.p. over the last decade. The penetration index for the Costa Rica market has maintained a slightly increasing trend, less dynamic than the trend noted in the Latin American group of insurance markets and below the absolute average penetration values for Latin America.

With regard to insurance density in Costa Rica (premiums per capita), the indicator stood at 117,005.9 colones (218.6 dollars), representing a reduction of 10.3% compared to the level achieved in 2014 (130,509 colones). The density of the Costa Rican market (measured in local currency) shows, in general, an upward trend over the period 2005-2015, with a fall in the last year of the timespan analyzed.

In terms of the level of depth of the Costa Rican insurance market (Life insurance premiums in relation to total premiums), the relevant index for 2015 stood at 12.8%, 9.2 p.p. above the value achieved in 2005 and with an upward trend throughout the period analyzed, although consistently below the absolute value of the indicator for the average in Latin American countries.

Nevertheless, as previously mentioned, in 2015 Costa Rica registered a fall of 9.4% in the volume of premiums of the market, basically due to being affected by a change in accountancy regulations covering premiums (see Table 3.1.6-a).

This fall has a relevant effect in the analysis of structural trends in Costa Rica's insurance market. Thus, purely for analytical purposes, a new estimate has been done for penetration, density and depth values using a set adjusted to cover the effect of the aforementioned accounting change. The data, which appear in Graph 3.1.6-j, show a trend towards smoothing in the final years of the

series, showing the performance of the Costa Rican insurance sector in a better light.

Meanwhile, Graph 3.1.6-k illustrates the performance of the Costa Rican insurance market, using a dispersion analysis that considers the overall effect of the progress of this insurance market compared with the Latin American insurance market based on the overall change in penetration and depth levels.

The analysis shows that, in general terms, the development trend in the Costa Rican insurance market (especially since the adjustment in respect of premium growth) is in line with the average trend for Latin America, although the penetration and depth levels are still very much below regional averages.

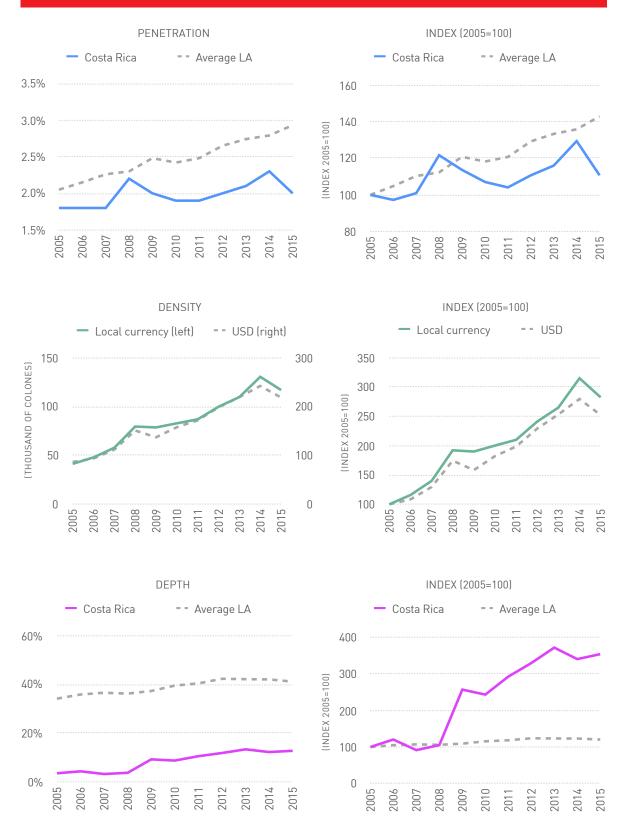
#### Estimate of the Insurance Protection Gap

The estimate of the IPG for the insurance market of Costa Rica between 2005 and 2015 is presented in Graph 3.1.6-l. The insurance gap in Costa Rica in 2015 stood at 1,760.5 billion colones, which represents 3.1 times the real insurance market in Costa Rica in 2015.

The structure and evolution of the IPG over the period 2005-2015 shows a major predominance of the contribution of Life insurance. At the close of 2015, 71.6% of the IPG corresponded to Life insurance (1,259.8 billion colones), which nevertheless represents 2.9 p.p. less than the contribution observed in that sector for 2005. The remaining 28.4% of the IPG is explained by the contribution of the Non-Life insurance sector (500.7 billion colones).

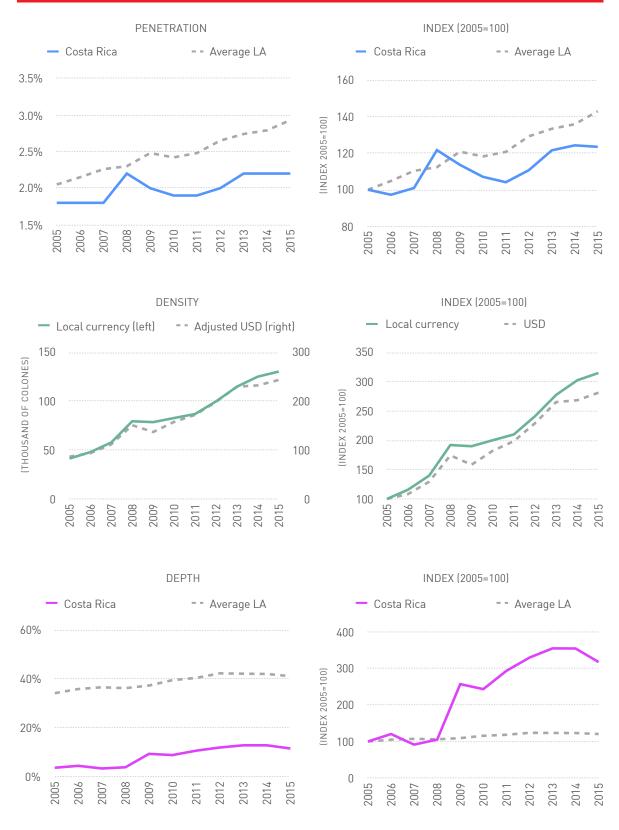
Thus, the potential insurance market in Costa Rica at the end of 2015 (estimated as the sum of the real market and the insurance gap), is estimated at 2,324.6 billion colones, representing 4.1 times the total Costa Rican insurance market in 2015.

Graph 3.1.6-i. Costa Rica: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, colons and USD; total premiums/Life premiums, %; 2005 index = 100)



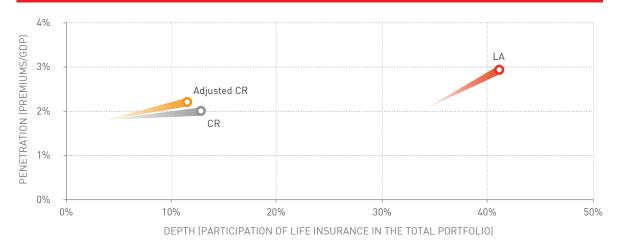
 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ General\ Superintendence\ of\ Insurance)$ 

Graph 3.1.6-j. Costa Rica: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, colons and USD; total premiums/Life premiums, %; 2005 index = 100)



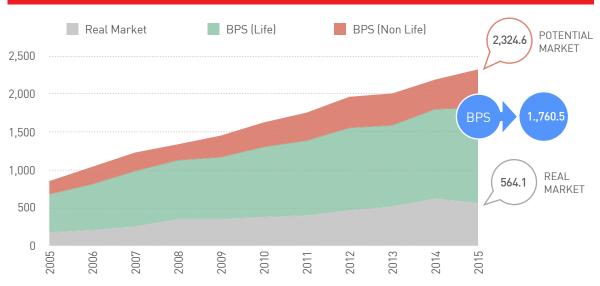
Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance)

Graph 3.1.6-k. Costa Rica: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

Graph 3.1.6-l. Costa Rica: estimate of the Insurance Protection Gap, 2005-2015 (in billion colons)



Source: MAPFRE Economic Research

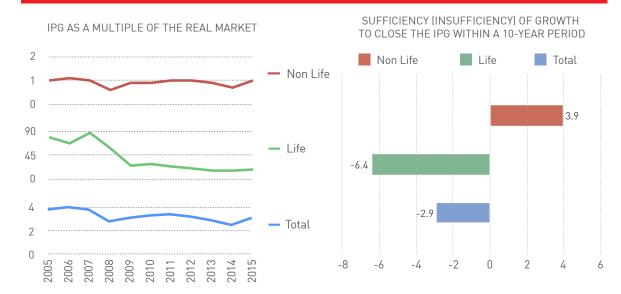
Graph 3.1.6-m shows the estimated IPG as a multiple of the real Costa Rican insurance market over the 2005-2015 period. The gap, measured as a multiple of the real market, shows a stable trend

for the Non-Life segment (staying at a multiple of 1), while the IPG for the Life segment tended to decline throughout the period under analysis (going from 78.7 to 17.5 times the real market).

Finally, Graph 3.1.6-m summarizes the capacity of the Costa Rican insurance market to close the insurance protection gap. In doing so, a comparative analysis was made between the growth rates observed during the last ten years and the growth rates that would be needed to close the gap determined in 2015 over the next decade. The Costa Rican insurance market grew at an average annual rate of 12.3%, made up of an annual rate of 27.4% in the Life insurance segment and 11.2% in the Non-Life segment.

From the analysis, it emerges that if the same growth dynamic observed over the past decade were to continue over the next ten years, the growth rate of the Costa Rican insurance market would be sufficient to close the insurance protection gap in the Non-Life segment only. In the case of the Life insurance segment, this rate would be insufficient by 6.4 p.p.

Graph 3.1.6-m. Costa Rica: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



Source: MAPFRE Economic Research

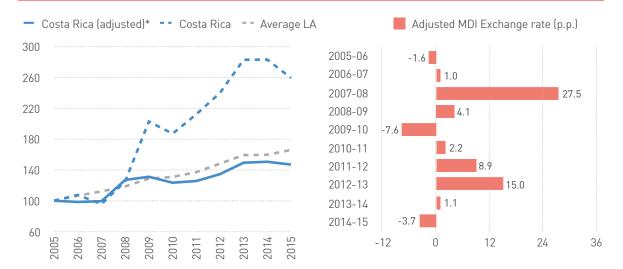
# Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Costa Rican insurance sector is shown in Graph 3.1.6-n. As mentioned earlier, the MDI is used in this report as an indicator of the general trend observed in the evolution and maturity of the insurance market.

In the case of the Costa Rican insurance market, the MDI shows a positive trend throughout the period

under study. This trend, however, is overestimated by the rapid growth in the Life insurance market, which in 2005 started out from a relatively small base. For this reason, Graph 3.1.6-o features an adjustment to eliminate this overestimate and ascertain the underlying trend of the performance of this market. By making the respective adjustment, it can be seen that the Costa Rican insurance market performed in line with the average progress of the other markets in the region.

Graph 3.1.6-n. Costa Rica: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



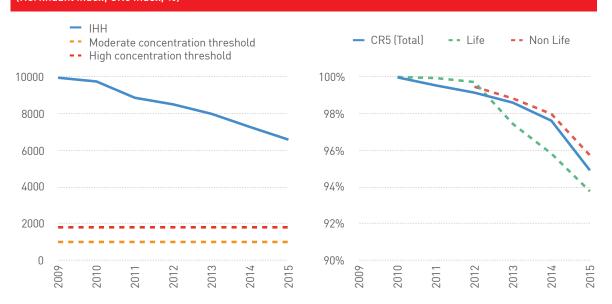
Source: MAPFRE Economic Research

## Overall Ranking

In 2015, there were 13 insurance institutions operating in Costa Rica, the same as the previous year. This is a highly concentrated market, which only opened up to competition in 2008, and in which just one entity (INS) accounts for most of the premiums.

Graph 3.1.6-o illustrates the Herfindahl and CR5 indexes of the Costa Rican insurance sector. As you can see from this data, the concentration levels are very much higher than the theoretical threshold that indicates high market concentration.

Graph 3.1.6-o. Costa Rica: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)

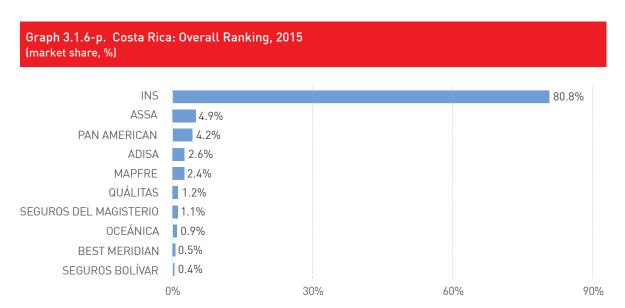


Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance)

<sup>\*</sup> Adjusted to eliminate overestimation of the speed of closure of the Life IPG

With regard to the overall ranking in 2015, the five leading insurance groups are still the same as in 2014, with just a few changes in their relative positions. The ranking continues to be led by the Instituto Nacional de Seguros (INS), with 80.8% of the market share, followed at a great distance

by ASSA (4.9%), Pan American (4.2%), Adisa (2.6%) and MAPFRE (2.4%). ASSA and Adisa improved their positions in the overall ranking compared to last year, to the detriment of Pan American and MAPFRE (see Graph 3.1.6-p).

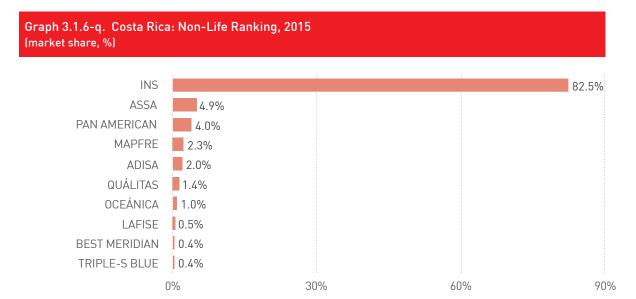


Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance)

# Non-Life Ranking

As shown in Graph 3.1.6-q), the Non-Life ranking is also headed up by INS with a market share of 82.5%). The

next positions are held, at a great distance, by ASSA (4.9%), Pan American (4%) and MAPFRE (2.3%).

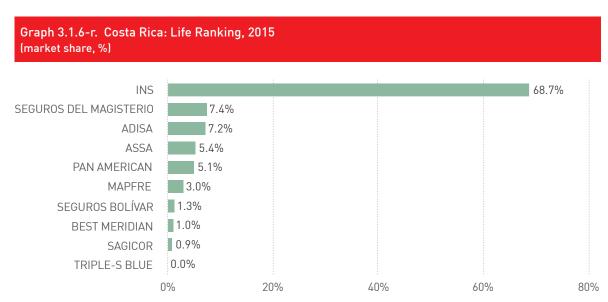


Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance)

## Life Ranking

Finally, as shown in Graph 3.1.6-r, INS is also the leading Life insurer in the Costa Rican market,

with a market share of 68.7%, followed a long way behind by Seguros del Magisterio (7.4%) and Adisa (7.2%)



Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance)

# Key regulatory aspects

In 2015, the General Superintendence of Insurance in Costa Rica continued rolling out regulations geared towards regulatory improvements and the automation of service on the one hand and the issue or amendment of laws guided by international standards and best practices in insurance market supervision on the other, particularly those that allow the consolidation of the risk-based supervision model.

In the case of regulations based on the risk-based supervision model, the process started in 2015 but will not be put before the National Supervisory Council for approval until 2016.

In addition, in 2015 and 2016 work has been undertaken with the other Superintendence offices to develop a common regulatory framework for the whole financial system (banking, insurance, securities and pensions) on issues such as

corporate governance, information technology and the capital adequacy of financial groups.

Meanwhile, the Superintendence issued a series of agreements during this period with the aim of putting in order specific issues related to the application of the established regulatory framework, the services provided by the Superintendence through its online operating platform and the sending of information to the supervisory body.

Table 3.1.6-b gives a detailed description of the main regulatory developments for the Costa Rican insurance sector during the 2015-2016 period, their objectives and their current status.

Meanwhile, Table 3.1.6-c presents a summary of the regulatory developments that apply to the financial system as a whole during the 2015-2016 period, which will also have an impact on the country's insurance sector.

Table 3.1.6-b. Costa Rica: regulatory developments in the insurance sector				
Regulation	Objective	Current status		
Modification of the Regulation on Authorization, Registration and Operating Requirements	Modification of the procedure for registering insurance agents and brokers, simplification of the formalities for accrediting, registering and reviewing requests. The reform included as a complementary feature the automation of the process by implementing a new service on the <i>Sugese en Línea</i> platform which offered users greater efficiency and security.	Passed in December 2015.		
Modification of the Regulation on Solvency Requirements for Insurers and Reinsurers	Reform of the handling of catastrophic risk from earthquakes and volcanic eruptions in terms of solvency. A technical provision is established for handling catastrophic events, provided for by part of the risk premium of coverage for the risk of earthquake and volcanic eruption. The capital requirement for the above-mentioned risk was modified so that it is determined according to the location and type of asset insured; the requirement also considers the conditions of reinsurance for the transferred portion of these risks.	In October 2016, industry consultations for 15 working days was approved.		
Issue of the Regulations on Risk Management Systems and Internal Controls	The draft sets forth the principles that insurance companies must observe when designing their risk management systems and implementing their control functions; it also defines the expectations of the supervisor in relation to the role performed by the management body and senior management in implementing an effective risk management system.  These provisions are complementary to the corporate governance framework currently in development which will apply to the entire financial system and puts a particular emphasis on topics of interest to the supervision of insurance institutions, including actuarial functions.	In October 2016 it was presented to the National Supervisory Council of the Financial System for approval in consultation with the industry.		
Issue of the Integrated Supervisory Framework for the Insurance Sector	The draft proposes greater transparency in the methodology used to construct the risk matrix used in the risk-based supervision model. It also establishes a series of supervisory actions for the different levels of risk identified in insurance and reinsurance companies in a flexible framework that makes it possible for the Supervisor to apply the relevant measures irrespective of the rating assigned to the entity.	In October 2016 it was presented to the National Supervisory Council of the Financial System for approval in consultation with the industry.		

Source: General Insurance Superintendence

Table 3.1.6-c. Costa Rica: cross-cutting regulatory developments in the financial system

Regulation	Objective	Current status
Comprehensive reform of the Corporate Governance Regulation	The draft drops the prescriptive approach of current legislation to apply a series of principles to update the assessment of governance to the specific characteristics of the entities concerned in terms of the nature, size and complexity of operations among other factors. It also takes as a reference the principles of corporate governance laid down by the Organization of Economic Cooperation and Development (OECD) and the different financial supervisory bodies (BIS, IOSCO, IAIS and AIOS).	Having consulted with the industry, the final text is being prepared for approval by the National Supervisory Council.
Issue of the Information Technology Regulation	This regulation intends to assess Information Technologies based on the risks faced by each type of regulated entity. Although it applies across the whole financial system, it fills a gap in the specific regulations for the insurance market and helps to implement a risk-based supervisory approach.	Having consulted with the industry, the final text is being prepared for approval by the National Supervisory Council.
Reform of the Regulation on the Capital Adequacy Requirements for Financial Groups and Conglomerates	Modifications in terms of the capital adequacy of financial groups and conglomerates, which addresses issues relevant to the supervision of the financial groups supervised by the Insurance Superintendence. With a particular reference to the insurance market, the text reflects the precepts of Article 8 of the Insurance Market Regulatory Law in relation to the requirement for insurance entities not structured as limited companies, with share capital in other companies, to adhere to the capital adequacy system, thus closing an important loophole in this regulation.	Passed in August 2016.

Source: General Insurance Superintendence

#### 3.1-7. Panama

## **Macroeconomic environment**

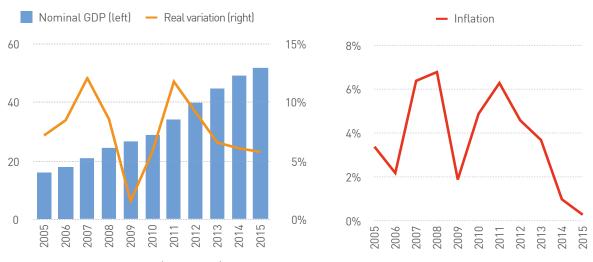
The Panamanian economy grew by 5.8% in 2015, compared to 6.1% in 2014 and the even higher growth rates recorded in previous years (see Graph 3.1.7-a). The country continues to grow but its growth rate is slowing down due to the completion of work on enlarging the Panama Canal and the less dynamic performance of the construction sector in general. However, growth was recorded in most economic sectors, some in double digits, such as electricity, gas and water (13.6%), social and health services (11.6%) and financial intermediation (10.4%).

The inflation rate at the end of 2015 dropped to 0.3% compared to 1% the previous year, and unemployment rose by three-tenths of a%, reaching 5.1% by mid-2015.

With regard to the foreign sector, imports fell strongly, due to the reduction in the price of oil and its derivatives, along with the lower demand for construction materials for major infrastructural works. As a result, the current account deficit at the end of 2015 was 6.5% of the GDP, compared to 10.4% the previous year.

CEPAL estimated that the Panamanian economy would grow by 5.4% in 2016, while the IMF put its estimate two-tenths p.p. lower at 5.2%.

Graph 3.1.7-a. Panama: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion balboas; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

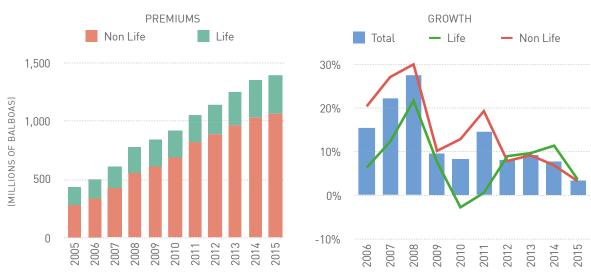
#### The insurance market

## Growth

The volume of premiums in the Panamanian insurance market in 2015 came to 1,389 million balboas (which is on par with the USD). Nominal growth in 2015 was 3.4%, representing a slowdown compared to the previous year, when premiums increased by 7.9% (see Graph 3.1.7-b and Table 3.1.7-a).

The premiums of Life insurance, which account for 23.3% of the total market, grew by 3.7% in 2015, reaching 323 million balboas. The premiums of Non-Life insurance (76.7% of the portfolio) rose by 3.3% to 1,066 million balboas. The Automobile branch, which continues to be the largest insurance segment, grew strongly in 2015 (14.1%), but the branch with the biggest growth was Surety (26.9%), driven by the construction boom. Meanwhile, there were contractions in Other Damages, Civil Liability, Technical Risks and Multi-risk.

Graph 3.1.7-b. Panama: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

Table 3.1.7-a. Panama: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency; nominal and real growth rates, %)

Branch	Million balboas (=USD)	% Δ	%∆real
Total	1,389	3.4	3.1
Life	323	3.7	3.4
Non-Life	1,066	3.3	3.0
Automobile	267	14.1	13.8
Health	237	6.6	6.3
Other Damages	119	-14.7	-14.9
Surety	138	26.9	26.5
Fire and Associated Lines	127	0.7	0.4
Civil Liability	62	-15.9	-16.2
Transport	55	1.0	0.7
Technical Risks	34	-25.9	-26.1
Personal Accidents	19	6.2	5.9
Multi-risk	7	-14.8	-15.0

Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

(1) Premiums from direct insurance

## Balance sheet and equity

Graph 3.1.7-c shows the aggregate balance sheet of the Panamanian insurance sector. The total assets in 2014 came to 2,602.1 million balboas, while equity for that year was 1,089 million balboas.

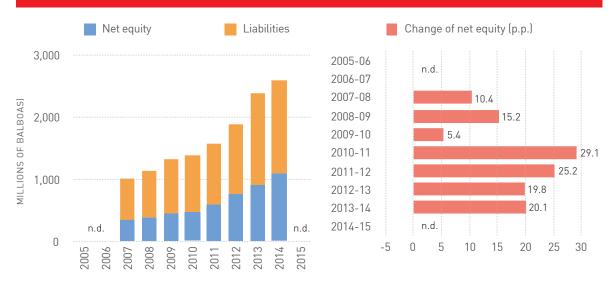
It is important to highlight the increase in the level of aggregate capitalization in the Panamanian insurance sector (measured over total assets), which in 2007 came to 26.3%, with a progressive rise over the period between 2007 and 2014, coming to 41.9% of total assets by the end of 2014.

It is worth noting that information for 2015 is not included here (both in this section and the analyses of investments, technical provisions and

profitability) because on the date that this report was finalized the statistical gazette for 2015 issued by the Superintendence of Insurance and Reinsurance of Panama was not available.

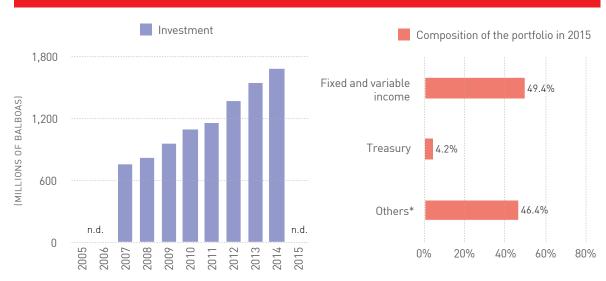
However, for purely illustrative purposes of the main trends in the last few years in the Panamanian insurance market, Graph 3.1.7-d is included, which shows the evolution and structure of aggregate investments in the sector over the 2007-2014 period. With the same purpose, Graph 3.1.7-e includes information on the evolution and structure of technical provisions in the sector for the same period.

Graph 3.1.7-c. Panama: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

Graph 3.1.7-d. Panama: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

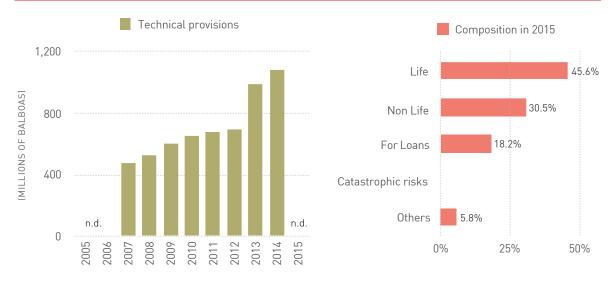
\* Includes bank deposits

## Technical performance, results and profitability

The aggregate combined ratio of the Panamanian insurance sector fell by 3.1 p.p. in 2015 to 94.6%, with a positive technical result of 44 million balboas (see Graphs 3.1.7-f and 3.1.7-g).

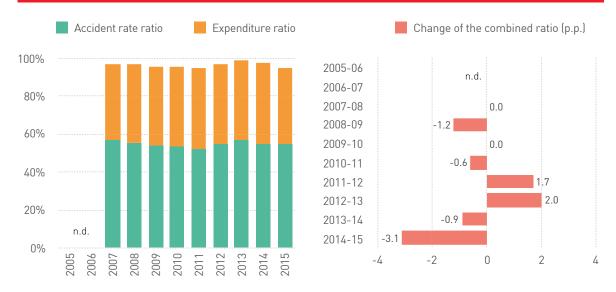
The improvement in the combined ratio was due the decline in expenditure, which fell to 39.8%, representing 3.4 p.p. less than in 2014. Accident rates grew by four-tenths p.p. to 54.7%, revealing a tendency to stagnate in recent years.

Graph 3.1.7-e. Panama: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)

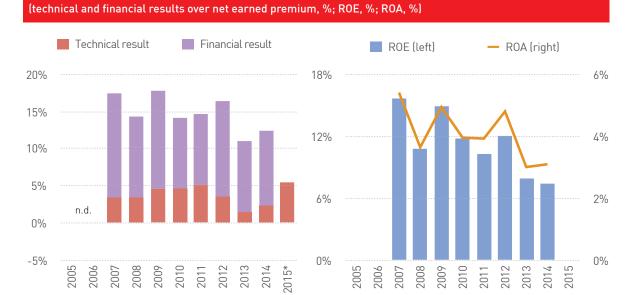


Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

Graph 3.1.7-f. Panama: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)



Graph 3.1.7-g. Panama: evolution of results and profitability, 2005-2015

Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)
\*2015 only includes the ratio of technical results; the figure for the ratio of financial results could not be calculated as the necessary information was not available at the time of completing this report.

### Penetration, density and depth of insurance

Graph 3.1.7-h. shows the main structural trends in the Panamanian insurance sector over the 2005-2015 period. The penetration index (premiums/GDP) in 2015 was 2.7%, just less than 0.1 p.p. above the level in 2005. The penetration index in the Panamanian market grew up to 2008 before declining from that year onwards, diverging from the average of the Latin American insurance market as a whole.

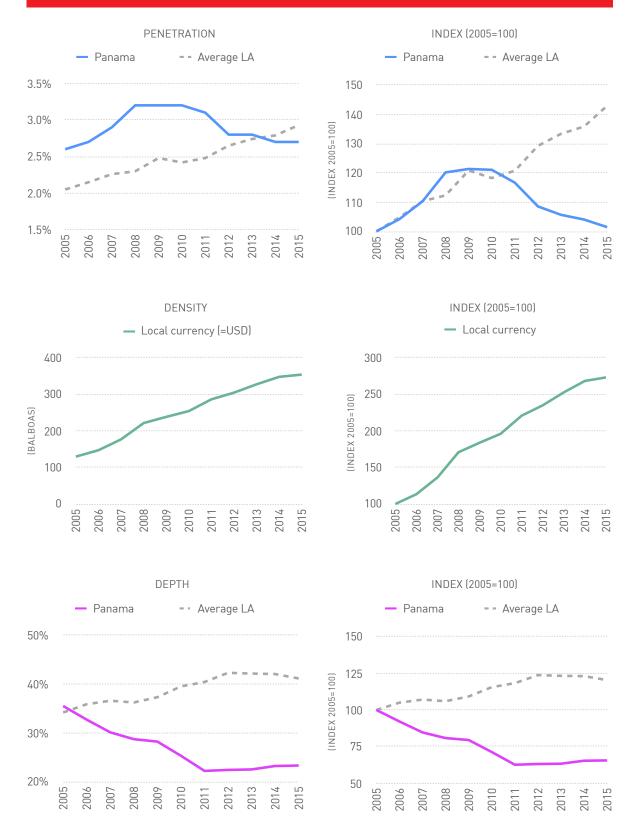
Insurance density in Panama (premiums per capita) was 353.5 balboas (on a par with the USD), representing an increase of 1.8% compared to the previous year (347.3 balboas). In contrast to the penetration index, density followed an upward trend with a cumulative increase of 172.9% between 2005 and 2015.

With regard to the level of depth in the Panamanian market (measured as the ratio between Life premiums and total premiums), the index in 2015 was 23.3%, showing a very significant drop of 12.2 p.p. between 2005 and 2015, and clearly diverging from the average for Latin American insurance markets as a whole.

This behavior is confirmed in Graph 3.1.7-i, which illustrates the performance of the Panamanian insurance sector, using a dispersion analysis that considers the joint effect of the progress of this market in relation to Latin American insurance market based on the combined change of penetration and depth levels.

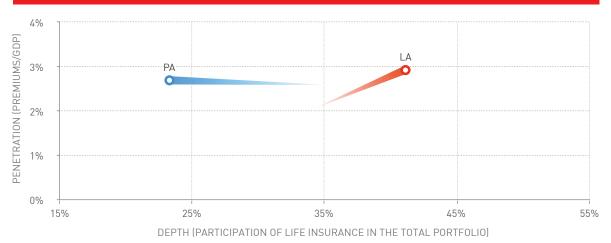
This analysis reveals that the development trend of the Panamanian insurance market differs from the regional average in terms of both penetration and depth.

Graph 3.1.7-h. Panama: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, balboas=USD; total premiums/Life premiums, %; 2005 index = 100)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Insurance\ and\ Reinsurance\ Superintendence)$ 

Graph 3.1.7-i. Panama: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

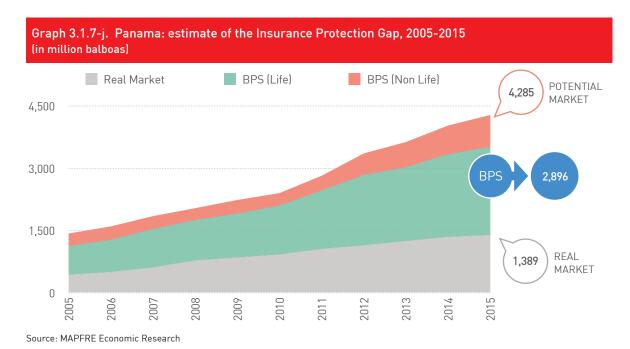
## Estimate of the Insurance Protection Gap

Graph 3.1.7-j shows the estimated IPG for the Panamanian insurance market between 2005 and 2015. The insurance gap in 2015 was 2,896 million balboas, which was 2.1 times the real insurance market in Panama that year.

In this respect, the structure and evolution of the IPG over the 2005-2015 period shows the strong influence of Life insurance. At the end of 2015, 73.6% of the IPG corresponded to Life insurance (2,132)

million balboas), which means that the share of this segment rose by 3.4 p.p. compared to the level in 2005. Meanwhile, the remaining 26.4% of the IPG is accounted for by Non-Life insurance [764 million balboas].

Thus the potential insurance market in Panama at the end of 2015 (the sum of the real market and the IPG) was estimated at 4,285 million balboas, representing 3.1 times the total insurance market in that year.



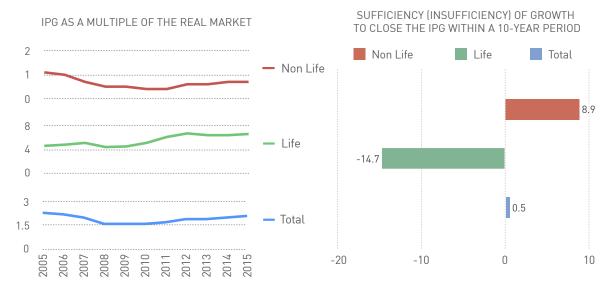
Graph 3.1.7-k illustrates the estimated insurance gap as a multiple of the real insurance market in Panama. Generally speaking, the IPG as a multiple of the market showed a downward trend up to 2008, after which time it reverted in both the Life and Non-Life insurance segments. In the balance for the 2008-2015 period, the IPG of Life insurance rose from 4.4 to 6.6 times the real market, while the Non-Life segment rose from 0.5 to 0.7 times.

Finally, Graph 3.1.7-k shows a summarized assessment of the Panamanian insurance market's capacity to close the insurance gap. This has been achieved by making a comparative analysis of the growth rates observed over the last ten years in this market in relation to the growth rates that would be

needed to close the IPG established in 2015 over the next decade. In this respect, the Panamanian insurance market grew by an average annual rate of 12.4%, comprising an annual rate of 7.8% in the Life insurance segment and 14.4% in the Non-Life segment.

This analysis confirms that if the same growth dynamic observed over the past decade were to continue for the next ten years, the growth rate of the Panamanian insurance market would be sufficient to reach the established target only in the case of Non-Life insurance, while in the case of the Life insurance segment the rate would be insufficient by 14.7 p.p.

Graph 3.1.7-k. Panama: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



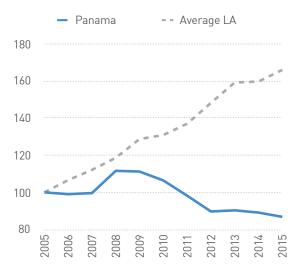
Source: MAPFRE Economic Research

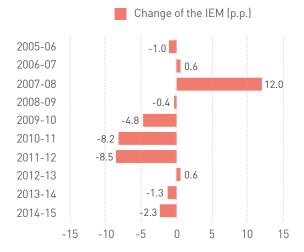
# Market Development Index (MDI)

Graph 3.1.7-l shows the estimated Market Development Index (MDI) for the Panamanian insurance sector over the 2005-2015 period. As mentioned throughout this report, the MDI is used as an indicator of the general trend in the development and maturity of insurance markets.

In this case, the trend follows the average of Latin American insurance markets only up to 2008, at which point there is a clear divergence with respect to the average performance of the region's insurance markets.

Graph 3.1.7-l. Panama: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)





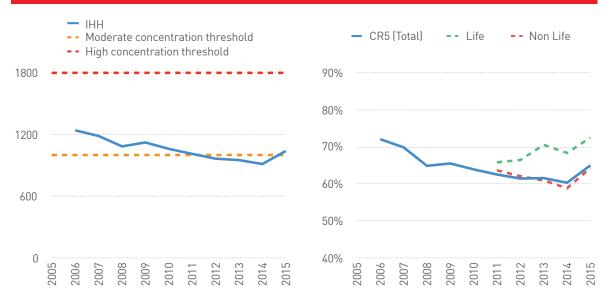
Source: MAPFRE Economic Research

## Overall ranking

At the end of 2015, there were 30 insurance institutions operating in Panama, one fewer than in 2014. In spite of the trend towards lower concentration that characterized the Panamanian insurance industry between 2006 and 2014, the

Herfindahl and CR5 indexes show an increase in the level of concentration of the market in 2015. In the case of the Herfindahl index, this contraction in 2015 led it once again to cross the theoretical threshold that indicates a moderate level of industrial concentration (see Graph 3.1.7-m).

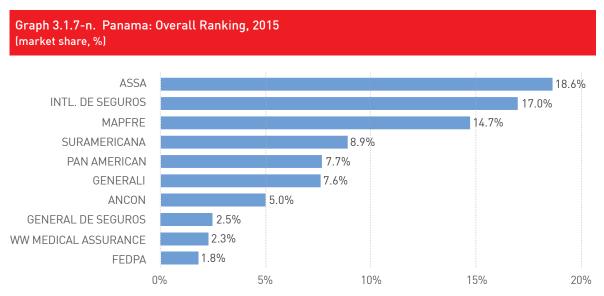
Graph 3.1.7-m. Panama: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

In the overall ranking of insurance groups in Panama in 2015, ASSA rose to the top position due to its consolidation in Latin America following the acquisition of 100% of AIG Panama's operations with a market share of 18.6%, relegating Compañía Internacional de Seguros to second position, with 17% of premiums.

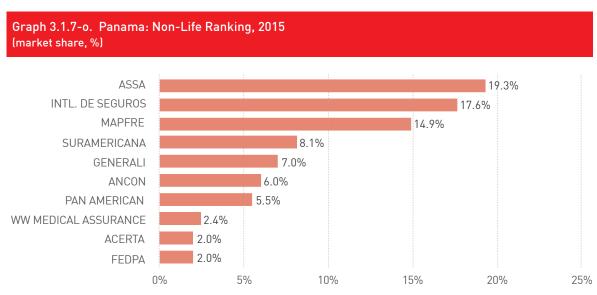
The ASSA Group acquired all the insurance business of AIG in the four Central American countries in which it operates: Guatemala, Honduras, El Salvador and Panama. In the ranking, Compañía Internacional de Seguros is followed by MAPFRE in third position, with a market share of 14.7% (see Graph 3.1.7-n).



Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

# Non-Life ranking

The three insurance groups at the top of the overall ranking also held the top three positions on the Non-Life ranking of the Panamanian insurance market in 2015: ASSA with a market share of 19.3%, Internacional de Seguros with 17.6%, and MAPFRE with 14.9% (see Graph 3.1.7-o).



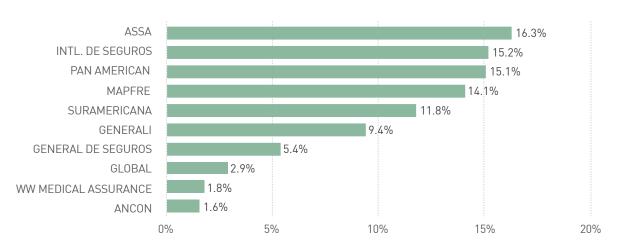
Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

## Life ranking

Finally, in the Life ranking of the Panamanian insurance market in 2015, the top two positions were held by ASSA, with a market share of 16.3%, and

Compañía Internacional de Seguros, with 15.2%. Pan American, with a share of 15.1%, was in third place (see Graph 3.1.7-p).





Source: MAPFRE Economic Research (with data from the Insurance and Reinsurance Superintendence)

# Key regulatory aspects

The Panama Insurance and Reinsurance Superintendency, by means of Agreement No. 2 in June 2016, established the main parameters for corporate governance that all insurance and reinsurance institutions regulated by this Superintendency are required to implement in their organizations. Similarly, this provision also established the minimum requirements that insurance and reinsurance companies are required to include in their organizational structures in order for them to be considered as having good corporate governance.

Likewise, through Agreement No. 4 in September 2016, the Superintendency established that, for

companies that conduct insurance business in the Republic of Panama, the provision of a reserve for insufficient premium must complement the current risk reserve when the latter is not sufficient to cover all the risks and expenses that the company is required to cover, a measure that affects certain segments and lines of the business.

Finally, it is worth mentioning that since mid-2015 various legislative measures have been adopted with regard to the prevention of money laundering, the financing of terrorism and the proliferation of weapons of mass destruction, which apply, among other organizations, to insurance institutions operating in Panama.

## 3.1.8. Dominican Republic

### Macroeconomic environment

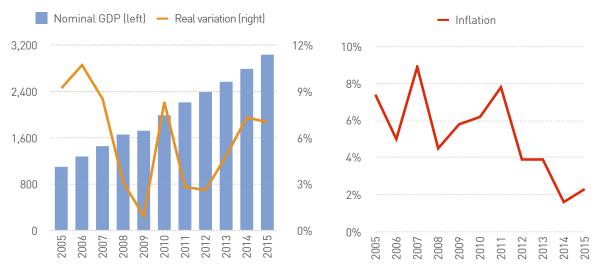
The economy of the Dominican Republic grew by 7% in 2015, just three-tenths p.p. less than in 2014, driven by the dynamic performance of investments and private consumption (see Graph 3.1.8-a). Favorable foreign conditions also contributed to this growth, most notably the drop in oil prices and the recovery of the US economy. The sectors with the highest growth were construction, financial intermediation, commerce, education and the tourist industry in general. The sector with the lowest growth was mining, which suffered strong

contraction due to the temporary closure of a major mining company.

The inflation rate at the end of 2015 increased by seven-tenths p.p. to 2.3% and unemployment dropped by half a p.p. to 5.9%. With regard to the foreign sector, the current account deficit dropped for the fifth year running to 1.9% in 2015 (against 3.3% the previous year), thanks to the fall in oil prices and the increased revenue from tourism and remittances.

Finally, in relation to growth forecasts, CEPAL estimated that the Dominican Republic economy would grow by 6.5% in 2016, while the IMF put this growth at 5.9%.

Graph 3.1.8-a. Dominican Republic: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

### The insurance market

## Growth

The volume of premiums of the Dominican Republic's insurance market in 2015 was 35,628 million pesos (792 million dollars), which represents a nominal increase of 7.3% and a real increase of 4.8%, one p.p. less than the previous year in real terms (see Graph 3.1.8-b and Table 3.1.8-a).

Life premiums grew strongly at a nominal rate of 18.5%, reaching 6,314 million pesos (140 million dollars). As in the previous year, there was particularly notable growth in the individual Life insurance segment (50%), although this is still relatively unimportant in the insurance sector of the Dominican Republic. Group Life insurance, meanwhile, witnessed accelerated growth of up to 18%.

Non-Life premiums, which account for 82.3% of the total, grew by a nominal rate of 5.1% and a real rate of 2.7% (compared to the previous year's figures of 7.7 and 6% respectively), reaching 29,315 million pesos (651 million dollars). The two most

important segments, Fire and Automobile, had very different performances, the former being at a virtual standstill (-0.9%) and the latter growing by 10.9% There was also growth in the other segments with the sole exception of Surety.

Table 3.1.8-a. Dominican Republic: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of pesos	Millions of USD	% ∆	%∆real
Total	35,628	792	7.3	4.8
Life	6,314	140	18.5	15.8
Individual Life	135	3	50.0	46.6
Group Life	6,179	137	18.0	15.3
Non-Life	29,315	651	5.1	2.7
Fire and Associated Lines	10,920	243	-0.9	-3.1
Automobile	10,437	232	10.9	8.4
Health	3,053	68	7.2	4.7
Other Segments	2,689	60	7.6	5.1
Transport	1,028	23	18.9	16.2
Surety	841	19	-15.1	-17.1
Personal Accidents	348	8	37.2	34.1

Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

(1) Net earned premiums

Graph 3.1.8-b. Dominican Republic: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

## Balance sheet and equity

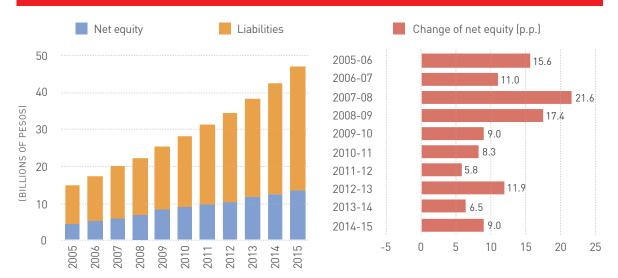
The aggregate balance sheet of the insurance sector in the Dominican Republic is shown in Graph 3.1.8-c.

As the Graph shows, the sector's total assets in 2015 came to 46,906.2 million pesos. Meanwhile, equity in the sector aggregate came to 13,538.8 million pesos, with a positive variation of 9% compared to the figure achieved in 2014. It is important to highlight the fact that over the period under

analysis (2005-2015) the insurance sector in the Dominican Republic consistently recorded positive annual increases in the level of equity supported by insurance operations.

The aggregate capitalization levels in the insurance sector of the Dominican Republic (measured for the purposes of this report over the total assets) came to figures close to 30% during the whole period between 2005 and 2015, representing 28.9% of the total assets in 2015.

Graph 3.1.8-c. Dominican Republic: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



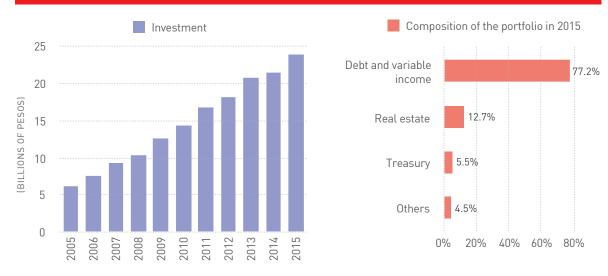
Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

# Investments

Graphs 3.1.8 d and 3.1.8-e show the evolution and composition of the aggregate investment portfolio at a sector level during the 2005-2015 period. In 2015, investments reached 23,991 million pesos [533 million dollars], concentrated in debt and variable income instruments [77.2%] and to quite a lesser degree in real estate [12.7%] and treasury bonds [5.5%].

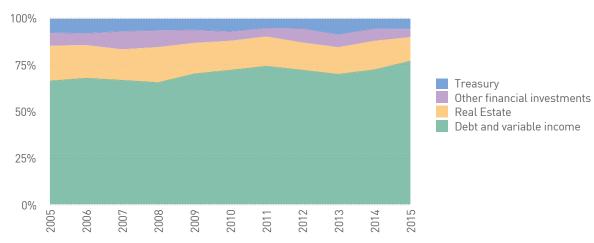
What is notable in an analysis of the evolution of the aggregate investment portfolio are the changes in the weight of real estate investments, which decreased gradually from 2005, when they accounted for 19% of investments, to a figure of 12.7% of the portfolio by the end of 2015.

Graph 3.1.8-d. Dominican Republic: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

Graph 3.1.8-e. Dominican Republic: evolution in the structure of investments, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

## Technical provisions

The evolution and relative composition of technical provisions over the 2005-2015 period in the insurance sector of the Dominican Republic is illustrated in Graphs 3.1.8-f and 3.1.8-g. In 2015, technical provisions amounted to 16,652 million pesos (370 million dollars). Some 9.2% of the total corresponded to mathematical provisions and current risks in personal insurance, 29.8% of the provision for unearned premiums and current risks in Non-Life insurance, 50% to provisions for claims,

2.1% to catastrophic risks, and the remaining 8.9% to other technical provisions.

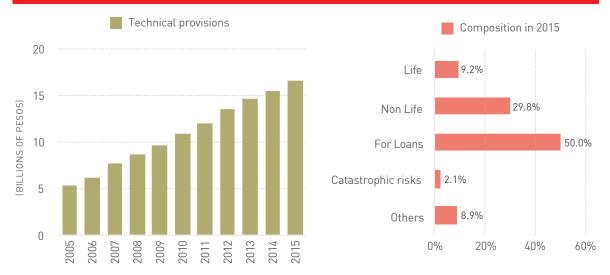
In 2015, around 77% of the mathematical provision and current risks in personal insurance corresponded to mathematical provisions and the rest to provisions for current risks in health and accident insurance. It is also worth highlighting the drop in the weight of these provisions over the 2005-2015 period, going from representing 15.9% of the total provisions in 2005 to 9.2% by the end of 2015.

## Technical performance

Graph 3.1.8-h shows the evolution of the combined aggregate ratio for the insurance sector in the Dominican Republic as a whole over the 2005-

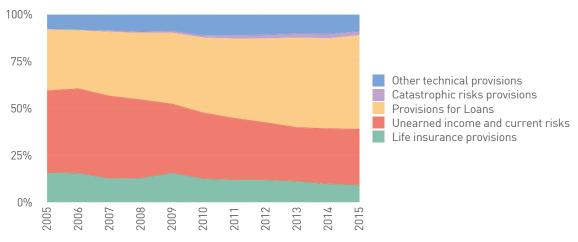
2015 period. As you can see, the technical indicator improved by two p.p. between 2014 and 2015, thanks to the drop in both accident rates and expenditure, coming to 95.5%, maintaining the falling trend in this indicator that started in 2012.

Graph 3.1.8-f. Dominican Republic: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

Graph 3.1.8-g. Dominican Republic: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

# Results and profitability

The consolidated result for the Dominican Republic's insurance sector as a whole in 2015 was 2,669 million pesos (59 million dollars), 31.4% more than the previous year. This figure was supported, on the one hand, by the positive technical result mentioned

earlier and, on the other, by the equally positive financial result that has been witnessed since 2012 (see Graph 3.1.8-i).

With regard to profitability, the return on equity (ROE) came to 19.7% in 2015, increasing by 3.3 p.p. over the 2014 figure. A similar situation can be

Graph 3.1.8-h. Dominican Republic: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)

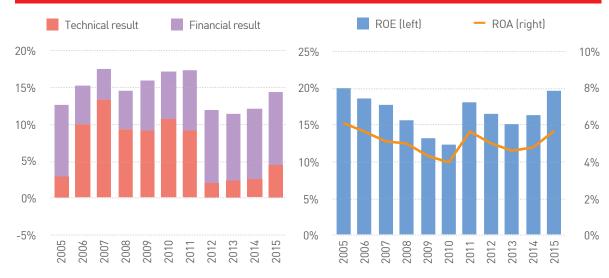


Source: MAPFRE Economic Research (with data from the Insurance Superintendence and Latino Insurance)

seen in the return on assets (ROA) which reached 5.7% in 2015, representing an increase of 0.9 p.p. compared to 2014. Both indicators point to the

steady increase in profitability of this market that started in 2012.

Graph 3.1.8-i. Dominican Republic: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)



Source: MAPFRE Economic Research (with data from the Insurance Superintendence and Latino Insurance)

## Penetration, density and depth of insurance

Graph 3.1.8-j shows the main structural trends in the Dominican Republic's insurance sector over the 2005-2015 period. The penetration index (premiums/GDP) in 2015 came to 1.2%, 0.1 p.p. above the level for 2005. As you can see, the penetration index for the Dominican Republic's market tended to decline over the period under analysis, remaining very much below the absolute average figures for the region's markets.

Meanwhile, insurance density in the Dominican Republic (premiums per capita) came to 3,383.2 pesos (75.2 dollars), 6% above the level reached in 2014 (3,190.6 pesos). The density of the Dominican Republic's market (measured in local currency) tended towards growth in the period under analysis, with a cumulative increase of 116.8% over the 2005-2015 period.

The depth of the insurance market in the Dominican Republic (Life insurance premiums as a ratio of total premiums) was 17.7%, 5.8 p.p. above the level reached in 2005. The growth of the depth index in the Dominican Republic's insurance market was generally in line with the trend in Latin American markets as a whole, though with absolute levels still very much below the regional average.

Graph 3.1.8-k illustrates the performance of the insurance market in the Dominican Republic, using a dispersion analysis that considers the joint effect of the progress of the market in relation to the Latin American insurance market, based on the overall change of penetration and depth levels. This analysis shows that the development trend of the Dominican Republic's market diverges from the Latin American average, showing contraction in the penetration level though a certain progress in the depth level of insurance.

## Estimate of the Insurance Protection Gap

The estimated IPG for the insurance market in the Dominican Republic between 2005 and 2015 is shown in Graph 3.1.8-l. The insurance gap in 2015 was 212,872 million pesos, six times the Dominican Republic's insurance market at the close of that year.

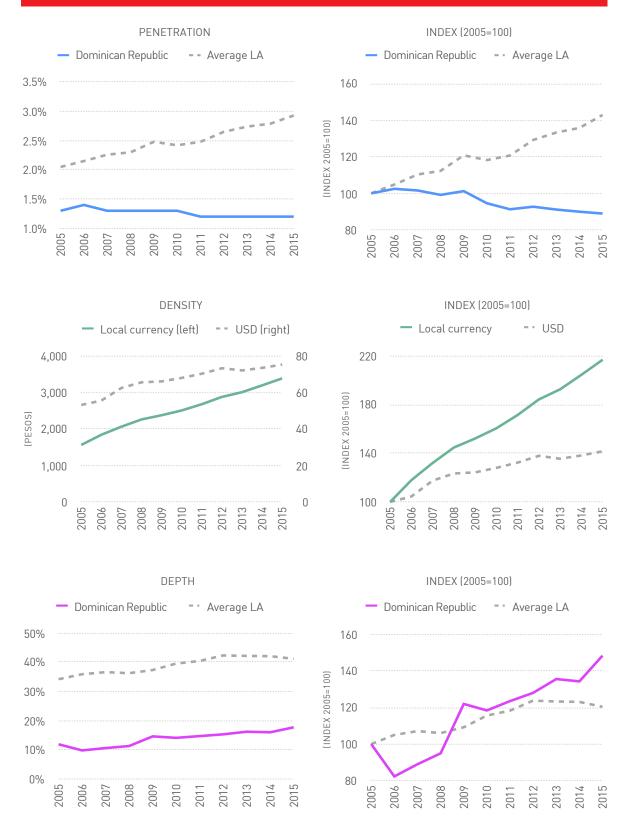
Meanwhile, the structure and evolution of the IPG during the period under study shows the predominance of Life insurance. At the end of 2015, 63.9% of the IPG corresponded to Life insurance (136,075 million pesos), 4.4 p.p. less than the figure for this segment in 2005. Meanwhile, the remaining 36.1% of the insurance gap is represented by the Non-Life insurance segment (76,797 million pesos).

Thus the potential insurance market in the Dominican Republic at the end of 2015 (calculated as the sum of the real market and the IPG) was estimated at 248,500 million pesos, which is seven times the total insurance market for that year.

Graph 3.1.8-m illustrates the estimated IPG as a multiple of the real insurance market in the Dominican Republic. The insurance gap as a multiple of the market leaned towards a sustained decline over the 2005-2015 period in the Life insurance segment only (going from 31.9 to 21.6 times). However, in the case of the Non-Life segment, the gap as a multiple of the market rose from 2 to 2.6 times over this period.

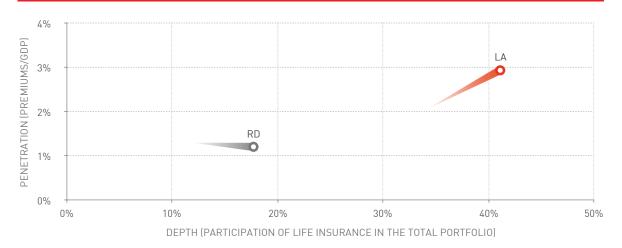
Finally, Graph 3.1.8-m shows a summary of the capacity of the Dominican Republic's insurance market to close the insurance gap, using a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the gap determined in 2015 over the next decade.

Graph 3.1.8-j. Dominican Republic: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index = 100)



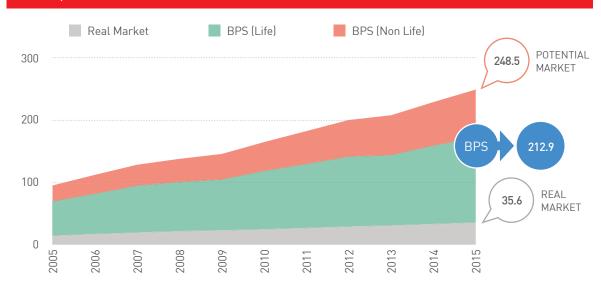
 ${\tt Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Insurance\ Superintendence)}$ 

Graph 3.1.8-k. Dominican Republic: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

Graph 3.1.8-l. Dominican Republic: estimate of the Insurance Protection Gap, 2005-2015 (in billion pesos)

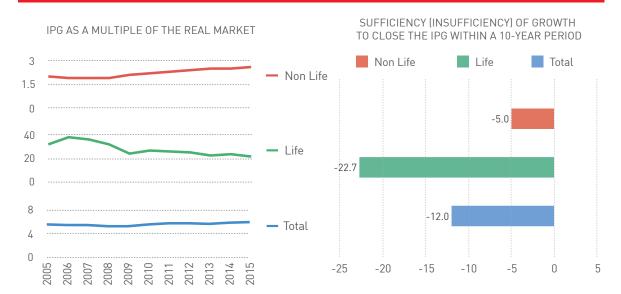


Source: MAPFRE Economic Research

In this respect, the insurance market in the Dominican Republic grew at an average annual rate of 9.5%, comprising an annual average rate of 13.9% in the Life segment and 8.7% in the Non-Life insurance segment.

If the same growth dynamic observed over the past decade were to continue over the next ten years, the growth rate of the insurance market in the Dominican Republic would be insufficient to achieve this target in both the Non-Life segment (by 5 p.p.) and the Life segment (by a shortfall of 22.7 p.p.).

Graph 3.1.8-m. Dominican Republic: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



Source: MAPFRE Economic Research

## Market Development Index (MDI)

The estimated Market Development Index (MDI) for the insurance sector in the Dominican Republic is shown in Graph 3.1.8-n. In this case, the MDI (the indicator used in this report to analyze the general trend observed in the evolution and maturity of insurance markets) shows a positive trend over the 2005-2015 period. However, the trend in the Dominican Republic's market seems to diverge from the average performance of the Latin American region's insurance markets as a whole over this period, with contractions in the periods 2005-06, 2009-10 and 2013-14.

Graph 3.1.8-n. Dominican Republic: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



Source: MAPFRE Economic Research

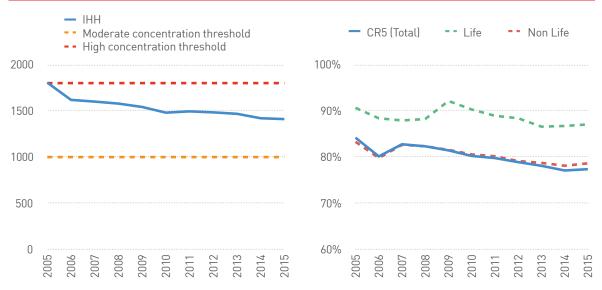
# Overall ranking

In 2015, there were 33 insurance institutions operating in the Dominican Republic. This is a very concentrated market, though in the last ten years there has been a slight trend towards a dilution of this concentration. The Herfindahl index, while reflecting this downward trend, remained above the theoretical threshold that indicates moderate concentration levels. In the case of the CR5 index, it can be seen that the downward trend (dominated

by the Non-Life insurance segment) is repeated in the case of the Life insurance market (see Graph 3.1.8-o).

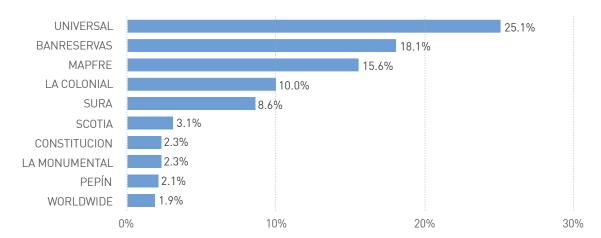
The ten biggest companies in the overall ranking are the same as in previous years, headed up by Universal, with 25.1% of premiums, followed by Banreservas (18.1%) and MAPFRE (15.6%). In the rest of the ranking there have only been small changes in the market shares and relative positions compared to 2014 (see Graph 3.1.8-p).

Graph 3.1.8-o. Dominican Republic: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

Graph 3.1.8-p. Dominican Republic: Overall Ranking, 2015 (market share, %)

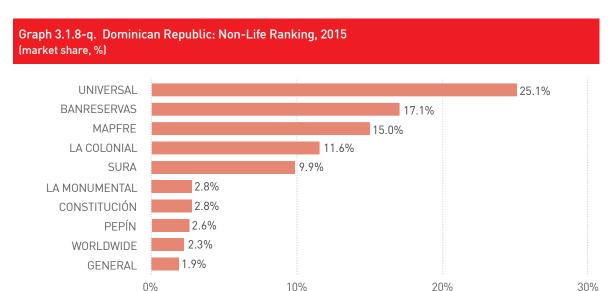


 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Insurance\ Superintendence)$ 

## Non-Life ranking

Due to the weight of Non-Life insurance in the Dominican Republic's insurance market, the ranking is very similar to the overall ranking. As in

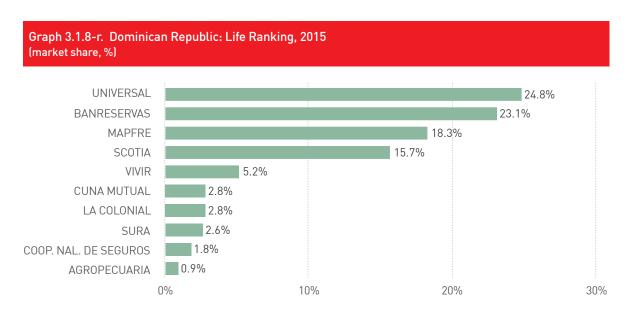
2014, the only significant difference is that Scotia does not appear on the Non-Life ranking, having been displaced by General de Seguros in the final position (see Graph 3.1.8-q).



Source: MAPFRE Economic Research (using data from the Insurance Superintendence)

# Life ranking

Finally, the insurance institutions on the Life ranking are the same as in previous years, with small changes in their market shares and relative positions. The Life ranking continues to be led by Universal, with 24.8% of premiums, followed by Banreservas, with 23.1%, and MAPFRE, with a market share of 18.3% (see Graph 3.1.8-r).



 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Insurance\ Superintendence)$ 

## Key regulatory aspects

Finally, according to the information available from the Superintendency of Insurance of the Dominican Republic, there were no significant reforms to the regulatory framework for the insurance sector during 2015.

#### 3.1.9. Puerto Rico

### **Macroeconomic environment**

The Puerto Rican economy was at a standstill in 2015, with zero growth and unable to overcome the economic difficulties associated with the recession that started in 2005 (see Graph 3.1.9a). Although exports grew at a good rate in 2015, private consumption remained at a standstill and investments and public consumption contracted. Fiscal difficulties also continued to make themselves felt, despite the economic reforms and budgetary cutbacks, which were unable to prevent the country from defaulting on its debt. However, the inflation rate fell to negative values in 2015 (-0.2%) and unemployment improved by around two p.p., reaching 12%. The IMF forecast that the economic difficulties in Puerto Rico would persist in 2016 and estimates that the GDP will fall by 1.8% this year.

#### The insurance market

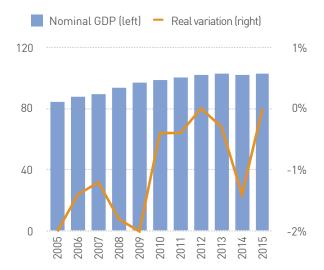
### Growth

The Puerto Rican insurance market overcame the contraction of 2014 (-5.2%) and grew strongly in 2015 with a nominal rate of 21.5% and a real rate of 21.7%, reaching 12,113 million dollars. There was growth in both the Life segment, which only accounts for 10.3% of the total market, and in the Non-Life segment (see Graph 3.1.9-b and Table 3.1.9-a).

Life premiums grew by 1.2% nominally and in 2015 reached 1,252 million dollars. This growth slowed down strongly compared to the previous year, when premiums had increased by 17.5%.

Meanwhile, Non-Life premiums increased by 24.4% in 2015 (as opposed to -7.8% the previous year), reaching 10,861 million dollars. This growth was due almost entirely to the good performance of Health insurance due to the changes made to the Medicaid program (My Health). The other types of insurance (apart from Other Damages) contracted, most notably a drop of 13.4% in Automobile insurance.

Graph 3.1.9-a. Puerto Rico: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion USD; real growth rate, %; annual inflation rate, %)





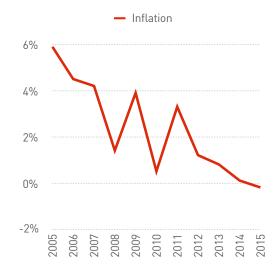


Table 3.1.9-a. Puerto Rico: volume of premiums<sup>1</sup> by branch, 2015 (premiums in USD; nominal and real growth rates, %)

Branch	Millions of USD	% ∆	%∆real
Total	12,113	21.5	21.7
Life	1,252	1.2	1.3
Non-Life	10,861	24.4	24.6
Health	9,131	31.6	31.8
Automobile	437	-13.4	-13.3
Civil Liability	171	-0.8	-0.6
Fire and/or Associated Lines	270	-13.5	-13.3
Transport	104	-3.0	-2.8
Other Damages	749	7.7	7.9

Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico) (1) direct insurance premiums issued

Graph 3.1.9-b. Puerto Rico: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



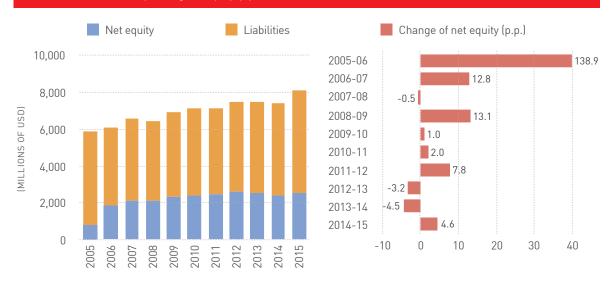
Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)

## Balance sheet and equity

Graph 3.1.9-c illustrates the evolution of the aggregate balance sheet of insurance domiciled in Puerto Rico over the 2005-2015 period. The sector's total assets came to 8,106 million dollars in 2015, while equity reached 2,557 million dollars, 4.6% higher than the previous year.

With regard to the aggregate levels of capitalization of the country's insurers (measured over total assets), these came to over 30% in the 2006-2015 period, reaching their highest point in 2012 with 35.3% and later dropping to 31.5% in 2015.

Graph 3.1.9-c. Puerto Rico: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)

## Investments and technical provisions

Graph 3.1.9-d shows the evolution of the aggregate investment portfolio of the country's insurance sector over the 2010-2015 period. In 2015, the total portfolio amounted to 6,121,5 million dollars.

Graph 3.1.9-d shows the evolution of technical provisions at a sector level over the 2010-2015 period. In the last year of the period under analysis, these provisions reached 3,452 million dollars. In the case of both investments and technical provisions, it has not been possible, with the information available, to make an additional analysis of the compositional breakdown.

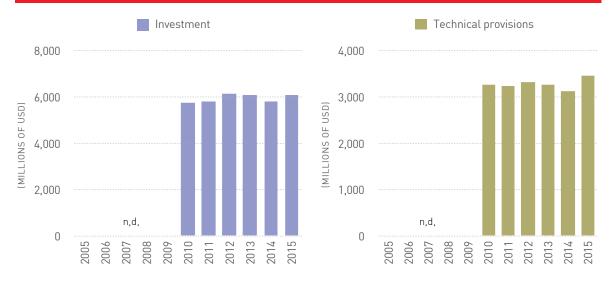
## Results and profitability

The consolidated result of the insurance companies domiciled in Puerto Rico as a whole for 2015 was 118 million dollars, one% more than the previous year.

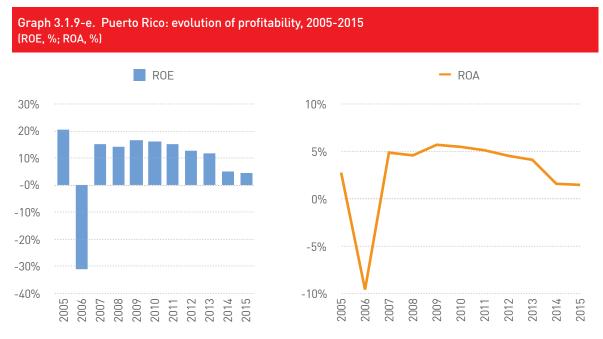
With regard to profitability, the return on equity (ROE) came to 4.6% in 2015, dropping by 0.16 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 1.5% in 2015, representing a fall of 0.11 p.p. compared to 2014 (see Graph 3.1.9-e)..

Graph 3.1.9-d. Puerto Rico: evolution of investments and technical provisions in the insurance sector, 2005-2015

(amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)



Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)

## Penetration, density and depth of insurance

Graph 3.1.9-f shows the main structural trends in the insurance sector in Puerto Rico over the 2005-2015 period. The penetration index (premiums/GDP) in 2015 was 11.8%, 3.5 p.p. above the level reached in 2005. This is the highest indicator in the Latin American region and its level can be explained mainly because the volume of premiums in this market includes Health insurance for the more disadvantaged population, which is managed by the insurance sector and funded from the government's budget.

Meanwhile, the density of insurance in Puerto Rico (premiums per capita) came to 3,288.7 USD (also the highest in the region), 21.6% above the previous year (2,703.6 USD). Like penetration, density tended to rise over the period under analysis with a cumulative increase of 77.7% over the 2005-2015 period.

The depth of the Puerto Rican insurance market (measured as the ratio between Life insurance premiums and total premiums) was 10.3%, barely 1.6 p.p. above the level in 2005. In contrast to the penetration and density indicators, the growth in the depth of the Puerto Rican insurance market is generally very much below the trend of the Latin American markets as a whole.

Graph 3.1.9-g illustrates the performance of the Puerto Rican insurance market in a dispersion analysis which considers the overall effect of the advance of this market in relation to the Latin American market based on the combined change of penetration and depth levels. This analysis reveals that the development trend of the Puerto Rican insurance market diverges from the Latin American average, although with absolute penetration levels higher than those of the region as a whole, but still below the regional average in terms of the depth levels of insurance.

## Estimate of the Insurance Protection Gap

The estimated IPG for the Puerto Rican insurance market between 2005 and 2015 is shown in Graph 3.1.9-h. According to the graph, the insurance gap in 2015 was 3,595 million USD, 0.3 times the Puerto Rican insurance market at the end of that year.

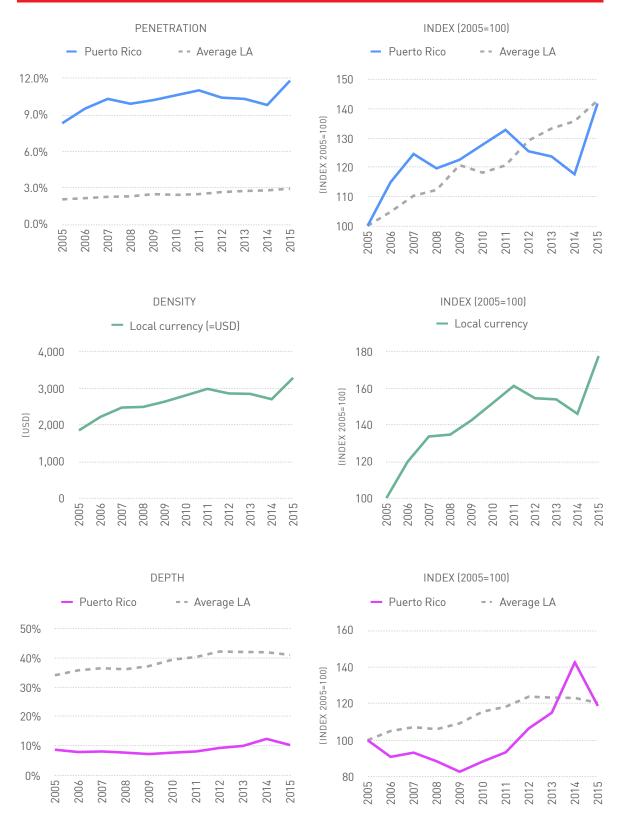
Meanwhile, the structure and evolution of the insurance gap over the period under analysis shows the absolute predominance of the Life insurance segment due to the growth in Health insurance. Thus by the end of 2015, almost the entire IPG corresponded to the Life insurance segment of the market.

The potential insurance market in Puerto Rico by the end of 2015 (the sum of the real market and the IPG) was estimated at 15,708 million USD, 1.3 times the total insurance market for that year.

Graph 3.1.9-i presents the estimated IPG as a multiple of the real insurance market in Puerto Rico. The insurance gap as a multiple of the market (which, as mentioned above, is concentrated in the Life segment) has tended to decline over the 2005-2015 period, going from 6.2 to 2.9 times.

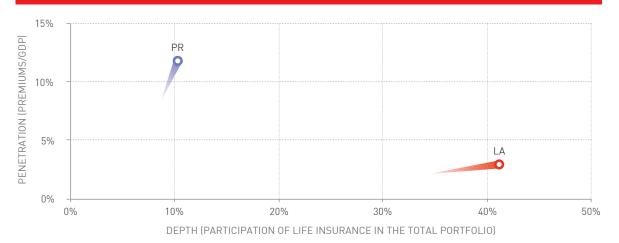
Graph 3.1.9-i illustrates a summarized assessment of the capacity of the Puerto Rican insurance market to close the IPG, using a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the gap determined in 2015 for the next decade. The Puerto Rican insurance market grew at an average annual rate of 5.7%, comprising growth of 7.5% in the Life segment and 5.5% in the Non-Life segment.

Graph 3.1.9-f. Puerto Rico: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, in USD; total premiums/Life premiums, %; 2005 index = 100)

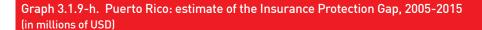


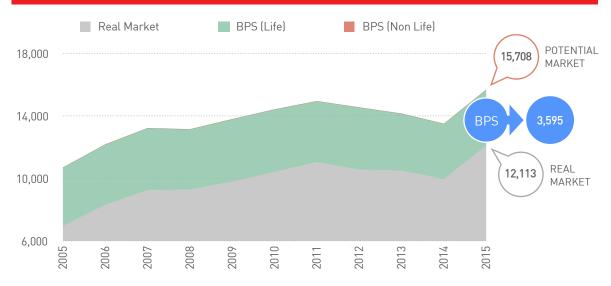
Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)

Graph 3.1.9-g. Puerto Rico: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research



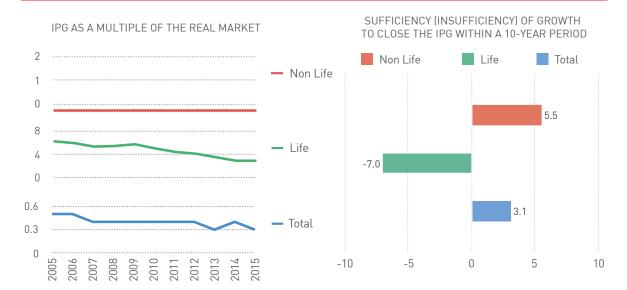


 $Source: MAPFRE\ Economic\ Research$ 

Thus, as illustrated in Graph 3.1.9-i, if the same growth dynamic observed over the past decade were to continue for the next ten years, the growth rate of the Puerto Rican insurance market would

be insufficient by 7 p.p. to achieve this target in the case of the Life segment, which is where the IPG is concentrated in the Puerto Rican insurance market.

Graph 3.1.9-i. Puerto Rico: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



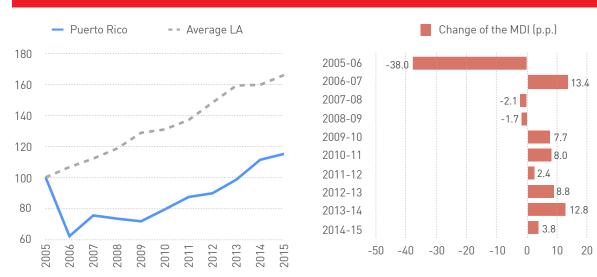
Source: MAPFRE Economic Research

## Market Development Index (MDI)

In the case of the Puerto Rican insurance sector, the estimated Market Development Index (MDI) is shown in Graph 3.1.9-j.

In the case of Puerto Rico, the MDI (the indicator used in this report to analyze the general trend observed in the evolution and maturity of insurance markets) has shown a positive trend since 2009. From that year onwards, the trend follows that of the average for Latin American insurance markets.

Graph 3.1.9-j. Puerto Rico: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



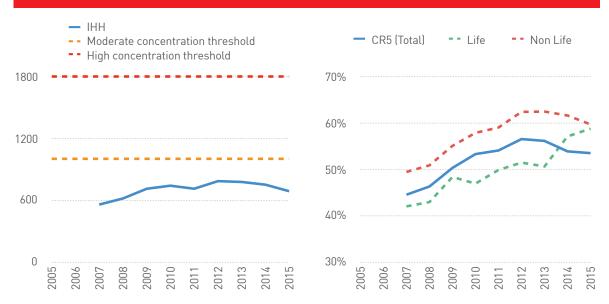
Source: MAPFRE Economic Research

# Overall ranking

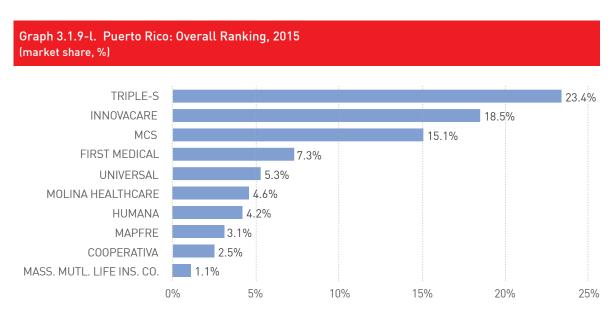
In 2015, there were 395 insurance institutions and Health Management Organizations (HMOs) operating in Puerto Rico, 11 fewer than the previous year. Of this total, 108 were Life and Disability insurers, 221 were Property and Contingency insurers, 14 were HMOs and 52 were Reinsurance companies. The indicators that measure the concentration of the market show

that this increased between 2007 and 2012 before subsequently declining in the last three years. All in all, the concentration level of the industry, measured by the Herfindahl index, fell below the theoretical threshold that indicates moderate concentration. However, there was a notable increase in the particular concentration in the Life segment from 2013 onwards (see Graph 3.1.9-k).

Graph 3.1.9-k. Puerto Rico: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)

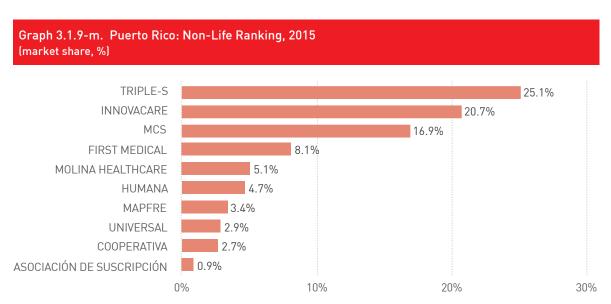


Source: MAPFRE Economic Research (with information from sector databases)

In the overall ranking, the three top positions are held by insurance groups whose market shares are way above those of other stakeholders in the market. Once again, the top position was held by Triple S, which holds 23.4% of the total premiums. They are followed by InnovaCare (MMM and PMC) with a share of 18.5%. And finally, MCS holds third place with a share of 15.1% (see Graph 3.1.9-l).

## Non-Life ranking

Due to the huge importance of Health insurance in Puerto Rico, the overall and Non-Life rankings are very similar. The top position is held by Triple S, with 25.1% of the Non-Life premiums. In second position is InnovaCare (MMM and PMC) with a share of 20.7%, and in third place comes MCS with a market share of 16.9% (see Graph 3.1.9-m).

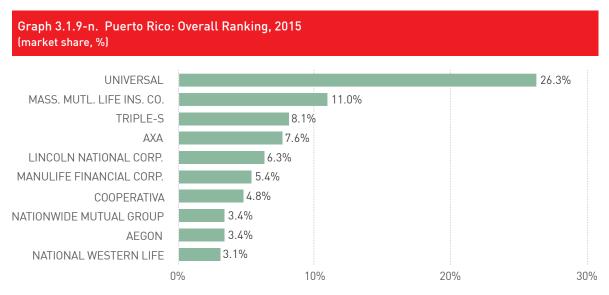


Source: MAPFRE Economic Research (with information from sector databases)

## Life ranking

Finally, in the Life ranking the top three positions are held by Universal, with 26.% of premiums, followed

by Massachusetts Mutual Life with 11% and Triple S with a market share of 8.1% (see Graph 3.1.9-n).



Source: MAPFRE Economic Research (with information from sector databases)

## Key regulatory aspects

Apart from a few minor reforms to certain specific articles of Law 20-2012, on the Special Fund for the Development of Exports of Services, and the Compulsory Liability Insurance for Motor Vehicles Act 253-1995, there were no major regulatory changes to report, according to the information in the annual report from the Puerto Rico Insurance Commissioner's Office.

## 3.2. South America

### 3.2.1. Colombia

### Macroeconomic environment

The Colombian economy grew in 2015 by 3.1% compared to 4.4% the previous year, a slowdown associated with a less dynamic consumer and investment environment. By productive sectors, there was growth in the financial sector, retail and construction, which offset the standstill in industry, mining and transport (see Graph 3.2.1-a).

With regard to the foreign sector, the fall in the price of oil and its derivatives caused a decline in exports, which raised the current account deficit by 1.3 p.p. to 6.5%. The main macroeconomic adjustment mechanism, the depreciation of the peso, caused an inflation hike which rose by 3.1 p.p. to 6.8% by the end of 2015. Meanwhile, unemployment continued to fall, reaching 8.9% (compared to 9.1% the previous year).

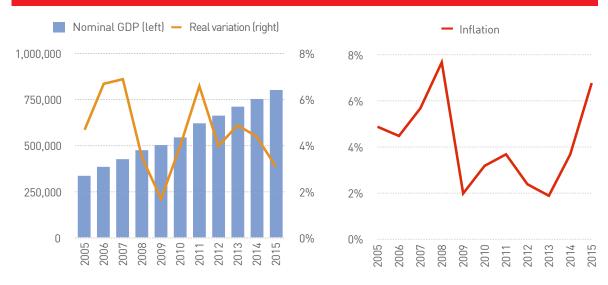
With regard to growth forecasts, CEPAL estimated that the Colombian economy would grow by 2.3% in 2016, while the IMF reduced this forecast by one-tenth p.p., putting it at 2.2%.

### The insurance market

### Growth

Insurance market premiums in the Colombian market came to 21,508,936 million pesos (7,831 million dollars) in 2015, with a nominal increase of 13% and a real increase of 5.8%. Growth in 2015 speeded up compared to the previous year, which had a nominal rate of 1.1% (see Graph 3.2.1-b and Table 3.2.1-a).

Graph 3.2.1-a. Colombia: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

The Life segments, which represented 29.4% of the total market, grew nominally by 11.6% in 2015, an increase that contrasts with the contraction of 15.5% recorded the previous year. Individual and group life insurance rose by 15.1% in nominal terms, but disability and survivor insurance barely moved in real terms (-0.4%).

Meanwhile, Non-Life insurance, which represented 70.6% of the market, grew nominally by 13.6% in 2015. All insurance types recorded nominal growth, even in double digits in the case of the five biggest sectors: Occupational Accidents (11%), Automobile (10.1%), Other Segments (21.7%), Motor Vehicle (13%) and Health (15.6%). Only two segments dropped in real terms, Earthquake (-2.3%) and Civil Liability (-0.3%).

Table 3.2.1-a. Colombia: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

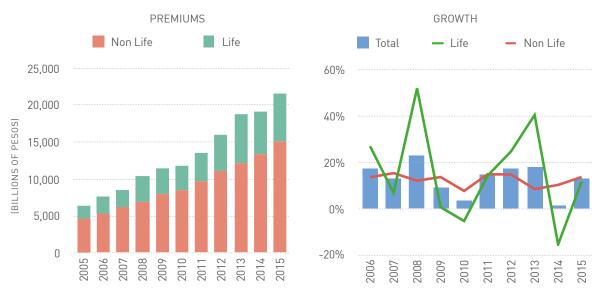
Branch	Millions of pesos	Millions of USD	% Δ	% Δ real
Total	21,508.936	7,831	13.0	5.8
Life	6,313,957	2,299	11.6	4.6
Individual and Group Life	3,943,043	1,436	15.1	7.8
Disability & Survivor	2,370,914	863	6.4	-0.4
Non-Life	15,194,979	5,532	13.6	6.4
Automobile	2,620,883	954	10.1	3.1
Other Segments	2,577,940	939	21.7	14.0
Motor Vehicle <sup>2</sup>	1,937,887	706	13.0	5.8
Health	1,303,648	475	15.6	8.3
Earthquake	676,818	246	4.3	-2.3
Fire	727,104	265	13.8	6.5
Civil Liability	825,809	301	6.5	-0.3
Personal Accidents	851,125	310	18.0	10.5
Transport	304,487	111	8.1	1.2
Theft:	296,094	108	26.9	18.8
Aviation	112,586	41	45.4	36.2
Credit	62,358	23	26.9	18.9
Occupational Accidents	2,898,241	1,055	11.0	3.9

Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

<sup>(1)</sup> Premiums issued

<sup>(2)</sup> Compulsory Traffic Accident Insurance

Graph 3.2.1-b. Colombia: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



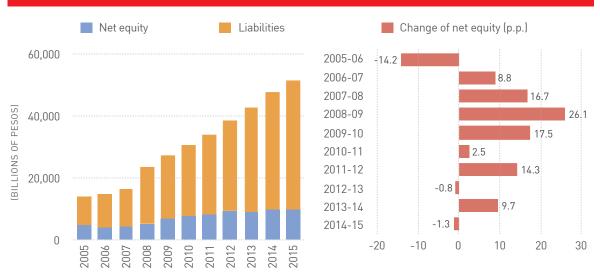
Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

# Balance sheet and equity

The evolution in the aggregate balance sheet of the Colombian insurance industry over the 2005-2015 period is shown in Graph 3.2.1-c. The sector's total assets in 2015 amounted to 51,585,888.5 million pesos (18,782 million dollars). The sector's equity that year came to 9,864,962.5 million pesos (3,592 million dollars), dropping 1.3 p.p. compared to 2014.

It is worth highlighting the evolution in the aggregate capitalization levels of the Colombian insurance sector (measured over total assets) which in 2005 had reached 34.4%, with a progressive decline over the 2005-2015 period to a figure of 19.1% over assets by the end of 2015.

Graph 3.2.1-c. Colombia: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

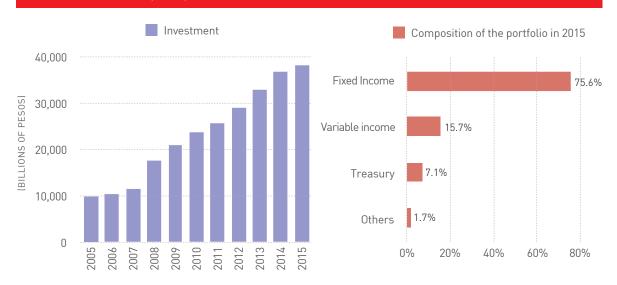
### Investments

Graph 3.2.1-d shows the evolution of investments in the Colombian insurance sector between 2005 and 2015. In this last year, investments reached 38,230,908.9 million pesos (13,919.5 million dollars), concentrated in fixed income (75.6%) and

to a considerably lesser degree (15.7%) variable income instruments.

With the information available it has not been possible to make a more detailed breakdown and analysis of the evolution of the sector portfolio of the Colombian insurance industry.

Graph 3.2.1-d. Colombia: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

# Technical provisions

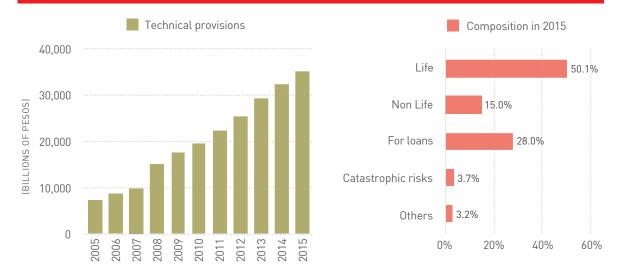
The evolution and relative composition of the technical provisions of the Colombian insurance sector are shown in Graphs 3.2.1-e and 3.2.1-f.

In 2015, technical provisions amounted to 35,213,940.7 million pesos (12,821 million dollars). Some 50.1% of this total corresponded to Life insurance, 15% to provisions for unearned premiums and current risks in Non-Life insurance, 28% to provisions for claims, 3.7% to provisions for catastrophic risks, and the remaining 3.16% to other technical provisions.

In a mid-term analysis, during the 2005-2015 period sustained growth was observed in absolute values in all the technical provisions of the Colombian insurance sector, with the sole exception in 2015 of the Life branch, in which they fell, with a correlative increase in the provisions for unearned premiums and current risks and the provision for claims.

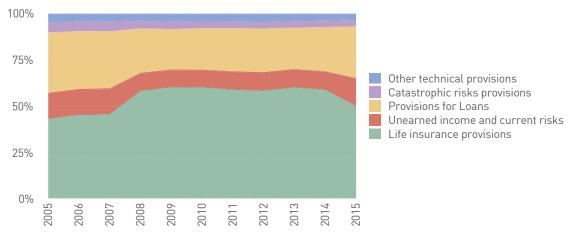
However, in this variation, as in the changes in the relative weight of the provisions, it should be borne in mind that the implementation of International Financial Reporting Standards had an impact on the variation of reserves in the Colombian insurance sector in 2015.

Graph 3.2.1-e. Colombia: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

Graph 3.2.1-f. Colombia: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

# Technical performance

The technical result of the insurance sector in Colombia in 2015 was negative and the total combined ratio increased by four-tenths p.p. to 110.8% due to the increase in the accident rate by 1.3 p.p., which was not offset by the drop of 0.9 points in expenditure. In the last few years there has been an upward trend in accident rates and a stabilization in the combined ratio of securities of close to 110% (see Graph 3.2.1-g).

Meanwhile, the combined ratio for Non-Life operations of general insurance companies also recorded an unfavorable performance. In 2015, it reached 105.2%, 0.9 p.p. below the 2014 figure. Its evolution has been strongly determined by a sustained trend towards an increase in the accident rate ratio from 2011 (see Graph 3.2.1-h).

Graph 3.2.1-g. Colombia: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

Graph 3.2.1-h. Colombia: evolution in the technical performance of the market, 2005-2015 (combined Non-Life ratio, %; annual change of combined ratio, p.p.)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

# Results and profitability

The net result of the Colombian insurance business in 2015 was 1,061,918 million pesos (387 million dollars), which represents a reduction of 2% compared to the previous year, supported by the positive financial results that were able to offset the unfavorable technical performance of the market (see Graph 3.2.1-i).

With regard to profitability, the return on equity (ROE) was 10.8% in 2015, dropping 0.10 p.p. compared to 2014. There is a similar situation with the return on assets (ROA), which reached 2.1% in 2015, signifying a drop of 0.22 p.p. compared to 2014, confirming the downward trend of profitability in the market over the past decade.

Technical result Financial result ROA (right) ROE (left) 40% 40% 12% 30% 9% 20% 20% 6% 10% 3% 0% 0% -20% 2008 2007

Graph 3.2.1-i. Colombia: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %)

Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

## Penetration, density and depth of insurance

The main structural trends in the progress of the insurance sector over the 2005-2015 period for the Colombian market are shown in Graph 3.2.1-j. In the first instance, the penetration index (premiums/GDP) in 2015 was 2.7%, representing a rise of 0.8 p.p. compared to the level in 2005. The penetration index in the Colombian market has tended to grow since 2005, in line with the average of the Latin American insurance market as a whole, though still slightly below the absolute average values in the region.

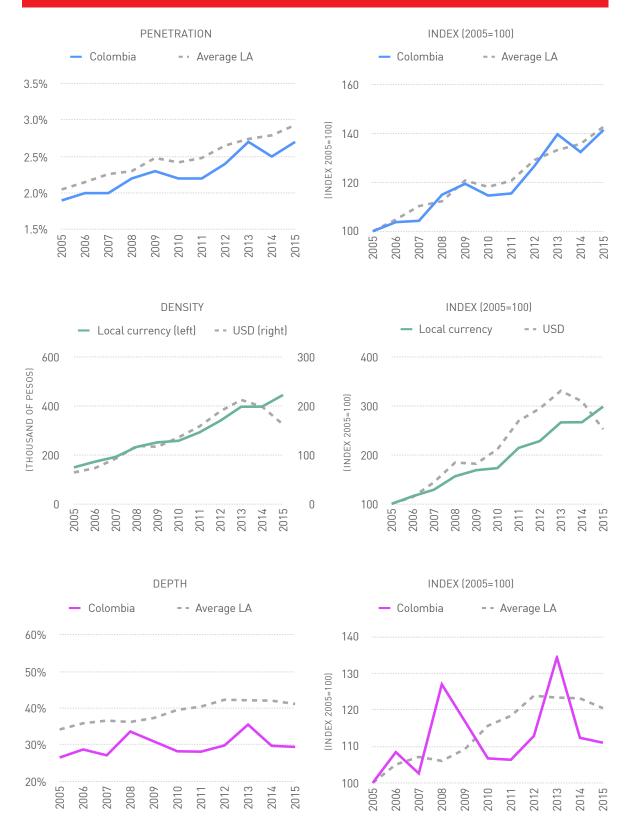
Meanwhile, insurance density in Colombia (premiums per capita) came to 445,978.8 pesos (162.4 dollars), representing an increase of 12% compared to the figure achieved the previous year (398,301.9 pesos). As in the case of the penetration index, density in Colombia (measured in local currency) tended to grow over the 2005-2015 period. However, when estimating it in dollars

there was a fall from 2013 as a result of the effect of the devaluation of the Colombian peso against the US dollar.

With regard to the depth of the Colombian market (Life premiums as a ratio of total premiums), the respective index for 2015 came to 29.4%; in other words, 2.9 p.p. above the 2005 figure, with a slightly upward trend over the period under analysis, but consistently below the absolute values of the indicator for the Latin American average.

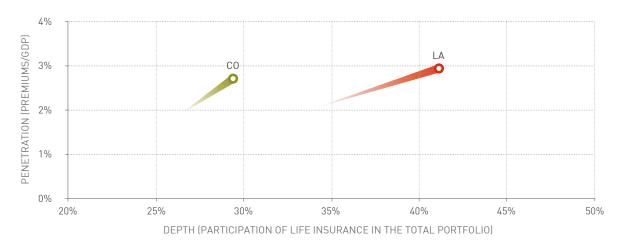
Graph 3.2.1-k illustrates the performance of the Colombian insurance market, using a dispersion analysis that considers the combined effect of the progress of this market in relation to the Latin American market, based on the combined change of penetration and depth levels. This analysis reveals that in general terms the development trend of the insurance market in Colombia is in line with the Latin American average, though with penetration and depth levels below the regional average.

Graph 3.2.1-j. Colombia: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index = 100)



 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Financial\ Superintendence\ of\ Colombia)$ 

Graph 3.2.1-k. Colombia: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

## Estimate of the Insurance Protection Gap

The estimated IPG for the Colombian insurance market between 2005 and 2015 is shown in Graph 3.2.1-l. In accordance with this analysis, the IPG in Colombia in 2015 was 44,320.9 billion pesos, representing 2.1 times the real insurance market in Colombia at the end of 2015.

The structure and evolution of the IPG over the 2005-2015 period shows that Life insurance predominated. Thus at the end of 2015, 70.9% of the IPG corresponded to Life insurance (31,406 billion pesos), which is 1.8 p.p. higher than the share in 2005. The remaining 29.1% of the insurance gap is represented by the Non-Life segment (12,914,8 billion pesos).

Thus the potential insurance market at the end of 2015 (the real market plus the IPG) was estimated at 65,829.8 billion pesos, which is 3.1 times the total insurance market in Colombia that year.

Graph 3.2.1-m shows the estimated IPG as a multiple of the real insurance market in Colombia. The insurance gap as a multiple shows a sustained downward trend during the 2005-2015 period.

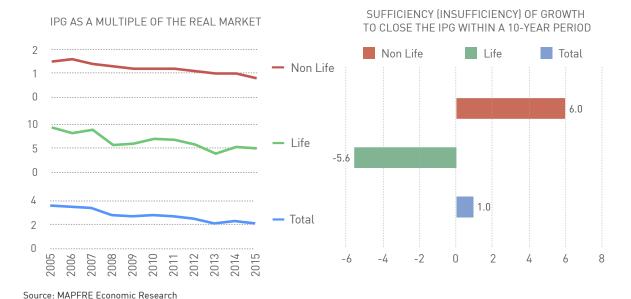
During this interval the total gap went from 3.6 to 2.1 times the real market. There is a similar situation with the multiple for the Life market, which fell from 9.4 to 5, and with the Non-Life multiple which dropped from 1.5 to 0.8.

Finally, Graph 3.2.1-m summarizes the evaluation of the capacity of the Colombian insurance market to close the insurance gap, using a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the gap determined in 2015 over the next ten years. The Colombian insurance market grew at an average annual rate of 12.8%, comprising an annual rate of 14% in the Life insurance segment and of 12.3% in the Non-Life segment.

From this analysis it emerges that if the same growth dynamic observed over the last decade were to continue for the next ten years, the growth rate of the Colombian insurance market would be sufficient to close the insurance gap only in the case of Non-Life insurance. In the case of the Life insurance segment, this rate would be insufficient by 5.6 p.p.

Graph 3.2.1-l. Colombia: estimate of the Insurance Protection Gap, 2005-2015 (in billion pesos) Real Market BPS (Life) BPS (Non Life) POTENTIAL 65,830 MARKET 70,000 60,000 50,000 40,000 30.000 20,000 RFΔI 10,000 21,509 MARKET 2015 2010 2009 2013 201 201 201 Source: MAPFRE Economic Research

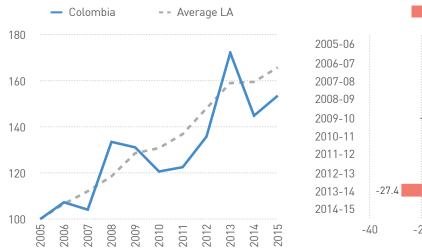
Graph 3.2.1-m. Colombia: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)

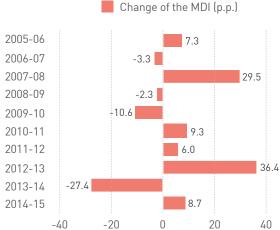


## Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Colombian insurance sector is shown in Graph 3.2.1-n. In the case of the Colombian insurance sector, the MDI (which is used as an indicator of the general trend observed in the evolution and maturity of insurance markets) shows, in general terms, a positive trend over the period under analysis. This trend follows that of the average for Latin American insurance markets, but with significant fluctuations in certain years (2007-2008 and 2013-2014) as a result of the atypical behavior in the growth of Life insurance segment in the Colombian market (see Graph 3.2.1-b).

Graph 3.2.1-n. Colombia: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)





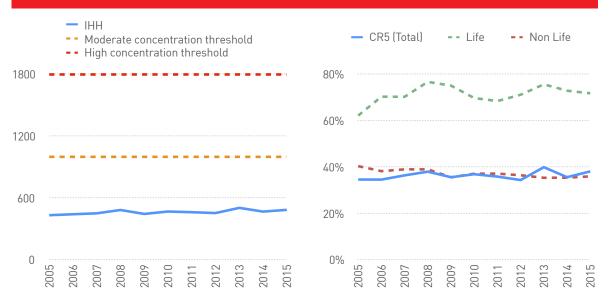
Source: MAPFRE Economic Research

## Overall ranking

In 2015, there were 26 general insurance companies operating in Colombia and 19 Life insurance companies. The Colombian insurance market shows low levels of concentration.

The Herfindahl and CR5 indexes shown in Graph 3.2.1-o illustrate a stable trend; in the case of the Herfindahl index, consistently below the theoretical threshold that would indicate moderate concentration levels.

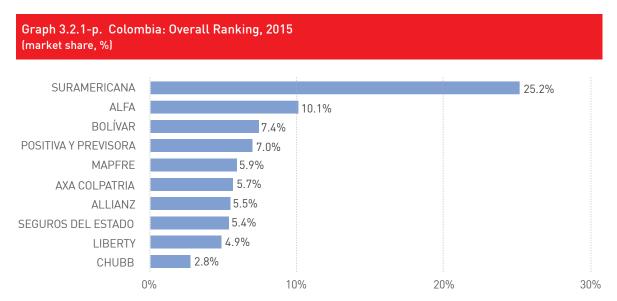
Graph 3.2.1-o. Colombia: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Financial\ Superintendence\ of\ Colombia)$ 

In the overall ranking of insurance groups in 2015, Suramericana continues to hold the top position with a market share of 25.2%. It is worth noting that the Sura group announced in 2015 that it had reached an agreement with the British firm RSA to acquire the latter's subsidiary in Colombia, an operation that was completed in 2016. Way behind, though improving their relative positions, are Alfa (10.1%), Bolivar (7.4%), and Positiva y Previsora (7%), the

last two being state companies. They are followed by MAPFRE, AXA Colpatria, Allianz, Seguros del Estado and Liberty, all with market shares ranging between 5 and 6%. And with a share of 2.8%, Chubb enters the ranking in tenth position. This ascent is related to the merger of ACE Seguros and Chubb of Colombia, announced in 2015 and approved in September 2016 by the Financial Superintendency (see Graph 3.2.1-p).



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

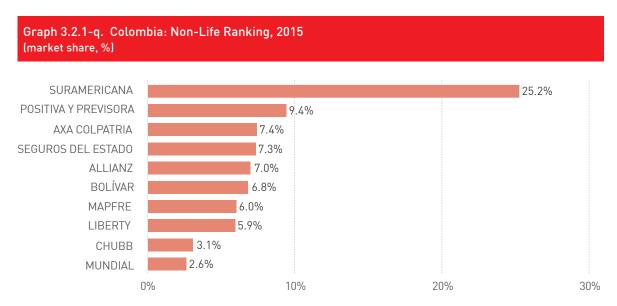
## Non-Life ranking

With regard to the Non-Life ranking in 2015 for the Colombian insurance market, once more the list is headed by Suramericana with 25.2% of premiums. It is followed at a great distance by Positiva y Previsora (9.4%) and AXA Colpatria (7.4%), which have improved their positions and pushed down Seguros del Estado (7.3%) to fourth place on the ranking.

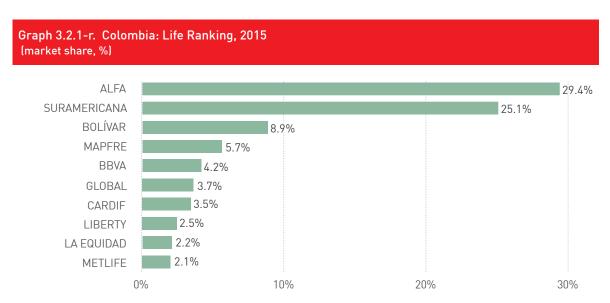
Next, with market shares between 6 and 7%, come Allianz, Bolivar, MAPFRE and Liberty. Finally, Chubb (3.1%) and Mundial (2.6%) hold the last two positions, knocking QBE and Solidaria off the ranking (see Graph 3.2.1-q).

## Life ranking

Finally, when it comes to the Life ranking for 2015, Alfa moved up to the top position with 29.4% of premiums, followed by Suramericana (25.1%). At a considerable distance, Bolivar (8.9%) moved into third position and MAPFRE (5.7%) was in fourth. With market shares of less than 5%, these were followed by BBVA, Global, Cardif, Liberty, La Equidad and MetLife (see Graph 3.2.1-r).



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)



Source: MAPFRE Economic Research (using data from the Financial Superintendence of Colombia)

## Key regulatory aspects

In January 2015, Decree 34 was passed to modify Decree 2555 of 2010 concerning the provision of financial services through correspondents, making it possible for insurance institutions to provide services through them. This measure is enshrined in the proposal of the Colombian administration to promote access to financial and insurance services

for people with fewer resources and small, medium and micro enterprises.

It is also worth noting that in June 2015, by means of Decree 1385, Decree 2555 of 2010 was amended in terms of the investment system of insurance institutions, with the aim of facilitating the participation of institutional investors in the financing of infrastructural projects.

#### 3.2.2. Venezuela

#### **Macroeconomic environment**

In 2015, the Venezuelan economy shrank by 6.2% (compared to -3.9% the previous year), with drops in both public and private consumption and investments as well as in almost every important economic sector. This unfavorable result in Venezuela's economic performance is a result not only of external factors, among them the drop in the price of oil, but also internal factors such as the economic policies adopted by the country (see Graph 3.2.2-a).

The plunge in crude prices had an extremely negative effect on Venezuelan exports, as 96.7% of them are in some way related to oil. Consequently, the current account showed a deficit of 10% of the GDP in 2015, contrasting with the surplus of previous years.

Inflation reached a record level of 180.9% and some of its components, such as food, soared to 315%.

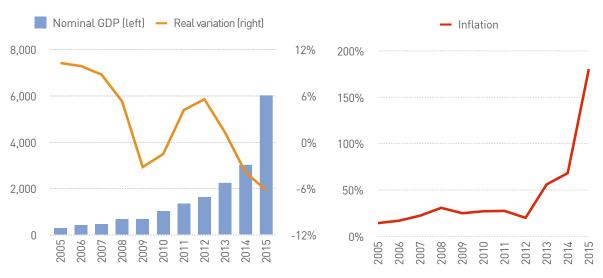
Unemployment increased by half a p.p., reaching 6% by the end of 2015. CEPAL estimated that the Venezuelan economy would contract by 8% in 2016, and the IMF forecast an even higher drop of -10%.

#### The insurance market

#### Growth

The premiums of the Venezuelan insurance market shrank by 17.5% in real terms in 2015, against -1.3% the previous year, reaching 329,970 million bolívars (7,650 million dollars). Life insurance, which represents just 1.2% of the market total, fell by 36.7% in real terms (against -13.7% in 2014). Non-Life insurance also fell at a much faster rate, reaching -17.2% compared to the -1.1% of the previous year. The two most important segments, Automobile and Health, performed differently: while the former grew by 2.9% (11.1% in 2014), the latter fell by 35% (-9.4% in 2014). As a whole, these two segments account for 83% of Non-Life premiums (see Graph 3.2.2-b and Table 3.2.2-a).

Graph 3.2.2-a. Venezuela: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion bolivars; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

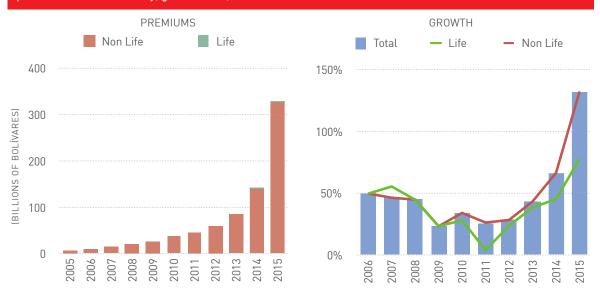
Table 3.2.2-a. Venezuela: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Million bolívars	Million USD	% ∆	% ∆ real
Total	329,970	7,650	131.7	-17.5
Life	4,055	94	77.9	-36.7
Individual Life	1,447	34	47.5	-47.5
Group Life	2,608	60	100.9	-28.5
Annuities	1	0	1,200.0	362.8
Non-Life	325,914	7,556	132.6	-17.2
Health	103,790	2,406	82.7	-35.0
Automobile	165,593	3,839	188.9	2.9
Multi-risk	23,638	548	193.7	4.6
Transport	4,026	93	56.3	-44.4
Credit and Surety	7,278	169	85.2	-34.1
Accidents	4,401	102	72.3	-38.7
Fire	4,911	114	93.8	-31.0
Civil Liability	3,199	74	95.0	-30.6
Other Segments	3,222	75	55.2	-44.7
Death	3,430	80	133.0	-17.0
Earthquake	2,335	54	115.2	-23.4
Pecuniary losses	91	2	-2.1	-65.2

 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendent\ of\ Insurance\ Activity\ in\ Venezuela)$ 

(1) Net premiums from direct insurance

Graph 3.2.2-b. Venezuela: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



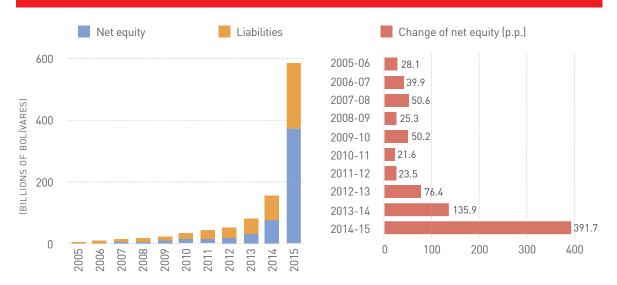
 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendent\ of\ Insurance\ Activity\ in\ Venezuela)$ 

### Balance sheet and equity

The aggregate balance sheet of the Venezuelan insurance sector for the 2005-2015 period is shown in Graph 3.2.2-c. The sector's total assets came to 583,874 million bolívars (13,535 million dollars), while equity came to 371,973 million bolivars (8,623 million dollars), with a positive change of 391.7 p.p. compared to 2014, determined to a large extent by the effects of inflation on the Venezuelan economy.

With regard to the aggregate levels of capitalization in the Venezuelan insurance sector (measured over total assets), the levels came to around 34% over the 2005-2012 period, subsequently increasing to reach 63.7% of total assets in 2015. In this respect, it should be noted that a large part of the equity computed corresponds to unrealized capital gains from real estate investments and other financial instruments, the inflation rate in 2015 being 180.9%.

Graph 3.2.2-c. Venezuela: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

### Investments

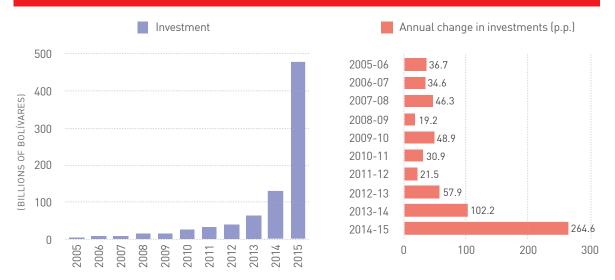
Graph 3.2.2-d shows the evolution of investments in the Venezuelan insurance market over the 2005-2015 period, which in the last year reached 478,371 million bolívars (11,090 million dollars).

With the information available to us, it has not been possible to make a more detailed breakdown and analysis of the composition of the sector portfolio of the Venezuelan insurance industry.

### Technical provisions

Meanwhile, the relative evolution and composition of the technical provisions, net of reinsurance, of the Venezuelan insurance sector for the 2005-2015 period are illustrated in Graphs 3.2.2-e and 3.2.2-f. In 2015, technical provisions came to 135,590 million bolivars (3,074 million dollars). Some 0.5% of the total corresponded to Life insurance, 69.1% to provisions for unearned premiums and current risks of Non-Life insurance, 28.6% to provisions for claims, 1% to provisions for catastrophic risks and the remaining 0.8% to other technical provisions.

Graph 3.2.2-d. Venezuela: evolution of investments in the insurance sector, 2005-2015(amounts in local currency; composition, %)

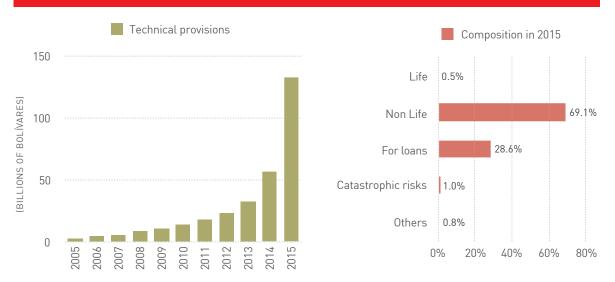


 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendent\ of\ Insurance\ Activity\ in\ Venezuela)$ 

In a mid-term analysis (shown in Graph 3.2.2-f), there is a notable reduction in the proportion of provisions for Life insurance, going from 1.4% of all provisions in 2005 to just 0.5% in 2015. Meanwhile, during the 2005-2015 period there was

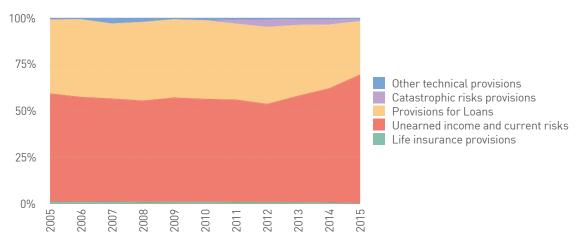
a gradual increase in the proportion of provisions for unearned premiums and current risks, going from 58% of total provisions in 2005 to 69% in 2015. Provisions for claims fell from a figure of around 40% in the 2005-2012 period to 28.6% in 2015.

Graph 3.2.2-e. Venezuela: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

Graph 3.2.2-f. Venezuela: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

## Technical performance

The technical result of the Venezuelan insurance sector was negative in 2015, with a combined

ratio of 105.3%, which represents a decline of 4.2 p.p. compared to 2014, with increases in both the accident rate and expenditure ratios (see Graph 3.2.2-g).

Graph 3.2.2-g. Venezuela: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)

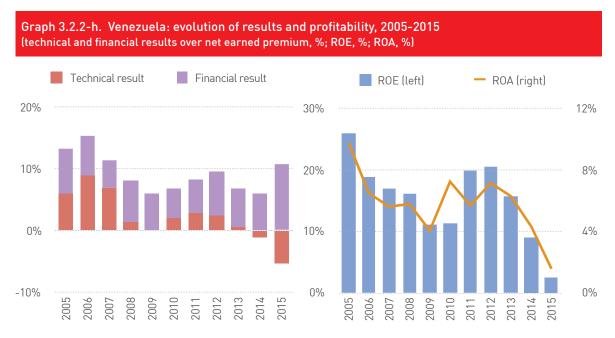


Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

### Results and profitability

The consolidated result for the Venezuelan insurance sector as a whole in 2015 came to 9,126 million bolívars (211 million dollars), 34.5% more than the previous year. As you can see in Graph 3.2.2-h, the negative technical result of 2015 was offset by a good financial result.

With regard to profitability, the return on equity (ROE) was 2.5% in 2015, dropping by 6.51 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 1.6% in 2015, representing a fall of 2.74 p.p. compared to 2014. As shown in the analysis in Graph 3.2.2-h, there was a clear downward trend in the profitability of the Venezuelan insurance industry from 2012, reaching its lowest level in a decade in 2015.



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

## Penetration, density and depth of insurance

Graph 3.2.2-i illustrates the main structural trends in the Venezuelan insurance sector over the 2005-2015 period. The penetration index (premiums/GDP) in 2015 was 5.5%. After a period of contraction between 2009 and 2011, the indicator pointed to an upward trend which coincided with a period of growing inflation. Thus the behavior of the penetration index could be connected to the process of rising prices in the economy (see Graph 3.2.2-a). As we know, in the insurance business the production cycle is inverted

and the setting of tariffs on products does not respond to incurred costs but the estimate of a cost that will be incurred in the future. In the case of insurance, the most important component of this future cost is the accident rate, which (particularly in the case of Non-Life insurance) is strongly determined by the general level of prices in the economy. Thus on estimating the penetration, a comparison is being made between the expected cost of the following year against the production flow of the economy of the current year, which in scenarios of high inflation rates can lead to the indicator being overestimated.

Graph 3.2.2-i. Venezuela: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, bolivars and USD; total premiums/Life premiums, %; 2005 index = 100)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

In view of this, it will be necessary to continue assessing the behavior of penetration in the Venezuelan market in the coming years, in order to determine whether the upward trend recorded over the period under analysis continues when the general prices in the economy have stabilized, or to confirm that the increase in penetration is an effect determined by increased tariffs in a year in view of the expected increase in prices the following year.

The density of insurance in Venezuela (premiums per capita) was 10,799.7 bolivars (250.4 dollars), 128.8% more than this figure in 2014 (4,721.0 bolívars), behavior that was also influenced by the trend in the general level of prices in the economy. Thus as in the case of penetration, density also tended to rise over the last decade, and exponentially since 2013.

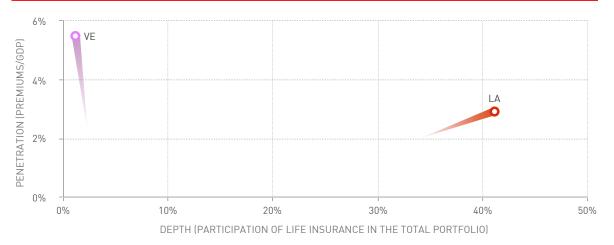
With regard to the depth level (Life insurance premiums as a ratio of total premiums), the 2015 indicator was barely 1.2% and even 1.1 p.p. below the figure for 2005. The depth trend in the Venezuelan insurance market clearly diverges from the average performance of the Latin American insurance market as a whole.

The performance described above is confirmed in the dispersion analysis shown in Graph 3.2.2-j, which illustrates the combined effect of the progress of the Venezuelan insurance market in relation to the region's market from the perspective of the overall change in penetration and depth levels. This analysis reveals that the development trend of the insurance market in Venezuela diverges significantly from the trend observed in Latin American insurance market as a whole.

### Estimate of the Insurance Protection Gap

The estimated IPG for the Venezuelan insurance market between 2005 and 2015 is shown in Graph 3.2.2-k. The insurance gap in 2015 was 279,738 million bolívars, 0.8 times the Venezuelan insurance market at the end of that year. However, for the reasons given above, the insurance gap could be underestimated in view of the overestimated penetration levels in the Venezuelan market, a key variable in estimating the IPG according to the methodology used for this report.

Graph 3.2.2-j. Venezuela: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

Meanwhile, the structure and evolution of the insurance gap over the period under study shows the absolute predominance of Life insurance in this equation. Thus at the end of 2015, the total IPG corresponded to Life insurance, having underestimated the IPG in the Non-Life insurance segment, the latter being particularly sensitive to the effect of overestimating the penetration index mentioned earlier.

Apart from the exceptions mentioned earlier, the potential insurance market in Venezuela at the end of 2015 (estimated as the sum of the country's real insurance market and the IPG) would come to 609,707 million bolívars, 1.8 times the total insurance market for that year.

Graph 3.2.2-l presents the estimated IPG as a multiple of the real insurance market in Venezuela. This analysis reveals that the insurance gap as a multiple of the market (concentrated in the Life insurance segment) presented a downward trend up to 2009, going from 95.2 to 55.7 times the relative market, to later stabilize and finish with a multiple of 69 times in 2015.

The same Graph 3.2.2-l illustrates a summary of the Venezuelan insurance market's capacity to close the IPG. This has been achieved by making a comparative analysis of the growth rates observed over the last ten years in this market in relation to the growth rates that would be required in order to close the IPG established in 2015 over the next decade.

The insurance market in Venezuela grew at an average annual nominal rate of 47%, comprising an annual growth rate of 37.8% in the Life insurance segment and 47.2% in the Non-Life segment.

If this same growth dynamic observed over the past decade were to continue over the next ten years, the growth rate of the Venezuelan insurance market would be insufficient by 15.1 p.p. to achieve this target in the case of the Life insurance segment, where the insurance gap is concentrated.

Graph 3.2.2-k. Venezuela: estimate of the Insurance Protection Gap, 2005-2015
(in billion bolivars)

Real Market

BPS (Life)

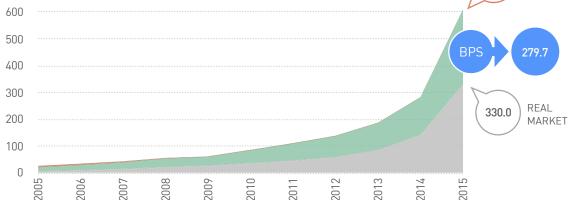
BPS (Non Life)

POTENTIAL MARKET

600

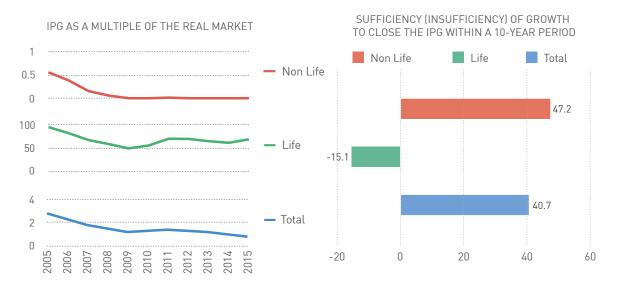
BPS

279.7



 $Source: MAPFRE \ Economic \ Research$ 

Graph 3.2.2-l. Venezuela: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



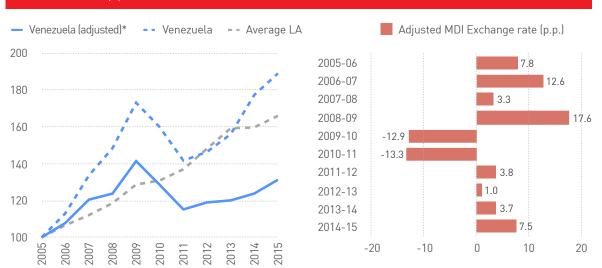
Source: MAPFRE Economic Research

### Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Venezuelan insurance sector is shown in Graph 3.2.2-m. The MDI is an indicator intended to summarize the trend in the evolution and maturity of insurance markets. In the case of the Venezuelan insurance sector, the indicator shows a positive trend over the 2005-2009 period. However, from

that year onwards, the trend started diverging from the average performance of the other countries in the region. This is even more obvious when making the adjustment to eliminate the overestimate of the speed of closure of the Life IPG due to coming from a relatively small base, after which it can be confirmed that the performance of the Venezuelan insurance market is below the regional average.

Graph 3.2.2-m. Venezuela: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



Source: MAPFRE Economic Research

<sup>\*</sup> Adjustment to eliminate overestimation of speed of closure of the Life IPG.

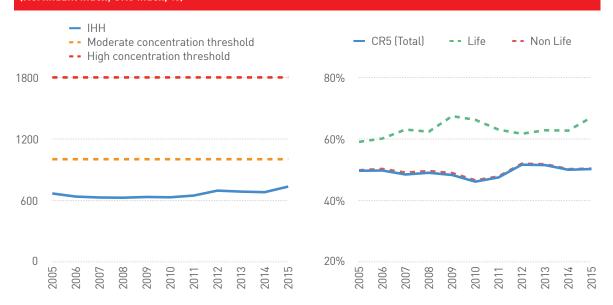
### Overall ranking

At the end of 2015, there were 48 insurance companies operating in Venezuela, the same number as the previous year. The market concentration is low and has remained stable over the last few years with only minor variations (see Graph 3.2.2-n).

With regard to the overall ranking in 2015, the three top companies are the same as the previous

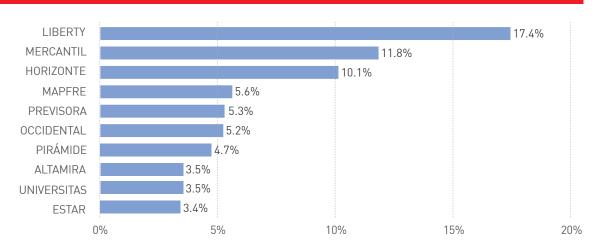
year. The ranking continues to be led by Caracas Liberty Mutual, with 17.4% of premiums, followed by Mercantil (11.8%) and Horizonte (10.1%). The other companies are also the same as the previous year, with minor variations to their market shares and relative positions, with the sole exception of Universitas, which entered the ranking in ninth position with 3.5% of premiums (see Graph 3.2.2-o).

Graph 3.2.2-n. Venezuela: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

Graph 3.2.2-o. Venezuela: Overall Ranking, 2015 [market share, %]



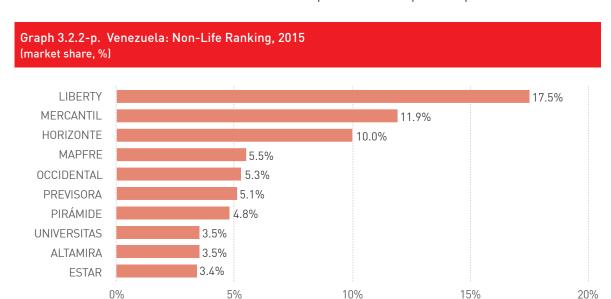
Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

## Non\_life ranking Non-Life

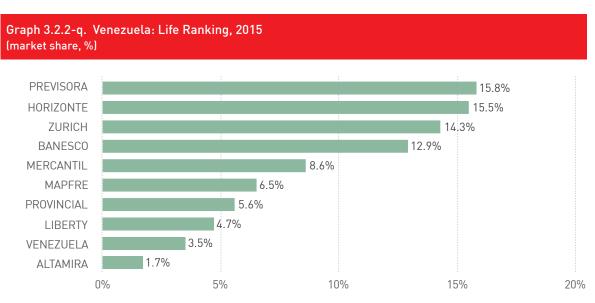
Due to the huge relative weight of Non-Life insurance in the Venezuelan market, the Non-Life ranking is similar to the overall ranking, with minor changes in the relative positions and market shares of the companies. The 2015 ranking is headed up by Caracas Liberty Mutual with a market share of 17.5%, followed by Mercantil with 11.9% and Horizonte with 10% (see Graph 3.2.2-p).

## Life ranking

Finally, in the Life ranking for 2015, Previsora and Horizonte rose to the top two positions with 15.8 and 15.5% of premiums respectively, pushing down Zurich and Banesco to the next two places. The next positions are held by the same companies as the previous year, with minor changes in their positions and market shares, with the sole exception of Altamira, which appears in the ranking in tenth position (see Graph 3.2.2-q).



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)



Source: MAPFRE Economic Research (using data from the Superintendent of Insurance Activity in Venezuela)

### Key regulatory aspects

Among the new regulations adopted recently by the Venezuelan market we should highlight the fact that in March 2016, in the Official Gazette, Law-Decree 2.178 on Insurance Business was published, repealing the Insurance and Reinsurance Companies Law and the Decree-law on Insurance Contracts of 1994 and 2001 respectively.

Also, in January 2015 and March 2016 the Accounting and Reporting Codes and Standards were passed for premium financing companies and prepaid medicine companies respectively, which, in accordance with the Law on Insurance Activities, are required to submit their audited financial statements to the Superintendency within the same period established for insurance companies.

#### 3.2.3. Brazil

#### Macroeconomic environment

In 2015, the Brazilian economy shrank by 3.8%, causing a recession from the standstill of the previous year (when the economy only grew by 0.1%). From the point of view of demand, both private and public consumption dropped in 2015 but

most notably there was a strong fall in investments (-14.1%). By sectors, industrial production fell by almost 10% and there were also falls in commerce (-8.9%), construction (-7.6%) and transport (-4.8%), while mining and agriculture grew (by 4.9 and 1.8% respectively).

The inflation rate in 2015 rose by 4.3 p.p. to 10.7% due to the strong rise in energy and fuel prices, while the unemployment rate rose by three points to 9.5% at the end of 2015, thus reversing the downward trend of the last few years (see Graph 3.2.3-a).

With regard to the foreign sector, in 2015 exports fell heavily (-15.2%), due to the drop in the prices of export goods and lower foreign demand, while imports also fell, to a much greater extent (-25.3%) due to lower domestic activity and the devaluation of the Brazilian real against the US dollar. The result was a reduction in the current account deficit of almost one percentage point, reaching 3.3% of the GDP.

For 2016, CEPAL estimated that the Brazilian economy would continue in recession, with a contraction of 3.4% in its GDP. The IMF predicted this contraction to be just one-tenth p.p. lower, at 3.3% of the GDP.

Graph 3.2.3-a. Brazil: evolution of economic growth and inflation, 2005-2015
[GDP in local currency, billion reals; real growth rate, %; annual inflation rate, %]

Nominal GDP (left) — Real variation (right)

4,000

4,000

4%

-4%

Source: MAPFRE Economic Research (with IMF data)

0

## The insurance market

#### Growth

The volume of premiums in the Brazilian insurance market in 2015 came to 184,201 million reals (55,235 million dollars), which represents nominal growth of 11.5% and real growth of 0.7%.

In 2015 the market experienced a strong slowdown in real terms, as the nominal and real growth rates in 2014 were 13.8 and 7% respectively. However, the segments of Life and Non-Life behaved differently. The former, which represents 60.3% of the market, continued to grow at a good rate, while the latter contracted in real terms (see Graph 3-2-3-b and Table 3.2.3-a).

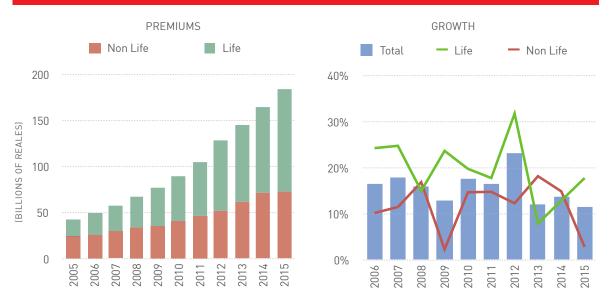
Life insurance premiums in the Brazilian market rose in 2015 to 111,024 million reals [33,292 million dollars], with nominal growth of 17.9% and real growth of 6.5% (compared to 13 and 6.2% respectively in 2014). This growth was due to the dynamic performance of VGBL insurance (Vida Gerador de Beneficio Livre), which accounted for 77.6% of the total Life premiums and whose growth

speeded up by more than one percentage point, reaching 9% in real terms. On the other hand, individual and group Life insurance fell by 1.2% in real terms.

The volume of Non-Life insurance premiums in 2015 came to 73,177 million reals (21,943 million dollars), representing a nominal increase of 2.9% and a contraction of 7% in real terms (as opposed to increases of 15 and 8.1% respectively in 2014). In contrast to the previous year, there was a drop in real terms in all the segments in 2015, the only exceptions being Credit and Surety and Death. The biggest segment continues to be Automobile insurance, with 56.1% of Non-Life premiums, which fell by 7.3% in real terms.

If, apart from the volume of insurance premiums, we also take into account the contributions of Private Protection received from insurance companies, the Health insurance premiums (under the control of the Agencia Nacional de Saude Suplementar, ANS), and the Capitalization premiums, the total income in 2015 rises to 250,819 million reals (75,211 million dollars), with an increase of 10.3% compared to the previous year (see Table 3.2.3-b).

Graph 3.2.3-b. Brazil: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



 ${\tt Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendence\ of\ Banks)}$ 

Table 3.2.3-a. Brazil: volume of premiums1 by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of pesos	Million USD	% ∆	%∆real
Total	184,201	55,235	11.5	0.7
Life	111,024	33,292	17.9	6.5
Individual and Group Life	24,877	7,460	9.3	-1.2
VGBL <sup>2</sup>	86,147	25,832	20.7	9.0
Non-Life	73,177	21,943	2.9	-7.0
Automobile	41,090	12,321	2.6	-7.3
Other Damages	10,995	3,297	2.8	-7.1
Accidents	4,940	1,481	-0.5	-10.1
Fire	4,758	1,427	3.6	-6.4
Transport	2,781	834	-0.7	-10.3
Credit and Surety	2,802	840	18.8	7.4
Agriculture	2,602	780	4.2	-5.9
Civil Liability	1,418	425	4.1	-5.9
Marine Transport	808	242	-0.3	-9.9
Special Risks³	612	183	-5.8	-14.9
Death	372	112	18.9	7.4

Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

<sup>(3)</sup> Oil, nuclear risks and satellites

Table 3.2.3-b. Brazil: premiums and contributions from private insurance, 2015
(premiums in local currency and USD; nominal growth, %)

Branch	Million reals	Million USD	% Δ
Total	250,819	75,211	10.3
Insurance	184,201	55,235	11.5
Private Protection	12,389	3,715	4.2
Health insurance	32,759	9,823	15.4
Capitalization	21,470	6,438	-1.9

Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence and the Agencia Nacional de Saude Suplementar (ANS))

<sup>[1]</sup> Issued premium (Reg. capitalization) + Insurance Premium (2) Vida Gerador de Benefício Livre

### Balance sheet and equity

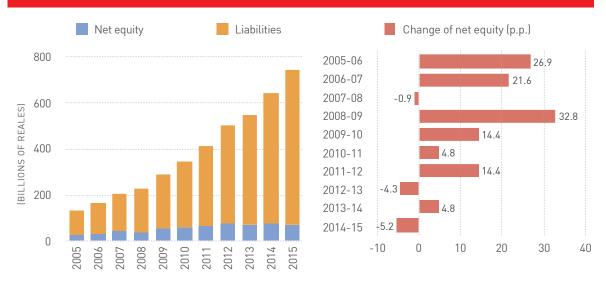
The evolution of the size of the aggregate balance sheet for all the insurance institutions operating in Brazil over the 2005-2015 period is shown in Graph 3.2.3-c.

As you can see, the total assets came to 740,603.2 million reals (222.077 million dollars). Meanwhile.

equity reached 71,620.4 million reals (21,476 million dollars), with a decline of 5.2 p.p. compared to the 2014 figure.

Aggregate capitalization levels of the Brazilian insurance sector, measured over total assets, showed a downward trend from 2008 onwards, going from relative values of around 20% to 9.7 of total assets in 2015.

Graph 3.2.3-c. Brazil: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

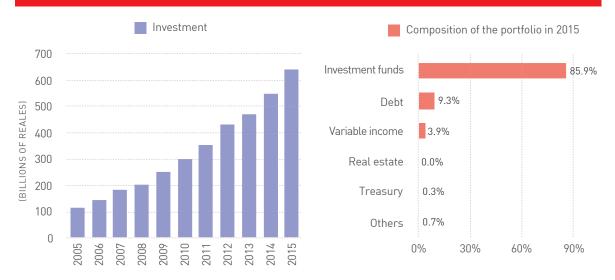
## Investments

Graphs 3.2.3-d and 3.2.3-e show the evolution and composition of the aggregate investment portfolio at a sector level of the Brazilian insurance industry over the 2005-2015 period. In the last year of the above period, investments reached 643,057.6 million Brazilian reals [192,827 million dollars], concentrated primarily in investment funds [85.9%] and, to a much lesser degree, in debt securities [9.3%], variable income (3.9%) and other financial investments [0.7%].

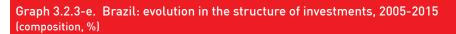
From an analysis of the aggregate portfolio, it is worth noting the high percentage of investments managed by investment funds, which increased both in absolute and relative values compared to other investments over the 2005-2015 period, the only exception being 2012 when there was a slight drop in the weight of the portfolio compared to the previous year.

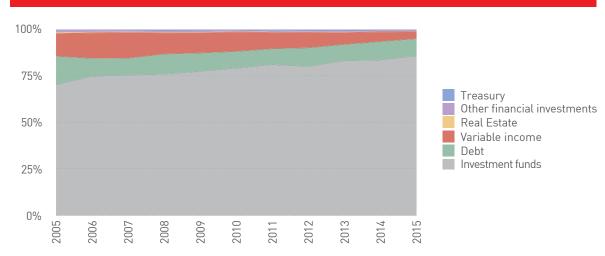
Meanwhile, Table 3.2.3-c shows the evolution of the structure of investments, but in this case considering the underlying assets managed by investment funds, which are also essentially concentrated in fixed income instruments.

Graph 3.2.3-d. Brazil: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)





Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

Table 3.2.3-c. Brazil: evolution in the structure of investments by underlying assets, 2005-2015 (composition, %)

	Fixed Income	Variable Income	Real Estate	Other Investments	
2005	91.1%	7.5%	0.5%	1.0%	
2006	87.3%	10.7%	0.6%	1.4%	
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%	

Source: Private Insurance Superintendence

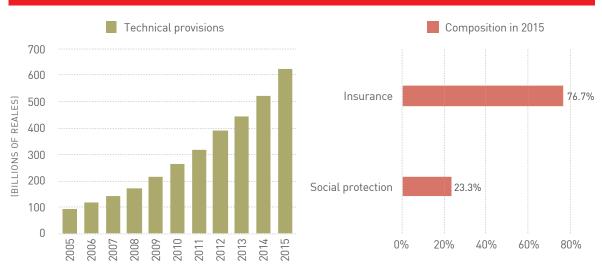
### Technical provisions

The evolution and relative composition of the Brazilian insurance sector's technical provisions over the 2005-2015 period are illustrated in Graphs 3.2.3-f and 3.2.3-g. As you can see, in 2015 the technical provisions amounted to 624,843.1 million Brazilian reals (187,366 million dollars). In that year, the Life business accounted for around 86% of total

provisions, if we consider the disability and survivor business in calculating the percentage of provisions.

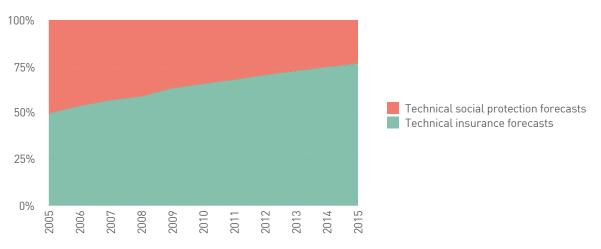
Over the 2005-2015 period, while there was growth in absolute terms, one can appreciate a relative loss in the weight of technical provisions for the disability and survivor segment with regard to the total provisions, going from 50.2% in 2005 to 23.5% in 2015.

Graph 3.2.3-f. Brazil: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

Graph 3.2.3-g. Brazil: evolution in the structure of technical provisions, 2005-2015 (composition, %)



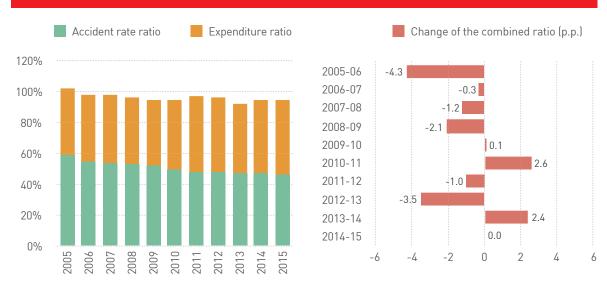
Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

## Technical performance

As you can see in Graph 3.2.3-h, the total combined ratio of the Brazilian insurance sector remained unchanged in 2015 compared to the previous year (95.2%).

This is a result of the increase in expenditure by seven-tenths of a% and the drop in accident rates by eight-tenths p.p.. To be specific, the accident rate ratio came to 46.2%, with a downward trend being observed in the last few years.

Graph 3.2.3-h. Brazil: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)

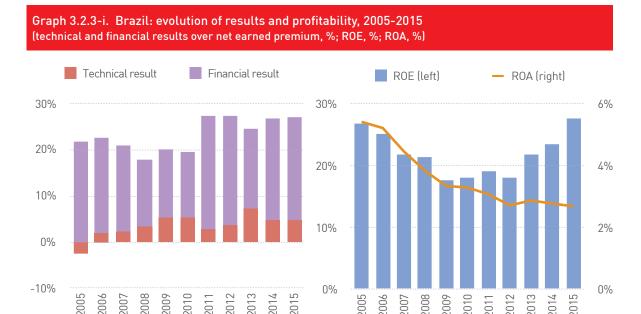


Source: MAPFRE Economic Research (with data from the Private Insurance Superintendence)

## Results and profitability

The net result of the Brazilian insurance market in 2015 was 19,823 million reals (5,944 million dollars), which represents an increase of 12.1% compared to the previous year. This net result was supported not only by the technical result mentioned above but also by the good financial results of the operation (see Graph 3.2.3-i).

With regard to profitability, the performance was mixed. On the one hand, return on equity (ROE) came to 27.7% in 2015, rising by 4.3 p.p. over the figure for 2014 and demonstrating a clear upward trend from 2012. On the other hand, return on assets (ROA) reached 2.7% in 2015, representing a drop of 0.10 p.p. compared to the figure for 2014.



Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

## Penetration, density and depth of insurance

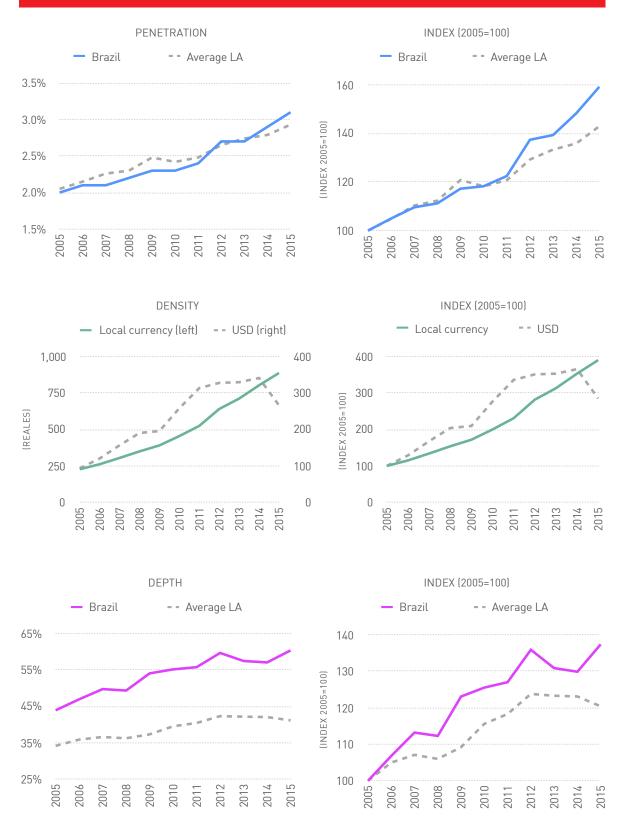
The main structural trends in the Brazilian insurance sector during the 2005-2015 period are shown in Graph 3.2.3-i. The penetration index (premiums/GDP) in 2015 was 3.1%, higher by almost 1.2 p.p. than in 2005. The penetration index of the Brazilian market (which only considers premiums stemming from insurance business) demonstrated a clear upward trend from 2005 onwards in line with the average trend in the Latin American insurance market as a whole.

The density level of insurance (premiums per capita) came to 886.6 reals (265.9 dollars), 10.5% higher than this figure the previous year (802.3

reals). As in the case of the penetration index, density (measured in local currency) showed an upward trend over the 2005-2015 period. It is only by estimating it in USD that you can see the sharp drop in 2015 as a result of the devaluation of the Brazilian real against the US dollar.

Regarding the depth index (Life insurance premiums in relation to total premiums), in 2015 the indicator placed it at 60.3%, 16.4 p.p. below this figure in 2005. There was an upward trend in the depth of the Brazilian insurance market throughout the period under analysis, going above the average figures observed for the Latin American region as a whole.

Graph 3.2.3-j. Brazil: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, quetzals and USD; total premiums/Life premiums, %; 2005 index = 100)

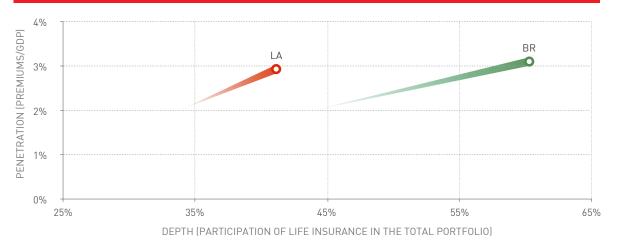


Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

This positive performance of the Brazilian insurance market is confirmed by the dispersion analysis shown in Graph 3.2.3-k, which illustrates the combined effect of the progress of the insurance market in Brazil in relation to the Latin American insurance market from the perspective

of the joint change in penetration and depth levels. This analysis shows that the development trend of the Brazilian insurance market is above that of the region as a whole in terms of both the increase in penetration and the depth of insurance in Brazil.

Graph 3.2.3-k. Brazil: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

## Estimate of the Insurance Protection Gap

The estimated IPG for the Brazilian insurance market over the 2005-2015 period is shown in Graph 3.2.3-l. The IPG in 2015 was 301.1 billion reals, which is equivalent to 1.6 times the real insurance market in Brazil at the end of 2015.

The structure and evolution of the IPG in the last decade still shows the slight predominance of Life insurance over Non-Life insurance. In 2015, 55.5% of the IPG corresponded to Life insurance (167.1 billion reals), while the remaining 44.5% corresponded to the gap in the Non-Life segment (134.1 billion reals). It is worth highlighting the fact that over the 2005-2015 period the share of Life insurance in the IPG dropped by 8.9 p.p..

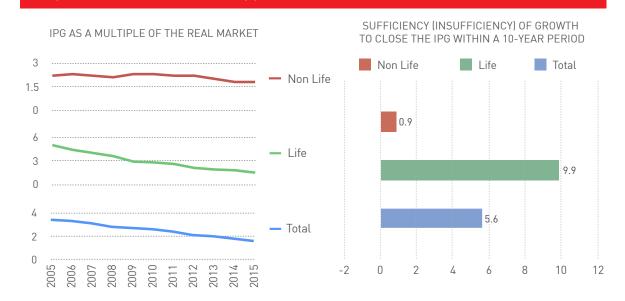
Thus the potential insurance market in Brazil in 2015 (the sum of the real market and the IPG) was estimated at 485.3 billion reals; in other words, 2.6 times the total insurance market in Brazil that year.

Meanwhile, Graph 3.2.3-m shows the estimated IPG as a multiple of the real market. In the case of the Brazilian insurance market, the gap as a multiple shows a declining trend over the period analyzed, especially in the Life insurance segment. Thus during this time, the total gap went from 3.4 to 1.6 times the real market, while the multiple for the Life market dropped from 5 to 1.5 times, and for the Non-Life segment from 2.2 to 1.8 times.

Finally, Graph 3.2.3-m provides a summarized assessment of the capacity of the Brazilian insurance market to close the insurance gap. This has been achieved by making a comparative analysis of the growth rates observed over the last ten years in this market in relation to the growth rates that would be needed to close the IPG established in 2015 over the next decade. Over the 2005-2015 period, the Brazilian insurance market grew at an average annual growth rate of 15.8%, 19.5% in the case of Life insurance and 11.8% in the case of Non-Life.

Graph 3.2.3-l. Brazil: estimate of the Insurance Protection Gap, 2005-2015 (in billion reals) Real Market BPS (Life) BPS (Non Life) POTENTIAL 485.3 MARKET 500 400 301.1 300 200 REAL 100 184.2 MARKET 0 2010 2012 2013 2015 2014 2006 2007 2009 2011

Graph 3.2.3-m. Brazil: details of the Insurance Protection Gap, 2005-2015



Source: MAPFRE Economic Research

Source: MAPFRE Economic Research

(multiple of the true market in USD, times; p.p.)

According to the summarized analysis in Graph 3.2.3-m, if the same growth dynamic were to continue over the next ten years, the growth rate of

the Brazilian insurance market would be sufficient to close the insurance gap in terms of both the Life and Non-Life segments.

## Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Brazilian insurance sector is given in Graph 3.2.3-n. The MDI is used as an indicator of the general trend observed in the evolution and maturity of insurance markets.

In the case of the Brazilian insurance sector, the indicator shows a clearly positive trend throughout the 2005-2015 period, above the average recorded by the Latin American insurance sector as a whole over the same time, with positive annual growth in every year during that period.



-5

Source: MAPFRE Economic Research

## Overall ranking

100

In 2015, the Brazilian insurance sector was made up of 115 insurance institutions. Over the last decade, there has been an upward trend in terms of the market's concentration levels.

The Herfindahl index, though below the theoretical threshold that indicates a moderate level of concentration, tended to rise throughout the period. The same can be said of the CR5 index, which displayed a similar trend which was repeated

for the Life insurance segment although not in the case of Non-Life (see Graph 3.2.3-o).

10

15

20

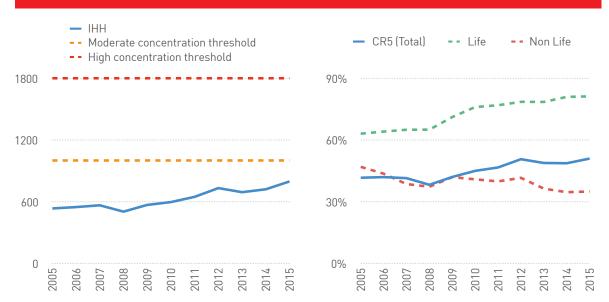
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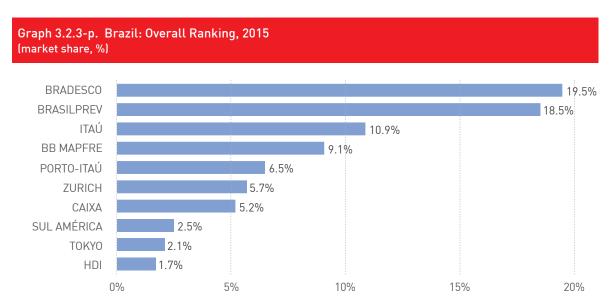
Meanwhile, with regard to the overall ranking of the Brazilian insurance market, as in the previous year the ranking in 2015 continued to be led by Bradesco, with 19.5% of market premiums, followed by Brazilprev (18.5%) and Itaú (10.9%).

The rest of the ranking is very similar to 2014, the only difference being that HDI how appears in tenth position (see Graph 3.2.3-p).

Graph 3.2.3-o. Brazil: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

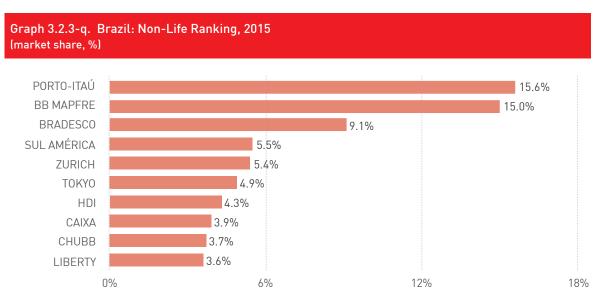


Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

# Non-Life ranking

With regard to the Non-Life ranking, Porto-Itaú holds the top position with 15.6% of the market's premiums, followed by MAPFRE, with 15%, and Bradesco with 9.1%. In the rest of the ranking, Sul

América, Zurich, Tokio, HDI and Caixa Seguros improved their positions. However, Itaú and Allianz left the ranking, having been displaced by Chubb and Liberty in the last two positions (see Graph 3.2.3-q).

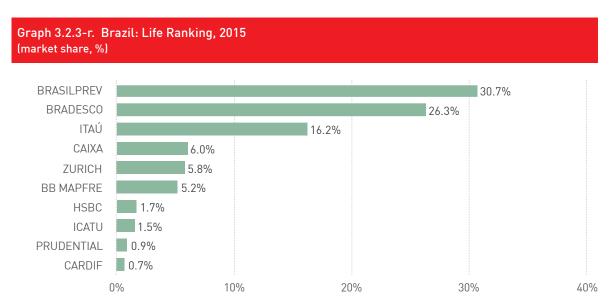


Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

## Life ranking

Finally, in the Life ranking Brazilprev holds top position with a market share of 30.7%. They are followed by Bradesco, with 26.3%, and Itaú, with a share of 16.2%. These three groups account for 73.2% of all premiums. A second group, with

market shares ranging between 5 and 6%, includes Caixa Seguros (which moved up to fourth position on the ranking), Zurich and MAPFRE. The third and final group, with market shares of less than 2%, includes HSBC, Icatu, Prudential (which took the place of Porto-Itaú on the ranking) and Cardif (see Graph 3.2.3-r).



Source: MAPFRE Economic Research (using data from the Private Insurance Superintendence)

### Key regulatory aspects

In January 2015, the Private Insurance Superintendence of Brazil (SUSEP), through Circular No. 508, agreed to amend the accounting regulations in Resolution 86 of the National Private Insurance Council (CNSP), which affect local insurance and reinsurance companies, among others, the Resolution being amended by Annexes I, II, III and IV of the Circular mentioned above.

On the same date, the SUSEP also published two other very important Circulars. The first, Circular 509, addresses the registration, centralized deposit, custody and movement of assets, shares and securities backed by technical technical provisions and funds of insurance companies, organizations open to private pensions, capitalization corporations and local reinsurance companies, as well as the Superintendency's access to this information. Secondly, Circular 510 sets forth the mandatory requirement for the registration of brokers of insurance, capitalization and pension plans, whether individual or corporate, and regulates their activities, among other measures.

Similarly, Resolution 321, of July 2015, enacted by the National Private Insurance Council, regulates technical provisions, identifying, among others, the assets that might be offered to reduce the demand for coverage in the above-mentioned technical provisions.

It is also worth noting that the SUSEP, in its Circular No. 07/2015, published in October 2015, introduced certain clarifications with regard to the effects of portfolio transfers between insurance companies, capitalization corporations and privately-managed pension product/fund entities, regulated by Chapter II of Circular No. 456/2012 of the Superintendence itself.

Finally, the Brazilian National Congress enacted Law 13,195 in November 2015, which established that the

Agencia Brazileña Gestora de Fondos Garantizados y Garantías (ABGF) would be responsible for managing the Rural Insurance Stability Fund until all the obligations of that fund had been fully settled. This same institution published Law 13,261 in March 2016, which regulates the supervision and commercialization of funeral services.

#### 3.2.4. Ecuador

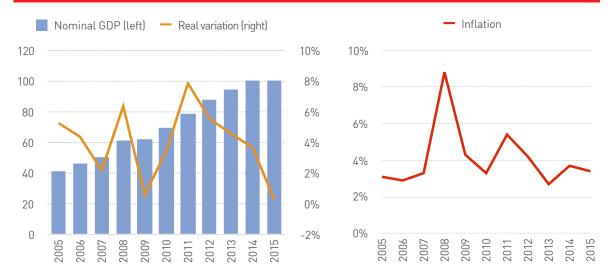
#### Macroeconomic environment

The Ecuadorian economy grew by just 0.3% in 2015, three and a half points less than the previous year following the drop in the price of oil and the appreciation of the US dollar. Aggregate demand was sustained thanks to public consumption, which grew by 1.1%, while private consumption only rose by 0.2% and investments contracted by 2.5%. With regard to supply, there were contractions in such important sectors as oil production (-2.3%) and construction (-0.6%). The refinancing of oil, meanwhile, grew by 8% due to the reopening of a major refinery. The inflation rate dropped by threetenths p.p. to 3.4%, while unemployment rose to 5.4%, compared to 5.1% the previous year (see Graph 3.2.4-a).

In 2015, there was a fall in the value of exports (-28.6%, due to the plunging oil prices) as well as imports (-22.6%). The bigger fall in the former than the latter drove the current account deficit of the balance of payments up by 1.6 p.p., putting it at 2.2% of the GDP.

Furthermore, the economy's performance in 2015 was complicated by the devastating effects of the earthquake on 16 April, which caused massive losses in terms of both human life and infrastructural damage. With regard to growth forecasts for 2016, CEPAL estimated that the Ecuadorian economy would decline by 2.5%, while the IMF forecast a drop of 2.3%.

Graph 3.2.4-a. Ecuador: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion USD; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

#### The insurance market

#### Growth

The volume of premiums in the Ecuadorian insurance market contracted by 2.2% in 2015 in nominal terms and 5.4% in real terms, reaching 1,665 million dollars that year.

In contrast to the previous year, when the market stagnated with nominal growth in Non-Life premiums and a decline in Life, in 2015 the latter grew and the former decreased. The Non-Life segments accounted for 82.3% of the market total, while the Life segments represented the remaining 17.7% (see Graph 3.2.4-b and Table 3.2.4-a).

Life premiums grew by 6.9% nominally and 3.4% in real terms, reaching 295 million dollars in 2015. This growth was entirely due to the good performance of group Life insurance, which grew nominally by 8%, while individual Life, which accounts for a much smaller proportion of the risk portfolio in the Ecuadorian insurance sector, decreased by 2.6%.

The volume of premiums in the Non-Life segments in 2015 shrank by 4% nominally and 7.1% in real

terms, coming to 1,370 million dollars. In real terms, premiums in all types of insurance declined, with the sole exception of Civil Liability. The biggest drop (-12.2 nominally and -15.1% in real terms) was in the market's biggest segment, Automobile insurance, which accounted for 32% of all Non-Life premiums.

## Balance sheet and equity

Graph 3.2.4-c summarizes the evolution of the aggregate balance sheet for the insurance industry in Ecuador over the 2005-2015 period. Total assets came to 2,017.2 million dollars, while equity came to 568.9 million dollars; in other words, 18.1 p.p. above the level of the previous year.

It is worth noting the aggregate capitalization levels of the Ecuadorian insurance sector (measured over total assets) which were over 30% during the 2005-2011 period. From that point onwards they fell below this percentage, reaching a minimum of 25.6% in 2013 and later partially recovering until reaching 28.2% over total assets in 2015.

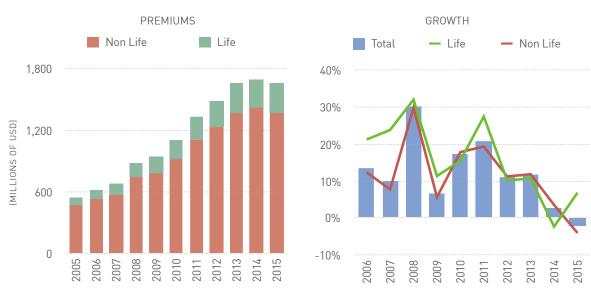
Table 3.2.4-a. Ecuador: volume of premiums<sup>1</sup> by branch, 2015 (premiums in USD; nominal and real growth rates, %)

Segments	Millions of USD	% ∆	% ∆ real
Total	1,665	-2.2	-5.4
Life	295	6.9	3.4
Individual Life	27	-2.6	-5.8
Group Life	267	8.0	4.4
Non-Life	1,370	-4.0	-7.1
Automobile	439	-12.2	-15.1
Other Damages	263	-0.6	-3.9
Fire, Theft and Associated Lines	176	2.8	-0.6
Transport	149	2.8	-0.5
Personal Accidents	104	0.9	-2.4
Surety and Credit	114	-4.5	-7.7
Health	65	-5.3	-8.4
Civil Liability	60	8.2	4.7

Source: MAPFRE Economic Research (with data from the Superintendence of Companies, Securities and Insurance)

(1) Net premium issued (corresponds to direct insurance premiums issued and taken, less settlements and redemptions, and coinsurance premiums transferred)

Graph 3.2.4-b. Ecuador: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

Graph 3.2.4-c. Ecuador: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (in local currency; change in equity, p.p.)



#### Investments

Graphs 3.2.4-d and 3.2.4-e show the evolution and composition of the aggregate investment portfolio of the sector in Ecuador over the 2005-2015 period. In 2015, investments reached 918.6 million dollars, concentrated in fixed income (67.7%) and to a much lesser extent variable income instruments (10.5%). Investments in fixed income can be broken down in turn into 49% for private fixed income and 18.7% for fixed sovereign risk.

The analysis of the aggregate portfolio highlights the evolution of investments in fixed income instruments over the 2005-2015 period. Between 2005 and 2011, the percentage of fixed income investments gradually grew, going from representing 49.4% of the portfolio in 2005 to 58.5 in 2011. From that point onwards there was a change a trend, with a decline in this type of investment along with a correlative increase in the proportion of public fixed income, which went from representing 6.9% in 2011 to 18.7% in 2015.

Graph 3.2.4-d. Ecuador: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendence\ of\ Companies,\ Securities\ and\ Insurance)$ 

Graph 3.2.4-e. Ecuador: evolution in the structure of investments, 2005-2015 (composition, %)

100%
75%
50%
25%

201

Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

201

2010

2009

#### Technical provisions

2006

2007

2008

0%

Meanwhile, the evolution and relative composition of the technical provisions in the Ecuadorian insurance sector over the 2005-2015 period are shown in Graphs 3.2.4-f and 3.2.4-g. In 2015, technical provisions amounted to 663 million dollars. Some 5.4% of the total corresponded to Life insurance, 34.8% to provisions for unearned premiums and current risks in Non-Life insurance,

55.6% to provisions for claims, 0.1% to catastrophic risks, and the remaining 4.1% to other technical provisions.

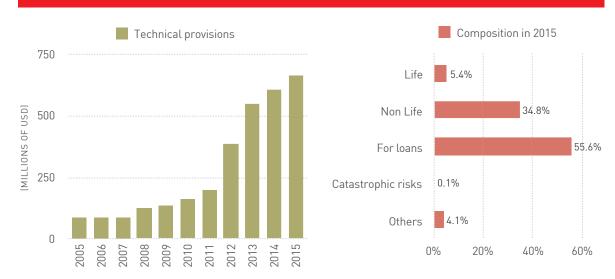
2014

201

201

Throughout the 2005-2015 period there was appreciable growth in the volume of technical provisions for claims, especially from 2011 onwards. Life insurance also grew in absolute terms from 2011, but its relative weight compared to the total aggregate provisions continued to be low, at around 5%.

Graph 3.2.4-f. Ecuador: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)

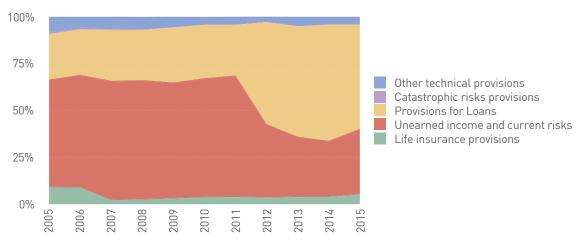


Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

It is worth highlighting that the change observed in 2012 is effectively an accounting effect, as Resolution No. SBS-2012-0068 of 7 February 2012 amended the way of presenting the provision for

claims, which until 2011 had been considered net of reinsurance granted, moving on to be presented as a gross amount including the credit for the part corresponding to reinsurance in the asset.

Graph 3.2.4-g. Ecuador: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

#### Technical performance

Graph 3.2.4-h illustrates the evolution of the technical performance of the Ecuadorian insurance sector over the 2005-2015 period.

Due to the strong rise in expenditure, the overall combined ratio fell by 6.5 p.p. 2015, coming to 77%. Similarly, the accident rate ratio showed a downward trend over the last ten years, though it was forecast that this would grow in 2016 as a result of compensation payments associated related to the serious earthquake in April.

Meanwhile, the technical performance of Non-Life insurance of general insurance companies was very similar to that shown by the market as a whole, by virtue of the pre-eminence of this segment in Ecuador's insurance operations as a whole. Thus in 2015 the combined Non-Life ratio came to 81.4%,

in spite of having experienced a drop of 11.1 p.p. compared to the previous year, essentially because of an increase in the expenditure ratio of 10.2 p.p..

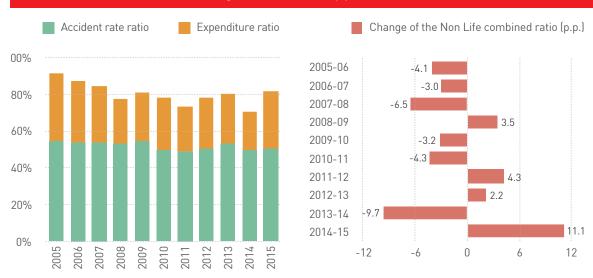
Despite the decline in 2015 of the total combined ratios and Non-Life ratios, the value of these indicators remains very much above 100%, which confirms the satisfactory technical performance of the insurance business in Ecuador (see Graph 3.2.4-i).

It is important to clarify that the technical result described above does not include other income and expenses which are considered to be non-operational and are related, on the one hand, to other business conducted by insurance companies in Ecuador and, on the other, to certain administrative expenses that are not computed as such for the purposes of expenditure ratios.

Graph 3.2.4-h. Ecuador: evolution of the market's technical performance, 2005-2015 (total combined ratio, %; annual change in combined ratio, p.p.)



Graph 3.2.4-i. Ecuador: evolution in the technical performance of the market, 2005-2015 (combined Non-Life ratio, %; annual change of combined ratio, p.p.)

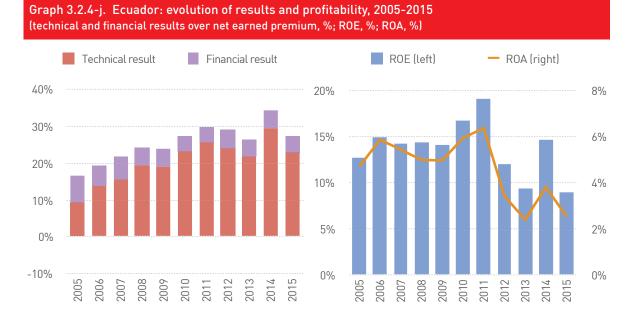


Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

#### Results and profitability

The net result of the insurance sector in Ecuador in 2015 was 51 million dollars, 27.8% less than the previous year and heavily influenced by the positive technical result of the business (see Graph 3.2.4-j).

With regard to the profitability of the Ecuadorian insurance industry, the return on equity (ROE) was 8.9% in 2015, dropping by 5.69 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 2.5% in 2015, representing a fall of 1.28 p.p. compared to 2014.



#### Penetration, density and depth of insurance

The most important structural trends in the Ecuadorian insurance sector during the 2005-2015 period are shown in Graph 3.2.4-k. The penetration index (premiums/GDP) in 2015 stood at 1.7%, 0.3 p.p. above the level observed in 2005. The penetration index in the Ecuadorian market has tended to grow since 2013, in line with the average of the Latin American insurance market as a whole, though still slightly below the absolute average values in the region. However, from that year onwards there was a downward trend in this indicator.

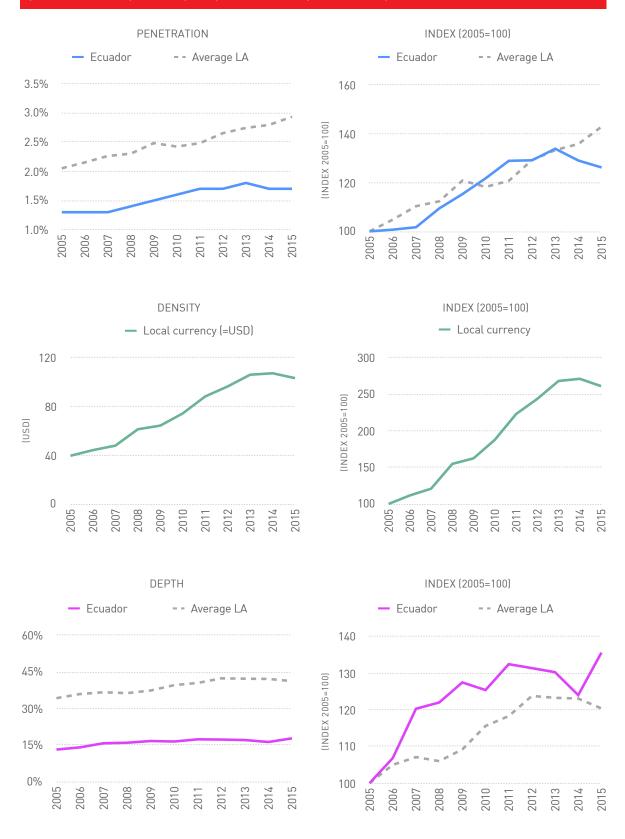
There was a similar situation when analyzing the density of insurance in Ecuador. The indicator (premiums per capita) came to 103.1 dollars, representing a drop of 3.7% compared to the amount reached in 2014 (107.1 dollars). Density in Ecuador showed an upward trend up to 2014, reflecting the drop in premiums observed in the insurance market as a result of the general

economic situation in the country (see Table 3.2.4-a and Graph 3.2.4-a).

With regard to the depth of the Ecuadorian market (Life premiums as a ratio of total premiums), the respective index for 2015 came to 17.7%; in other words, 4.7 p.p. above the 2005 figure, with a slightly upward trend over the period under analysis, but below the absolute values of the indicator for the Latin American average.

Graph 3.2.4-k illustrates the performance of the Ecuadorian insurance market, using a dispersion analysis that considers the combined effect of the progress of this market in relation to the Latin American market, based on the combined change of penetration and depth levels. In general terms, the development trend of the insurance market in Ecuador is in line with the average trend in Latin America. However, its penetration and depth levels are still very much below the regional averages.

Graph 3.2.4-k. Ecuador: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, in USD; total premiums/Life premiums, %; 2005 index = 100)



50%

4% PENETRATION (PREMIUMS/GDP) LA 3%

Graph 3.2.4-l. Ecuador: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)

FC

Source: MAPFRE Economic Research

0%

0%

#### Estimate of the Insurance Protection Gap

The estimated IPG for the Ecuadorian insurance market between 2005 and 2015 is shown in Graph 3.2.4-m. According to the graph, the insurance gap in 2015 was 6,627 million USD, four times the Ecuadorian insurance market at the end of that year.

The structure and evolution of the IPG throughout the 2005-2015 period shows the predominance of the Life insurance segment. Thus at the end of 2015, 67.2% of the IPG corresponded to Life insurance (4,456 million USD), 0.8 p.p. less than its share in 2005. Meanwhile, the remaining 32.8% of the insurance gap is represented by the Non-Life insurance segment (2,171 million USD).

Thus the potential insurance market at the end of 2015 (the real market plus the IPG) was estimated at 8,292 million USD, five times the total insurance market in Ecuador that year.

Graph 3.2.4-n shows the estimated IPG as a multiple of the real Ecuadorian insurance market over the 2005-2015 period. The insurance gap for the Life insurance segment showed a sustained downward trend over the period under analysis (going from 29.4 to 5.1 times), while in the Non-Life insurance segment there was also a downward trend up to 2011, at which point it started stabilizing before finally reaching 1.6 in 2015.

30%

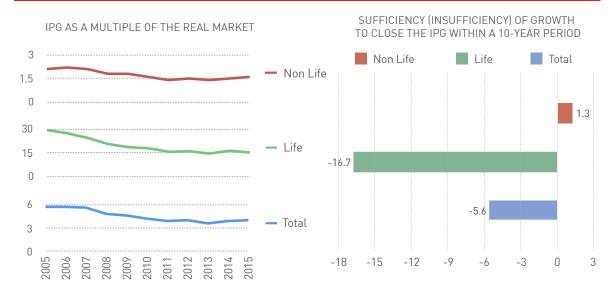
DEPTH (PARTICIPATION OF LIFE INSURANCE IN THE TOTAL PORTFOLIO)

Finally, Graph 3.2.4-n summarizes the evaluation of the capacity of the Ecuadorian insurance market to close the insurance gap, using a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the gap determined in 2015 over the next ten years. The Ecuadorian insurance market grew at an average annual rate of 11.9%. The Life insurance segment grew at an average annual rate of 15.3%, while the Non-Life segment did so at 11.2%.

From this analysis it emerges that if the same growth dynamic observed over the last decade were to continue for the next ten years, the growth rate of the Ecuadorian insurance market would be sufficient to close the insurance gap only in the case of Non-Life insurance. In the case of the Life insurance segment, this rate would be insufficient by 16.7 p.p.

Graph 3.2.4-m. Ecuador: estimate of the Insurance Protection Gap, 2005-2015 (in million USD) BPS (Life) Real Market BPS (Non Life) POTENTIAL 8,292 **MARKET** 9,000 6,000 3,000 REAL 1,665 MARKET 0 2010 2009 2012 2007 201 201

Graph 3.2.4-n. Ecuador: details of the Insurance Protection Gap, 2005-2015 (multiple of the true market, times; p.p.)



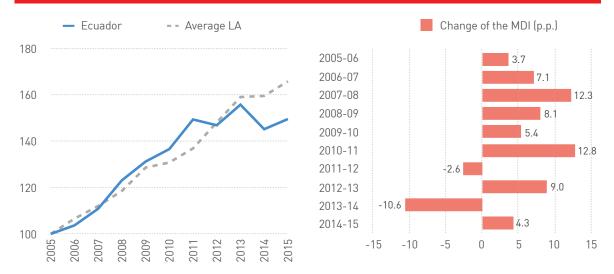
Source: MAPFRE Economic Research

#### Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Ecuadorian insurance sector is shown in Graph 3.2.4-o. In the case of the Ecuadorian insurance sector, the MDI showed a positive trend until 2013, in line with the average performance

of Latin American markets. However, from that year onwards the trend reversed as a result of the contraction in the growth of premiums in this market (see Table 3.2.4-a), which is explained, in turn, by the unfavorable economic environment in Ecuador (see Graph 3.2.4-a).

Graph 3.2.4-o. Ecuador: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)

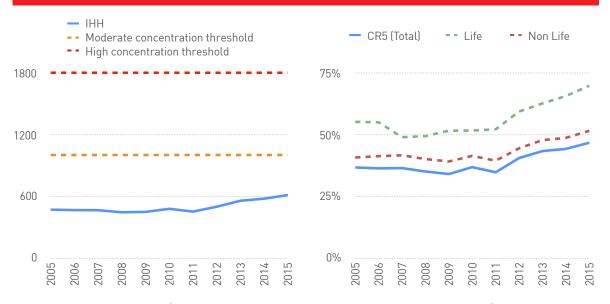


#### Overall ranking

In 2015, the Ecuadorian insurance sector was made up of 35 insurance companies. The five leading institutions represent 46.6% of the total premiums, 2.5% more than in 2014. Over the last decade a rising trend can be seen in the market's concentration levels, especially since 2011, as

shown in the progress of the Herfindhal and CR5 indexes (see Graph 3.2.4-p). The Herfindahl index reflects this growth trend, in spite of the fact that it is still below the threshold that would define moderate concentration. This trend, which can also be seen in the CR5 index, is also symmetrical for the Life and Non-Life segments of the Ecuadorian market.

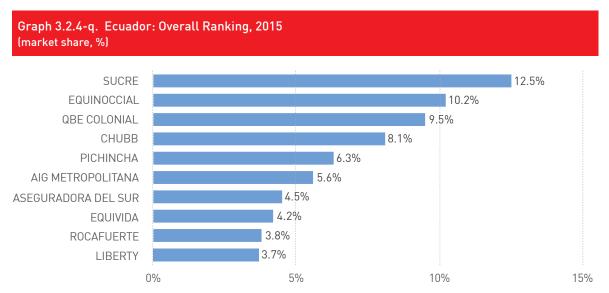
Graph 3.2.4-p. Ecuador: evolution in the concentration of the insurance sector, 2005-2015 [Herfindahl index; CR5 index, %]



 $Source: MAPFRE\ Economic\ Research\ (using\ data\ from\ the\ Superintendence\ of\ Companies,\ Securities\ and\ Insurance)$ 

With regard to the overall ranking for 2015, once again the top three insurance companies were Sucre (with 12.5% of premiums), Equinoccial (10.2%) and QBE Colonial (9.5%). Chubb, Pichincha and AIG Metropolitana were in the same positions while

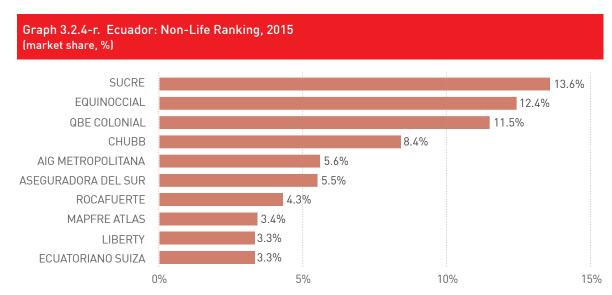
Aseguradora del Sur improved and Liberty dropped in the ranking. There were two new additions to the overall ranking for the Ecuadorian market: Equivida and Rocafuerte, and two firms left the list: Seguros Unidos and MAPFRE Atlas (see Graph 3.2.4-q).



Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

#### Non-Life ranking

Due to the importance of the Non-Life insurance segment in Ecuador, the ranking of this market was headed by the same insurance companies that appear on the overall ranking: Sucre, with 13.6% of premiums, Equinoccial with 12.4%, and QBE Colonial, with a market share of 11.5% (see Graph 3.2.4-r).

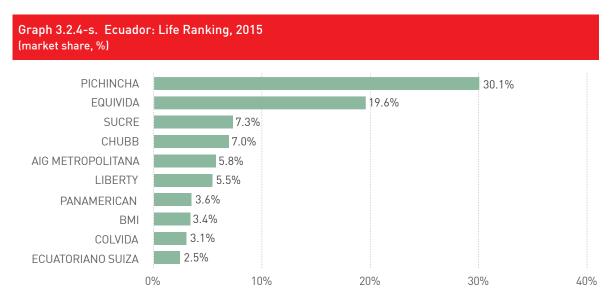


Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

#### Life ranking

Finally, with regard to the Life ranking of the Ecuadorian insurance market in 2015, this was

headed up by Pichincha, with a market share of 30.1%, followed at some distance by Equivida, with 19.6%, and Sucre in third place with a share of 7.3% (see Graph 3.2.4-s).



Source: MAPFRE Economic Research (using data from the Superintendence of Companies, Securities and Insurance)

#### Key regulatory aspects

In September 2015, the Organic Monetary and Financial Code went into effect, by virtue of which the Superintendence of Companies, Securities and Insurance of Ecuador took over the control and supervision of the insurance sector, replacing the country's Superintendence of Banks.

Similarly, in March 2016 the above-mentioned Superintendence of Companies, Securities and Insurance issued a ruling establishing the regulations for the scope and methodology of mandatory risk rating for insurance companies by risk rating companies of recognized international prestige, by virtue of the provisions of the General Insurance Law. In this respect, in May 2016 the Superintendence issued a new ruling establishing the deadline for submitting the first ratings as 15 October 2016 and any reviews by January 2017.

#### 3.2.5. Peru

#### Macroeconomic environment

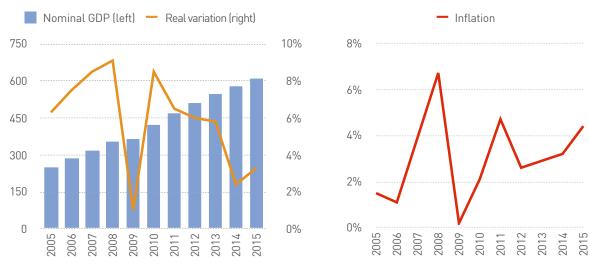
The Peruvian economy grew by 3.3% in 2015, compared to 2.4% the previous year. This accelerated growth was due to the good performance of public consumption and, to a lesser degree, private consumption, which offset the drop in investments. By economic sectors, in 2015 mining, commerce and fishing grew strongly, while hydrocarbon production, construction and manufacturing fell (see Graph 3.2.5-a).

The real inflation rate in 2015 rose by 1.2 p.p. to 4.4%, which exceeded the target set by the central bank. Unemployment also rose by six-tenths p.p., reaching 6.5%, though underemployment continued its downward trend.

The current account deficit rose by four-tenths p.p. in 2015 to 4.4% of the GDP. Both imports and exports fell, but the latter to a greater degree than the former, due to the drop in the international prices of hydrocarbons and mining products.

CEPAL estimated growth of 3.9% for the Peruvian economy in 2016, driven by the rise in mining production and consumption, a forecast that the IMF reduced by two-tenths p.p. to 3.7%.

Graph 3.2.5-a. Peru: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion sols; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

#### The insurance market

#### Growth

The volume of premiums in the Peruvian insurance market in 2015 was 11,744 million soles (3,688 million dollars), which represents growth of 15.7% in nominal terms and 10.8% in real terms compared to the previous year (see Graph 3.2.5-b and Table 3.2.5-a).

Life insurance premiums, which represent 43.5% of the total, grew by a nominal rate of 15% and a real rate of 10.2%, reaching 5,114 million soles (1,606 million dollars). Although this increase was lower than the previous year (a nominal rate of 18.7%), it continues to be strong, showing double-digit growth in every branch and even exceeding 20% in individual Life insurance.

Non-Life insurance premiums in 2015 reached 6,630 million soles (2,082 million dollars), with a nominal increase of 16.2% and a real one of 11.3%. These figures imply strong growth acceleration compared to the previous year, when nominal growth was 7.2% and real growth 3.9%. In contrast to 2014. all insurance segments grew in 2015 in both nominal and real terms, with the sole exception of Occupational Accidents, which dropped by 1.3% in real terms. Growth was particularly vigorous in the biggest segments, Automobile and Fire and Associated Lines, which grew by 14.2 and 19.1% respectively (compared to 7.2 and 7.7% the previous year). Civil Liability also grew strongly, with premiums increasing by 59.5% in 2015 after having shrunk by 12% the previous year.

Table 3.2.5-a. Peru: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Segments	Millions of sols	Millions of USD	% Δ	%∆real
Total	11,744	3,688	15.7	10.8
Life	5,114	1,606	15.0	10.2
Individual Life	735	231	21.8	16.6
Group Life	1,252	393	13.2	8.4
Pensions	3,127	982	14.2	9.4
Non-Life	6,630	2,082	16.2	11.3
Automobile	1,425	448	14.2	9.4
Fire and/or Associated Lines	1,400	440	19.1	14.1
Other Damages	841	264	18.5	13.5
Health	817	257	14.5	9.7
Personal Accidents <sup>2</sup>	665	209	12.6	7.8
Transport	203	64	12.0	7.3
Civil Liability	273	86	59.5	52.7
Death	123	39	9.2	4.6
Aviation	118	37	8.6	4.0
Multi-risk	135	42	11.0	6.3
Marine Liability	76	24	5.0	0.6
Credit and/or Surety	172	54	30.6	25.1
Occupational Accidents	380	119	3.1	-1.3

Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

#### Balance sheet and equity

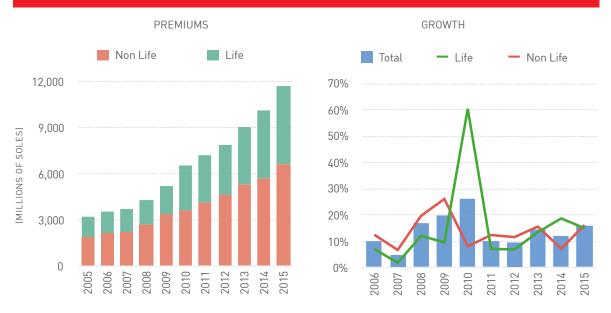
Graph 3.2.5-c illustrates the evolution of the aggregate balance sheet of the Peruvian insurance sector. The sector's total assets reached 39,372.9 million soles (12,364 million dollars), while equity came to 5,935.9 million soles (1,864 million dollars), representing an increase of 7.3 p.p. compared to 2014.

The aggregate capitalization levels of the Peruvian insurance sector (measured over total assets) improved during the 2005-2010 period, having been at 17.5% in 2005, progressively rising over the period until reaching 21.7% by the end of 2010. From that year onwards, the capitalization level decreased gradually, representing 15.1% of total assets by the end of 2015.

<sup>(1)</sup> Net insurance premiums

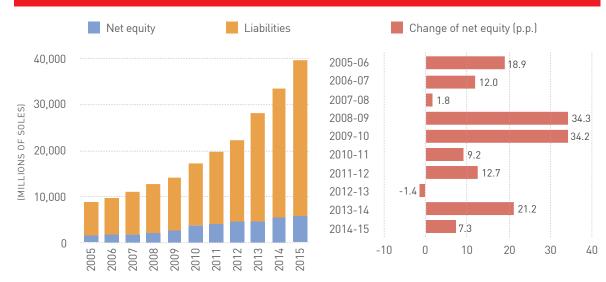
<sup>(2)</sup> Includes Mandatory Traffic Accident Insurance (SOAT)

Graph 3.2.5-b. Peru: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

Graph 3.2.5-c. Peru: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (in local currency; change in equity, p.p.)

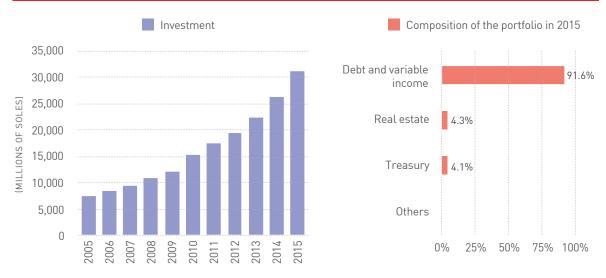


Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

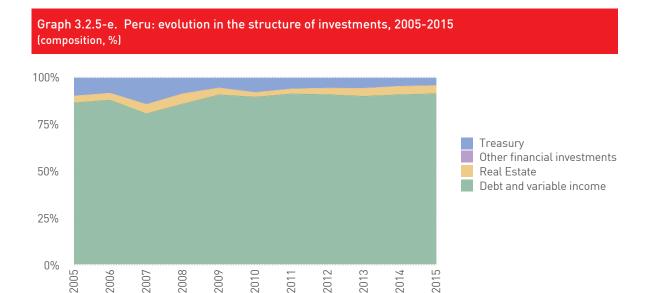
#### Investments

The evolution in investments and the composition of the aggregate portfolio of the Peruvian insurance industry is shown in Graphs 3.2.5-d and 3.2.5-e. In 2015, investments reached 31,116.3 million soles (9,771 million dollars), with 91.6% of investments concentrated in debt and equity instruments,4.1% in liquid assets and the remaining 4.3% in real estate.

Graph 3.2.5-d. Peru: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

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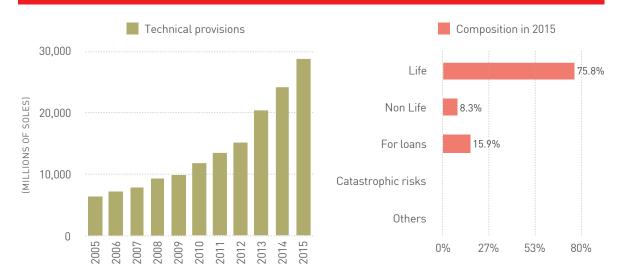
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#### Technical provisions

The evolution and relative composition of technical provisions in the Peruvian market are shown in Graphs 3.2.5-f and 3.2.5-g. In 2015, technical provisions amounted to 28,771 million soles (9,035 million dollars). Some 75.8% of the total corresponded to Life insurance, 8.3% to provisions for unearned premiums and current risks for Non-Life insurance, and the remaining 15.9% to provisions for claims.

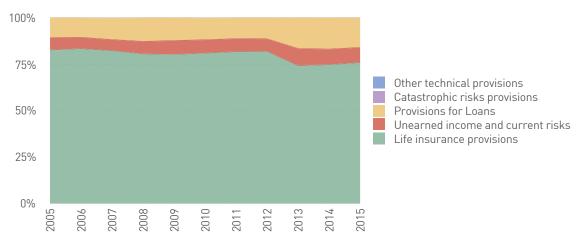
During the 2005-2015 period there was a significant increase in the volume of technical provisions in absolute values in terms of both Life and Non-Life insurance. With regard to the composition of aggregate provisions, this remained relatively stable until 2013. When the proportion corresponding to Life insurance fell slightly from a figure of around 80% to closer to 75%, reaching 75.8% of total provisions by the end of 2015.

Graph 3.2.5-f. Peru: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

Graph 3.2.5-g. Peru: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

#### Technical performance

Graph 3.2.5-h shows the evolution of the technical performance of the Peruvian insurance market during the 2005-2015 period. It can be seen that the expenditure ratio fell by three tenths p.p. while

the accident rate dropped by more than two p.p. to 56.4%, continuing the downward trend of the last few years. Consequently, the combined ratio improved by 2.5 p.p., coming to 113.4%. However, despite this improvement, the technical result continued to be negative.

Graph 3.2.5-h. Peru: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

#### Results and profitability

The net result for 2015 was 1,033 million sols (324.4 million dollars), representing an increase of 13.5% compared to the previous year. Meanwhile, once again the financial result continued to be excellent (31.9%), helping to offset the negative effect of the sector's technical performance (see Graph 3.2.5-i).

#### Penetration, density and depth of insurance

Graph 3.2.5-j shows the main structural trends in the Peruvian insurance sector during the 2005-2015 period. The penetration index (premiums/ GDP) in 2015 was 1.9%, 0.6 p.p. above the level recorded in 2005. In general terms, the penetration index of the Peruvian market has tended to rise throughout the period under analysis, although still below the average absolute values of the markets of the region.

Meanwhile, insurance density in Peru (premiums per capita) came to 374.2 sols (117.5 dollars), 14.2% above the level reached in 2014 (327.7 sols). The density of the Peruvian market (measured in local currency) tended towards growth in the period under analysis, with a cumulative increase of 221.4% over the 2005-2015 period. However, when analyzed in dollars, the indicator shows a slowdown from 2013 due to the monetary effect of the exchange rate between the Peruvian sol and the US dollar.

(technical and financial results over net earned premium, %; ROE, %; ROA, %) ROE (left) ROA (right) Technical result Financial result 60% 25% 5% 40% 20% 4% 20% 15% 3% 0% 10% 2% -20% 5% 1% -40% 0% 0% 2013 2010 2012 2007 2009 2010 2006 2011 201 201

Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

Graph 3.2.5-i. Peru: evolution of results and profitability, 2005-2015

The depth of insurance in the Peruvian market (measured as the ratio of Life premiums to total premiums) came to 43.5%, representing 1.8 p.p. above the level recorded in 2005. The growth of depth in the Peruvian insurance market fluctuated around the average values of the region's markets during the period under analysis.

Graph 3.2.5-k shows the performance of the Peruvian insurance market, using a dispersion analysis that considers the joint effect of the progress of this market in relation to the Latin American insurance market, based on the combined change of penetration and depth levels. This analysis reveals that the development trend of the insurance market in Peru was positive across the last decade, with depth levels slightly above the Latin American averages, though with penetration indexes still slightly below the average recorded in the region.

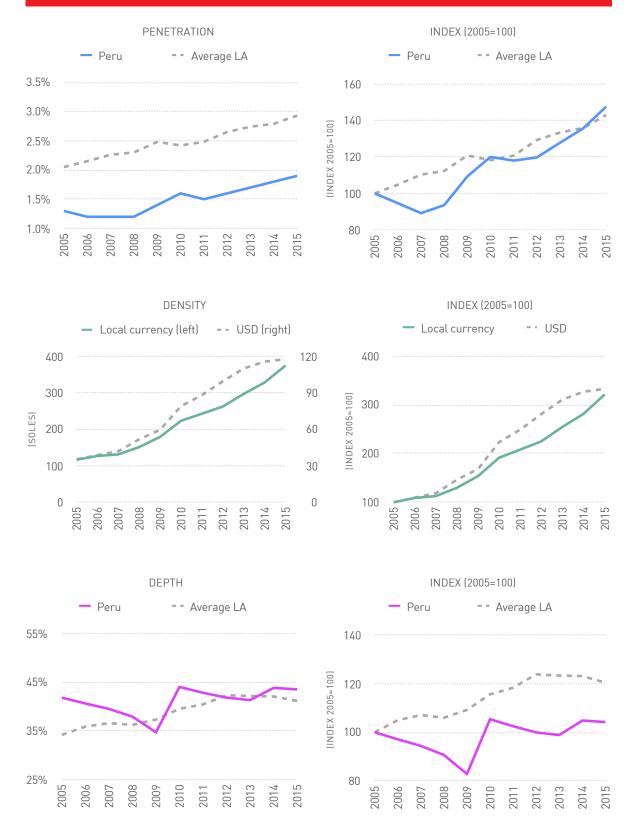
With regard to profitability, the return on equity (ROE) was 17.4% in 2015, increasing by 0.96 p.p. over 2014. Meanwhile, the return on assets (ROA) reached 2.6% in 2015, representing a fall of 0.11 p.p. compared to the previous year.

#### Estimate of the Insurance Protection Gap

The estimated IPG for the Peruvian insurance market between 2005 and 2015 is given in Graph 3.2.5-l. The insurance gap in 2015 was 38,554 million sols, representing 3.3 times the Peruvian insurance market at the end of the year.

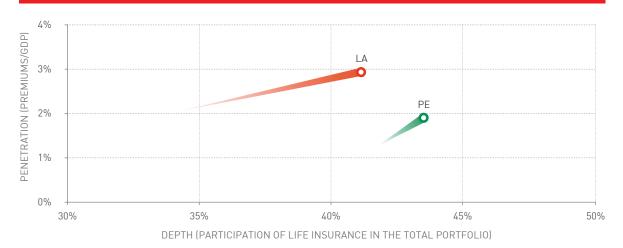
The structure and evolution of the IPG throughout the period analyzed shows the predominance of the Life insurance segment. At the end of 2015, 61.5% of the IPG corresponded to Life insurance [23,706 million sols], 1.4 p.p. less than the share of this sector in the measurement corresponding to 2005. Meanwhile, the remaining 38.5% of the insurance gap in 2015 corresponds to the Non-Life insurance segment [14,848 million sols].

Graph 3.2.5-j. Peru: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, sols and USD; total premiums/Life premiums, %; 2005 index = 100)

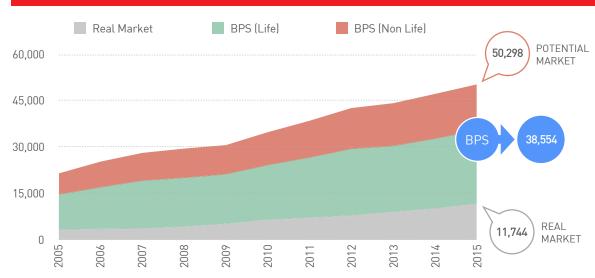


Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

Graph 3.2.5-k. Peru: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Graph 3.2.5-l. Peru: estimate of the Insurance Protection Gap, 2005-2015 (in million sols)



Source: MAPFRE Economic Research

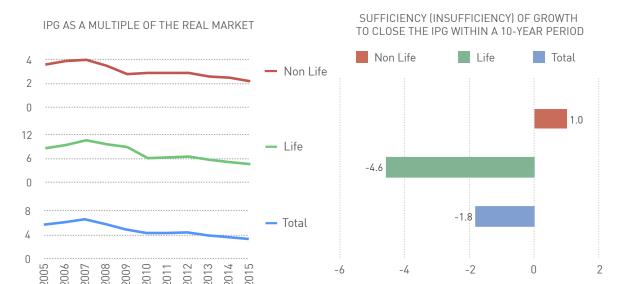
Thus the potential insurance market in Peru at the end of 2015 (the sum of the real market and the IPG) was estimated at 50,298 million sols, representing 4.3 times the total insurance market that year.

Graph 3.2.5-m shows the estimate of the insurance gap of the Peruvian market as a multiple of the real insurance market. The IPG as a multiple of the market showed a sustained downward trend throughout the 2005-2015 period, both in the case of

Life (from 8.6 to 4.6 times) and Non-Life insurance (from 3.6 to 2.2 times).

Finally, Graph 3.2.5-m shows a summary of the capacity of the Peruvian insurance market to close the insurance gap, using a comparative analysis between the growth rates observed over the last ten years and the growth rates that would be needed to close the gap determined in 2015 over the next decade.

Graph 3.2.5-m. Peru: details of the Insurance Protection Gap, 2005-2015 (multiple of the true market, times; p.p.)



In this respect, the insurance market in Peru grew over the 2005-2015 period at an average annual rate of 13.8%, comprising an annual average rate of 14.3%% in the Life segment and 13.5% in the Non-Life insurance segment. If the same growth dynamic observed over the past decade were to continue over the next ten years, the growth rate of the Peruvian insurance market would be insufficient by 4.6 p.p. to close the insurance gap estimated in 2015 for the Life segment over this period of time.

#### Market Development Index (MDI)

The estimated Market Development Index (MDI) for the insurance sector in Peru is given in Graph 3.2.5-n. In this case, the MDI (the indicator used in this report to analyze the general trend observed in the evolution and maturity of insurance markets) shows a generally positive trend over the 2005-2015 period. After shrinkage in the 2005-2007 and 2010-2012 periods, the index recovered to keep in line with the average performance of insurance markets in Latin America.

#### Overall ranking

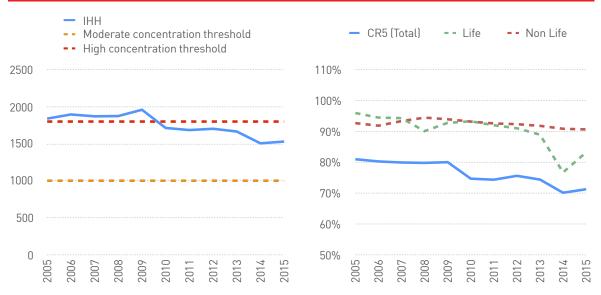
At the end of 2015, there were 19 insurance institutions operating in Peru, one more than the previous year, of which six only deal in general insurance, eight in life insurance and the remaining five in both insurance segments. Generally speaking, there has been a downward trend in the market concentration over the last few years. The Herfindahl index crossed the theoretical threshold that forecasts high industry concentration in 2010, settling in the moderate concentration band. The downward trend of this concentration is confirmed when looking at the CR5 index which replicates this behavior for the Life and Non-Life segments; however, in the case of Life a slight upturn in concentration can be observed in 2015 (see Graph 3.2.5-o).

The overall ranking of the Peruvian insurance market in 2015 showed very few changes compared to 2014. Rimac and Pacífico continued to hold the top two positions, with market shares of 31.6 and 23% respectively. They were followed by MAPFRE, with 12.7% of market premiums, and La Positiva, with 12.6% (see Graph 3.2.5-p).

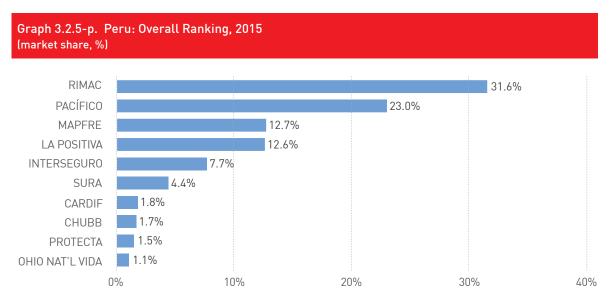
Graph 3.2.5-n. Peru: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



Graph 3.2.5-o. Peru: evolution in the concentration of the insurance sector, 2005-2015 [Herfindahl index; CR5 index, %]



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)



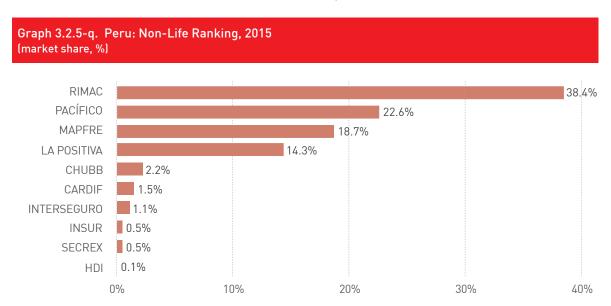
Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

#### Non-Life ranking

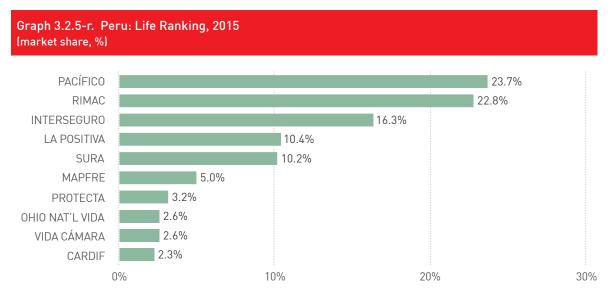
# On the Non-Life ranking for 2015 of the Peruvian market, Rimac, Pacífico, MAPFRE and La Positiva are also in the top positions, holding market shares of 38.4, 22.6, 18.7 and 14.3% respectively (see Graph 3.2.5-q).

#### Life ranking

Finally, with regard to the Life ranking for 2015, the top spot was held by Pacífico with a market share of 23.7%, followed by Rimac (22.8%) and Interseguro (16.3%). There was just one change on this ranking, as in 2015 La Positiva rose to fourth position, pushing down Sura to fifth place (see Graph 3.2.5-r).



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)



Source: MAPFRE Economic Research (using data from the Superintendency of Banking, Insurance and Private Pension Funds)

#### Key regulatory aspects

There were several provisions issued to regulate the operation of the Peruvian insurance institutions that are worth mentioning due to their importance to the Peruvian market.

# Insurance Contract Law (Law No. 29946 dated 26.11.2012)

This Law sets out the legal framework according to the needs of the market for both the supply and demand sectors, considered to be a contract of adherence. It also seeks to provide legal security for users by bringing greater clarity to rights and obligations and avoiding contractual imbalances (abusive clauses or practices). Various aspects of the Law were implemented by regulations issued by the Superintendency of Banking, Insurance and Private Pension Funds in the following years, such as the Regulation on the Payment of Insurance Policy Premiums, the Regulation on Transparency of Information and Insurance Contracts, the Regulation on the Management and Payment of Accidents, and supplementary regulations on health insurance, among others.

### Regulation on the Transfer of Insurance Portfolios (Resolution SBS No. 8420-2014, dated 18.12.2014)

This Regulation sets out the regulatory framework for the total or partial transfers of portfolios of current insurance policies. The assigning company may transfer one or more portfolios provided that it has prior authorization from the Superintendency and the consent of the contracting and/or insured party, whichever is applicable. Meanwhile, the receiving company must also seek advance authorization from the Superintendency, including an impact analysis of acceptance of the portfolio to comply with the prudential limits of eligible investments and equity requirements.

# Special Rules on Related Parties and Economic Groups

(Resolution SBS No. 5780-2015, dated 24.09.2015)

This resolution establishes additional criteria for the relationships and composition of economic groups in accordance with international standards in this respect. Among other provisions, it establishes the possibility of legal entities forming part of economic groups. 'Legal entities' is defined as: (i) independent assets managed by third parties which do not have a legal personality; or (ii) contracts in which two or more people, who are temporarily associated, have a common right or interest to undertake a specific activity, without constituting a legal entity. 'Legal entities' are considered to include investment funds, mutual funds of investments in securities, trusts and consortiums.

# Regulation on the Acquisition of the Capital Stock of Supervised Companies and Significant Owners (Resolution SBS No. 6420-2015, dated 23.10.2015)

This regulation governs (i) the information that must be presented by significant potential owners in order to seek authorization for the acquisition (directly or via third parties) of more than 10% of

the capital stock of an insurance company; and (ii) significant owners are required to submit a sworn statement that, having taken all reasonable measures, they are satisfied with the identity of their final beneficiaries, mentioning and making reference to the fact that they fulfill the required criteria of moral fitness and economic solvency.

#### Amendment of the "Regulation on Equity Requirements of Insurance and Reinsurance Companies" (Resolution SBS No. 603-2016, dated 03.02.2016)

The aim of this regulation is for the effective equity (regulatory capital) of insurance companies to include elements that satisfy the requirements for permanence and loss-absorbency in accordance with the following:

- The definition of agreements to capitalize future earnings is established as the agreement for undertaking to capitalize the whole or part of the earnings generated during the current financial year once the year comes to an end.
- Deadlines are established for implementing capitalization of earnings agreements (closed financial years) and future earnings (current financial years).
- Prudential measures are established when companies do not implement agreements to capitalize earnings or future earnings, such as the prohibition on including any agreement to capitalize earnings until the previous one has been implemented for a period of 2-5 years in the event of recidivism.

### Regulation on the investments of insurance companies

(Resolution SBS No. 1041-2016, dated 26.02.2016)

This regulation includes requirements related to the organizational structure of the investment process, in line with the provisions of the Basic Principles of Insurance and Principles of Good Corporate Governance, setting out the duties and responsibilities of management staff and the investment and risk committees and departments. It also requires insurance companies to have investment, risk management, disclosure and conflict resolution policies in place.

Furthermore, it establishes the general and specific guidelines for strengthening investment risk management, including requirements for asset and liability management (ALM) to ensure that insurance companies manage their investments and obligations in accordance with the matching principle.

It also modifies the minimum conditions that should govern any type of asset or operation in order for it to be considered an eligible investment.

Investments are considered to be eligible whenever they reasonably fulfill, at an individual and portfolio level, the general criteria (they cannot be encumbered, they cannot be used as collateral and their free transferability may not be affected), as well as the principles of security, liquidity, diversification, matching and profitability.

From a prudential perspective, the minimum requirements for eligibility have been fine-tuned by the type of asset (cash, deposits, debt securities, shares, mutual and investment fund certificates, property, property loans, repurchase agreements, among others) that underwrites technical obligations.

Likewise, insurance companies are required to engage in greater diversification of investments by issuer or counterparty.

New investment alternatives are established, such as investments in certain types of investment funds, whether registered or not in public securities registries, whose assets are invested in real estate, infrastructural projects, debts, operational leasing operations, factoring operations and private equity, as well as investments in instruments issued by trusts and direct investments in real estate projects, among others.

# Microinsurance policy regulation (Resolution SBS No. 2829-2016, dated 20.05.2016)

This regulation was issued as part of the provisions of the Insurance Contract Law and the National Financial Inclusion Strategy (passed by Supreme Decree No. 191-2015-EF). After making a diagnostic study of the Peruvian market, it was deemed necessary to update the regulations applying to microinsurance policies in order to specify important issues such as their characteristics, commercialization, management and the payment of accident compensation, among other aspects.

The importance of regulating microinsurance policies stemmed from the need to offer protection against risks that might affect lower-income segments of the population, so that without being an expensive option it could be identified as an effective means of protection for this sector while at the same time mitigating the consequences of the personal and/or material risks affecting these people.

The most important aspects of this Regulation, on the one hand, are the actual characteristics of microinsurance policies. These are defined as a type of insurance which, by its nature, is aimed at people with low incomes and/or micro-entrepreneurs to cover their personal and/or material risks, by means of premium payments in proportion to the risks covered by the policy in the form of individual or group insurance. A microinsurance policy has the following characteristics: (i) it addresses the protection needs of people with low income and/or micro-entrepreneurs; and (ii) it is sold by brokers whose target market includes people with low income and/or microentrepreneurs; and (iii) the monthly premium does not exceed 2% of their minimum living wage. Furthermore, they must be drawn up in straightforward language, identifying the risks insured and the minimum exclusions, without including special insurance requirements and/or prior verifications in relation to the individuals or assets to be covered.

On the other hand, the Regulation sets forth certain specific requirements for selling these microinsurance policies: use of electronic insurance policies by sending remote marketing systems such as telephone services to email; the use of proof of payment as the proof of a contract where stated when this contains relevant information on the conditions of the insurance. Similarly, the use of correspondent tellers of companies in the financial system and companies issuing electronic money for the sale of microinsurance is permitted.

The Regulation also addresses the management and payment of microinsurance accident claims in which a shorter deadline for compensation payment applies (20 calendar days), directly through the company or the broker. A shorter deadline also applies for dealing with claims (15 calendar days from the date the claim is submitted).

Finally, the Regulation provides for the implementation of a speedier process for reviewing and registering new products, in which the Superintendency has a maximum of 15 working days to assign a registration code to simplified policy models, for group insurance, along with the information for registering the technical note.

# Amendment of the "Regulation on transparency of information and insurance contracts" (Resolution SBS No. 3650-2016, dated 30.06.2016)

The amendment to the Regulation on Transparency of Information and Insurance Contracts established provisions relating to personal income insurance, which are presented as an alternative for users who, as a consequence of the provisions of Law 30425, request the payment of up to 95.5% of the balance from their Individual Capitalization Account (CIC) and later decide to take out an annuity (outside the Private Pension System, SPP).

This originated in Law 30425, of April 2016, which stipulated that any member of an SPP, from the age of 65, could choose between opting for the pension they are entitled to for any type of retirement, or ask the Private Pension Fund to pay up to 95.5% of the total fund available in their CIC in the format deemed necessary.

Considering that before this measure most members opted for a pension payable by the insurance company, and also because of the negative effect on sustained growth over the last few years of retirement income insurance, it was considered appropriate to allow the irrevocability of the insurance contracts mentioned in the first paragraph, having duly informed the insurance parties.

In this respect, while life insurance policies outside the SPP may be revocable or irrevocable, according to the insured party's decision, it was believed that the life insurance products offered as an alternative to the provisions of Law 30425 could only have the requirement of irrevocability, as this is the characteristic of policies within the scope of the SPP.

# Regulation on the actuarial management of insurance companies (Resolution SBS No. 3863-2016, dated 13.07.2016)

This Regulation is intended to promote improvements in the actuarial management of insurance companies in proportion to their nature, size and the complexity of the risks inherent in their business activities. Its provisions complement the regulatory framework of the Comprehensive Risk Management Regulation passed by Resolution SBS No. 37-2008 and amendments thereof.

The Regulation defines the specific responsibilities of the directors and managers involved in actuarial management and requires companies to set up internal procedures to guarantee that the data used for calculating technical reserves are comprehensive, accurate and adequate, as well as the criteria to be considered for complying with these data characteristics. Similarly, the actuarial function and the management of technical risks are established as the control systems, the latter as a complement to the actuarial function.

As a minimum requirement of the actuarial function, it is necessary that the assumptions and parameters applied to the pricing and calculation of technical reserves are realistic and adequate. In addition, companies should implement a validation method for the technical reserves, such as backtesting, duly modifying their methods for calculating reserves when necessary, based on the results of the backtesting study, which must be properly supported.

It also envisages the partial or total outsourcing of activities related to the actuarial function and technical risk management, according to the nature, scale and complexity of the activities in question and the inherent risks of the company, this being regarded as significant subcontracting.

They require a ruling on the requests for authorization for the issue of bonds referred to in Article 318 of the General Law and amend the "Regulation on the Equity Requirements of Insurance and Reinsurance Companies" (Resolution SBS No. 4025-2016, dated 20.07.2016)

The regulation standardizes the prudential treatment of bonds other than those that cover credit obligations and the surety policies that cover affirmative or negative covenants.

It is worth adding that by means of a special authorization, insurers may issue bonds that cover these same covenants. Insurance companies may issue surety bonds linked to affirmative or negative covenants as well as bonds with the same objective, depending on the requirement of the contracting party, related to affirmative or negative claims; however, these bonds are subject to the encumbrances of asset provisions and requirements as if they were operations undertaken by a company in the financial system.

Consequently, the regulation had the following objectives:

- (i) to define which bonds are related to the credit risks:
- (ii) to clarify the definition of sureties, and
- (iii) to provide prudential treatment equivalent to operations that have similar associated risks, in this case, surety and bond policies, when they cover affirmative and negative covenants.

Regulation amending the Regulations on the Registration of Forms of Insurance Policies, Technical Notes and Transparency of Information and Insurance Contracts (Resolution SBS No. 4462-2016, dated 20.08.2016)

This regulation is intended to improve the prior administrative approval procedure for the minimum conditions for personal, group and compulsory insurance policy forms and the subsequent revision of insurance policy forms for other types of insurance.

The procedure for the prior approval of certain minimum conditions for personal, group and compulsory insurance originates from the Insurance Contract Law, in force since May 2013, which gives the Superintendency this responsibility as an exception to the freedom to establish policy content laid down by Law 26702.

Meanwhile, in relation to the main regulatory projects it is worth mentioning the following ones which have been made public and are now at the evaluation and comment stage:

Draft resolution modifying the Regulation for the Classification and Valuation of the Investments of Insurance Companies (Provisions the on custodians, intermediaries and investment mandates used in the investment processes of insurance companies)

The draft regulation is intended to establish clarifications and requirements regarding the custody of local and foreign investment instruments, intermediation services of investment instruments, and the delegated mandates.

#### Draft Regulation on Current Risk Reserve

The draft regulation includes improvements to the methods and procedures for calculating reserves. The are some of the main provisions: las se las:

- The Current Risk Reserve (RRC in Spanish) is the estimate of future events and expenses that will have to be assumed by the companies for retained current risks, which is determined based on the premiums that the companies have established to finance those events and risks;
- (ii) The RRC should be calculated at the end of each month, being the result of the sum of two components (the Unearned Premiums Reserve and the Premium Deficiency Reserve), and
- (iii) Companies are allowed to estimate their Unearned Premiums Reserve with their own methods subject to the prior authorization of the Superintendency.

Finally, it is important to highlight the fact that there are some draft regulations still under internal analysis by the Superintendency as part of its regulatory agenda, which are presented in Table 3.2.5-b.

Table 3.2.5-b. Peru: projects in the regulatory agenda of the Superintendence of Banking, Insurance and Pension Fund Managers

Project	Main characteristics
Project on the Regulations of subordinate debt for insurance companies.	The legislative project aligns the requirements of subordinate debt issued by insurance companies, with the subordinate debt issued by financial system companies.
Project on Regulations to contract and manage reinsurance and coinsurance	The project upgrades the provisions of Standards to Contract and Manage Reinsurance, passed by Resolution SBS No. 2982-2010, with the aim of contributing to suitable supervision of reinsurance and coinsurance operations. It should be indicated that the modifications introduced are based on the basic principle of insurance 13, developed by the International Association of Insurance Supervisors (IAIS). It refers to reinsurance operations, along with the experience acquired in supervisory practice.
Resolution project to modify the classification and valuation Regulations of investments of insurance companies (impairment of investments).	The aim of the project is to harmonize accounting standards, issued by the Superintendence of investment impairment, with International Financial Reporting Standards (IFRS), establishing specific guidelines to assess impairment for capital and debt instruments.
Valuation of real estate investments	The project seeks to update the regulations on real estate management, in accordance with best practices, international standards and models of supervision, established in the Basic Principles of Insurance (BPI), set by the IAIS, the NIIF, the IFRS and Solvency II.
Matching Regulations	The aim of the legislative project is to strengthen the regulatory framework and supervision in line with the best international practices and principles of supervision, on the management of assets and liabilities.
Modification of the Regulations to constitute the Reserve for Catastrophic Risks and for an Uncertain Accident Rate.	The legislative project, currently being drawn up, is aimed at updating and incorporating improvements to regulations applicable to the constitution of the reserve for catastrophic risks and the uncertain accident rate. This establishes the methodology to calculate the reserve and the Technical Note on the estimate of the Maximum Possible Loss (MPl) of portfolios insured against the risk of earthquakes.
Modification of the Regulations for the Management and Payment of Damages	The project is currently being drawn up. It is aimed at clarifying and strengthening the legislative bases (Resolution SBS No. 3202-2013) that regulates insurance adjusters in the management and payment process of damages.

Source: Superintendence of Banking, Insurance and Pension Fund Managers

#### 3.2.6. Bolivia

#### **Macroeconomic environment**

The Bolivian economy grew by 4.8% in 2015, compared to 5.5% the previous year. The slowdown in growth was owing to the fall in international prices of the main export products of the country, particularly hydrocarbons. In spite of this downturn, the economy of Bolivia continued to maintain a higher growth rate than the remaining South American countries, sustained by the domestic demand, chiefly in household consumption. On the supply side, the most relevant factor was the downturn of the hydrocarbon and mining sectors, which was not compensated by the recovery of agriculture.

The accumulated inflation rate at the end of 2015 was 3.0%, compared to 5.2% the previous year. Meanwhile, similarly to previous years, salaries of public and private employees continued to grow (see Graph 3.2.6-a).

In the external sector, exports fell steeply in 2015 (-30%), owing to the aforementioned collapse of

prices, and imports (-8%), because of the reduction in imports of capital goods. The greater reduction of exports compared to imports, caused a current account deficit of 5.8% of the GDP, contrasting with the surpluses achieved over the past ten years.

With regard to growth forecasts, the CEPAL estimates that in 2016, the Bolivian economy will reduce by a few tenths to a rate of 4.5%. However, the IMF reduces this forecast to 3.7%.

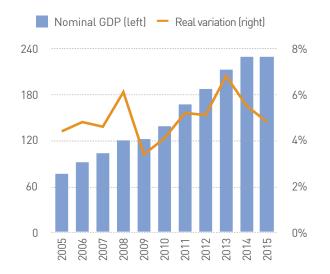
#### The insurance market

#### Growth

The volume of premiums of the Bolivian insurance market in 2015 rose by 3,103 million Bolivianos (449 million dollars), with a nominal growth of 7.6% and 4.6% real growth, compared to the previous year.

Premiums continue to rise, although at a lesser rate than in previous years. 73,5% of premiums correspond to Non-Life insurance, and the remaining 26.5% to Life insurance (see Graph 3.2.6-b and Table 3.2.6-a).

Graph 3.2.6-a. Bolivia evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billions of bolivianos; real growth rate, percentage; annual inflation rate, percentage)



Source: MAPFRE Economic Research (with IMF data)

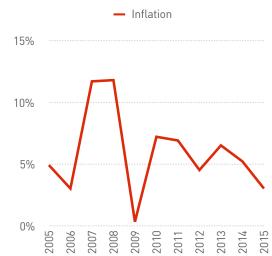
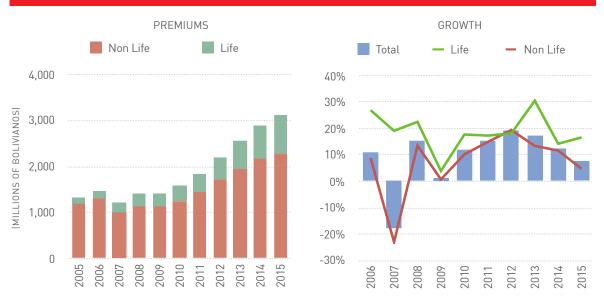


Table 3.2.6-a. Bolivia: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Segments	Millions of bolivianos	Millions of USD	% ∆	%∆real
Total	3,103	449	7.6	4.5
Life	822	119	16.6	13.3
Group Life	78	11	11.3	8.1
Personal Life	744	108	17.2	13.9
Annuities	-	-	-	-
Non-Life	2,281	330	4.7	1.7
Motor	676	98	7.6	4.5
Other Damages	170	25	5.8	2.8
Fire	322	47	-5.3	-8.0
Civil liability	101	15	-7.2	-9.9
Transport	260	38	0.2	-2.7
Technical risks	182	26	14.3	11.0
Surety	161	23	-0.7	-3.5
Health	331	48	16.6	13.3
Personal Accidents	78	11	2.5	-0.4

Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities) (1) Direct premiums

Graph 3.2.6-b. Bolivia: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Life insurance premiums grew strongly in 2015; 16.6% nominal rate and 13.3% real rate (compared to 14.2% nominal and 8.6% real in 2014, to reach 822 million bolivianos (119 million dollars).

The increase in Mortgage Deduction insurance [19.6%] is particularly relevant, which continues to be the most important category. Individual and Group Life premiums also grew at a good rate of 17.2% and 11.3% respectively.

Non-Life insurance premiums increased in 2015 by 4.7% nominal rate and 1.7% real rate (compared to 11.6% nominal and 6.2% real rate in 2014), to reach 2,281 million bolivianos (330 million dollars).

Unlike the previous year, in which nominal growth was recorded in all categories, in 2015 Fire, Surety and Civil Liability insurance decreased in real terms (and also Transport and Personal Accidents).

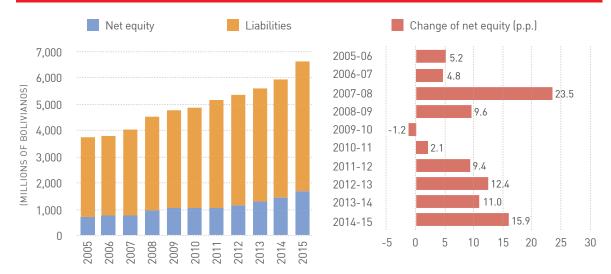
The most significant type of insurance continues to be Automobiles, including the Compulsory Insurance for Traffic Accidents (SOAT), which recorded a nominal increase of 7.6% (compared to 11.2% in 2014).

#### Balance sheet and equity

According to the aggregate balance sheet at sector level of the Bolivian insurance market, illustrated in Graph 3.2.6-c, the total assets of the sector totaled 6,600.4 million bolivianos (956 million dollars), while net equity was 1,707 million bolivianos (247 million dollars). This meant a positive variation of 15.9% over 2014.

It should be underlined that the levels of aggregate capitalization of the Bolivian insurance sector (measured on total assets) was above 20% in the period from 2008 to 2015. This represented 25.9% on total assets in 2015.

Graph 3.2.6-c. Bolivia: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)

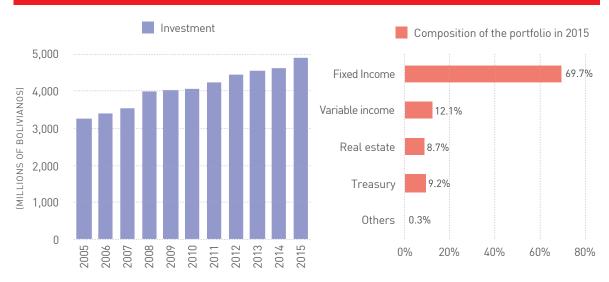


#### Investments

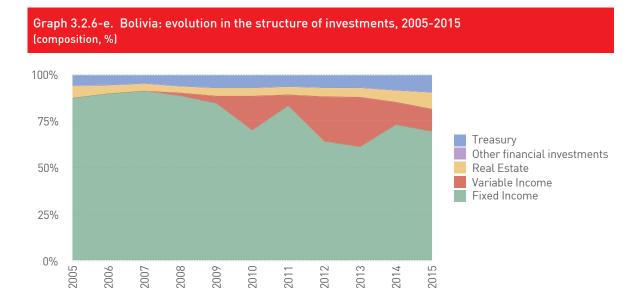
The evolution of investments and the composition of the aggregate investment portfolio at sector level in Bolivia, are shown in Graphs 3.2.6-d and 3.2.6-e. In 2015. investments reached 4,895 million bolivianos (709 million dollars), concentrating on fixed income (69.7%) and to a much lesser extent (12.1%) on variable income instruments.

From the analysis of the evolution of the aggregate portfolio, it is important to note the significant changes in its structure throughout the 2008-2015 period. The weight of the investments in variable income, with percentages over 24% in 2012 and 2013, were around 12% during the last two financial years. On the other hand, the weight of real estate assets increased from around 4% in 2008-2011 to 8.7% in 2015.

Graph 3.2.6-d. Bolivia: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)



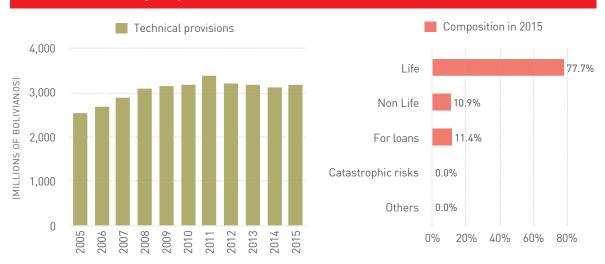
#### Technical provisions

Graphs 3.2.6-f and 3.2.6-g show the evolution and composition regarding the technical provisions of the Bolivian insurance sector. In 2015, technical provisions came to 3,179.2 million bolivianos (460 million dollars). Of this total, 77.7% corresponded to Life insurance, 10.9% to provisions for unearned premiums and current risks of Non-Life insurance, and 11.4% to provisions for claims.

During the period from 2009 to 2015, there was a significant reduction in the weight of Life insurance

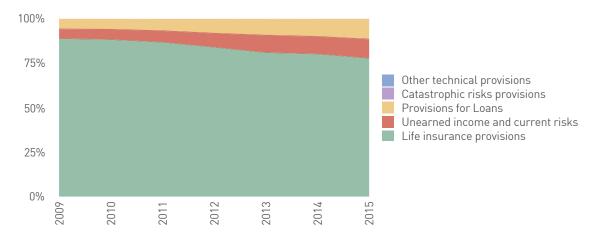
provisions, going from 88.8% of total provisions in 2009 to 77.7% in 2015. Absolute values also fell from 2,795.67 million bolivianos (405 million dollars) in 2009 to 2,470.55 million bolivianos (358 million dollars) in 2015. However, in the same period, both the provision for claims and the provision for unearned premiums and current risks of Non-Life insurance, practically doubled from 178.55 million bolivianos (26 million dollars) and 173.27 million bolivianos (25 million dollars) in 2009, to 361.19 million bolivianos (50 million dollars) in 2015 respectively.

Graph 3.2.6-f. Bolivia: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

Graph 3.2.6-g. Bolivia: evolution in the structure of technical provisions, 2009-2015 (composition, %)

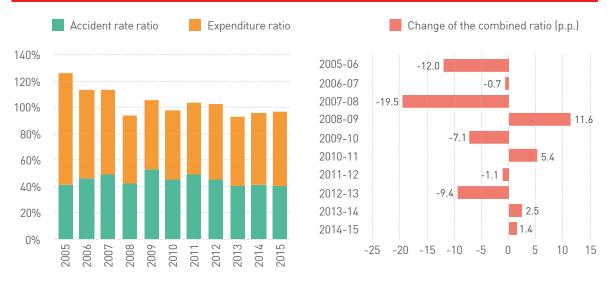


#### Technical performance

The combined ratio decreased 1.4 p.p. in 2015, to 96.8%. This was owing to the increase of expendidutre, although the technical result is still positive. The accident rate fell eight tenths of percentage down to 40.2%, showing a decreasing

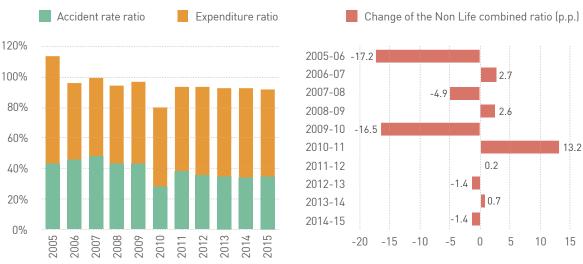
trend in recent years since 2011 (see Graph 3.2.6-h). The combined ratio of Non-Life companies was 91.5% in 2015, that is 1.4 p.p. less than in 2014. In the case of the Non-Life sector, the decreasing trend observed since 2011 is mainly due to reductions in the accident rate ratio (see Graph 3.2.6-i).

Graph 3.2.6-h. Bolivia: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

Graph 3.2.6-i. Bolivia: evolution in the technical performance of the market, 2005-2015 (combined Non-Life ratio, %; annual change of combined ratio, p.p.)



#### Results and profitability

In a consolidated manner for the whole of the insurance sector in Bolivia, the results of the 2015 financial year were 236 million bolivianos (34 million dollars), that is 21.6% more than the previous year. Moreover, the financial result increased by eight tenths up to 14.8% (see Graph 3.2.6-j).

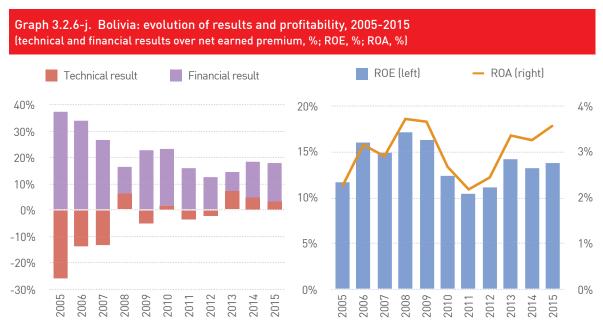
With regard to profitability, the return on equity (ROE) was 13.8% in 2015, increasing by 0.65 p.p. over 2014. A similar situation can be seen in the return on assets (ROA) which reached 3.6% in 2015, representing an increase of 0.32 p.p. compared to 2014. In general terms, profitability of the insurance activity in Bolivia shows a tendency to increase from 2013, sustained in positive technical and financial results.

### Penetration, density and depth of insurance

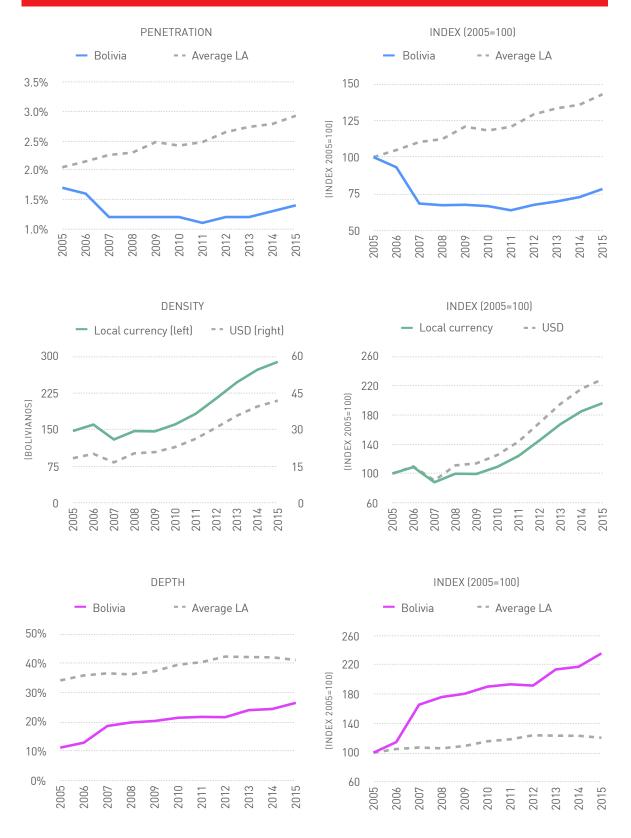
The main structural trends in the development of the Bolivian insurance sector during the period 2005-2015 are presented in Graph 3.2.6-i. The penetration index (premiums/GDP) in 2015 was 1.4%. Penetration in the Bolivian market was marked by a decreasing trend since 2005, which reversed from 2013 onwards. However, the 2015 indicator was lower by almost 0.4 p.p. to the one recorded ten years before.

Regarding the density level of insurance (premiums per capita), the indicator was at 289 bolivianos (41.9 dollars), 96.2% above the value observed in 2005 (147.3 bolivianos). Following the penetration trend, density showed stagnation between 2005 and 2009, which only reversed from 2010. Regarding the depth index (Life insurance premiums in relation to total premiums), in 2015 the indicator placed it at 26.5%, 15.3 p.p. above this figure in 2005.

In this case, the depth tendency of the Bolivian insurance market increased throughout the period under analysis. Although it is below the average values observed in the Latin American region, it maintains a very similar slope, with a slight improvement in 2015.



Graph 3.2.6-k. Bolivia: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, bolivianos and USD; total premiums/Life premiums, %; index 2005 = 100)

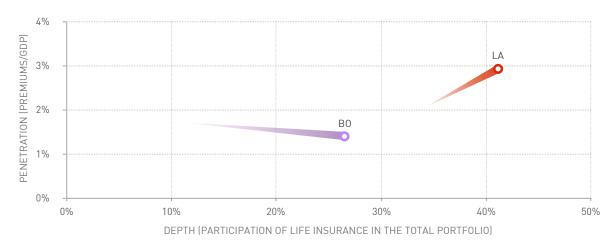


 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Audit\ and\ Pension\ and\ Insurance\ Control\ Authorities)$ 

The dispersion analysis given in Graph 3.2.6-l, shows the overall effect of the progress of the Bolivian insurance market in relation to the insurance market of Latin America, from the perspective of the overall change in penetration and depth levels. In this analysis, it is seen that

the development trend of the insurance market in Bolivia diverges from the trend observed in the Latin American market as a whole. It shows progress in its depth levels, but not in the degrees of penetration in the economic activity.

Graph 3.2.6-l. Bolivia: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

# Estimate of the Insurance Protection Gap

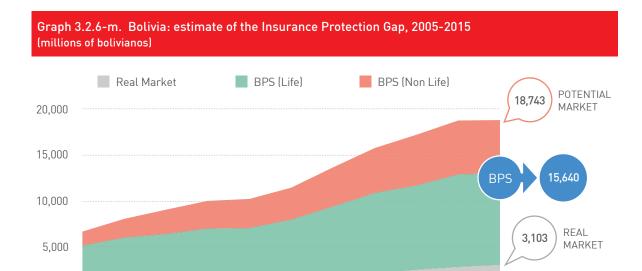
The calculation of the IPG for the insurance market in Bolivia over the period 2005-2015 is shown in Graph 3.2.6-m. The insurance gap in 2015 was 15,640 million bolivianos, 5 times the insurance market in Bolivia at the end of that year.

Similarly to other insurance markets of the region, the structure and evolution of the IPG over the last decade, shows a prevalence of Life insurance. In 2005, 71.9% of the IPG corresponded to Life insurance, representing a sum of 3,855 million bolivianos. In 2015, this percentage had reduced to 63.4% (9,918 million bolivianos).

In this way, the potential insurance market in Bolivia in 2015 (the sum of the real market and the IPG), was estimated at 18,743 million bolivianos; that is 6 times the total insurance market of the country this year.

Graph 3.2.6-n shows the estimate of the IPG as a multiple of the real market each year. In the case of the Bolivian insurance market, the IPG, measured as a multiple of the real market, has an increasing trend over the period under analysis. This refers both to the total gap (increase from 4 to 5 times), and the gap corresponding to the Non-Life insurance sector (from 1.3 to 2.5 times). Only in the case of the Life insurance sector, the IPG, as a multiple of the real market, decreased between 2005 and 2015, from 25.6 to 12.1 times during this period.

Lastly, the same Graph 3.2.6-n summarizes the assessment made regarding the capacity shown by the Bolivian insurance market to close the IPG. This is done using a comparative analysis between the growth rates observed over the past ten years in this market, compared to the growth rates that would be needed to close the given IPG.



2010

2009

2012

2013

2014

201

Source: MAPFRE Economic Research

2006

0

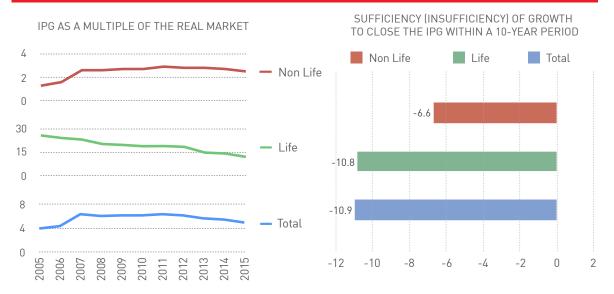
During the 2005-2015 period, the Bolivian insurance market increased at an average annual growth rate of 8.8%. This included an average rate of 18.5% for the Life segment, and 6.7% for the Non-Life insurance sector. In accordance with the analysis, if the same growth dynamics are maintained over the next ten years, the joint growth rate of the Bolivian market would be insufficient (by 10.9 p.p.) to cover

2007

2008

the IPG in 2015. The same would occur with the IPG of Life insurance (insufficient by 10.8 p.p.) and Non-Life (by 6.6 p.p.). This means that in order to close the IPG estimated for 2015, the Bolivian insurance market would require substantially higher annual growth rates than those seen over the last decade: 19.7% for the total market, and 29.3% and 13.4% for the Life and Non-Life sectors respectively.

Graph 3.2.6-n. Bolivia: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



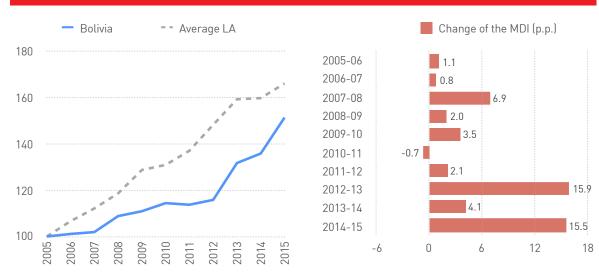
Source: MAPFRE Economic Research

# Market Development Index (MDI)

The estimate of the Market Development Index (MDI) for the insurance sector in Bolivia is shown in Graph 3.2.6-o. As has been previously mentioned in this report, the purpose of the MDI is to summarize the trend in evolution and maturity of the insurance markets.

In the case of the Bolivian insurance sector, the indicator shows a basically positive trend over the 2005-2015 period. This is more dynamic from 2012, although under the average trend observed by the Latin American markets as a whole.





Source: MAPFRE Economic Research

# Total Ranking

In December 2015, a total of 14 insurance companies operated on the Bolivian insurance market. Out of these, eight operated exclusively in the Non-Life branch and the remaining six in both segments.

Over the last decade, the concentration levels of the Bolivian insurance market have followed a decreasing trend. However, the Herfindahl index is still above the threshold that indicates a moderate concentration. Moreover, the first five insurance companies jointly accumulated 70.6% of total premiums, 0.10 p.p. lower than the previous year. The concentration trend of the market is higher in the Life sector than in the Non-Life sector (see Graph 3.2.6-p).

Regarding the total ranking on closing 2015, the year was led by Alianza Seguros with a market share of 26.3%. It was followed by BISA Seguros with 20% and La Boliviana Ciacruz, with a market share of 15.9% (see Graph 3.2.6-q).

Graph 3.2.6-p. Bolivia: evolution in the concentration of the insurance sector, 2005-2015
[Herfindahl index; CR5 index, %]

- IHH
-- Moderate concentration threshold
-- High concentration threshold

120%

100%

100%

600

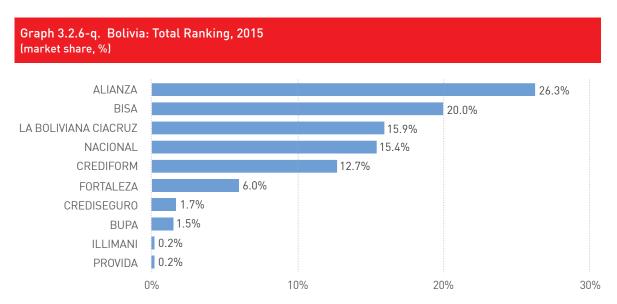
600

600

600

600

Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

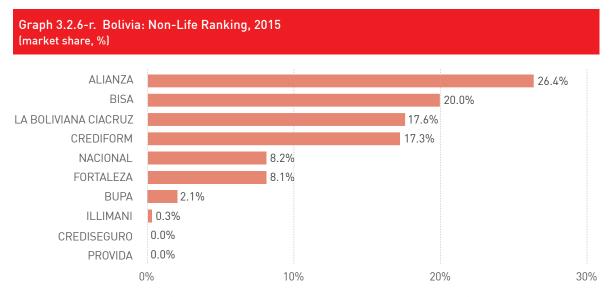


Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

# Non-Life Ranking

With regard to Non-Life Ranking, the first three places were the same as for total ranking. This was because of the predominance of the Non-Life sector

in the Bolivian market. Thus, Alianza Seguros was at the head of the ranking with a share of 26.4%. BISA Seguros was in second place, with a market share of 20%, and in third place was La Boliviana Ciacruz, with 17.6% (see la Graph 3.2.6-r).



Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

# Life Ranking

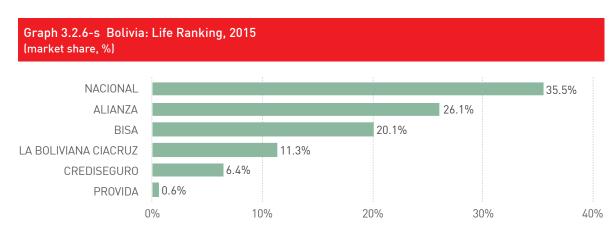
Finally, the Life ranking in 2015 was headed by Nacional Seguros with 35.5% of the market premiums, followed by Alianza Seguros with 26.1%, and BISA with a market share of 20.1%.

# Significant regulatory aspects

In 2015, a partial modification was made on Law 1883 of Bolivia, regarding Compulsory Traffic Accident Insurance (SOAT).

Among the changes made, the updating of coverages for medical costs and permanent total disability and/or death, should be underlined, along with enabling their marketing to insurance companies of persons (reserved up until then to general insurance companies).

Similarly, the reform pursues the implementation of more up-to-date elements to control uninsured vehicles, together with the use of electronic and telematic means in marketing SOAT, also extensible to other types of insurance.



Source: MAPFRE Economic Research (with data from the Audit and Pension and Insurance Control Authorities)

# 3.2.7. Chile

# **Macroeconomic environment**

The Chilean economy grew by 2.3% in 2015 (compared to 1.8% in 2014), boosted by a growth in consumption, which offset the fall in investment.

In productive sectors, manufactured goods, commerce, services and construction all grew in 2015, with a decrease in mining. The lower external demand and drop in copper prices had a negative impact on exports. This resulted in an increase of one p.p. in the deficit of the current account, which was 2.1% of the GDP.

Furthermore, the inflation rate fell by three tenths to 4.4% at the end of 2015. while unemployment improved by two tenths to 6.2% (see Graph 3.2.7-a).

Regarding the growth forecasts for 2016, the CEPAL estimates that the Chilean economy will grow by 1.6%, while the IMF places the figure at 1.7%.

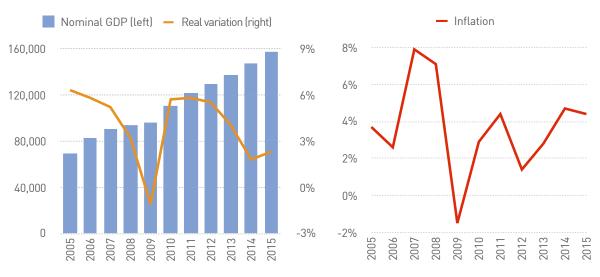
# Insurance market

#### Growth

The volume of premiums of the Chilean insurance market in 2015 rose to 7,408,342 million pesos (11,324 million dollars), with a nominal growth of 14.5% and a real growth of 9.7% (see Graph 3.2.7-b and Table 3.2.7-a).

Life insurance premiums, which represent 61.3% of the market total, grew strongly (19. 7% in nominal terms) reaching 4,539,451 million pesos (6,939 million dollars). Increases in premiums were recorded in all categories, particularly underlining the most important category that is disability and survival insurance (annuity income) that exceeds the downturn of the previous year, with a strong growth of 24.4%. Non-Life insurance received 2,868,891 million pesos (4,385 million dollars), with a nominal growth of 7.2% and a real growth of 2.7%. All insurance categories recorded growth in nominal terms, although two of them (Other Damages and Civil Liability) recorded a slight decrease in real terms. The two most important categories, Fire and Allied Lines and Automobiles, grew nominally by 7.6% and 6.6% respectively

Graph 3.2.7-a. Chile: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

Table 3.2.7-a. Chile: volume of premiums. by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of pesos	Millions of USD	% ∆	%∆real
Total	7,408,342	11,324	14.5	9.7
Life	4,539,451	6,939	19.7	14.7
Individual life	744,665	1,138	16.5	11.6
Group life	714,401	1,092	5.5	1.0
Disability & Survivor	3,080,385	4,709	24.4	19.2
Non-Life	2,868,891	4,385	7.2	2.7
Fire and/or Associated Lines	791,978	1,211	7.6	3.0
Automobile	632,923	967	6.6	2.1
Other Damages	447,474	684	2.5	-1.8
Health	433,402	662	9.4	4.8
Personal Accidents <sup>2</sup>	230,504	352	4.6	0.2
Transport	118,471	181	14.4	9.6
Civil Liability	111,207	170	4.2	-0.2
Credit and/or Surety	102,932	157	23.7	18.5

Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

Graph 3.2.7-b. Chile: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

<sup>(1)</sup> Direct premiums

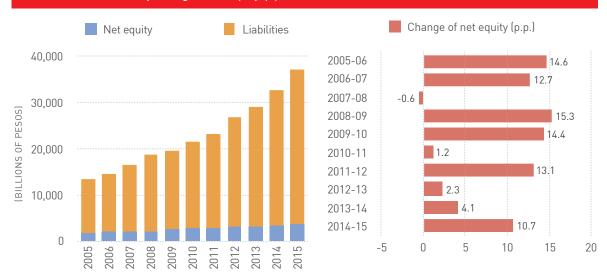
<sup>(2)</sup> Including Compulsory Insurance of Personal Accidents (SOAP)

# Balance sheet and equity

Graph 3.2.7-c shows the aggregate balance sheet at sector level of the insurance industry in Chile throughout the 2005-2015 period. From this information, it is seen that on closing 2015, total assets of the sector reached 37,046,460 million pesos (56,629 million dollars), while net equity was 3,713,746 million pesos (5,677 million dollars), that is 10.7 p.p. above the 2014 value.

Furthermore, the level of aggregate capitalization of the Chilean insurance sector showed sustained growth in absolute values over the 2005-2015 period. However, in relative terms (measured on total assets), capitalization levels fell from 2010 from values normally above 12%, to values of around 10%. This represented 10.02% of total assets at the end of 2015.

Graph 3.2.7-c. Chile: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)

# Investments

The evolution and composition of the aggregate investment portfolio at sector level of the Chilean insurance sector, is given in Graphs 3.2.7-d and 3.2.7-e.

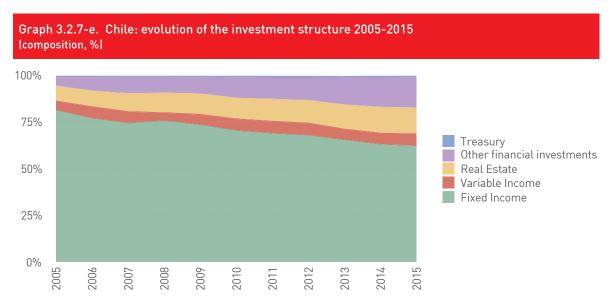
In 2015, investments reached 32,821,107.3 million pesos (50,170 million dollars), concentrated in fixed income (62.5%) and to a much lesser extent (6.5%) in variable income instruments.

From the medium-term analysis of the evolution of the structure of the aggregate portfolio, given in the aforementioned Graph 3.2.7-e, the changes in weights relative to investments, should be underlined. There was a sustained drop in the weight of fixed income, which went from representing 81.7% of the portfolio in 2005, to 62.5% in 2015. The weight of real estate investments increased from 8% in 2005 to 14% at the end of 2015.

Graph 3.2.7-d. Chile: evolution of investments of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)

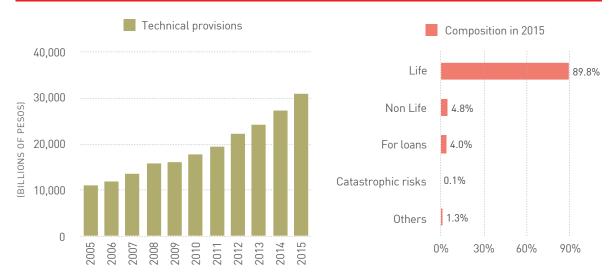
# Technical provisions

Graphs 3.2.7-f and 3.2.7-g show the evolution and composition regarding technical provisions of the Chilean insurance sector. In 2015, technical provisions amounted to 30,994,961.9 million pesos (47,378 million dollars). 89.9% of the total corresponded to Life insurance, 4.8% to the provision for unearned premiums and current risks

in Non-Life insurance, 4% to provisions for claims, 0.1% to catastrophic risks, and the remaining 1.3% to other technical provisions.

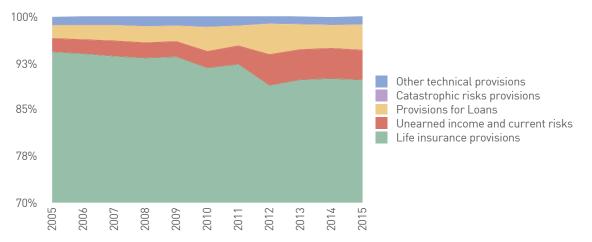
Over the 2005-2015 period, an increase was observed in the weight regarding provisions of Non-Life insurance, which practically doubled. However, they continue to be low in spite of the weight of provisions of Life insurance.

Graph 3.2.7-f. Chile: evolution of the technical provisions of the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)

Graph 3.2.7-g. Chile: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)

# Technical performance

In 2015, the technical result of the Chilean insurance sector as a whole, was negative, with a combined ratio of 120%, which improved 9.4 p.p. compared

the previous year. This was the result of strong reductions in the accident rate and costs. The total accident rate ratio is at high levels, over 90% from 2013 (see Graph 3.2.7-h).

On the other hand, on analyzing the technical performance of Non-Life companies, shown in Graph 3.2.7-i, it is also observed that the combined ratio in 2015 was 102.7%, with a reduction of 3.3

p.p. compared to the value the previous year. The increase of this technical ratio in recent years has been the outcome of the deterioration both in the accident rate ratio and in the expenditure ratio.

Graph 3.2.7-h. Chile: evolution of the technical performance of the market, 2005-2015 (total combined ratio, %; annual change in the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

Graph 3.2.7-i. Chile: evolution of the technical performance of the Non-Life market, 2005-2015 (Non-Life combined ratio, %; annual change in the combined ratio, p.p.)

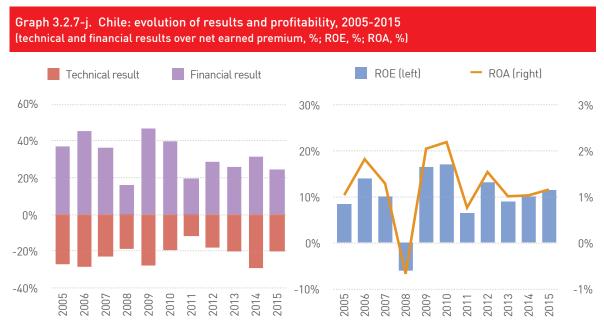


Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

# Results and profitability

Regarding the profitability of the insurance industry in Chile, the return on net equity (ROE) was 11.6% in 2015, an increase of 1.48 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA) which reached 1.2% in 2015, representing an

increase of 0.13 p.p. compared to 2014. As seen in Graph 3.2.7-j, the net result obtained by the sector throughout practically the whole period under analysis, was due to the positive financial result, which has enabled the negative results obtained systematically by the industry, to be offset.



Source: MAPFRE Economic Research (using data from the Superintendence of Securities and Insurance)

#### Penetration, density and depth of insurance

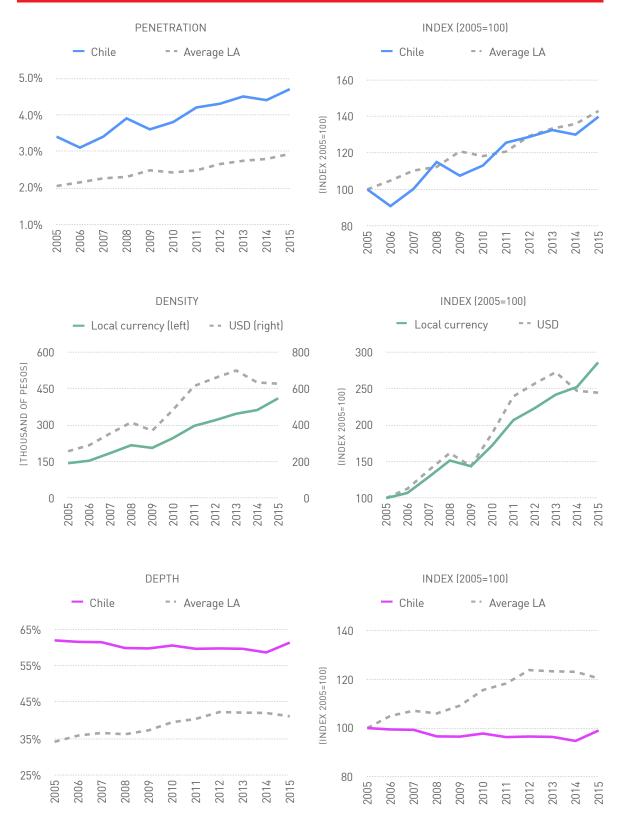
In the case of Chile, the main structural trends in the development of the insurance sector during the period 2005-2015 are presented in Graph 3.2.7-k. The penetration index (premiums/GDP) in 2015 was 4.7%, 1.3 p.p. above the level recorded in 2005. As can be seen in the graph, the penetration index of the Chilean market has maintained an increasing trend from 2005, in line with the average trend recorded by the Latin American insurance market as a whole, and above the absolute average values of the region.

Insurance density in Chile (premiums per capita) was 409,555.7 pesos (626 dollars), 13.3% above the level reached in 2014 (361,389.3 pesos). As in the case of the penetration index, density, measured in

local currency, tended to grow over the 2005-2015 period. However, as it is estimated in USD, a fall can be seen from 2013, partly due to the devaluation of the Chilean peso against the dollar. It is important to point out that the high density of the Chilean market is significantly determined by the maturity of participation of the private insurance sector in the disability and survival system, through offering annuities.

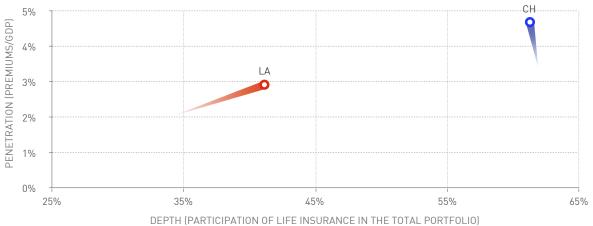
With respect to the depth (Life insurance premiums compared to total premiums), the index in 2015 was 61.3%, 0.6 p.p. under the value recorded in 2005, and with a stable tendency throughout the period analyzed. In spite of this, the depth index of the Chilean market continues to be the highest in Latin America.

Graph 3.2.7-k. Chile: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index 2005 = 100)



Source: MAPFRE Economic Research (with data from the Superintendence of Securities and Insurance and the Chile Association of Insurers)

Graph 3.2.7-l. Chile: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

The performance of the Chilean insurance market is shown in the dispersion analysis given in Graph 3.2.7-l, in which the joint effect of this insurance market is presented, compared to the Latin American insurance market, from the perspective of the joint change of penetration and depth levels. In this analysis, it is observed that in general terms, the development trend of the Chilean insurance market is above that registered in the region as a whole, in terms of increased penetration, although with a slight downturn in the depth of insurance in this market.

# Estimate of the Insurance Protection Gap

Graph 3.2.7-m shows the estimated IPG for the Chilean insurance market between 2005 and 2015. It can be seen from this analysis that the IPG in 2015 was at 5,508 billion pesos, which is 0.7 times the real insurance market in Chile at the year end.

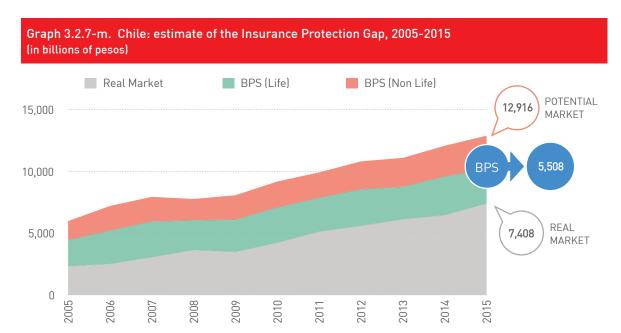
The structure and evolution of the IPG during the period under analysis, shows a relative balance sheet between the contribution of Life and Non-Life insurance. Thus at the end of 2015, 52% of the IPG corresponded to Life insurance (2,861.4 billion

pesos), which is 6.5 p.p. under the level observed in 2005. The remaining 48% corresponded to the gap in the Non-Life insurance segment (2,646.4 billion pesos).

The potential insurance market in Chile by the end of 2015 (the sum of the real market and the IPG) was estimated at 12,916.1 billion USD, 1.7 times the total insurance market for that year in Chile.

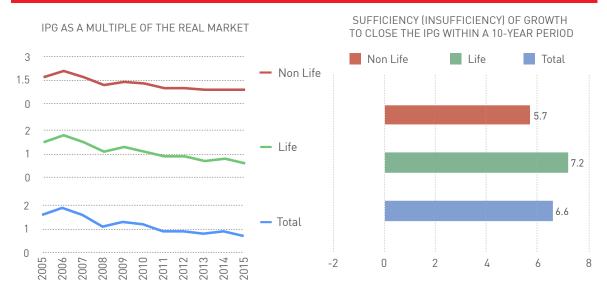
Graph 3.2.7-n shows the estimated IPG as a multiple of the real insurance market in Chile. According to this financial year, the gap had a clear tendency to decrease over the period under analysis. During this period, the total insurance gap, as a multiple, decreased from 1.6 to 0.7 times the real market. There is a similar situation with the multiple for the Life market, which fell from 1.5 to 0.6, and with the Non-Life multiple which dropped from 1.7 to 0.9.

Graph 3.2.7-n also summarizes the assessment made regarding the capacity shown by the Chilean insurance market, to close the insurance gap. A comparative analysis was used between the growth rates observed over the past ten years, compared to the growth rates that would be needed to close the gap, determined in 2015, over the next ten years.



Source: MAPFRE Economic Research





Source: MAPFRE Economic Research

The financial year (summarized in the aforementioned Graph 3.2.7-n) shows that over the 2005-2015 period, the insurance market of Chile grew at an annual rate of 12.3%. The Life insurance sector grew at a rate of 12.2%, while Non-Life insurance grew at an average annual rate of 12.5%%.

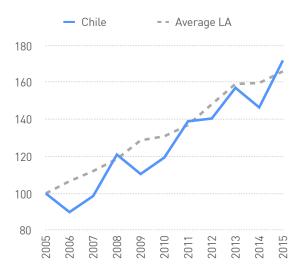
This analysis shows that if the same growth dynamic continues over the next ten years, the growth rate of the Chilean insurance market would be sufficient to close the insurance gap, both in Life insurance and Non-Life insurance.

# Market Development Index (MDI)

Graph 3.2.7-o gives the Market Development Index (MDI) for the Chilean insurance sector. In the case of Chile, the MDI used as an indicator of the general trend observed in the evolution and maturity of

insurance markets, shows a positive trend during 2005-2015. It is important to underline that although the indicator fluctuates around the average for all the insurance markets of Latin America during the period analyzed, it converges towards the year 2015 in this regional average.

Graph 3.2.7-o. Chile: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)





Source: MAPFRE Economic Research

# Total Raking

At the end of 2015, there were 29 general insurance companies and 36 life insurance companies operating on the Chilean market. Graph 3.2.7-p shows the concentration indicators of the Chilean insurance sector over the 2005-2015 period.

The industry has low concentration levels. In the case of the Herfindahl index, it is consistently under the technical threshold that indicates a moderate concentration, and with stable trends in the case of CR5.

The total ranking of insurance groups of the Chilean market in 2015 is led by Consorcio Nacional with a market share of 10.3%, followed by Sura (10.1%, after the acquisition of RSA), and MetLife with 9.1% of premiums. In fourth position, with 7.3%, is Cámara Chilena de la Construcción, follwed by the Zurich group (6.7%) and Liberty (5.4%). However, the Chilean companies, RSA and Corp Life, disappear from the ranking as they form part of the Zurich, Sura and Camara groups respectively (Graph 3.2.7-q).

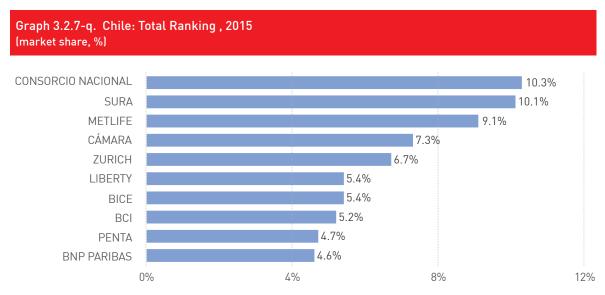
Graph 3.2.7-p. Chile: evolution of the concentration of the insurance sector, 2005-2015
[Herfindahl index; CR5 index, %]

- IHH
-- Moderate concentration threshold
-- High concentration threshold

1800

-- Solve -- Non Life
-- Non Life
-- Solve -- Non Life
-- Solve -- Non Life
-- Non Life
-- Solve -- Non Life

Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

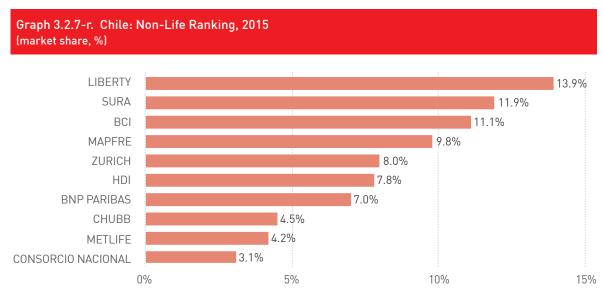


Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

# Non-Life Ranking)

The Liberty group holds first position of the classification of the Non-Life ranking in 2015, with 13.9% of market premiums, after the acquisition of the company Penta Security (which disappears from the ranking). Sura appears in second position

of the ranking with 11.9% of premiums, after the purchase of RSA. Next is BCI (11.1%) and MAPFRE (9.8%) in the third and fourth position respectively. Apart from Penta Security and RSA, Chilena (which forms part of the Zurich group) and Magallanes, are no longer in the ranking. The latter was acquired by HDI in 2015 (see Graph 3.2.7-r).

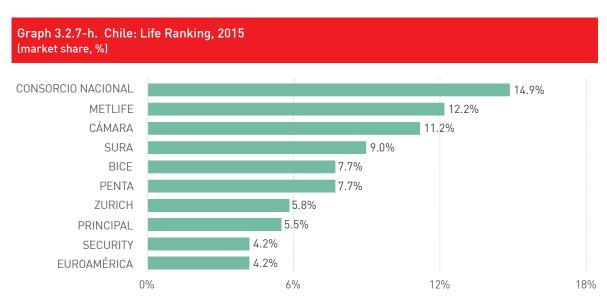


Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

# Life Ranking

Lastly, Consorcio Nacional takes over first position of the Life Ranking 2015 of the Chilean market, with 14.9% of premiums, followed by MetLife (12.2%) in second place.

In third place of the ranking, Cámara Chilena de la Construcción appears, with 11.2% of market premiums. This company controls Life insurance companies such as Vida Cámara and CorpVida (see Graph 3.2.7-s).



Source: MAPFRE Economic Research (with data from the Chile Association of Insurers)

# Relevant regulatory aspects

Out of the legislative developments passed from the start of 2015, resulting from the application to insurance companies operating in the Chilean market, Law No. 20,818 (18-02-2015) should be highlighted. This law perfects the prevention, detection, control, investigation and judging mechanisms against money laundering.

It is also worth mentioning the high number of legislative projects currently in progress. These include:

- Bill to create the Securities and Insurance Commission, which is currently in progress in the Chamber of Deputies.
- Bill to establish a Supervision system based on Risk for insurance companies. This initiative corresponds to the Executive and was remitted to the Chamber of Deputies in September 2011. The Chamber passed the project generally and individually, and in October 2012, it was sent to the Senate for the second constitutional process. Since then, no significant progress has been made.

 Bill to modify Law 19,496. on the protection of consumer rights. The project started the process in June 2014, and is now under process at the Senate, where it was passed in general on 29 September 2015. The Commission of Economy has continued its individual analysis.

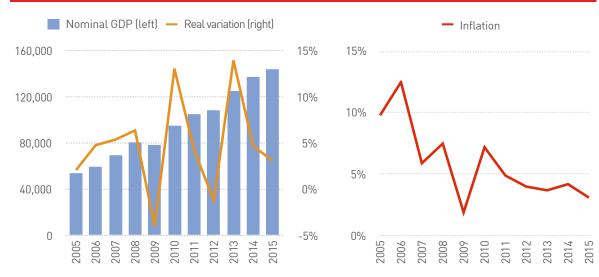
It should also be highlighted that, from 2015, various partial modifications have been made to general standards and circulars applicable to insurance companies. These involve the constitution of technical reserves, the application of mortality tables, the application of IFRS standards, corporate governance, the form and content of information on investments and of the market risk assessment system of investments, plus others.

#### 3.2.8. Paraguay

#### Macroeconomic environment

The Paraguayan economy grew by 3.1% in 2015. a lower value than the previous year (4.7%) but above the average figure of the region. Bearing in mind expenditure, investment slowed down, but public consumption increased.

Graph 3.2.8-a. Paraguay: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billions of guaraníes; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

In productive sectors, the good performance of agriculture was significant (representing 20% of the Paraguayan economy), electrical energy production and some industries related to agriculture (see Graph 3.2.8-a).

Deficit of the current account in 2015 reached 1.8% of the GDP, compared to 0.4% the previous year. This is because exports were highly affected by lower prices of raw materials and the less demand from the main commercial partners, such as Brazil. On the other hand, the inflation rate at the end of 2015 was 3.1% compared to 4.2% recorded the year before. The unemployment rate also fell by 1.2 p.p., down to 6.8%.

As regards growth forecasts, the CEPAL estimates that the Paraguayan economy will grow by 4.0% in 2016. The IMF reduces this estimate by half a point, down to 3.5%.

#### The insurance market

#### Growth

The volume of premiums of the Paraguayan insurance market (analyzed in December 2015) reached 2,056,627 million guaraníes (395 million dollars), with a nominal increase of 10.4% and a real increase of 7.1% (see Graph 3.2.8-b and Table 3.2.8-a).

Life insurance premiums, which only represented 13.6% of the market total, grew nominally by 18.2%, to 279,820 million guaraníes (54 million dollars), while Non-Life insurance, which represented the remaining 86.4%, grew by 9.3% up to 1,776,807 million guaraníes (341 million dollars). All categories grew in nominal terms, and only Other Damages decreased in real terms. Automobile insurance, the most important category, grew by almost 10%.

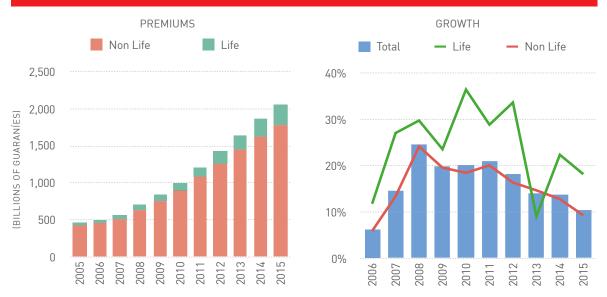
Table 3.2.8-a. Paraguay: volume of premiums by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of guaraníes	Millions of USD	% Δ	% ∆ real
Dianen	guaranies		70 Д	/0 Δ Teat
Total	2,056,627	395	10.4	7.1
Life	279,820	54	18.2	14.7
Non-Life	1,776,807	341	9.3	6.0
Automobile	983,841	189	9.9	6.6
Other Damages	157,702	30	1.3	-1.8
Fire	164,604	32	13.6	10.2
Miscellaneous risks	118,427	23	4.5	1.3
Transport	85,189	16	17.2	13.7
Theft	69,893	13	5.7	2.5
Surety	76,173	15	17.1	13.6
Civil liability	66,136	13	3.7	0.6
Personal accidents	54,842	11	13.0	9.6

 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Superintendence\ of\ Insurance,\ Central\ Bank\ of\ Paraguay)$ 

(1) Direct premiums net of cancellations plus administrative charges

Graph 3.2.8-b. Paraguay: progress of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

# Balance sheet and equity

The evolution in the size of the aggregate balance sheet of the Paraguayan insurance sector is given in Graph 3.2.8-c. Total assets of the sector in 2015 were 2,856,288 million guaraníes (549 million dollars), while net equity was 1,044,776 million guaraníes (201 million dollars), 13.2 p.p. above the level reached the previous year.

The levels of aggregate capitalization of the Paraguayan insurance sector, measured on total assets, are significant. They were over 30% in the period from 2010 to 2015., growing at a gradual rate from 32.6% in 2010 to 36.6% on the total assets in 2015.

Graph 3.2.8-c. Paraguay: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in net equity, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

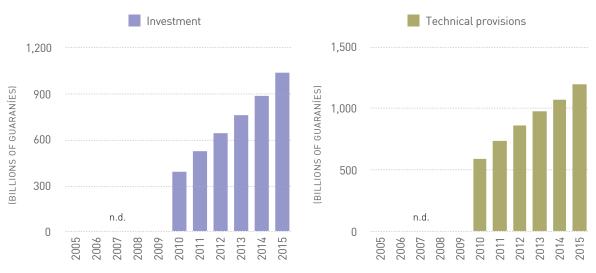
# Investments and technical provisions

Graph 3.2.8-d shows the evolution of investments and technical provisions of the Paraguayan insurance sector. Firstly, investments reached 1,038,008.8 million guaraníes (199 million dollars) in, 17.4% above the figure recorded in 2014. Second-

ly, technical provisions in 2015 reached 1,201,741 million guaraníes (231 million dollars), an increase of 12.2% compared to the previous year. Both in the case of investments and technical provisions, with the information available, it has not been possible to carry out an additional disaggregated analysis on its composition.



(amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

# Technical performance

As shown in Graph 3.2.8-e, the technical result of the Paraguayan insurance sector (with data annualized at December 2015) was positive, with a combined ratio of 95.4%. This increased by 2.2 p.p. as a result of the increase in the accident rate and expenditure. In the past five years, an upward trend has been seen both in the accident rate and expenditure.

# Results and profitability

The net result of the Paraguayan insurance business at December 2015, was 205,562 million guaranies, 10.7% more than the previous financial year, sustained in both a positive financial and technical result (see Graph 3.2.8-f).

With regard to profitability, the return on equity (ROE) came to 19.7% in 2015, dropping by 0.43 p.p. compared to 2014.

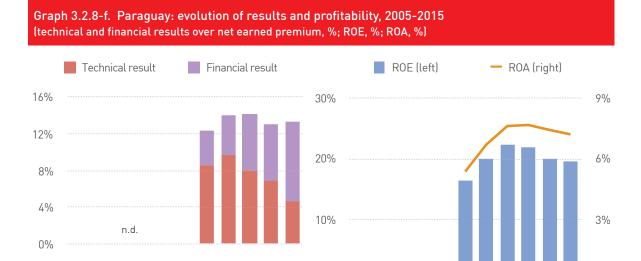
A similar situation can be seen in the return on assets (ROA) which reached 7.2% in 2015, representing a fall of 0.22 p.p. compared to the previous year's value.

-4%

Graph 3.2.8-e. Paraguay: evolution of the technical performance of the market, 2005-2015 (total combined ratio, %; annual change in the combined ratio, p.p.)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)



0%

n.d.

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

0%

# Penetration, density and depth of insurance

Graph 3.2.8-g shows the main structural trends in the Paraguayan insurance sector over the 2005-2015 period. The penetration index (premiums/GDP) in 2015 stood at 1.4%, 0.6 p.p. above the level observed in 2005.As can be seen, the penetration index of the Paraguayan market has tended to rise throughout the period under analysis, although below the average absolute values of the markets of the region.

Meanwhile, insurance density in Paraguay (premiums per capita) came to 309,772 guaraníes (59.5 dollars), 9% above the level reached in 2014 (284,126 guaraníes). Similarly to penetration, density (measured in local currency) tended to rise during the period under analysis, with a cumulative increase of 292.1% over the 2005-2015 period.

The depth of insurance in the Paraguayan market (Life insurance premiums in relation to total premiums), was 13.6%, reaching 6.4 p.p. above the level recorded in 2005. The growth of the depth index in the Paraguayan insurance market was generally in line with the trend in Latin American markets as a whole, though with absolute levels still very much below the regional average.

Graph 3.2.8-h illustrates the performance of the Paraguayan insurance market in a dispersion analysis, which considers the overall effect of the advance of this market in relation to the Latin American market based on the combined change of penetration and depth levels. The analysis shows that the trend in the development of the Paraguayan insurance market is in line with the average trend for Latin America, but that it still has absolute levels of penetration and depth that are very much below the region's averages.

# Estimate of the Insurance Protection Gap

The estimate of the IPG for the Paraguayan insurance market between 2005 and 2015 is given in Graph 3.2.8-i. The insurance gap in 2015 was 9,800.7 billion guaraníes, representing 4.8 times the Paraguayan insurance market at the end of the year.

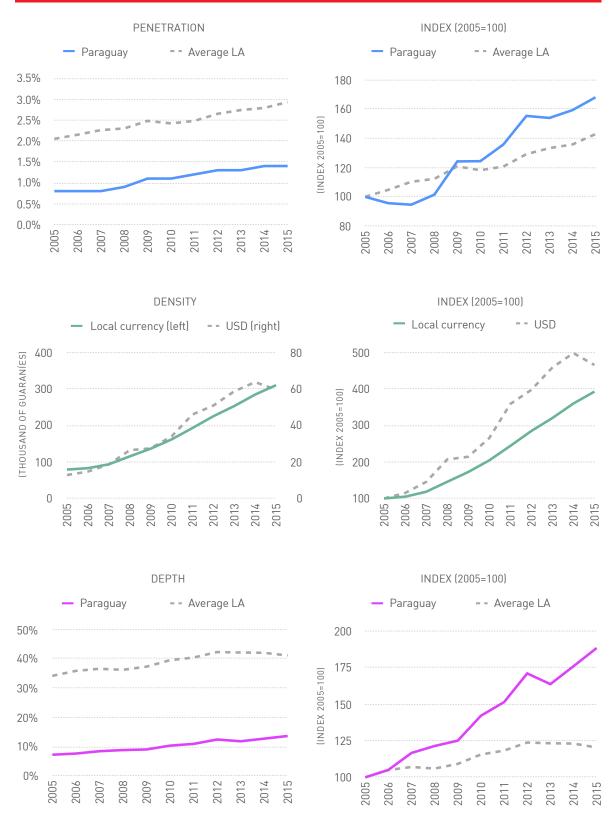
Meanwhile, the structure and evolution of the IPG during the period under study shows the predominance of Life insurance. Thus, at the close of 2015, Life insurance policies accounted for 66.5% of the IPG (6,514.3 billion guaraníes), which is 1 p.p. down on that sector's contribution in 2005. Meanwhile, the remaining 33.5% of the insurance gap is represented by the Non-Life insurance segment (3,286.3 billion guaraníes).

Thus the potential insurance market in Paraguay at the end of 2015 (calculated as the sum of the real market and the IPG) was estimated at 11,857.3 billion guaranís, which is 5.8 times the total insurance market for that year.

Graph 3.2.8-j shows the estimated IPG as a multiple of the real insurance market in Paraguay. The insurance gap as a multiple of the market showed a sustained downward trend throughout the 2005-2015 period, both in the case of Life insurance (from 83.9 to 23.3 times) and Non-Life insurance (from 3.4 to 1.8 times).

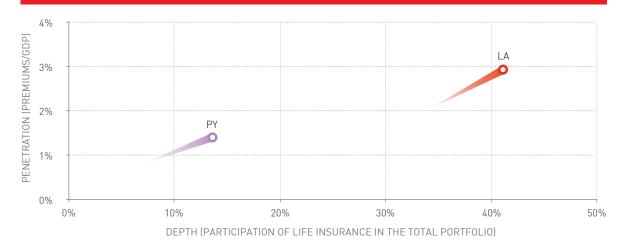
Finally, Graph 3.2.8-j shows a summary of the assessment of the capacity of the Paraguayan insurance market to close the insurance gap, using a comparative analysis between the growth rates recorded over the past ten years and the growth rates needed to close the gap determined in 2015 over the following decade. In this sense, the Paraguayan insurance market grew at an average annual rate of 16.2%. This comprised an annual growth rate of 23.8% in the Life insurance sector, and 15.4% in the Non-Life segment. If the same growth dynamic observed during the past decade is maintained over the next ten years, the growth rate of the Paraguayan insurance market will be sufficient to achieve the goal only in the case of the Non-Life insurance sector. However, in the case of the Life insurance segment, this rate would be insufficient by 13.8 p.p..

Graph 3.2.8-g. Paraguay: evolution of penetration, density and depth, 2005-2015 (premiums/GDP, %; premiums per capita, guaraníes and USD; total premiums/Life premiums, %; index 2005 = 100)

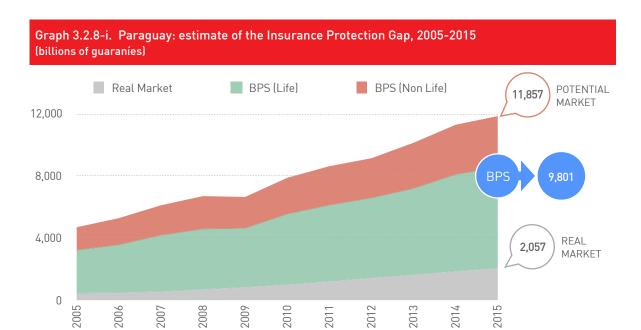


Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

Graph 3.2.8-h. Paraguay: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)

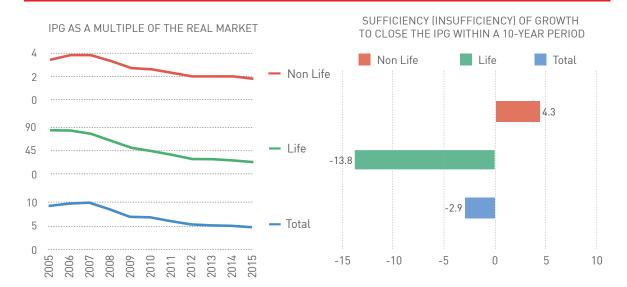


Source: MAPFRE Economic Research



Source: MAPFRE Economic Research

Graph 3.2.8-j. Paraguay: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



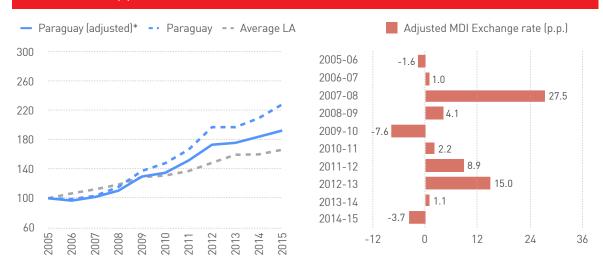
Source: MAPFRE Economic Research

# Market Development Index (MDI)

The estimated Market Development Index (MDI) for the Paraguayan insurance sector is shown in Graph 3.2.8-k. In this case, the MDI (the indicator used in this report to analyze the general trend observed in the evolution and maturity of insurance markets) shows a positive trend over the 2005-2015 period. The trend continues, in general terms, to that recorded by the average of Latin American

insurance markets. As in the case of other markets with significant growth in the Life Insurance sector, on a relatively small basis, an adjustment to the MDI has been done, in order to eliminate an overestimate in the speed to close the Life IPG. Even with this adjustment, it is observed that the performance trend of the Paraguayan market continues in line with the average of markets of the region.

Graph 3.2.8-k. Paraguay: estimate of the Market Development Index, 2005-2015 (index 2005 = 100); p.p.)



Source: MAPFRE Economic Research

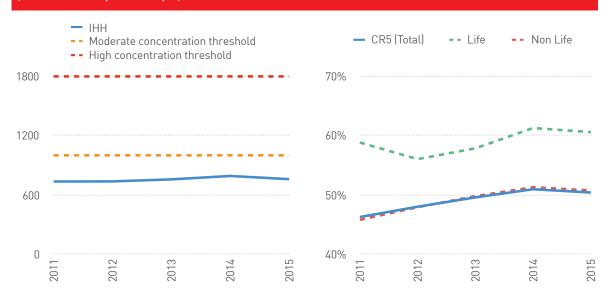
<sup>\*</sup> Adjustment to eliminate overestimation of speed of closure of the Life IPG.

# Overall Ranking

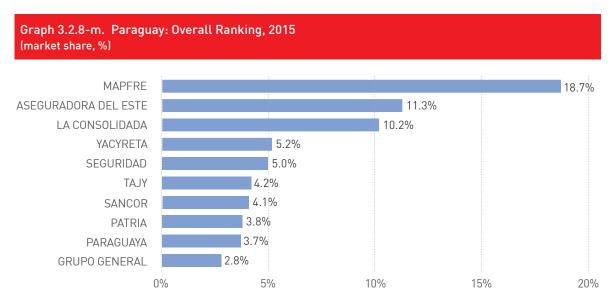
The degree of market concentration, measured by the Herfindahl index, dropped from 790.8 in 2014 to 758.4 in 2015. During this period, 36 insurance companies were operating in Paraguay, consistently under the threshold that prevents a moderate concentration of the industry. Meanwhile, the CR5 of the past five years tended towards increasing concentration, with the five main insurance companies holding 50.4% of the market (see Graph 3.2.8-I).

With regard to the total ranking of insurance companies in Paraguay in 2015, very few changes took place compared to the previous year. MAPFRE continues to lead the ranking, with an 18.7% market share, followed, at a certain distance, by Aseguradora del Este (11.3%) and Consolidada (10.2%). The only significant change in 2015 was the appearance in the ranking of the Patria insurance company in eighth position, displacing El Comercio outside the ranking (see Graph 3.2.8-m).

Graph 3.2.8-l. Paraguay: evolution in the concentration of the insurance sector, 2011-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Superintendence\ of\ Insurance,\ Central\ Bank\ of\ Paraguay)$ 

# Non-Life Ranking

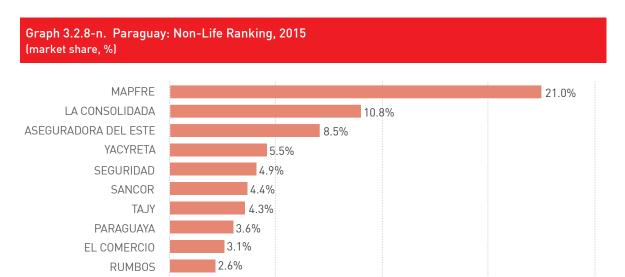
The Non-Life ranking in 2015 also showed very few changes over the previous year. It continues to be led by MAPFRE, with 21.0% of premiums, followed at some distance by La Consolidada (10.8%) and Aseguradora del Este (8.5%). The only change of significance is the appearance of the Rumbos insurance company in tenth place, displacing General outside the ranking (see Graph 3.2.8-n).

# Life Ranking

The Life insurance ranking in 2015 continued to be led by Aseguradora del Este with 28.7% of premiums, followed at some distance by Patria (12.1%) and Panal (6.7%). The Seguridad company entered the ranking in sixth position with 5.9% of premiums, displacing Yacyreta outside the ranking (see Graph (3.2.8-o).

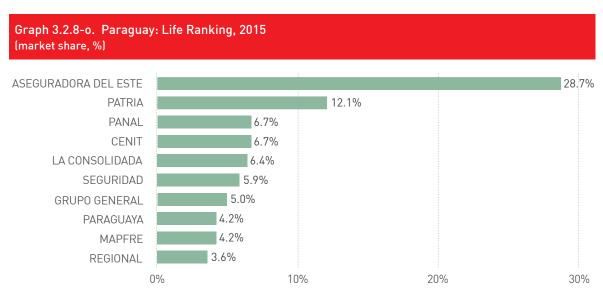
18%

24%



12%

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)



Source: MAPFRE Economic Research (with data from the Superintendence of Insurance, Central Bank of Paraguay)

# Key regulatory aspects

Among the regulatory developments, resolution SS.SG No. 132/15 should be noted, regarding the coverage system of technical reserves, investment of investible funds and corporate governance, along with ruling SS.SG No. 133/15 whereby certain solvency parameters were adjusted.

According to information from the Superintendence of Insurance, a regulation is currently being drafted that will regulate the administration of risks and internal control of insurance companies, providing a benchmark for the issue of regulations and draft amendments to laws, convergence towards a Risk-Based Supervision system, and convergence towards the basic principles of insurance established by the International Association of Insurance Supervisors (IAIS).

# 3.2.9. Argentina

# **Macroeconomic environment**

The Argentine economy was able to overcome the stagnation of 2014 and in 2015 recorded a positive growth of 2.5%, boosted by public and private consumption, and to a lesser extent, by investment (see Graph 3.2.9-a). In terms of supply, growth was experienced in all economic sectors, led by agriculture and livestock, and services.

The current account deficit increased by almost two points in 2015 to 2.8% of the GDP. This was owing to an increase in imports and a decrease in exports, related to a fall in prices of raw materials, the weakening of foreign demand and the appreciation of the real exchange rate. The inflation rate (calculated by the City of Buenos Aires and published by the National Institute of Statistics and Censuses as Alternative CPI) was placed at 26.9%. Meanwhile, salaries increased above the inflation rate, similar to previous years. Unemployment decreased by 1.6 p.p. mid-year, to reach 5.9%.

Graph 3.2.9-a. Argentina: evolution of economic growth and inflation, 2005-2015 (GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %)



Source: MAPFRE Economic Research (with IMF data)

The government resulting from the elections in December 2015 has embarked on significant reforms, such as the unification of the exchange rate, a more restrictive monetary policy and negotiation with creditors to recover access to international financial markets. The economic adjustment led to the contraction of the Argentine economy, and hence both CEPAL and the IMF estimate that in 2016 the GDP will fall by 1.8%, although forecasts indicate that growth recover from 2017.

#### The insurance market

# Growth

The volume of premiums of the Argentine insurance market (annualized at December 2015), was 180,672 million pesos (19,504 million dollars). This means a nominal increase of 39.6% and a real increase of 10% over the same period the previous year (see Graph 3.2.9-b).

Life insurance premiums, which represent 15.7% of the market, grew by 34.5% in nominal terms and 6% in real terms, reaching 28,285 million pesos (3,053 million dollars). All categories grew, led by

Group Life insurance, with premiums rising by 8.5% in real terms (see Table 3.2.9-a).

Non-Life insurance premiums, which represent 84.3% of the market, rose by a nominal rate of 40.6% a a real rate of 10.8%, reaching 152,387 million pesos (16,450 million dollars). Almost all categories recorded positive growth, led by the two most important ones, namely Automobile and Occupational Accident Insurance (which jointly account for 77% of the Non-Life market). Their premiums increased by 9.2 and 22.1% respectively in real terms.

# Balance sheet and equity

Graph 3.2.9-c shows the evolution from 2005 to 2015 of the aggregate balance sheet of the insurance sector in Argentina. Assets reached 271,656 million pesos (29.26 million dollars), and net equity was 55,241 million pesos (5,963 million dollars).

With regard to aggregate capitalization levels of the Argentine insurance sector, measured on total assets, values were almost 20% during the 2005-2015 period. This represents 20.3% over the total assets in 2015.

Graph 3.2.9-b. Argentina: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

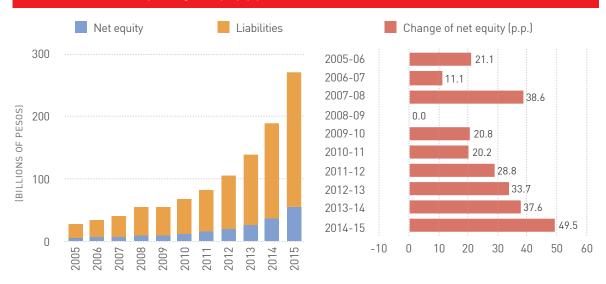
Table 3.2.9-a. Argentina: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of pesos	Millions of USD	% ∆	%∆real
Total	180,672	19,504	39.6	10.0
Life	28,285	3,053	34.5	6.0
Group Life	20,946	2,261	37.7	8.5
Personal Life	4,295	464	22.8	-3.2
Retirement	3,043	329	31.1	3.3
Non-Life	152,387	16,450	40.6	10.8
Automobile	64,554	6,969	38.6	9.2
Other Damages	8,748	944	32.8	4.7
Fire	5,615	606	27.4	0.4
Combined family	7,001	756	38.6	9.2
Agricultural insurance	2,054	222	-19.3	-36.4
Personal Accidents	3,804	411	26.9	0.0
Civil Liability	2,605	281	27.2	0.2
Transport	2,228	241	24.7	-1.7
Credit and Surety	2,471	267	25.9	-0.8
Health	379	41	42.3	12.2
Occupational Accidents	52,928	5,714	54.9	22.1

Source: MAPRE Studies Service (with data from the Argentine Superintendence of Insurance)

(1) Premiums and surcharges issued

Graph 3.2.9-c. Argentina: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Argentine\ Superintendence\ of\ Insurance)$ 

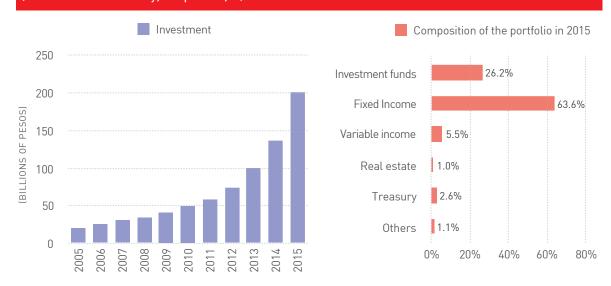
#### Investments

Graphs 3.2.9-d and 3.2.9-e show the evolution, structure and composition of the aggregate investment portfolio at a sector level of the Argentine insurance industry from 2005 to 2015. Over the last year of the period analyzed, investments reached 201,340 million pesos (21,735 million dollars), concentrated in fixed income (63.6%), investment

funds (26.2%) and, by a significantly smaller proportion (5.5%), variable yield instruments.

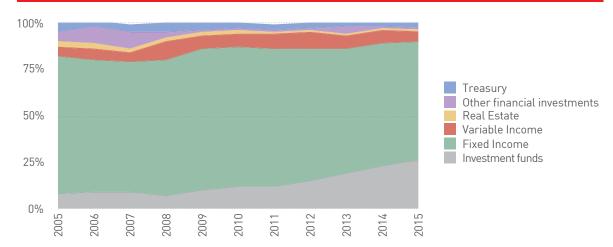
A notable feature of the analysis of the aggregate investment portfolio is the gradual increase of managed investments through investment funds. This increased in relative values from 2008 from representing 10% of total investments to 26.2% at the end of 2015.

Graph 3.2.9-d. Argentina: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

Graph 3.2.9-e. Argentina: evolution in the structure of investments, 2005-2015 (composition, %)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Argentine\ Superintendence\ of\ Insurance)$ 

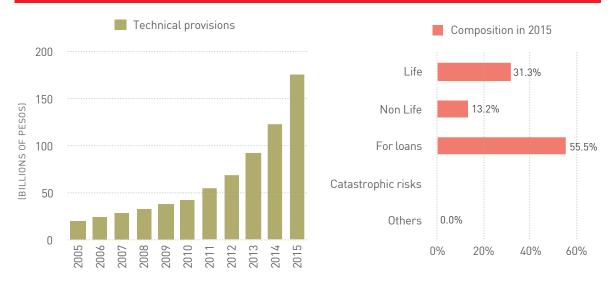
# Technical provisions

The development and composition of technical provisions in the Argentine insurance sector is given in Graphs 3.2.9-f and 3.2.9-g. In 2015, technical provisions amounted to 175,875 million pesos (18,984 million dollars). Of this total, 31.3% corresponded to Life insurance, 13.2% to provisions

for unearned premiums and current risks of Non-Life insurance, and 55.5% to provisions for claims.

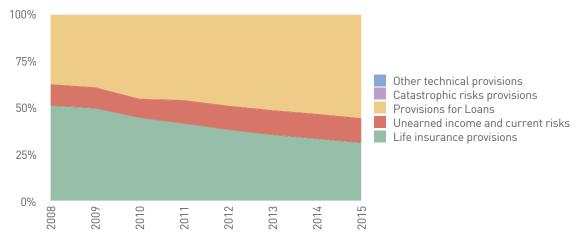
As shown in Graph 3.2.9-g, during the period from 2008 to 2015 there was a significant reduction in the weight of Life insurance provisions, going from 51.3 precent of total provisions in 2008 to 31.3% in 2015.

Graph 3.2.9-f. Argentina: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Argentine\ Superintendence\ of\ Insurance)$ 

Graph 3.2.9-g. Argentina: evolution in the structure of technical provisions, 2008-2015 (composition, %)



 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Argentine\ Superintendence\ of\ Insurance)$ 

# Technical performance

Once again, the technical result of the insurance business in Argentina was negative. In 2015, the combined ratio reached 114%, 2.2 p.p. less than the previous year. This was owing to an improvement by three-tenths in accident rates, and 1.9 p.p. in expenditure. No clear trends can be observed in the evolution of these ratios in recent years (see Graph 3.2.9-h).

# Results and profitability

In spite of the negative technical result, the net result of the insurance business in Argentina in 2015 (with data annualized in December) was 17,965 million pesos (1,939 million dollars), with a nominal increase of 70% compared to the previous year, based on the positive effect of the financial result.

With regard to profitability, the return on equity (ROE) was 32.5% in 2015, increasing by 4 p.p. over 2014. A similar situation can be seen in the return on assets (ROA), which reached a level of 6.6% in 2015, indicating a increase of 1 p.p. compared to 2014 (see Graph 3.2.9-i).

# Penetration, density and depth of insurance

Graph 3.2.9-j shows the chief structural trends in the development of the Argentine insurance sector throughout the 2005-2015 period. As you can see, the penetration index (premiums/GDP) in 2015 was 3.1%. After a period of stagnation between 2005 and 2010, the indicator shows an upward trend from 2011 onwards, in line with the general trend observed in the Latin American region. However, this performance could be linked to the process of increasing prices in the economy (see Graph 3.2.9-a).

Moreover, as previously mentioned, in the insurance industry, the production cycle is reversed and

product rates do not follow an incurred cost, but the estimate of a cost to be incurred in the future. In this case, the most important component of this future cost in the accident rate which (particularly in Non-Life insurance) is strongly determined by the general price level of the economy. Hence, when estimating penetration, the expected cost of the following year is compared to the production flow of the economy of the current year. In scenarios of high inflation, this can lead to an overestimate of the indicator. It is therefore advisable to continue assessing the penetration performance of the Argentine market over the coming years in order to determine whether the growth trend observed continues when the general prices of the economy have stabilized, or to confirm that the increased penetration of the period under analysis is an effect of the increase in rates during the year in view of the anticipated rise in prices the following year.

With regard to the density level of insurance (premiums per capita), the indicator placed it at 4,173 pesos (450.5 dollars), 38.2% more than in 2014 (3,019 pesos). Similar to the case of penetration, density has tended to grow throughout the last decade. Its measurement in local currency is influenced by the general performance of prices.

Regarding the depth index (Life insurance premiums in relation to total premiums), in 2015 the indicator placed it at 15.7%, 13.6 p.p. below this figure in 2005. In this case, the depth trend of the Argentine insurance market differs substantially from the Latin American average.

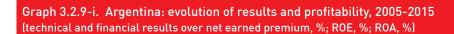
This performance is confirmed in the dispersion analysis shown in Graph 3.2.9-k, which indicates the combined effect of the progress of the Argentine insurance market, in relation to the regional insurance market, from the perspective of the joint change in the penetration and depth levels.

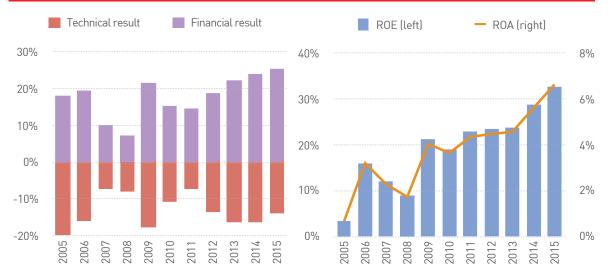
This analysis shows how the development trend of the Argentine market differs significantly from the trend observed in the Latin American market as a whole

Graph 3.2.9-h. Argentina: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)



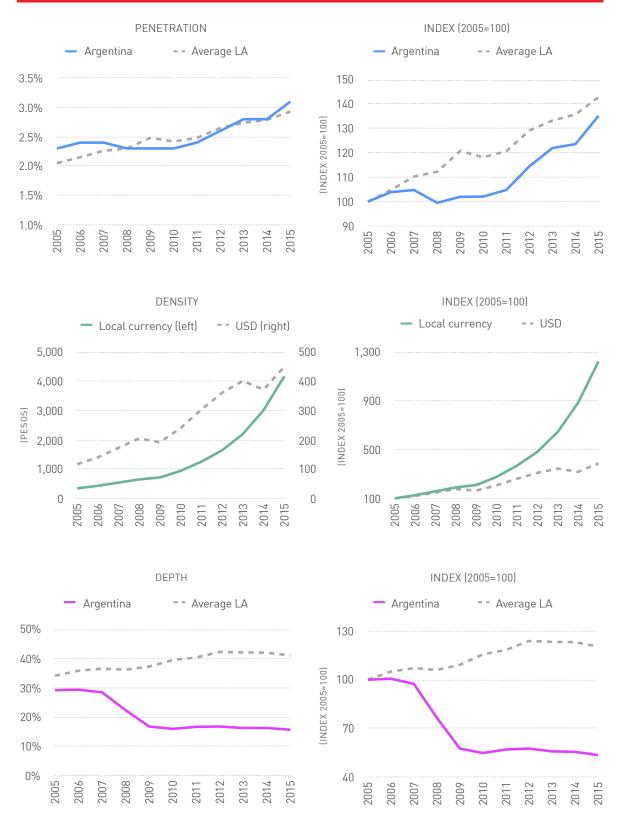
Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)





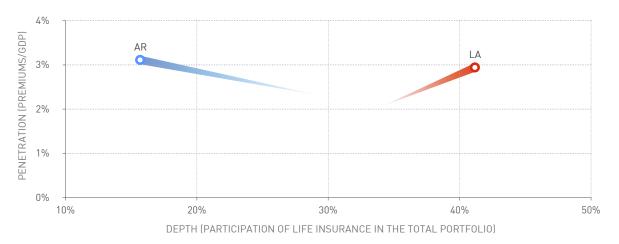
Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

Graph 3.2.9-j. Argentina: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index = 100)



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

Graph 3.2.9-k. Argentina: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



Source: MAPFRE Economic Research

#### Estimate of the Insurance Protection Gap

The calculation of the IPG for the insurance market in Argentina over the period 2005-2015 is shown in Graph 3.2.9-l. In 2015, the gap was 299,635 million pesos, equivalent to 1.7 times the real insurance market at the end of that year.

The structure and evolution of the IPG demonstrates the predominance of Life insurance. In 2005, 70.7% of the IPG corresponded to Life insurance, representing a sum of 26,401 million pesos. However, in 2015 this percentage had risen to 82.4% (246,927 million pesos). On the other hand, Non-Life insurance reduced its participation in the IPG from 29.3 to 17.6% over this period (from 10,963 to 52,708 million pesos).

Thus, the potential insurance market in Argentina in 2015 (the sum of the real market and the IPG) was set at 480,306 million pesos, 2.7 times the country's market that year.

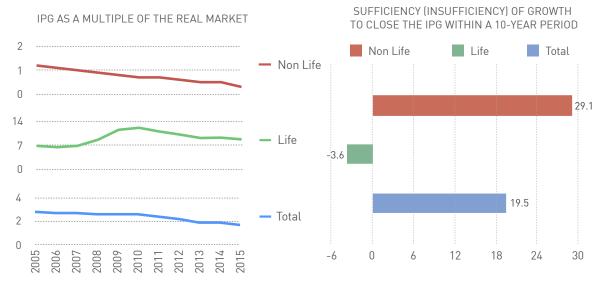
Graph 3.2.9-m shows the estimate of the IPG as a multiple of the real market each year. This comparison

enables us to determine the performance trend of the gap. In the case of the Argentine insurance market, the IPG, as a multiple, follows a declining trend throughout the past decade, both when analyzing the total market (from 2.8 to 1.7 times) and in the Non-Life sector (1.2 to 0.3 times). However, this trend is reversed in the Life insurance sector, in which the gap rises from 6.8 to 8.7 times between 2005 and 2015.

Finally, Graph 3.2.9-m summarizes the assessment of the capacity of the Argentine insurance market to close the IPG. This is done through a comparative analysis between the growth rates recorded over the past ten years in this market, and the growth rates that will be needed to close the IPG, determined in 2015, throughout the next decade. During the 2005-2015 period, the Argentine insurance market showed an annual average growth of 29.8%. This dynamic was marked by an average growth rate of 21.9 precent in the Life insurance sector, and 32.1% in the Non-Life segment. As you can see, annual growth rates were highly influenced by the inflation rates recorded in the economy during this time.

Graph 3.2.9-l. Argentina: estimate of the Insurance Protection Gap, 2005-2015 (in billions of pesos) Real Market BPS (Life) BPS (Non Life) POTENTIAL 480.3 MARKET 500 400 300 200 REAL 100 180.7 MARKET 0 2010 2012 2013 2014 2009 2011 201

Graph 3.2.9-m. Argentina: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



Source: MAPFRE Economic Research

Source: MAPFRE Economic Research

According to the financial year summarized in Graph 3.2.9-m, if the same growth dynamic were to continue during the next ten years, the growth rate of the market as a whole would be sufficient to cover the IPG determined in 2015 in terms of Non-Life insurance.

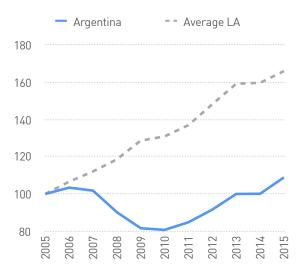
However, the insurance market in Argentina would need an annual growth rate of 25.5% (3.6 p.p. more than the past decade) over the next ten years in order to close the IPG estimated in 2015 in the Life insurance segment.

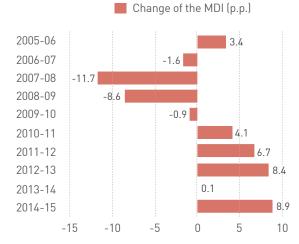
#### Market Development Index (MDI)

The estimate of the Market Development Index (MDI) for the insurance sector in Argentina is given in Graph 3.2.9-n. The MDI intends to summarize the trend in the evolution and maturity of insurance markets.

In the case of the Argentine insurance sector, the indicator shows a trend that substantially differs from the trend of the Latin American region as a whole. The MDI drops from 2005 onwards and only reaches this benchmark value again in 2014. This performance is strongly determined by the trends indicated above, regarding the Life insurance sector.

Graph 3.2.9-n. Argentina: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)





Source: MAPFRE Economic Research

#### Overall Ranking

In 2015, there were 172 insurance institutions operating in Argentina. The Herfindahl and CR5 indexes show a low degree of concentration, although there was a slight upward trend from 2007, and more clearly in 2013 (See Graph 3.2.9-o).

It is important to highlight certain business movements that affect the positioning of the country's main insurance groups in 2015. In August 2014, the Werthein Group and Generali reached an assets separation agreement, which reorganized their insurance businesses in Argentina: the Werthein Group acquired the total share capital of La Caja Aseguradora de Riesgos del Trabajo, La Estrella Compañía de Seguros de Retiro and La Caja de Seguros de Retiro. It transferred all its shares in La Caja de Ahorro y Seguro, Caja de Seguros and Europ Assistance Argentina to Generali.

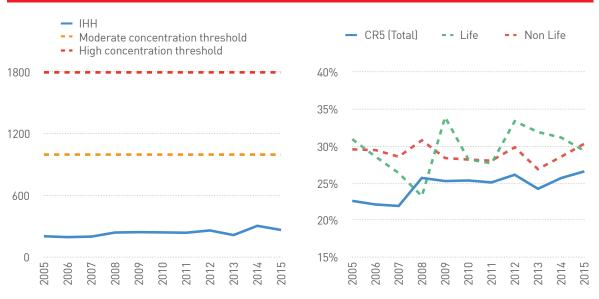
Later, in November 2015, Generali and the Argentine Indalo group announced an agreement whereby the latter acquired 100% of shares in Generali Argentina, which in 2016 changed its name to Providencia. Meanwhile, the Italian group transferred the majority of the corporate and international portfolio of Generali Argentina to its subsidiary, La Caja de Ahorro y Seguro.

Furthermore, through its subsidiary, La Caja Aseguradora de Riesgos del Trabajo, the Werthein group continued increasing its market share in this branch, with the acquisition of QBE Argentina ART, a subsidiary of QBE, the Australian holding. The operation was announced at the start of 2015, and in September it obtained the approval of the Argentine Superintendence of Insurance.

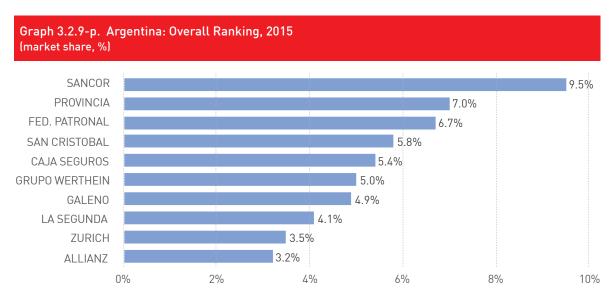
Thus Sancor is again leader of the overall ranking for 2015 in the Argentine insurance market, with 9.5% of premiums. Provincia Seguros (7%) and Federación Patronal (6.7%) now occupy the next two positions, displacing San Cristobal (5.8%) to fourth place.

They are followed by Caja Seguros with 5.4% of market premiums, the Werthein group (5%), and Galeno (which rose two positions) with a share of 4.9%. Next come La Segunda with 4.1%, Zurich with 3.5% and Allianz with a market share of 3.2% (see Graph 3.2.9-p).

Graph 3.2.9-o. Argentina: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)



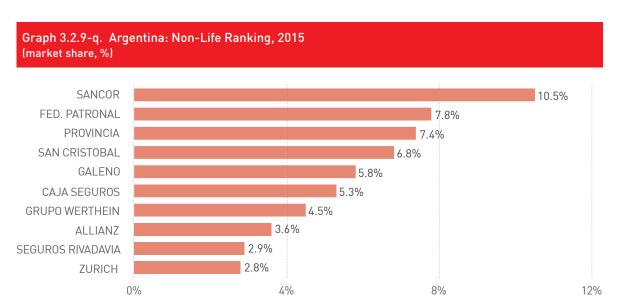
Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

#### Non-Life Ranking

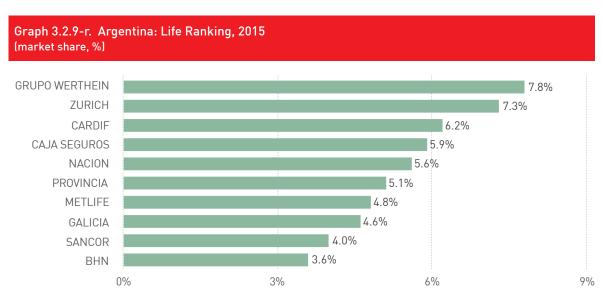
In view of the importance of Non-Life insurance in Argentina, the companies that form the Non-Life ranking in 2015 are almost the same as those in the overall ranking (see Graph 3.2.9-q). Sancor leads the classification, with 10.5% of market premiums. It is followed by Patronal (7.8%), Provincia (7.4%) and San Cristóbal (6.8%).

#### Life Insurance Ranking

Finally, with regard to Life insurance ranking, after the acquisitions made by the Werthein group, it now holds first position with 7.8% of premiums, followed by Zurich with 7.3%, Cardif with 6.2%, Caja Seguros with 5.9%, and Nación with a 5.6% share (see Graph 3.2.9-r).



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)



Source: MAPFRE Economic Research (with data from the Argentine Superintendence of Insurance)

#### Key regulatory aspects

According to information from the Argentine Superintendence of Insurance, several recent, significant changes can be highlighted.

Firstly, with regard to investments, the elimination of the requirements for minimum compulsory investment percentages in the so-called "productive projects with direct impact on the real economy", having verified the low yields of these investments in comparison with other instruments available on the market, along with their poor liquidity.

For this purpose, a timeline for dismantling these positions has been established (Resolution SSN 39645 19/01/2016). Resolution SSN 39647 22/01/2016 envisages that Shares of Common Funds of SME Investments are admitted as computable investments, for a minimum of 3% and up to 20% of total investments (excluding real estate).

Through Resolution SSN 39766 08/04/2016, the coverage of Compulsory Group Life Insurance (CGLI) is increased and its automatic upgrading is established: the insured sum will be equivalent to 5.5 Minimum Mobile and Minimum Living Wages. The aforementioned CGLI has an eminently social aim addressed chiefly to protect workers. It covers the risk of death and includes suicide as a compensable case, without any limitations, of all workers in relation to dependence. This increase entails a rise in compensation from 600 to 2,200 dollars.

Red tape was also simplified for transferring currency overseas for reinsurance payments. In this sense, the Argentine Superintendence of Insurance no longer intervenes, only the Central Bank of Argentina (Communication BCRA "A" 5981 02/06/2016).

With regard to the compulsory coverage of Occupational Risks, due to the increase in judiciality that affects the system and the rise in compensation, provisions were made to adapt the Global Liability of lawsuits of Occupational Risk coverage, increasing the minimum amount reserved for each lawsuit by 100%. This increase entailed a rise in compensation from 4,600 to 9,200 dollars (Resolution SSN 39909 30/06/2016).

In accordance with the analysis carried out by the Argentine Superintendence of Insurance, through Resolution SSN 39927 14/07/2016, the coverage amounts were updated of Compulsory Civil Liability of motor vehicles and buses for Public Transport of Passengers. The amounts for hospital and funeral expenses were also increased. For buses used for Public Transport of Passengers, the limit of the deductible was raised, stipulating that the insurance company settles the payment, and later the insured will be refunded with the corresponding amount (see Table 3.2.9-b).

Lastly, with regard to the Minimum Capital per Branch, within the capital review framework and in view of the sustained growth of the insurance market, a differentiation was made between the requirements for insurance companies already operating in the market and those wishing to enter in the future.

In the case of applications to authorize new insurance companies, the requirement to establish a sole purpose was stipulated, either in insurance or in reinsurance. New insurance institutions will not be able to operate jointly in equity damage insurance and the insurance of people. In view of the impact that might be generated by the modification of the Minimum Capital per Branch requirements, Resolution SSN 39957 29/07/2016 established a gradual adaptation schedule to be completed in stages, starting in December 2016 and ending in September 2017 (see Table 3.2.9-c).

# Table 3.2.9-b. Argentina: coverage of Civil Liability (in USD)

Limits of coverage Compulsory Civil Liability Insurance In force from From 01.09.2016 01.03.2014 Death or total and permanent disability per person 13,300 26,600 Death or total and permanent disability per case 26,600 53,200 Hospital expenses 1,000 20,000 Funeral expenses 533 1,066

	Maximum limits per case		
Voluntary Civil Liability Insurance	In force from 01.03.2014	From 01.09.2016	
Automobiles, trucks, towed vehicles, motorcycles motorbikes, motor homes, rental cars without driver, towed vehicles	267,000	400,000	
Taxis, chauffeur-driven cars, farm machinery, trucks, articulated vehicles, emergency services, security forces, vehicles for M1 passenger transport	867,000	1,200,000	
Vehicles for M2 and M3 passenger transport	867,000	2,000,000	

Source: Argentine Superintendence of Insurance

## Table 3.2.9-c. Argentina: Minimum Capital by Segments (in USD1)

		Exist	ing instituti	ons	New ins	titutions
		on 31.07.2016			additional	
to	Automobiles	2,000,000	0 (00 000			1 000 000
b	Motor vehicles	1,200,000	2,400,000			1,000,000
f	CL and Air Navigation	600,000	-	3,000,000		1,000,000
h	Credit and Surety	600,000				
	Damages <sup>2</sup>	600,000				
	Individual and group life without mathematical reserve	600,000		3,600,000		
	TPP s.a. additional to	2,400,000			3,000,000	1,000,000
g	Environmental Liability additional f	300,000				1,000,000
	Environmental surety additional h	300,000				1,000,000
	CL+ Environmental surety additional f and h	400,000				1,333,333
	Occupational Risks (ongoing) additional	1,000,000				
	Occupational CLadditional f	600,000				1,000,000
	Funeral	300,000				
	TPP Mutual	2,400,000				
	Life Disability & Survivor	800,000				
	Individual and group life with mathematical reserve	600,000				3,000,000
	Retirement	2,000,000			3,000,00	
	ART exclusive	2,000,000			3,000,00	
	Reinsurance companies	20,000,000				20,000,000

Source: Argentine Superintendence of Insurance

 <sup>[1]</sup> The exchange rate used was USD 1 = \$ar 15
 [2] Including segments of Fire and Combined, Theft and Similar Risks, Glass, Transport, Livestock, Hail, Technical Insurance and Miscellaneous Risks.

#### 3.2.10. Uruguay

#### **Macroeconomic environment**

The Uruguayan economy grew by 1% in 2015, compared to 3.2% the previous year. The most dynamic sectors were industry, owing to the increased production of cellulose pulp, and telecommunications, while the remaining economic sectors recorded stagnation or downturns. The most noticeable aspect in expenditure was the fall in investments and the increase in public spending.

The inflation rate increased by 1.2 p.p. to reach 9.4% in 2015. It has continued to grow during the first months of 2016, moving into double digits. The unemployment rate rose by 0.7 points to reach 8%. Real wages rose by 1.6%, a lower increase than in recent years.

Regarding the foreign sector, both exports and imports dropped. However, the greater relative drop of exports against imports reduced the current account deficit by more than one point, placing it at 3.5% of the GDP. CEPAL puts growth forecasts at 0.6%, while the FMI lowered this estimate to 0.1%.

#### The insurance market

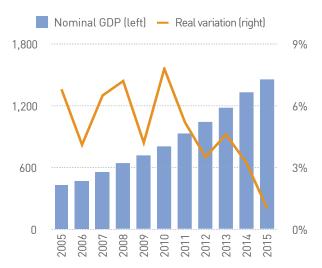
#### Growth

The volume of insurance market premiums in Uruguay in 2015 was 34,910 million pesos (1,279 million dollars). This represents a nominal increase of 15.3% and a real increase of 5.3% over the previous year.

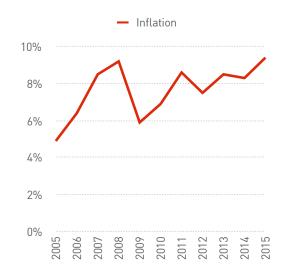
The market continues to grow, but is suffering a downturn compared to 2014, when growth was at a nominal rate of 22.4% and a real rate of 13%. In 2014, the Life insurance segments, which represent 33.4% of the total, grew both in nominal and in real terms. However, Non-Life insurance segments, which account for the remaining 66.6%, only grew in nominal terms and decreased in real terms (see Graph 3.2.10-b and Table 3.2.10-a).

There was strong growth in Life Insurance segments in 2015, with a nominal rate of 30.6 and real rate of 19.3%, reaching 11,672 million pesos (428 million dollars) The growth rate increased compared to the previous year, during which the nominal growth rate was 25.9% and the real growth rate 16.3%. The good performance of disability and survivor insurance is noteworthy. Premiums increased by almost 30% in real terms. Premiums of Non-Life insurance segments reached 23,238 million pesos (852 million dollars), with a nominal increase of 8.9% compared to the previous year, but a decrease of 0.5% in real terms.

Graph 3.2.10-a. Uruguay: evolution of economic growth and inflation, 2005-2015 [GDP in local currency, billion pesos; real growth rate, %; annual inflation rate, %]



Source: MAPFRE Economic Research (with IMF data)



Stagnation in the Non-Life sector was due to a drop in 2015 of the two most important segments, Automobile and Occupational Accidents. Premiums fell in real terms by 0.5 and 0.9% respectively.

Apart from the above two segments, there were decreases in real terms in Transport and Other Segments too.

Table 3.2.10-a. Uruguay: volume of premiums<sup>1</sup> by branch, 2015 (premiums in local currency and USD; nominal and real growth rates, %)

Branch	Millions of pesos	Millions of USD	% Δ	%Δreal
Total	34,910	1,279	15.3	5.3
Life	11,672	428	30.6	19.3
Disability & Survivor	6,779	248	42.1	29.9
Non-Disability & Survivor	4,893	179	17.4	7.3
Non-Life	23,238	852	8.9	-0.5
Automobile	9,281	340	8.9	-0.5
Other Segments	2,321	85	3.2	-5.7
Fire	1,560	57	19.3	9.0
Transport	844	31	0.7	-7.9
Civil Liability	507	19	13.6	3.8
Theft	487	18	23.2	12.6
Credit and Surety	462	17	10.4	0,9
Occupational Accidents <sup>2</sup>	7,777	285	8.4	-0.9

Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

Graph 3.2.10-b. Uruguay: evolution of growth in the insurance market, 2005-2015 (premiums in local currency; growth rates, %)



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

<sup>(1)</sup> Premiums issued, net of cancellations

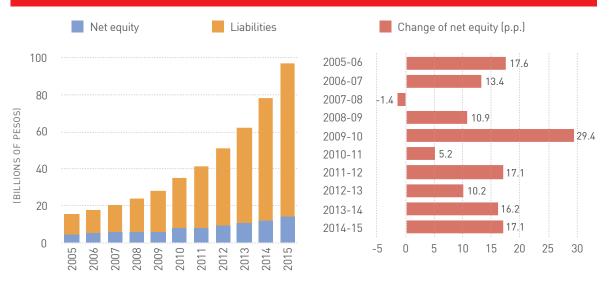
<sup>[2]</sup> The volume of Occupational Accident premiums corresponds to the Banco de Seguros del Estado.

#### Balance sheet and equity

Graph 3.2.10-c shows the 2005-2015 evolution of the aggregate balance sheet of the Uruguayan insurance sector. You can see that in 2015, the sector's total assets were 96,714,9 million pesos, while net equity was 14,351.7 million pesos, 17.1 p.p. above the value observed in 2014.

On the other hand, the evolution in aggregate capitalization levels of the Uruguayan insurance sector should be underlined (measured on total assets), which in the 2005-2007 period were around 27%. They then progressively decreased to 14.8% of total assets by the end of 2015.

Graph 3.2.10-c. Uruguay: evolution of the aggregate balance sheet of the insurance sector, 2005-2015 (amounts in local currency; change in equity, p.p.)



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

#### Investments

Graphs 3.2.10-d and 3.2.10-e show the evolution of investments, along with the composition of the aggregate portfolio at a sector level during the 2005-2015 period for the Uruguayan insurance sector.

In 2015, investments reached 83,040.7 million pesos (3,043 million dollars), with 81% being concentrated in investments in fixed and variable

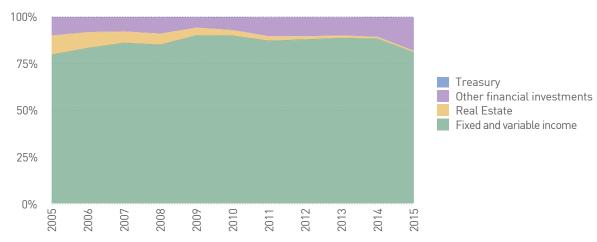
income instruments, 18.3% in other financial investments (mainly bank deposits), 0.7% in real estate investments and the remaining 0.04% in liquid assets.

Additionally, it is worth noting from the analysis of the evolution of the aggregate portfolio the change in the relative weight of real estate investments, which in 2005 represented 10.1% of the portfolio, dropping to 0.7% in 2015.

Graph 3.2.10-d. Uruguay: evolution of investments in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Graph 3.2.10-e. Uruguay: evolution in the structure of investments, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

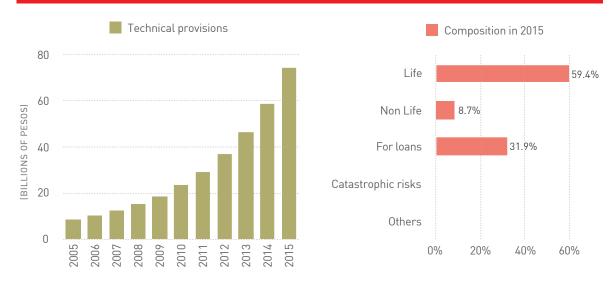
#### Technical provisions

The evolution and composition of technical provisions in the Uruguayan insurance sector from 2005 to 2015 is given in Graphs 3.2.10-f and 3.2.10-g. In 2015, technical provisions amounted to 74,257 million pesos (2,721 million dollars). Of this total, 59.4% corresponded to Life insurance, 8.7% to provisions for unearned premiums and current risks

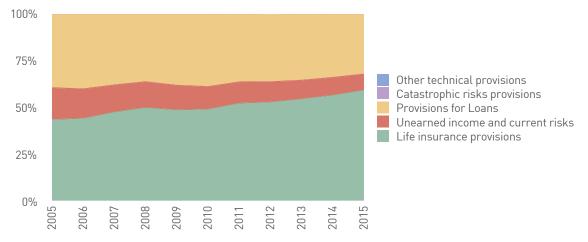
of Non-Life insurance, and the remaining 31.9% to provisions for claims.

It is worth noting that throughout the 2005-2015 period there was sustained growth in the relative weight of the technical provisions in the Life insurance segment, going from 43.7% of total provisions in 2005 to 59.4% in 2015.

Graph 3.2.10-f. Uruguay: evolution of technical provisions in the insurance sector, 2005-2015 (amounts in local currency; composition, %)



Graph 3.2.10-g. Uruguay: evolution in the structure of technical provisions, 2005-2015 (composition, %)



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

#### Technical performance

In spite of the 2.8 p.p. decrease in the expenditure ratio, dropping to 39.4%, the 5.6 point increase in the accident rate up to 65.2% increased the combined ratio of the Uruguayan market by almost

three points, up to 104.6%, thereby worsening the negative technical result. From a longer term perspective, a slight downward trend can be seen in expenditure, and an upturn in the accident rate (see Graph 3.2.10-h).

Graph 3.2.10-h. Uruguay: evolution in the technical performance of the market, 2005-2015 (total combined ratio, %; annual change of combined ratio, p.p.)



### Results and profitability

The net result of the 2015 financial year was 869 million pesos (32 million dollars). This was 13.7% less than the previous year, and was supported by the positive effect of the financial result, which offset the sector's negative technical result (see Graph 3.2.10-i).

With regard to profitability, the return on equity (ROE) was 6.1% in 2015, with a drop of 2.16 p.p. compared to 2014. A similar situation can be seen in the return on assets (ROA), which reached 0.9% in 2015, meaning a decrease of 0.40 p.p. compared to 2014. This confirms a downward trend in the profitability of the industry, starting in 2013.

Graph 3.2.10-i. Uruguay: evolution of results and profitability, 2005-2015 (technical and financial results over net earned premium, %; ROE, %; ROA, %) Technical result Financial result ROE (left) ROA (right) 30% 20% 4% 20% 15% 3% 10% 2% 10% 0% 5% 1% -10% 0% 0% -20% -5% -1%

Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

#### Penetration, density and depth of insurance

Graph 3.2.10-j shows the main structural trends in the Uruguayan insurance sector during the 2005-2015 period. The penetration index (premiums/GDP) in 2015 was 2.4%, 0.7 p.p. above the level recorded in 2005. In general terms, the penetration index of the Uruguayan market has tended to rise throughout the period under analysis, although below the average absolute values of the markets of the region.

Insurance density in Uruguay (premiums per capita) was 10,177.0 pesos (373 dollars), 14.9% above the level reached in 2014 (8,859.7 pesos). Density (measured in local currency) tended to rise during the period under analysis, with a cumulative increase of 371.2% over the 2005-2015 period. However, when analyzing it in dollars, the indicator shows a sharp fall in 2015, due to the devaluation of the peso.

The depth of insurance in the Uruguayan market (Life insurance premiums in relation to total premiums), was 33.4%, reaching 15.3 p.p. above the level recorded in 2005. Growth in the depth of the Uruguayan insurance market seems to converge with the trend of Latin American markets as a whole, although with absolute levels below the regional average.

Graph 3.2.10-k shows the performance of the Uruguayan insurance market, using a dispersion analysis that considers the joint effect of the progress of this market in relation to the Latin American insurance market, based on the combined change of penetration and depth levels. This analysis reveals that the development trend of the Uruguayan insurance market is, in general terms, in line with the Latin American average.

#### Estimate of the Insurance Protection Gap

The estimate of the IPG for the Uruguayan insurance market between 2005 and 2015 is given in

Graph 3.2.10-l. The insurance gap in 2015 was 85,138 million pesos, representing 2.4 times the Uruguayan insurance market at the end of the year.

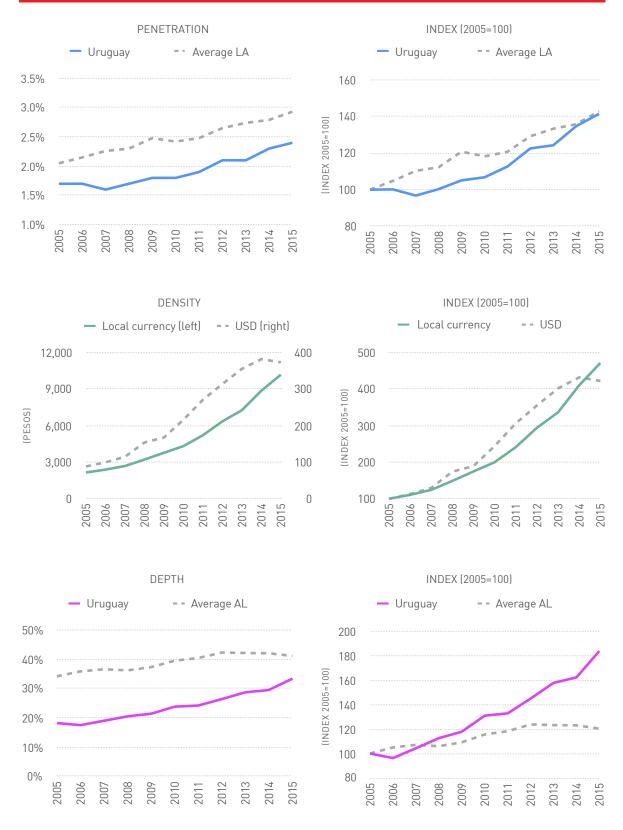
The structure and evolution of the IPG throughout the period analyzed shows the predominance of the Life insurance segment. At the end of 2015, 67.1% of the IPG corresponded to Life insurance (57,115 million pesos), 2.7 p.p. less than the participation of this sector in the measurement corresponding to 2005. Meanwhile, 32.9% of the remainder of the 2015 insurance gap is accounted for by the Non-Life insurance sector (28,023 million pesos).

Thus, the potential insurance market in Uruguay at the end of 2015 (the sum of the real market and the IPG), was estimated at 120,048 million pesos, which represents 3.4 times the total insurance market that year.

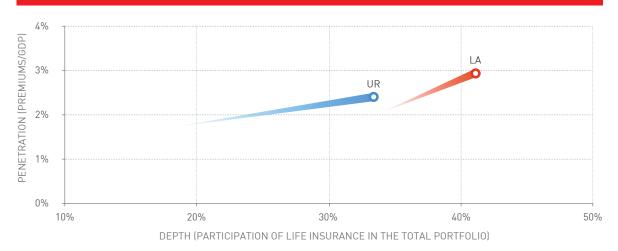
Graph 3.2.10-m gives the estimate of the insurance gap of the Uruguayan market as a multiple of the real insurance market. The IPG as a multiple of the market showed a sustained downward trend throughout the 2005-2015 period, both in the case of Life (from 15.9 to 4.9 times) and Non-Life (from 1.5 to 1.2 times). Graph 3.2.10-m shows a summary of the assessment of the capacity of the Uruguayan insurance market to close the IPG, using a comparative analysis between the growth rates recorded over the past ten years and the growth rates needed to close the gap determined in 2015 over the following decade. In this sense, the Uruguayan insurance market grew at an average annual rate of 17.1%. This comprised an annual growth rate of 24.5% in the Life insurance sector, and 14.7% in the Non-Life segment.

According to this analysis, if the same growth dynamics observed during the last decade were to continue over the next ten years, the growth rate of the Uruguayan insurance market would be sufficient to close the estimated insurance gap for 2015 during this period.

Graph 3.2.10-j. Uruguay: evolution of penetration, density and depth levels, 2005-2015 (premiums/GDP, %; premiums per capita, pesos and USD; total premiums/Life premiums, %; 2005 index = 100)

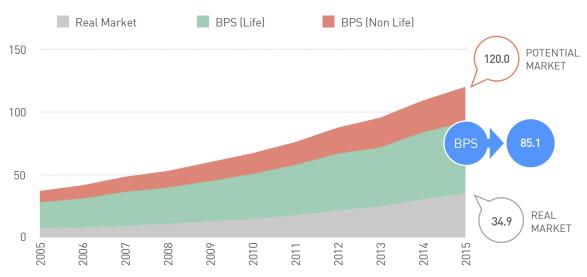


Graph 3.2.10-k. Uruguay: comparative analysis of penetration and depth, 2005-2015 (penetration, %; depth, %)



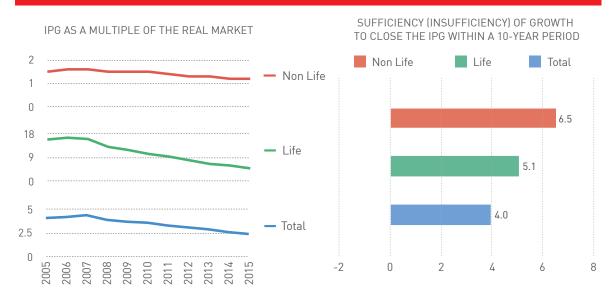
Source: MAPFRE Economic Research

Graph 3.2.10-l. Uruguay: estimate of the Insurance Protection Gap, 2005-2015 (in billions of pesos)



Source: MAPFRE Economic Research

Graph 3.2.10-m. Uruguay: details of the Insurance Protection Gap, 2005-2015 (multiple of the real market, times; p.p.)



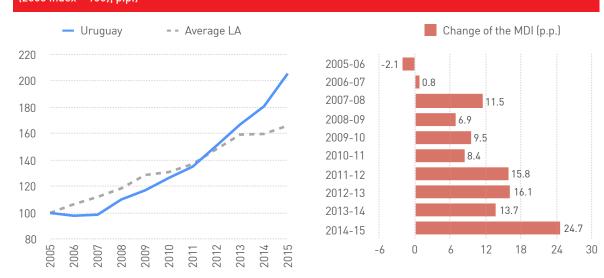
Source: MAPFRE Economic Research

#### Market Development Index (MDI)

The estimate of the Market Development Index (MDI) for the insurance sector in Uruguay is shown in Graph 3.2.10-n.

For the Uruguayan insurance market, the MDI shows a positive trend over the 2005-2015 period, which from 2013 was even higher than the average performance of Latin American insurance markets.

Graph 3.2.10-n. Uruguay: estimate of the Market Development Index, 2005-2015 (2005 index = 100); p.p.)



Source: MAPFRE Economic Research

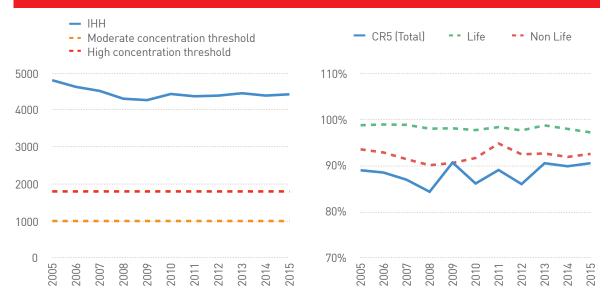
#### Overall Ranking

By the end of 2015, 15 insurance companies were operating in Uruguay; 14 private companies and one state company, the Banco de Seguros del Estado, which operates under a monopoly system in the Occupational Accidents insurance. It is an extremely concentrated market, with high values in the Herfindahl and CR5 indexes, maintained over the years. This is basically due to the high market

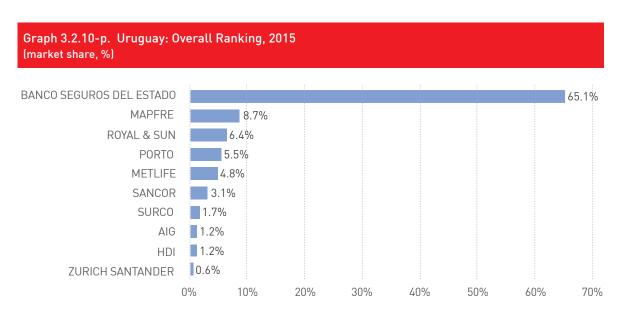
share of the aforementioned state entity (see Graph 3.2.10-o).

As regards the total ranking of the Uruguayan insurance market in 2016, the Banco de Seguros del Estado accounted for 65.1% of all premiums, very far ahead of MAPFRE (8.7%) and Royal & Sun (6.4%). It is important to note the acquisition by the Colombian group Sura of Royal & Sun, which will operate under the name of Seguros SURA (see Graph 3.2.10-p).

Graph 3.2.10-o. Uruguay: evolution in the concentration of the insurance sector, 2005-2015 (Herfindahl index; CR5 index, %)



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).



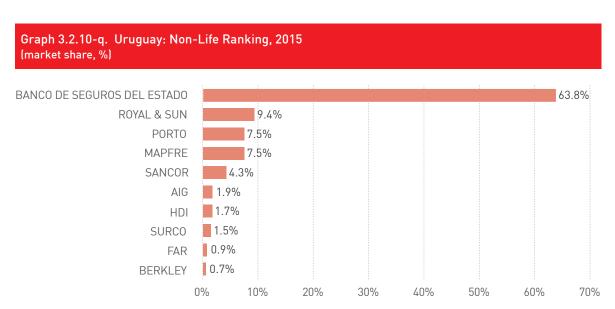
 $Source: MAPFRE\ Economic\ Research\ (with\ data\ from\ the\ Central\ Bank\ of\ Uruguay).$ 

#### Non-Life Ranking

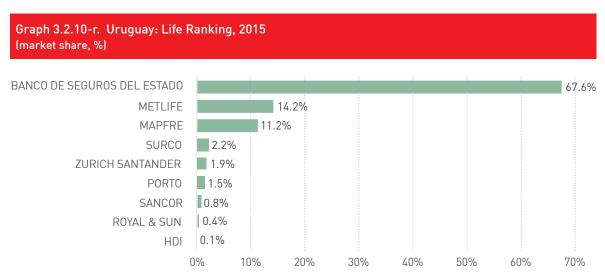
Regarding the Non-Life ranking in 2015, the Banco de Seguros del Estado accounted for 63.8% of the market share, followed at some distance by Royal & Sun (acquired by Sura) and Porto with shares of 9.4 and 7.5% respectively (see Graph 3.2.10-q).

#### Life Ranking

Lastly, and similar to the overall ranking and Non-Life ranking, the Banco de Seguros del Estado heads the list with 67.6% of premiums. It is followed by MetLife with 14.2% and MAPFRE in third position with a market share of 11.2% (see Graph 3.2.10-r).



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).



Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay).

#### Key regulatory aspects

One of the key regulatory innovations of 2015 was Circular No. 2.212, published by the Central Bank of Uruguay in January that year. It stipulated that it is compulsory for insurance companies to submit to a risk rating by the Uruguay Superintendence of Financial Services in order to operate in Group II (Life Insurance). Similarly, it stipulated that insurance companies obliged to acquire this risk rating must upgrade this rating annually. It it worth noting that this Circular includes the ethical principles that insurance and reinsurance companies are required to apply in their business management practices, along with the Code of Ethics they should adopt. This code sets forth the actions and standards of behavior expected from all members of the organization.

Likewise, in Circular 2.237, published by the Central Bank of Uruguay in December 2015, it was

decided that insurance and reinsurance companies should implement corporate governance practices and an integral risk management system, in line with the principles and objectives of the Minimum Management Standards, stipulated by the Superintendence of Financial Services. This regulation on corporate governance and integral risk management came into force on 30 June this year. It also defines corporate governance as "the way in which institutions are organized in order to carry out administration and management control", establishing the requirements that efficient corporate governance should include.

Lastly, in Circular 2.248 of January 2016, published by the Central Bank of Uruguay, reference is made to the need for insurance and reinsurance companies to have a record of operational risk events. It is necessary for these companies to supply information on their operational risk indicators every quarter.

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Table A.1. Mexico: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of pesos)

	ROA³	2.4%	2.8%	2.8%	2.4%	2.8%	2.3%	2.3%	2.9%	2.5%	2.5%	1.8%
	R0E²	17.6%	18.8%	17.7%	16.4%	17.9%	14.4%	14.3%	18.2%	16.9%	17.9%	14.1%
i	Financial result	16,405	19,585	18,789	31,024	35,126	38,030	40,627	46,402	43,024	50,546	47,648
	result	-4.412	-5.474	-2.732	-13.447	-12.678	-14.616	-13.356	-12.289	-11.465	-14.431	-14.606
:	Combined ratio <sup>1</sup>	104.4	104.8	102.0	109.7	108.3	109.1	107.6	106.4	105.2	106.1	105.5
	Net equity	42,469	55,194	70,973	79,237	91,338	104,618	120,681	130,718	135,604	142,031	150,060
	provisions	254,576	284,850	330,464	406,936	444,101	493,603	572,675	635,864	714,968	812,993	920,402
	Liabilities	291,268	321,569	373,820	454,299	498,970	549,120	640,174	703,352	791,825	896,113	1,014,786
	Investment	255,661	302,789	356,609	413,945	460,415	520,469	593,981	980'899	726,451	806,795	890'906
	Assets	336,737	376,763	644,793	533,536	590,308	653,738	760,855	834,069	927,429	1,038,144	1,164,846
	Non-Life	81,498	89,805	106,696	113,565	129,470	128,858	150,925	162,385	182,219	186,120	206,628
Premiums	Life	56,879	73,813	83,634	92,688	103,431	113,033	125,260	142,809	159,058	167,701	181,918
	Total	138,377	163,618	190,330	206,253	232,901	241,891	276,185	305,194	341,277	353,821	388,545
	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	y (premiums per capita, pesos)	ita, pesos)		Insur	Insurance protection gap	gap	IPG as a m	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth 4	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.5%	%9.0	%6'0	1,288	530	759	41.1%	683,020	434,071	248,949	6.9	7.6	3.1
2006	1.6%	0.7%	0.9%	1,501	219	824	45.1%	763,736	474,169	289,567	4.7	6.4	3.2
2007	1.7%	0.7%	%6.0	1,717	755	696	43.9%	813,157	520,739	292,419	4.3	6.2	2.7
2008	1.7%	0.8%	0.9%	1,830	823	1,008	%6'77	811,066	507,898	303,168	3.9	5.5	2.7
2009	1.9%	%6'0	1.1%	2,033	903	1,130	%4.4%	782,985	489,170	293,816	3.4	4.7	2.3
2010	1.8%	%6'0	1.0%	2,079	972	1,108	%2'97	860,520	537,788	322,732	3.6	4.8	2.5
2011	1.9%	%6'0	1.0%	2,340	1,061	1,279	45.4%	916,916	573,140	343,775	3.3	4.6	2.3
2012	2.0%	%6'0	1.0%	2,550	1,193	1,357	%8.97	1,007,467	622,910	384,557	3.3	4.4	2.4
2013	2.1%	1.0%	1.1%	2,813	1,311	1,502	%9.97	964,284	582,372	381,912	2.8	3.7	2.1
2014	2.1%	1.0%	1.1%	2,877	1,364	1,513	%4'.4%	1,061,171	643,331	417,840	3.0	3.8	2.2
2015	2.1%	1.0%	1.1%	3,118	1,460	1,658	%8.97	1,101,509	671,872	429,636	2.8	3.7	2.1

Source: MAPFRE Economic Research (with data from the National Insurance and Bonding Commission)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.2. Guatemala: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of quetzales)

	ROA³	4.1%	%9.7	%9.7	%8.7	5.3%	2.4%	6.1%	%8.9	8.2%	8.1%	7.7%	:	al market	Non-Life	2.5	2.9	2.8	2.8	2.7	2.7	2.3	2.7
	R0E <sup>2</sup>	15.7%	17.5%	16.8%	17.4%	17.5%	18.0%	21.2%	21.2%	24.6%	23.2%	21.7%		IPG as a multiple of the real market	Life	26.1	26.3	25.4	23.1	21.6	20.9	18.3	19.3
		n.a.	143	165	180	208	230	283	310	343	363	378	9	IPG as a m	Total	4.9	7.0	8.9	9.9	6.3	6.3	5.4	6.1
- - -	Result	n.a.	-12	-36	8-	-21	97	135	170	293	318	256		gap r	Non-Life	5,220	6,169	6,719	7,413	7,903	8,265	8,818	10,121
:	Combined ratio <sup>1</sup>	n.a.	100.7	101.8	100.3	100.9	98.2	95.3	64.5	91.2	91.0	93.3		Insurance protection gap	Life	10,404	11,514	13,348	13,896	14,423	15,577	16,886	18,389
	Net equity	819	887	9.26	1,074	1,311	1,410	1,925	2,128	2,443	2,768	3,067		Insur	Total	15,624	17,683	20,067	21,309	22,326	23,842	25,705	28,510
	provisions	1,878	1,849	2,024	2,346	2,552	3,005	3,366	3,340	3,398	3,648	3,993			Depth⁴	16.3%	17.2%	17.7%	18.5%	18.8%	19.6%	19.6%	20.5%
	Liabilities	2,300	2,499	2,618	2,804	2,968	3,254	4,737	4,543	4,916	5,121	5,619		al, quetzales)	Non-Life	155	156	177	187	199	207	252	240
	Investments	2,107	2,280	2,465	2,703	3,054	3,276	4,277	4,591	5,041	5,463	5,640		Density (premiums per capital, quetzales)	Life	30	32	38	43	97	20	61	62
	Assets	3,120	3,386	3,594	3,879	4,279	4,665	6,662	6,671	7,359	7,889	8,686	:	Density (prem	Total	185	188	215	230	245	258	313	302
	Non-Life	2,050	2,106	2,443	2,647	2,876	3,060	3,796	3,694	4,162	4,452	4,790	ā	s/GDP)	Non-Life	1.0%	%6.0	%6.0	0.9%	0.9%	%6.0	1.0%	0.9%
Premiums	Life	398	437	525	602	299	745	923	952	1,057	1,187	1,176		Penetration (premiums/6DP)	Life	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
	Total	2,448	2,543	2,968	3,249	3,543	3,805	4,718	4,646	5,219	5,639	2,966		Penetra	Total	1.2%	1.1%	1.1%	1.1%	1.2%	1.1%	1.3%	1.2%
•	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			Year	2005	2006	2007	2008	2009	2010	2011	2012

Source: MAPFRE Economic Research (with data from the Superintendence of Banks) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

2.6

17.0

5.6

17.4

10,647 11,440 12,351

18,405 20,153 21,825

29,052 31,593 34,175

20.3%

264

67

332

1.0%

0.2%

19.7%

277

74

351

1.0%

0.2%

1.2%

2013 2014 2015

Table A.3. Honduras: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of lempiras)

						20100						
Total	Life	Non-Life	Assets	Investments	Liabilities	provisions	Net equity	Combined ratio <sup>1</sup>	lechnical Result	rinancial Result	R0E <sup>2</sup>	ROA³
3,397	740	2,657	5,133	3,822	3,075	2,157	2,058	88.4	197	330	23.4%	%7.6
3,790	919	2,870	2,680	4,268	3,301	2,352	2,378	86.7	249	285	20.9%	8.8%
4,674	1,143	3,531	6,707	4,882	4,041	2,911	2,666	91.0	204	304	17.9%	7.1%
5,344	1,373	3,971	7,979	2,605	4,930	3,681	3,050	92.9	202	410	18.7%	7.1%
5,353	1,441	3,912	8,782	5,905	2,568	3,970	3,214	89.7	353	480	22.1%	8.1%
5,693	1,505	4,187	9,132	6,554	5,546	3,962	3,586	0.68	361	709	20.8%	8.2%
6,237	1,799	4,438	9,591	7,061	5,784	4,293	3,807	88.2	434	387	19.5%	7.7%
6,903	2,026	4,877	10,974	8,057	6,461	4,939	4,513	89.1	077	248	19.7%	8.1%
7,499	2,315	5,184	11,622	8,371	7,220	5,107	4,402	94.0	255	713	17.1%	%5.9
7,961	2,421	5,541	12,477	8,328	7,937	5,533	4,540	92.0	337	756	15.7%	5.7%
8,726	2,792	5,934	13,401	8,877	8,622	5,765	4,779	85.3	999	639	19.0%	%8.9
Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	emiums per capita, lempiras)	a, lempiras)		Insur	Insurance protection gap	gap	IPG as a m	IPG as a multiple of the real market	al market
Total	Life	Non-Life	Total	Life	Non-Life		Total	Life	Non-Life	Total	Life	Non-Life

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (prer	premiums per capita, lempiras)	a, lempiras)		Insur	Insurance protection gap	deb	IPG as a m	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.8%	0.4%	1.4%	767	108	386	21.8%	12,589	8,815	3,774	3.7	11.9	1.4
2006	1.8%	0.4%	1.4%	541	131	410	24.3%	14,364	808'6	4,556	3.8	10.7	1.6
2007	2.0%	0.5%	1.5%	929	160	495	24.5%	15,879	11,236	4,644	3.4	8.6	1.3
2008	2.0%	0.5%	1.5%	736	189	547	25.7%	16,437	11,486	4,951	3.1	8.4	1.2
2009	1.9%	0.5%	1.4%	725	195	530	26.9%	17,800	12,065	5,735	3.3	8.4	1.5
2010	1.9%	0.5%	1.4%	759	201	258	26.4%	19,148	13,160	5,988	3.4	8.7	1.4
2011	1.9%	0.5%	1.3%	818	236	582	28.8%	21,236	14,282	6,953	3.4	7.9	1.6
2012	1.9%	%9.0	1.3%	892	262	089	29.3%	23,450	15,680	7,770	3.4	7.7	1.6
2013	2.0%	%9.0	1.4%	955	295	099	30.9%	23,001	15,006	7,994	3.1	6.5	1.5
2014	1.9%	%9.0	1.4%	1,000	304	969	30.4%	25,627	16,831	8,795	3.2	7.0	1.6
2015	1.9%	%9.0	1.3%	1,081	346	735	32.0%	28,369	18,463	906'6	3.3	9.9	1.7

Source: MAPFRE Economic Research (with data from the National Commission of Banks and Insurance <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.4. El Salvador: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of USD)

	ROE <sup>2</sup> ROA <sup>3</sup>	15.9% 6.1%	18.7% 7.6%	18.9% 7.9%	18.3% 8.4%	18.1% 8.9%	14.2% 7.4%	15.0% 7.3%	14.2% 6.9%	13.8% 6.6%	12.9% 6.1%	
i i	Financial Result	25	21	20	21	18	12	14	19	19	20	22
	lechnical Result	2	19	25	38	35	38	35	30	31	25	2
	Combined ratio <sup>1</sup>	98.5	9.68	86.4	82.5	85.1	85.9	87.3	0.09	9.06	92.8	98.7
1	Net equity	147	154	186	238	280	327	302	323	343	365	380
	lechnical provisions	139	150	163	183	188	200	216	228	254	282	295
	Liabilities	238	227	257	282	287	298	323	340	381	410	461
	Investments	268	269	329	390	427	475	479	497	561	009	645
	Assets	385	381	643	520	292	625	629	899	724	775	841
	Non-Life	230	258	276	294	288	295	307	315	336	347	376
Premiums	Life	101	113	118	145	153	159	171	187	210	225	233
	Total	331	371	394	439	441	453	478	503	246	572	609
	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

Source: MAPFRE Economic Research (with data from the Superintendence of the Financial System) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.5. Nicaragua: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of córdobas)

	Premiums											
 Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio¹	Technical Result	Financial Result	R0E²	ROA³
1,301	177	1,124	1,662	1,076	1,360	972	302	97.9	15	30	16.5%	3.0%
1,534	214	1,320	1,950	1,252	1,550	1,134	400	9.7.6	20	28	23.8%	%6.4
1,834	270	1,563	2,368	1,529	1,887	1,339	481	103.4	-33	91	22.1%	4.5%
2,090	340	1,750	2,860	1,894	2,254	1,639	909	4.46	69	127	25.0%	5.3%
2,255	359	1,897	3,272	2,170	2,458	1,823	814	91.9	110	150	30.8%	7.7%
2,478	367	2,110	3,667	2,530	2,646	1,949	1,021	94.5	82	180	26.6%	7.4%
2,765	418	2,347	4,193	3,003	2,929	2,217	1,264	99.5	8	174	22.7%	%8.9
3,255	514	2,741	776'7	3,486	3,490	2,598	1,453	4.46	103	166	17.8%	5.2%
3,878	899	3,210	5,793	4,096	4,190	2,997	1,603	9.68	236	178	22.3%	6.2%
4,615	823	3,792	96,795	4,788	4,820	3,450	1,975	87.2	350	213	22.8%	%9.9
5,198	916	4,282	7,857	5,533	5,521	3,916	2,336	9.98	431	269	23.6%	7.0%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (prer	Density (premiums per capita, córdobas)	a, córdobas)	_	Insul	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.2%	0.2%	1.1%	242	33	209	13.6%	7,902	5,323	2,578	6.1	30.0	2.3
2006	1.3%	0.2%	1.1%	281	39	242	14.0%	8,959	986'9	2,973	5.8	28.0	2.3
2007	1.3%	0.2%	1.1%	332	67	283	14.7%	10,274	7,022	3,252	5.6	26.0	2.1
2008	1.3%	0.2%	1.1%	374	61	313	16.3%	11,563	7,720	3,843	5.5	22.7	2.2
2009	1.3%	0.2%	1.1%	398	63	335	15.9%	12,063	7,994	690'5	5.3	22.3	2.1
2010	1.3%	0.2%	1.1%	432	79	368	14.8%	13,017	8,780	4,237	5.3	23.9	2.0
2011	1.3%	0.2%	1.1%	927	72	404	15.1%	15,174	10,083	5,091	5.5	24.1	2.2
2012	1.3%	0.2%	1.1%	554	87	997	15.8%	17,392	11,530	5,862	5.3	22.4	2.1
2013	1.4%	0.2%	1.2%	652	112	240	17.2%	17,900	11,699	6,200	9.4	17.5	1.9
2014	1.5%	0.3%	1.2%	767	137	089	17.8%	20,482	13,562	6,920	7.7	16.5	1.8
2015	1.5%	0.3%	1.2%	854	151	704	17.6%	23,240	15,379	7,861	4.5	16.8	1.8

Source: MAPFRE Economic Research (with data from the Superintendence of Banks and from Other Financial Institutions) <sup>1</sup> Estimate regarding the net earned premiums / Total premiums

Table A.6. Costa Rica: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of colones)

						:	:		:		
Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio <sup>1</sup>	Technical Result	Financial Result	R0E <sup>2</sup>	ROA³
6,384	169,960	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9,025	198,075	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
8,396	245,278	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
12,817	323,548	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
32,879	320,944	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
33,235	344,515	1,155,893	n.a.	688'889	545,786	466,044	101.8	-4.378	61,717	9.2%	3.7%
42,428	358,762	1,340,977	1,012,246	806,556	602,105	534,421	101.6	-4.285	70,042	10.2%	4.1%
55,542	410,614	1,484,494	1,121,715	897,830	670,748	286,664	92.5	24,188	83,428	8.4%	3.3%
69,625	448,355	1,634,857	1,259,540	956,010	709,259	678,847	106.0	-21.635	80,619	%0.9	2.5%
76,621	545,972	1,851,783	1,350,464	1,114,450	818,676	737,333	98.5	6,289	100,903	%8.9%	2.5%
72,182	491,878	1,946,158	1,451,305	1,144,461	801,335	801,698	100.9	-4.243	97,502	%8.9	2.8%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (prer	Density (premiums per capital, colones)	tal, colones)		Insur	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.8%	0.1%	1.7%	41,418	1,499	39,919	3.6%	675,026	502,481	172,545	3.8	78.7	1.0
2006	1.8%	0.1%	1.7%	47,965	2,090	45,875	4.4%	832,701	605,403	227,298	4.0	67.1	1.1
2007	1.8%	0.1%	1.8%	57,946	1,918	56,028	3.3%	973,957	730,972	242,985	3.8	87.1	1.0
2008	2.1%	0.1%	2.0%	75,796	2,888	72,908	3.8%	1,000,611	776,483	224,129	3.0	9.09	0.7
2009	2.0%	0.2%	1.9%	78,677	7,311	71,366	%8.6	1,097,757	813,876	283,881	3.1	24.8	6.0
2010	1.9%	0.2%	1.8%	82,926	7,296	75,630	8.8%	1,247,450	926,220	321,230	3.3	27.9	6.0
2011	1.9%	0.2%	1.7%	766'98	9,200	77,794	10.6%	1,352,947	984,384	368,563	3.4	23.2	1.0
2012	2.0%	0.2%	1.8%	968'66	11,902	87,993	11.9%	1,497,042	1,089,657	407,385	3.2	19.6	1.0
2013	2.1%	0.3%	1.8%	109,764	14,754	95,010	13.4%	1,489,269	1,070,294	418,975	2.9	15.4	6.0
2014	2.3%	0.3%	2.0%	130,509	16,061	114,448	12.3%	1,567,028	1,178,405	388,622	2.5	15.4	0.7
2015	2.0%	0.3%	1.7%	117,006	14,973	102,033	12.8%	1,760,510	1,259,780	500,730	3.1	17.5	1.0

Source: MAPFRE Economic Research (with data from the General Superintendence of Insurance) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.7. Panama: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of balboas)

Total         Life         Non-Life         Assets         Investments         Liabilities         Provisions provisions         equity ratio¹         Combined ratio¹         Result Result           430         153         277         n.a.			Premiums											
430         153         277         n.a.         n.	Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio <sup>1</sup>	Technical Result	Financial Result	R0E²	ROA³
496         162         334         n.a.         n.	2005	430	153	277	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
607         182         424         1,013         754         663         476         350         96.7         12           774         222         552         1,145         819         760         528         386         96.6         15           847         239         608         1,339         960         893         600         444         95.4         22           1,053         234         819         1,390         1,099         921         655         468         95.5         24           1,157         984         1,157         984         673         604         94.9         31           1,134         255         884         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,483         982         906         96.5         11           1,389         373         1044         0.3         1,679         1,513         1,080         97.6         18	2006	967	162	334	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
774         222         552         1,145         819         760         528         386         96.6         15           847         239         608         1,339         960         893         600         444         95.4         22           919         233         686         1,390         1,099         921         655         468         95.5         24           1,053         234         819         1,157         984         673         604         94.9         31           1,139         255         884         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,548         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,089         97.6         18	2007	209	182	424	1,013	754	699	74	350	7.96	12	52	15.8%	2.4%
847         239         608         1,339         960         893         600         444         95.4         22           1,053         233         686         1,390         1,099         921         655         468         95.5         24           1,053         234         819         1,588         1,157         984         673         604         94.9         31           1,134         255         884         1,899         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,483         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,089         97.6         18	2008	774	222	552	1,145	819	760	528	386	9.96	15	67	10.9%	3.7%
919         233         686         1,390         1,099         921         655         468         95.5         24           1,053         234         819         1,157         984         673         604         94.9         31           1,139         255         884         1,899         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,483         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,089         97.6         18           1,389         323         1066         9.3         9.4         6.6         6.4         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6         6.6 <td< th=""><th>2009</th><th>847</th><th>239</th><th>809</th><th>1,339</th><th>096</th><th>893</th><th>009</th><th>777</th><th>95.4</th><th>22</th><th>99</th><th>15.0%</th><th>2.0%</th></td<>	2009	847	239	809	1,339	096	893	009	777	95.4	22	99	15.0%	2.0%
1,053         234         819         1,157         984         673         604         94.9         31           1,139         255         884         1,899         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,483         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,089         97.6         18           1,389         323         1044         0.3         0.3         0.3         0.4         4,4	2010	919	233	989	1,390	1,099	921	929	897	95.5	24	51	11.8%	%0.4
1,139         255         884         1,899         1,374         1,143         689         756         96.5         21           1,244         280         965         2,389         1,549         1,483         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,080         1,089         97.6         18           1,389         323         1,046         0.3         0.3         0.4         6,65         6,65         6,65         1,679         1,513         1,089         97.6         18	2011	1,053	234	819	1,588	1,157	786	673	709	6.49	31	26	10.4%	%0.7
1,244         280         965         2,389         1,549         1,483         982         906         98.5         11           1,343         312         1,032         2,602         1,679         1,513         1,080         1,089         97.6         18           1,389         323         1,064         0.3         0.3         0.4 <th>2012</th> <th>1,139</th> <th>255</th> <th>884</th> <th>1,899</th> <th>1,374</th> <th>1,143</th> <th>689</th> <th>756</th> <th>6.96</th> <th>21</th> <th>79</th> <th>12.1%</th> <th>%8.7</th>	2012	1,139	255	884	1,899	1,374	1,143	689	756	6.96	21	79	12.1%	%8.7
1,343 312 1,032 2,602 1,679 1,513 1,080 1,089 97.6 18	2013	1,244	280	596	2,389	1,549	1,483	982	906	98.5	11	89	8.0%	3.0%
1389 323 1066 00 00 00 00 00	2014	1,343	312	1,032	2,602	1,679	1,513	1,080	1,089	97.6	18	75	7.5%	3.1%
tt 0::/ 'p::/ 'p::	2015	1,389	323	1,066	n.a.	n.a.	n.a.	n.a.	n.a.	9.46	77	n.a.	n.a.	n.a.

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	premiums per capita, balboas)	ita, balboas)		Insur	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	2.6%	%6'0	1.7%	130	97	84	35.5%	966	669	296	2.3	4.6	1.1
2006	2.7%	%6.0	1.8%	147	48	66	32.7%	1,100	781	319	2.2	4.8	1.0
2007	2.9%	%6.0	2.0%	176	53	123	30.1%	1,237	928	309	2.0	5.1	0.7
2008	3.2%	%6.0	2.2%	221	63	158	28.7%	1,262	086	282	1.6	4.4	0.5
2009	3.2%	%6.0	2.3%	238	29	171	28.2%	1,387	1,064	323	1.6	4.5	0.5
2010	3.2%	0.8%	2.4%	254	79	190	25.3%	1,481	1,184	297	1.6	5.1	9.0
2011	3.1%	0.7%	2.4%	286	79	222	22.2%	1,766	1,416	350	1.7	6.1	9.0
2012	2.8%	%9.0	2.2%	304	89	236	22.4%	2,218	1,703	515	1.9	6.7	9.0
2013	2.8%	%9.0	2.2%	327	74	254	22.5%	2,389	1,784	909	1.9	6.4	9.0
2014	2.7%	%9.0	2.1%	347	81	267	23.2%	2,689	1,999	689	2.0	6.4	0.7
2015	2.7%	%9.0	2.0%	353	82	271	23.3%	2,896	2,132	764	2.1	9.9	0.7

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance and Reinsurance) - I Estimate regarding the net earned premium; 2 Return on net equity; 3 Return on assets; 4 Life insurance premiums / Total premiums

Table A.8. Dominican Republic: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of pesos)

	ROA³	6.1%	5.7%	5.1%	2.0%	4.3%	%0.4	2.7%	2.0%	%9.7	%8.4	2.7%	1	al market	Non-Life	2.0	1.9	1.9	1.9	,
	ROE <sup>2</sup>	20.1%	18.6%	17.7%	15.6%	13.2%	12.3%	18.0%	16.6%	15.1%	16.4%	19.7%		IPG as a multiple of the real market	Life	31.9	38.0	36.1	31.9	
i	Financial Result	746,649	451,077	462,283	625,258	992'198	890,509	1,173,690	1,434,408	1,392,830	1,614,859	1,832,850	<u> </u>	IPG as a m	Total	5.6	5.5	5.5	5.3	L
- - -	Result	224,700	900,736	1,445,656	1,146,528	1,145,614	1,448,371	1,327,323	290,738	358,219	418,013	821,372		gap	Non-Life	25,385	30,168	33,428	37,034	
:	Combined ratio¹	97.1	89.9	86.7	9.06	6.06	89.3	8.06	98.0	9.7.6	97.5	95.5		Insurance protection gap	Life	54,857	94,340	75,048	78,724	
	Net equity	4,559	5,271	5,849	7,110	8,346	660'6	9,852	10,421	11,664	12,417	13,539	<u> </u>	Insura	Total	80,242	94,509	108,475	115,758	0
	lechnical provisions	5,428	6,236	7,767	8,689	9,718	10,973	12,091	13,570	14,639	15,533	16,652			Depth⁴	11.9%	%8.6	10.6%	11.3%	
	Liabilities	10,413	12,085	14,409	15,085	17,163	19,017	21,573	24,130	26,446	29,980	33,367		ita, pesos)	Non-Life	1,374	1,659	1,842	2,003	0
	Investments	6,262	7,652	9,320	10,349	12,603	14,318	16,808	18,243	20,800	21,532	23,991		Density (premiums per capita, pesos)	Life	186	181	219	256	
	Assets	14,972	17,355	20,257	22,195	25,510	28,116	31,425	34,550	38,110	42,397	46,906		Density (pr	Total	1,561	1,840	2,061	2,259	0
	Non-Life	12,697	15,548	17,506	19,303	19,816	21,291	22,871	24,737	25,891	27,881	29,315	1000	s/GDPJ	Non-Life	1.2%	1.2%	1.2%	1.2%	
Premiums	Life	1,722	1,694	2,081	2,467	3,378	3,506	3,957	797,7	5,002	5,326	6,314		Penetration (premiums/GDP)	Life	0.2%	0.1%	0.1%	0.1%	0
	Total	14,419	17,242	19,587	21,770	23,194	24,797	26,828	29,201	30,893	33,207	35,628	c c	Penetra	Total	1.3%	1.4%	1.3%	1.3%	, ,
	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			Year	2005	2006	2007	2008	

	Penetra	Penetration (premiums/GDP)	1s/6DP)	Density (pre	(premiums per capita, pesos)	ita, pesos)		Insur	Insurance protection gap	dap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.3%	0.2%	1.2%	1,561	186	1,374	11.9%	80,242	54,857	25,385	5.6	31.9	2.0
2006	1.4%	0.1%	1.2%	1,840	181	1,659	%8.6	94,509	64,340	30,168	5.5	38.0	1.9
2007	1.3%	0.1%	1.2%	2,061	219	1,842	10.6%	108,475	75,048	33,428	5.5	36.1	1.9
2008	1.3%	0.1%	1.2%	2,259	256	2,003	11.3%	115,758	78,724	37,034	5.3	31.9	1.9
2009	1.3%	0.2%	1.1%	2,374	346	2,028	14.6%	122,082	81,366	40,716	5.3	24.1	2.1
2010	1.3%	0.2%	1.1%	2,505	354	2,151	14.1%	139,447	93,458	45,990	5.6	26.7	2.2
2011	1.2%	0.2%	1.0%	2,675	395	2,281	14.7%	155,083	102,527	52,555	5.8	25.9	2.3
2012	1.2%	0.2%	1.0%	2,875	440	2,436	15.3%	170,510	112,034	58,476	5.8	25.1	2.4
2013	1.2%	0.2%	1.0%	3,004	789	2,518	16.2%	176,353	112,693	63,660	5.7	22.5	2.5
2014	1.2%	0.2%	1.0%	3,191	512	2,679	16.0%	195,264	125,627	69,637	5.9	23.6	2.5
2015	1.2%	0.2%	1.0%	3,383	9009	2,784	17.7%	212,872	136,075	76,797	0.9	21.6	2.6

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance and Reinsurance)
11 Estimate regarding the net earned premium; Return on net equity; 3 Return on assets, 4 Life insurance premiums / Total premiums

Table A.9. Puerto Rico: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of USD)

	ROE <sup>2</sup> ROA <sup>3</sup>	20.6% 2.8%	-31.3% -9.6%	15.1% 4.9%	14.0% 4.6%	16.5% 5.7%	16.3% 5.5%	15.0% 5.1%		12.8% 4.5%		
	Financial Result RO	n.a. 20.	n.a31.3	n.a. 15.	n.a. 14.0	n.a. 16.	n.a. 16.3	n.a. 15.0		n.a. 12.8		
	Technical Result	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	. п. п.а.	л а. .а. а.
	Combine dratio¹	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		n.a.	n.a. n.a.	n.a. n.a.
:	Net equity	784	1,873	2,114	2,103	2,378	2,403	2,452		2,643	2,643	2,643 2,557 2,443
	Technicalp rovisions	n.a.	n.a.	n.a.	n.a.	n.a.	3,275	3,238	,	3,321	3,321	3,321 3,278 3,127
	Liabilities	5,087	4,226	4,467	4,357	4,533	4,732	4,691	7. 825	20,1	4,906	4,906
	Investments	n.a.	n.a.	n.a.	n.a.	n.a.	5,752	5,824	6.136	1	6,091	6,091
	Assets	5,871	6,100	6,581	9,460	6,912	7,136	7,190	7,477		7,451	7,451
	Non-Life	9329	7,664	8,503	8,582	860'6	9,626	10,161	6,597		6,465	9,465
Premiums	Life	909	929	750	716	706	801	868	086		1,053	1,053
	Total	6,962	8,322	9,254	9,297	6,805	10,428	11,059	10,577		10,518	10,518
	Year	2005	2006	2007	2008	2009	2010	2011	2012		2013	2013

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pr	(premiums per capita, USD)	pita, USD)		Insur	Insurance protection gap	deb	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth <sup>4</sup>	Total	Life	Non-Life	Total	Life	Non-Life
2005	8.3%	0.7%	7.6%	1,851	161	1,690	8.7%	3,758	3,758		0.5	6.2	
2006	6.5%	0.8%	8.8%	2,219	176	2,044	7.9%	3,880	3,880		0.5	5.9	ı
2007	10.3%	0.8%	6.5%	2,475	201	2,275	8.1%	3,995	3,995		9.0	5.3	1
2008	%6.6	0.8%	9.2%	2,494	192	2,302	7.7%	3,873	3,873		0.4	5.4	r
2009	10.2%	0.7%	%7.6	2,637	190	2,447	7.2%	4,017	4,017		0.4	5.7	ī
2010	10.6%	0.8%	%8.6	2,811	216	2,595	7.7%	4,019	4,019		9.0	5.0	ľ
2011	11.0%	%6'0	10.1%	2,987	243	2,745	8.1%	3,918	3,918		9.0	4.4	r
2012	10.4%	1.0%	%7.6	2,862	265	2,597	9.3%	3,997	3,997	,	9.0	4.1	ı
2013	10.3%	1.0%	9.2%	2,850	285	2,565	10.0%	3,660	3,660	,	0.3	3.5	ı
2014	%8.6	1.2%	8.6%	2,704	336	2,368	12.4%	3,561	3,561	1	0.4	2.9	1
2015	11.8%	1.2%	10.6%	3,289	340	2,949	10.3%	3,595	3,595		0.3	2.9	1

Source: MAPFRE Economic Research (with data from the Office of the Commissioner of Insurance of Puerto Rico)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.10. Colombia: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of pesos)

		Premiums						:	:		;		
Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio <sup>1</sup>	Technical Result	Financial Result	R0E <sup>2</sup>	ROA³
2005	6,452,776	6,452,776 1,706,926	4,745,850	4,745,850 14,097,073	9,818,972	9,244,234	7,287,683	4,852,839	104.0	-183.142	1,789,281	30.4%	10.5%
2006	7,555,040	2,166,147	5,388,893	14,744,993	10,315,669	10,582,268	8,549,650	4,162,724	103.3	-180.935	739,410	13.1%	3.7%
2007	8,526,256	2,313,598	6,212,657	6,212,657 16,605,512	11,625,445	12,075,509	9,819,597	4,530,003	104.1	-264.194	692,191	14.7%	%0.7
2008	10,470,809	3,515,479	6,955,330	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	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	8,505,863 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	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 38,485,408	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 42,857,016	42,857,016	32,926,391	33,746,620	29,208,392	9,110,396	108.6	-1.129.101	1,822,198	%7.9	1.4%
2014	19,036,166	5,656,006	13,380,160	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	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%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pr	Density (premiums per capita, pesos)	ita, pesos)		Insul	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.9%	0.5%	1.4%	149,073	39,434	109,639	26.5%	23,140,796	15,981,186	7,159,610	3.6	4.6	1.5
2006	2.0%	%9.0	1.4%	172,357	49,417	122,940	28.7%	26,227,984	17,796,549	8,431,435	3.5	8.2	1.6
2007	2.0%	0.5%	1.4%	192,152	52,141	140,012	27.1%	29,408,080	20,533,218	8,874,863	3.4	8.9	1.4
2008	2.2%	0.7%	1.4%	233,200	78,295	154,905	33.6%	29,376,412	20,008,784	9,367,628	2.8	5.7	1.3
2009	2.3%	0.7%	1.6%	251,819	77,837	173,982	30.9%	30,953,654	21,192,653	9,761,002	2.7	9.0	1.2
2010	2.2%	%9.0	1.6%	258,067	72,828	185,240	28.2%	33,378,723	23,357,170	10,021,553	2.8	7.0	1.2
2011	2.2%	%9.0	1.6%	292,667	82,306	210,360	28.1%	37,249,754	25,935,388	11,314,367	2.7	8.9	1.2
2012	2.4%	0.7%	1.7%	340,533	101,618	238,914	29.8%	39,831,394	27,783,717	12,047,678	2.5	5.8	1.1
2013	2.7%	0.9%	1.7%	397,798	141,323	256,474	35.5%	38,716,841	25,992,015	12,724,826	2.1	3.9	1.0
2014	2.5%	0.7%	1.8%	398,302	118,343	279,959	29.7%	43,079,326	29,946,776	13,132,550	2.3	5.3	1.0
2015	2.7%	%8.0	1.9%	445,979	130,917	315,062	29.4%	44,320,851	31,406,031	12,914,821	2.1	5.0	0.8

Source: MAPFRE Economic Research (with data from the Financial Superintendence of Colombia)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.11. Venezuela: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of bolivares)

cord         Total         Life         Non-Life         Assets         Investments         Liabilities         Technical requity         Near capuity ratio         Technical repressions         Technical requity         Technical ratio         Result requity         Result			Premiums											
7,003         164         6,839         6,327         5,410         3,943         2,689         2,383         94.1         294         368         25.9%           10,499         246         10,253         8,901         7,395         5,848         4,060         3,053         94.1         668         492         18,9%           15,399         383         15,016         12,924         9,953         8,653         6,040         4,271         92.9         787         475         18,9%           22,334         555         21,779         17,865         14,563         11,431         8,823         6,434         98.6         10.08         16.0%           27,550         685         22,1779         17,361         13,859         10,633         8,061         10.1         11,085         11,085           36,924         87,8         21,101         13,859         10,633         8,061         97.1         10,016         11,4%           46,471         913         45,558         42,562         33,832         27,838         18,556         14,724         97.1         1,016         19,42           59,692         1,132         58,560         61,984         48,035         27	Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio¹	Technical Result	Financial Result	R0E <sup>2</sup>	ROA³
16,499         246         10,253         8,901         7,395         5,848         4,066         3,053         91.2         6,68         492         18.9%           15,399         383         15,016         12,924         9,953         8,653         6,040         4,271         92.9         787         475         16.9%           22,334         555         21,779         17,865         14,563         11,431         8,823         6,434         98.6         1,085         16.9%           27,550         685         21,779         17,865         17,361         11,431         8,823         6,434         98.6         10.01         11.0%         16.9%	2005	7,003	164	6:836	6,327	5,410	3,943	2,689	2,383	94.1	294	368	25.9%	%1.6
15,39438315,01612,9249,9538,6536,0404,27192.978747516.9%22,33455521,77917,86514,56311,4318,8236,43498.61,0851,08516.0%27,55068522,686521,92017,36113,85910,6338,061100.1-211,20711.0%36,92487,92421,01514,35212,10798.05591,30811.4%46,47191345,55842,56233,83227,83818,55614,72497.11,0161,94259,6921,13258,56051,98441,10633,80223,07418,18297.51,1123,08520.4%142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179,0%329,9704,055325,914478,371211,901132,590371,973105.321,0052.5%	2006	10,499	246	10,253	8,901	7,395	5,848	4,060	3,053	91.2	899	492	18.9%	%5.9
22,33455521,77917,86514,56311,4318,8236,43498.610,6336,43498.61,0851,08511,08527,55068526,86521,92017,36113,85910,6338,061100.1-211,20711.0%36,92487,8236,04533,12125,84421,01514,35212,10798.05591,30811.4%46,47191345,55842,56233,83227,83818,55514,72497.51,1123,08520,4%59,6921,13258,56051,98441,10633,80223,07418,18297.51,1123,08520,4%142,4132,279140,133157,474478,37121,107132,59037,197103.12,10052,597	2007	15,399	383	15,016	12,924	6,953	8,653	6,040	4,271	92.9	787	475	16.9%	2.6%
27,55068526,86521,92017,36113,85910,6338,061100.1-211,20711.0%36,92487,92433,12125,84421,01514,35212,10798.05591,30811.4%46,47191345,55842,56233,83227,83818,55514,72497.511,1123,08520,4%59,6921,13258,66651,98441,10633,80223,07418,18297.411,1123,08520,4%85,6241,56884,05680,10364,89248,03533,10775,649101.1-9925,5179,0%142,4132,279140,133157,474478,371211,901132,590371,973105.321,00525,677	2008	22,334	222	21,779	17,865	14,563	11,431	8,823	6,434	9.86	220	1,085	16.0%	2.8%
36,92487836,04533,12125,84421,01514,35212,10798.05591,30811.4%46,47191345,55842,56233,83227,83818,55514,72497.11,0161,94219.9%59,6921,13258,56051,98441,10633,80223,07418,18299.436,23,75315.7%142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179.0%329,9704,055325,914583,874478,371211,901132,590371,973105.321,0052.5%	2009	27,550	989	26,865	21,920	17,361	13,859	10,633	8,061	100.1	-21	1,207	11.0%	4.0%
46,47191345,55842,56233,83227,83818,55514,72497.11,0161,94219.9%59,6921,13258,66484,05680,10364,89248,03533,10732,06899.436,23,75315.7%142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179.0%329,9704,055325,914583,874478,371211,901132,590371,973105.3-10.31221,0052.5%	2010	36,924	878	36,045	33,121	25,844	21,015	14,352	12,107	98.0	259	1,308	11.4%	7.2%
59,6921,13258,56051,98441,10633,80223,07418,18297.51,1123,08520.4%85,6241,56884,05680,10364,89248,03533,10732,06899.43623,75315.7%142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179.0%329,9704,055325,914583,874478,371211,901132,590371,973105.3-10.31221,0052.5%	2011	46,471	913	45,558	42,562	33,832	27,838	18,555	14,724	97.1	1,016	1,942	19.9%	2.7%
85,6241,56884,05680,10364,89248,03533,10732,06899.43623,75315.7%142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179.0%329,9704,055325,914583,874478,371211,901132,590371,973105.3-10.31221,0052.5%	2012	59,692	1,132	58,560	51,984	41,106	33,802	23,074	18,182	97.5	1,112	3,085	20.4%	7.1%
142,4132,279140,133157,474131,21581,82457,17275,649101.1-9925,5179.0%329,9704,055325,914583,874478,371211,901132,590371,973105.3-10.31221,0052.5%	2013	85,624	1,568	84,056	80,103	64,892	48,035	33,107	32,068	7.66	362	3,753	15.7%	%8.9
329,970 4,055 325,914 583,874 478,371 211,901 132,590 371,973 105.3 -10.312 21,005 2.5%	2014	142,413	2,279	140,133	157,474	131,215	81,824	57,172	75,649	101.1	-992	5,517	%0.6	4.3%
	2015	329,970	4,055	325,914	583,874	478,371	211,901	132,590	371,973	105.3	-10.312	21,005	2.5%	1.6%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (prem	(premiums per capita, bolivares)	a, bolivares)		Insur	Insurance protection gap	gap	IPG as a m	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	2.3%	0.1%	2.2%	265	9	259	2.3%	19,453	15,648	3,804	2.8	95.2	9.0
2006	2.7%	0.1%	2.6%	391	6	382	2.3%	24,167	20,238	3,929	2.3	82.2	0.4
2007	3.1%	0.1%	3.0%	264	14	250	2.5%	28,125	25,830	2,295	1.8	4.79	0.2
2008	3.3%	0.1%	3.2%	908	20	786	2.5%	33,907	32,647	1,259	1.5	58.8	0.1
2009	3.9%	0.1%	3.8%	626	24	922	2.5%	33,971	33,971	1	1.2	9.67	ī
2010	3.6%	0.1%	3.5%	1,293	31	1,262	2.4%	48,947	48,947		1.3	55.7	ī
2011	3.4%	0.1%	3.4%	1,604	32	1,573	2.0%	64,843	64,246	262	1.4	70.3	0.0
2012	3.6%	0.1%	3.6%	2,032	39	1,994	1.9%	900'62	900'62	,	1.3	8.69	ī
2013	3.8%	0.1%	3.7%	2,876	53	2,823	1.8%	101,741	101,741	,	1.2	6.49	ī
2014	4.7%	0.1%	%9.4	4,721	76	4,645	1.6%	140,189	140,189		1.0	61.5	ſ
2015	2.5%	0.1%	2.4%	10,800	133	10,667	1.2%	279,738	279,738		0.8	0.69	ī

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance Activities)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiuims

Table A.12. Brazil: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of reales)

		Premiums											
Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technicalp rovisions	Net equity	Combined ratio¹	Technical Result	Financial Result	R0E <sup>2</sup>	ROA³
2005	42,562	18,673	23,889	133,873	116,523	106,813	94,161	27,060	102.4	-580	5,319	26.8%	5.4%
2006	49,588	23,235	26,352	165,795	144,808	131,471	116,333	34,324	98.1	534	5,822	25.2%	5.2%
2007	58,443	29,028	29,415	204,980	181,225	163,228	143,815	41,752	97.8	619	5,833	21.9%	4.5%
2008	67,816	33,410	34,407	230,574	201,481	189,204	170,884	41,370	7.96	1,173	5,080	21.4%	3.8%
2009	76,611	41,368	35,243	291,557	249,732	236,625	216,903	54,932	9.76	2,171	5,854	17.7%	3.3%
2010	680'06	49,616	40,473	345,903	300,020	283,074	262,177	62,829	7.46	2,413	998'9	18.1%	3.3%
2011	105,001	58,511	46,490	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	499,599	433,224	424,253	391,208	75,346	6.3	2,210	14,177	18.0%	2.7%
2013	145,184	83,357	61,828	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	969'129	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	740,603	643,058	688,983	624,843	71,620	95.2	3,941	18,324	27.7%	2.7%
											9		
	Penetre	TION Dremum.	S/GUP	Density IDE	Temiums per cap	Ta reales!		Insul	Insurance profection dan	deb	PG as a mu	PG as a multiple of the real market	al market

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	(premiums per capita, reales)	ita, reales)		Insul	Insurance protection gap	ı gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	2.0%	%6'0	1.1%	227	100	128	43.9%	146,279	94,198	52,081	3.4	5.0	2.2
2006	2.1%	1.0%	1.1%	262	123	139	%6.9%	162,444	102,056	886,09	3.3	4.4	2.3
2007	2.1%	1.1%	1.1%	305	151	153	%4.7%	180,940	115,146	65,794	3.1	4.0	2.2
2008	2.2%	1.1%	1.1%	350	172	177	49.3%	190,297	118,971	71,327	2.8	3.6	2.1
2009	2.3%	1.2%	1.1%	391	211	180	24.0%	203,364	121,951	81,413	2.7	2.9	2.3
2010	2.3%	1.3%	1.0%	727	250	204	55.1%	232,436	140,790	91,646	2.6	2.8	2.3
2011	2.4%	1.3%	1.1%	524	292	232	55.7%	253,639	151,425	102,214	2.4	2.6	2.2
2012	2.7%	1.6%	1.1%	079	382	258	29.6%	274,295	158,343	115,952	2.1	2.1	2.2
2013	2.7%	1.6%	1.2%	711	408	303	57.4%	285,448	161,200	124,248	2.0	1.9	2.0
2014	2.9%	1.7%	1.2%	802	457	345	27.0%	301,124	173,151	127,973	1.8	1.8	1.8
2015	3.1%	1.9%	1.2%	887	534	352	%8:09	301,135	167,070	134,065	1.6	1.5	1.8

Source: MAPFRE Economic Research (with data from the Superintendence of Private Insurance) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total Premiums

Table A.13. Ecuador: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of USD)

				Technical	†d N	Combined	Tochnical	lei 2 de di I		
Assets	=	Investments	Liabilities	provisions	equity	ratio <sup>1</sup>	Result	Result	R0E <sup>2</sup>	ROA³
405		236	255	98	150	8.06	17	14	12.7%	4.7%
445		270	270	91	174	86.2	30	12	14.9%	2.9%
209		279	314	06	195	84.3	39	15	14.2%	2.4%
651		366	425	122	226	80.7	26	15	14.4%	2.0%
720		395	897	135	252	80.8	99	17	14.2%	2.0%
849		780	248	162	301	76.8	96	18	16.7%	2.9%
1,045		583	269	199	348	74.2	129	21	19.1%	%7.9
1,356		674	970	384	385	76.1	145	31	12.0%	3.4%
1,645		761	1,223	979	422	78.3	149	33	9.3%	2.4%
1,853	~	847	1,372	209	482	70.6	213	37	14.6%	3.8%
2,017		919	1,448	899	269	77.0	201	41	8.9%	2.5%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pr	y (premiums per capita, USD)	pita, USD)		Insul	Insurance protection gap	dab	IPG as a mi	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.3%	0.2%	1.1%	40	ū	34	13.1%	3,068	2,087	981	5.7	29.4	2.1
2006	1.3%	0.2%	1.1%	777	9	38	14.0%	3,502	2,348	1,154	5.7	27.3	2.2
2007	1.3%	0.2%	1.1%	87	œ	70	15.7%	3,810	2,597	1,213	5.6	24.4	2.1
2008	1.4%	0.2%	1.2%	61	10	51	15.9%	4,243	2,886	1,357	4.8	20.5	1.8
2009	1.5%	0.3%	1.3%	99	11	53	16.6%	4,309	2,907	1,403	4.6	18.5	1.8
2010	1.6%	0.3%	1.3%	74	12	62	16.4%	4,665	3,227	1,439	4.2	17.8	1.6
2011	1.7%	0.3%	1.4%	88	15	73	17.3%	5,164	3,574	1,590	3.9	15.5	1.4
2012	1.7%	0.3%	1.4%	96	17	80	17.2%	5,901	4,054	1,847	4.0	15.9	1.5
2013	1.8%	0.3%	1.5%	106	18	88	17.0%	6,018	4,077	1,940	3.6	14.4	1.4
2014	1.7%	0.3%	1.4%	107	17	06	16.2%	6,572	4,467	2,105	3.9	16.2	1.5
2015	1.7%	0.3%	1.4%	103	18	85	17.7%	6,627	4,456	2,171	4.0	15.1	1.6

Source: MAPFRE Economic Research (with data from the Superintendence of Companies, Securities and Insurance)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums /Total premiums

Table A.14. Peru: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of soles)

	ROA³	2.3%	4.1%	3.9%	0.7%	3.5%	3.4%	4.5%	3.1%	2.4%	2.7%	2.6%	al market	Non-Life	3.6	3.9	4.0	3.5	2.8	2.9	2.9	2.9	2.6	2.5	2.2
	R0E²	13.0%	21.8%	20.8%	4.4%	17.5%	15.9%	21.9%	14.8%	15.1%	16.4%	17.4%	IPG as a multiple of the real market	Life	8.6	9.6	10.6	9.6	8.9	6.1	6.3	6.5	5.7	5.1	7.6
i	Result	516	699	1,097	703	872	1,107	1,481	1,545	1,591	1,840	2,001	IPG as a m	Total	5.7	6.1	9.9	5.8	6.9	4.3	4.3	4.4	3.9	3.6	3.3
- - -	Result	-357	707-	-732	-672	-288	-393	-540	-809	-867	-861	-843	д вар	Non-Life	6,776	8,252	8,942	9,405	9,385	10,602	11,852	13,166	13,782	14,447	14,848
	dratio <sup>1</sup>	122.7	121.0	134.9	126.8	109.4	111.7	113.8	119.0	117.1	115.9	113.4	Insurance protection gap	Life	11,505	13,522	15,479	15,788	16,089	17,680	19,466	21,575	21,360	22,616	23,706
2	equity	1,538	1,830	2,049	2,087	2,803	3,761	4,106	4,627	4,564	5,534	5,936	nsul	Total	18,281	21,774	24,421	25,193	25,474	28,283	31,318	34,741	35,142	37,063	38,554
	provisions	6,517	7,229	7,925	9',409	9,933	11,852	13,568	15,275	20,482	24,073	28,771		Depth⁴	41.8%	%9.04	39.5%	37.9%	34.7%	%0.44	42.8%	41.8%	41.3%	43.8%	43.5%
	Liabilities	7,248	7,992	8,921	10,659	11,335	13,598	15,680	17,634	23,607	27,770	33,437	pital, soles)	Non-Life	89	75	79	76	117	125	139	153	174	184	211
	Investments	7,575	8,544	9,526	10,898	12,041	15,259	17,371	19,397	22,282	26,271	31,116	Density (premiums per capital, soles)	Life	67	51	52	22	62	86	104	109	123	144	163
	Assets	8,786	9,822	10,970	12,746	14,137	17,359	19,786	22,261	28,172	33,303	39,373	Density (pr	Total	116	127	131	151	179	223	242	262	297	328	374
	Non-Life	1,872	2,106	2,247	2,690	3,392	3,667	4,124	4,604	5,322	5,707	6,630	s/6DP)	Non-Life	0.8%	0.7%	0.7%	0.8%	%6.0	%6'0	%6'0	%6'0	1.0%	1.0%	1.1%
Premiums	Life	1,343	1,439	1,465	1,642	1,799	2,885	3,088	3,302	3,747	4,447	5,114	Penetration (premiums/GDP)	Life	0.5%	0.5%	0.5%	0.5%	0.5%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%
	Total	3,215	3,544	3,712	4,331	5,190	6,552	7,212	7,906	690'6	10,154	11,744	Penetra	Total	1.3%	1.2%	1.2%	1.2%	1.4%	1.6%	1.5%	1.6%	1.7%	1.8%	1.9%
_	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015		Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015

Source: MAPFRE Economic Research (with data from the Superintendence of Banking, Insurance and Pension Fund Managers) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.15. Bolivia: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of bolivianos)

		Premiums						:	:		: i		
Year	Total	Life	Non-Life	Assets	Investments	Liabilities	lechnical provisions	Net equity	Combined ratio <sup>1</sup>	lechnical Result	Financial Result	R0E <sup>2</sup>	ROA³
2005	1,340	151	1,189	3,726	3,249	3,010	2,531	716	125.8	-129	186	11.6%	2.2%
2006	1,485	191	1,294	3,817	3,406	3,063	2,670	754	113.8	-82	203	15.9%	3.1%
2007	1,224	228	966	4,040	3,551	3,250	2,878	190	113.2	-74	150	14.8%	2.9%
2008	1,409	279	1,130	4,512	3,985	3,537	3,076	975	93.6	52	81	17.2%	3.7%
2009	1,428	290	1,138	4,752	4,019	3,684	3,147	1,069	105.2	-48	208	16.2%	3.6%
2010	1,595	341	1,254	4,902	4,052	3,788	3,167	1,056	98.1	20	220	12.4%	2.7%
2011	1,841	400	1,441	5,176	4,251	4,097	3,395	1,078	103.4	-41	193	10.5%	2.2%
2012	2,194	473	1,721	5,346	4,445	4,167	3,206	1,179	102.3	-33	180	11.1%	2.4%
2013	2,569	617	1,952	5,624	4,543	4,294	3,165	1,326	92.9	130	133	14.2%	3.4%
2014	2,883	705	2,178	5,957	4,635	4,485	3,121	1,472	95.4	87	263	13.2%	3.2%
2015	3,103	822	2,281	9,600	4,895	4,893	3,179	1,707	8.96	99	300	13.8%	3.6%
	Penetra	Penetration (premiums/GDP)	(409/st	Density (prer	Density (premiums per capita, bolivianos)	ı, bolivianos)		Insur	Insurance protection gap	gap	IPG as a m	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth <sup>4</sup>	Total	Life	Non-Life	Total	Life	Non-Life

	Penetra	Penetration (premiums/GDP)	(S/GDP)	Density (prem	Density (premiums per capita, bolivianos)	a, bolivianos)		Insur	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth <sup>4</sup>	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.7%	0.2%	1.5%	147	17	131	11.2%	5,361	3,855	1,507	4.0	25.6	1.3
2006	1.6%	0.2%	1.4%	160	21	140	12.9%	985'9	4,580	2,009	4.4	24.0	1.6
2007	1.2%	0.2%	1.0%	130	24	106	18.6%	7,841	5,232	2,609	4.9	23.0	2.6
2008	1.2%	0.2%	0.9%	147	29	118	19.8%	8,608	5,635	2,973	6.1	20.2	2.6
2009	1.2%	0.2%	%6'0	147	30	117	20.3%	8,797	5,675	3,122	6.2	19.6	2.7
2010	1.2%	0.2%	0.9%	161	34	127	21.4%	9,848	6,415	3,434	6.2	18.8	2.7
2011	1.1%	0.2%	0.9%	183	40	143	21.7%	11,790	7,579	4,211	4.9	18.9	2.9
2012	1.2%	0.3%	%6'0	214	97	168	21.6%	13,527	8,698	4,830	6.2	18.4	2.8
2013	1.2%	0.3%	0.9%	247	26	188	24.0%	14,592	9,128	5,463	5.7	14.8	2.8
2014	1.3%	0.3%	1.0%	273	19	206	24.4%	15,813	10,011	5,802	5.5	14.2	2.7
2015	1.4%	0.4%	1.0%	289	77	212	26.5%	15,640	9,918	5,723	5.0	12.1	2.5

Source: MAPFRE Economic Research (with data from the Pension and Insurance Control and Audit Authorities)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.16. Chile: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of pesos)

Total         Life         Non-Life         Assets         Investments         Liabilities         Netequity         Life Liabilities         Non-Life Seets         Investments         Liabilities         Visions         Netequity         Life Liabilities           2,323,469         1,437,966         885,503         13,324,479         12,310,757         11,699,257         1,625,222         127.0         -493.004           2,514,002         1,547,008         966,994         14,443,164         18,958,563         12,580,078         11,976,530         1,863,085         128.2         -552.766           3,658,946         1,879,445         1,443,164         19,985,551         14,318,494         13,630,641         2,087,583         118.8         -547.596           3,638,056         2,174,445         1,463,611         18,691,752         21,036,181         16,604,169         15,866,311         12.29         -548.433           3,638,056         2,174,445         1,460,491         19,416,520         22,256,545         17,009,252         16,209,583         118.8         -547.596           4,228,291         2,558,164         1,670,127         21,417,926         23,766,697         18,665,080         17,813,497         2,784,845         1117         -409.867           5			Premiums							, de	Today	0100000		
2,323,469         1,437,966         885,503         13,324,479         12,310,757         11,699,257         11,112,523         1,625,222         127.0         -493.004           2,514,002         1,547,008         966,994         14,443,164         18,985,563         12,580,078         11,976,530         1,863,085         122.9         -552.766           3,638,046         1,879,597         1,179,348         16,418,015         19,885,551         14,318,494         13,630,641         2,099,521         122.9         -548.433           3,638,056         2,174,445         1,466,491         19,416,520         22,256,545         17,009,252         16,209,583         2,407,269         122.9         -547.596           3,491,354         2,084,863         1,406,491         19,416,520         22,256,545         17,009,252         16,209,583         118.8         -547.596         17,214           4,228,291         2,558,164         1,600,175         21,417,926         23,766,697         18,665,080         17,813,497         2,752,846         119.0         -609.520         1,409,801           5,134,529         3,060,155         2,074,374         23,782,447         26,737,945         23,715,846         22,784,845         111.7         -409,867           6,131,979	Year	Total	Life	Non-Life	Assets	Investments	Liabilities	visions	Netequity	tio1	sult	sult	R0E2	ROA³
2,514,0021,547,008966,99414,443,16418,958,56312,580,07811,976,5301,863,085128.2-552.7663,058,9461,879,5971,179,34816,418,01519,985,55114,318,49413,630,6412,099,521122.9-548,4333,638,0562,174,4451,463,61118,691,75221,036,18116,604,16915,866,3112,087,583118.8-547.5964,228,2912,558,1641,670,12721,417,92623,766,69718,665,08017,813,4972,752,846119.0-609.5201,5,134,5292,054,72620,74,37423,778,24126,082,99020,493,39619,451,7242,784,845111.7-409.8671,5,600,8133,346,0872,254,72626,865,44726,737,94523,715,84622,259,5313,149,601118.0-771.0391,6,131,9793,657,5142,474,46528,983,91128,463,05029,381,83524,171,6073,353,874129.4-1.380,1381,7,408,3424,539,4512,868,89137,046,46032,821,10730,259,75029,381,83527,347,2993,713,746120.0-1.149,4241,	2005	2,323,469	1,437,966	885,503	13,324,479	12,310,757	11,699,257	11,112,523	1,625,222	127.0	-493.004	878,078	8.5%	1.0%
3,058,9461,879,5971,179,34816,418,01519,985,55114,318,49413,630,6412,099,521122.9-548.4333,638,0562,174,4451,463,61118,691,75221,036,18116,604,16915,866,3112,087,583118.8-547.5963,491,3542,084,8631,406,49119,416,52022,256,54517,009,25216,209,5832,407,269127.5-721.4081,4,228,2912,558,1641,670,12721,417,92623,766,69718,665,08017,813,4972,752,846119.0-609.5201,5,134,5293,060,1552,074,37423,278,24126,082,99020,493,39619,451,7242,784,845111.7-409.8671,5,600,8133,346,0872,254,72626,865,44726,737,94523,715,84622,259,5313,149,601118.0-771.0391,6,131,9793,657,5142,474,46528,983,91128,463,05025,762,73924,171,6073,253,874129.4-1.380.1381,7,408,3424,539,4512,868,89137,046,46032,221,10733,332,71430,994,96237,13,746120.0-1.149,4241,	2006	2,514,002	1,547,008	766'996	14,443,164	18,958,563	12,580,078	11,976,530	1,863,085	128.2	-552.766	894,366	14.1%	1.8%
3,438,056 2,174,445 1,463,611 18,691,752 21,036,181 16,604,169 15,866,311 2,087,583 118.8 -547.596 1,463,611 19,416,520 22,256,545 17,009,252 16,209,583 2,407,269 127.5 -721.408 11, 2,136,181 2,558,164 1,670,127 21,417,926 23,766,697 18,665,080 17,813,497 2,752,846 119.0 -609.520 11, 2,136,087 2,254,726 2,074,374 23,278,241 25,082,990 20,493,396 17,813,497 2,752,846 119.0 -609.520 11, 2,408,477 2,408,477 2,408,342 2,676,332 32,735,709 30,259,750 29,381,835 27,347,299 3,353,874 129.4 129.4 1.380,138 1, 2,408,477 3,792,145 2,868,891 37,046,460 32,821,107 33,332,714 30,994,962 3,713,746 120.0 -1.149,424 1, 1,494,424 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,424 1, 1,494,444 1, 1,494,444 1,494,444 1, 1,494,444 1, 1,494,444 1, 1,494,444 1, 1,494,444 1, 1	2007	3,058,946	1,879,597	1,179,348	16,418,015	19,985,551	14,318,494		2,099,521	122.9	-548.433	876,345	10.1%	1.3%
3,491,354         2,084,863         1,406,491         19,416,520         22,256,545         17,009,252         16,209,583         2,407,269         127.5         -721.408         1,           4,228,291         2,558,164         1,670,127         21,417,926         23,766,697         18,665,080         17,813,497         2,752,846         119.0         -609.520         1,           5,134,529         3,060,155         2,074,374         23,778,241         25,082,990         20,493,396         19,451,724         2,784,845         111.7         -409.867           5,600,813         3,346,087         2,254,726         26,865,447         26,737,945         23,715,846         22,259,531         3,149,601         118.0         -771.039         1,           6,131,979         3,657,514         2,474,465         28,983,911         28,463,050         25,762,739         24,171,607         3,251,172         120.2         -927.670         1,           6,468,477         3,792,145         2,676,486         30,259,750         29,381,835         27,347,299         3,353,874         129,4         -1.380.138         1,           7,408,342         2,688,891         37,046,460         32,821,107         33,332,714         30,994,962         3,713,746         120.0         -1.14	2008	3,638,056	2,174,445	1,463,611		21,036,181	16,604,169	15,866,311	2,087,583	118.8	-547.596	769,363	-6.0%	-0.7%
4,228,291         2,558,164         1,670,127         21,417,926         23,766,697         18,665,080         17,813,497         2,752,846         119.0         -609.520         1           5,134,529         3,060,155         2,074,374         23,278,241         25,082,990         20,493,396         19,451,724         2,784,845         111.7         -409.867         1           5,600,813         3,346,087         2,254,726         26,865,447         26,737,945         23,715,846         22,259,531         3,149,601         118.0         -771.039         1,           6,131,979         3,657,514         2,474,465         28,983,911         28,463,050         29,381,835         24,171,607         3,251,172         120.2         -927.670         1,           6,468,477         3,792,145         2,676,332         32,735,709         30,259,750         29,381,835         27,347,299         3,353,874         129.4         -1.380,138         1,           7,408,342         4,539,451         2,868,891         37,046,460         32,821,107         33,332,714         30,994,962         37,13,746         120.0         -1.149,424         1,	2009	3,491,354	2,084,863	1,406,491		22,256,545	17,009,252	16,209,583	2,407,269	127.5	-721.408	1,221,828	16.5%	2.0%
5,134,529 3,060,155 2,074,374 23,278,241 25,082,990 20,493,396 19,451,724 2,784,845 111.7 -409.867 5,600,813 3,346,087 2,254,726 26,865,447 26,737,945 23,715,846 22,259,531 3,149,601 1180 -771.039 1, 6,131,979 3,657,514 2,474,465 28,983,911 28,463,050 25,762,739 24,171,607 3,221,172 120.2 -927.670 1, 6,468,477 3,792,145 2,676,332 32,735,709 30,259,750 29,381,835 27,347,299 3,353,874 129.4 -1.380.138 1, 7,408,342 4,539,451 2,868,891 37,046,460 32,821,107 33,332,714 30,994,962 3,713,746 120.0 -1.149,424 1,	2010	4,228,291	2,558,164	1,670,127	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%
5,600,813         3,346,087         2,254,726         26,865,447         26,737,945         23,715,846         22,259,531         3,149,601         118.0         -771.039           6,131,979         3,657,514         2,474,465         28,983,911         28,463,050         25,762,739         24,171,607         3,221,172         120.2         -927.670           6,468,477         3,792,145         2,676,332         32,735,709         30,259,750         29,381,835         27,347,299         3,353,874         129.4         -1.380,138           7,408,342         4,539,451         2,868,891         37,046,460         32,821,107         33,332,714         30,994,962         3,713,746         120.0         -1.149,424	2011	5,134,529	3,060,155	2,074,374	23,278,241	25,082,990	20,493,396	19,451,724	2,784,845	111.7	-409.867	642,379	%7.9	0.8%
6,131,979 3,657,514 2,474,465 28,983,911 28,463,050 25,762,739 24,171,607 3,221,172 120.2 -927.670 6,468,477 3,792,145 2,676,332 32,735,709 30,259,750 29,381,835 27,347,299 3,353,874 129.4 -1.380,138 7,408,342 4,539,451 2,868,891 37,046,460 32,821,107 33,332,714 30,994,962 3,713,746 120.0 -1.149,424	2012	5,600,813	3,346,087	2,254,726		26,737,945	23,715,846		3,149,601	118.0	-771.039	1,225,596	13.1%	1.5%
3,792,145 2,676,332 32,735,709 30,259,750 29,381,835 27,347,299 3,353,874 129.4 -1.380.138 -1.380.138 4,539,451 2,868,891 37,046,460 32,821,107 33,332,714 30,994,962 3,713,746 120.0 -1.149,424	2013	6,131,979	3,657,514	2,474,465	28,983,911	28,463,050	25,762,739	24,171,607	3,221,172	120.2	-927.670	1,190,338	9.1%	1.0%
7,408,342 4,539,451 2,868,891 37,046,460 32,821,107 33,332,714 30,994,962 3,713,746 120.0 -1.149.424	2014	6,468,477	3,792,145	2,676,332	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	37,046,460	32,821,107	33,332,714		3,713,746	120.0	-1.149.424	1,399,500	11.6%	1.2%

	Penetra	Penetration (premiums/GDP)	(s/GDP)	Density (pr	(premiums per capita, pesos)	ita, pesos)		Insur	Insurance protection gap	deb	IPG as a m	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	3.4%	2.1%	1.3%	143,419	88,760	54,659	61.9%	3,669,396	2,143,976	1,525,420	1.6	1.5	1.7
2006	3.1%	1.9%	1.2%	153,413	94,404	600'69	61.5%	4,705,806	2,719,243	1,986,564	1.9	1.8	2.1
2007	3.4%	2.1%	1.3%	184,569	113,410	71,159	61.4%	4,898,285	2,912,826	1,985,460	1.6	1.5	1.7
2008	3.9%	2.3%	1.6%	217,067	129,740	87,327	29.8%	4,148,249	2,422,289	1,725,960	1.1	1.7	1.2
2009	3.6%	2.2%	1.5%	206,011	123,020	82,992	29.7%	4,598,389	2,634,154	1,964,235	1.3	1.3	1.4
2010	3.8%	2.3%	1.5%	246,751	149,287	97,464	%5'09	4,973,531	2,874,237	2,099,294	1.2	1.1	1.3
2011	4.2%	2.5%	1.7%	296,354	176,626	119,728	29.6%	4,806,511	2,758,990	2,047,521	6.0	0.9	1.0
2012	4.3%	2.6%	1.7%	319,745	191,025	128,720	29.7%	5,234,949	2,974,774	2,260,175	6.0	0.9	1.0
2013	4.5%	2.7%	1.8%	346,286	206,548	139,738	29.6%	4,984,036	2,655,285	2,328,751	0.8	0.7	6.0
2014	%7.7	2.6%	1.8%	361,389	211,865	149,525	28.6%	5,631,641	3,143,289	2,488,353	6.0	0.8	0.9
2015	4.7%	2.9%	1.8%	409,556	250,955	158,601	61.3%	5,507,769	2,861,386	2,646,383	0.7	9.0	0.9

Source: MAPFRE Economic Research (with data from the Superintence of Securities and Insurance)
<sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.17. Paraguay: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of guaraníes)

Net Combined Technical equity ratio Result n.a. n.a. n.a. n.a. n.a. n.a. n.a. n.a			Premiums											
457,892         33,066         424,826         n.a.         n.a.	Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio¹	Technical Result	Financial Result	R0E²	ROA³
487,03736,959450,078n.a. <th>2005</th> <th>457,892</th> <th>33,066</th> <th>424,826</th> <th>n.a.</th>	2005	457,892	33,066	424,826	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
557,46646,971510,495n.a.1,001,832102,8231,079,6021,524,643840,240840,589430,87691,480,70136,17220.0%1,434,3551,774,601,444,590441,6821,279,459840,589465,13290.3109,22248,61822.2%1,862,2861,625,6892,502,884884,1331,579,6311,071,207923,25393.1100,90489,64020.1%2,005,6272,79,8201,776,8072,856,2881,038,0091,811,5121,014,77695.475,641140,35519.7%	2006	487,037	36,959	450,078	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
695,20360,967634,237n.a. <th>2007</th> <th>994'499</th> <th>46,971</th> <th>510,495</th> <th>n.a.</th>	2007	994'499	46,971	510,495	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
833,97275,340758,632n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.n.a.1,001,832102,823899,0091,321,113389,444890,240594,659430,874n.a.n.a.n.a.n.a.16.5%1,212,157132,5551,079,6021,634,863526,1641,088,2381,279,459860,589665,13290.3109,22248,61820.0%1,634,8851,634,6852,266,305763,1051,474,367978,520791,93892.0103,50980,82621.9%1,862,2982,366,384884,1331,579,6311,071,207923,25393.1100,90489,64020.1%2,056,6271,776,8072,856,2881,038,0091,811,5121,201,7411,044,77695.475,641140,35519.7%	2008	695,203	496'09	634,237	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1,001,832102,823899,0091,321,113389,444890,240594,659430,874n.a.n.a.n.a.n.a.n.a.16.5%1,212,157132,5551,079,6021,634,863526,1641,088,238739,285546,62591.480,70136,17220.0%1,434,355177,1601,257,1951,944,590641,6821,279,459860,589665,13290.3109,22248,61822.2%1,634,6851,441,4152,266,305763,1051,474,367978,520791,93892.0103,50980,82621.9%1,862,2982,366,592,562,884884,1331,579,6311,071,20795.475,641140,35519.7%	2009	833,972	75,340	758,632	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1,212,157132,5551,079,6021,634,863526,1641,088,238739,285546,62591.480,70136,17220.0%1,434,355177,1601,257,1951,944,590641,6821,279,459860,589665,13290.3109,22248,61822.2%1,634,685193,2701,441,4152,266,305763,1051,474,367978,520791,93892.0103,50980,82621.9%1,862,2982,366,384884,1331,579,6311,071,207923,25393.1100,90489,64020.1%2,056,627279,8201,776,8072,856,2881,038,0091,811,5121,201,7411,044,77695.475,641140,35519.7%	2010	1,001,832	102,823	600'668	1,321,113	389,444	890,240	294,659	430,874	n.a.	n.a.	n.a.	16.5%	2.4%
1,434,355177,1601,257,1951,944,590641,6821,279,459860,589665,13290.3109,22248,61822.2%1,634,685193,2701,441,4152,266,305763,1051,474,367978,520791,93892.0103,50980,82621.9%1,862,2982,366,532,562,884884,1331,579,6311,071,207923,25393.1100,90489,64020.1%2,056,627279,8201,776,8072,856,2881,038,0091,811,5121,201,7411,044,77695.475,641140,35519.7%	2011	1,212,157	132,555	1,079,602	1,634,863	526,164	1,088,238	739,285	546,625	91.4	80,701	36,172	20.0%	%2.9
1,634,685193,2701,441,4152,266,305763,1051,474,367978,520791,93892.0103,50980,82621.9%1,862,2982,056,6272,79,8201,776,8072,856,2881,038,0091,811,5121,201,7411,044,77695.475,641140,35519.7%	2012	1,434,355	177,160	1,257,195	1,944,590	641,682	1,279,459	860,589	665,132	90.3	109,222	48,618	22.2%	7.6%
1,862,298236,6391,625,6592,502,884884,1331,579,6311,071,207923,25393.1100,90489,64020.1%2,056,627279,8201,776,8072,856,2881,038,0091,811,5121,201,7411,044,77695.475,641140,35519.7%	2013	1,634,685	193,270	1,441,415	2,266,305	763,105	1,474,367	978,520	791,938	92.0	103,509	80,826	21.9%	7.7%
2,056,627 279,820 1,776,807 2,856,288 1,038,009 1,811,512 1,201,741 1,044,776 95.4 75,641 140,355 19.7%	2014	1,862,298	236,639	1,625,659	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	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%

	Penetra	Penetration (premiums/GDP)	ls/GDP)	Density (prem	remiums per capita, guaraníes)	a, guaraníes)		Insul	Insurance protection gap	gap .	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth <sup>4</sup>	Total	Life	Non-Life	Total	Life	Non-Life
2005	0.8%	0.1%	%8'0	600'62	5,706	73,303	7.2%	4,236,830	2,772,975	1,463,856	9.3	83.9	3.4
2006	0.8%	0.1%	0.8%	82,786	6,282	76,504	7.6%	4,792,655	3,082,859	1,709,796	8.6	83.4	3.8
2007	0.8%	0.1%	0.7%	93,438	7,873	85,565	8.4%	5,552,045	3,632,621	1,919,424	10.0	77.3	3.8
2008	0.9%	0.1%	0.8%	114,971	10,082	104,888	8.8%	6,005,781	3,895,036	2,110,745	9.8	63.9	3.3
2009	1.1%	0.1%	1.0%	136,108	12,296	123,812	%0.6	5,811,870	3,801,401	2,010,469	7.0	50.5	2.7
2010	1.1%	0.1%	0.9%	161,330	16,558	144,771	10.3%	6,877,711	4,548,955	2,328,756	6.9	44.2	2.6
2011	1.2%	0.1%	1.0%	192,555	21,057	171,498	10.9%	7,414,507	4,917,200	2,497,307	6.1	37.1	2.3
2012	1.3%	0.2%	1.2%	224,765	27,761	197,004	12.4%	7,707,555	5,155,621	2,551,934	5.4	29.1	2.0
2013	1.3%	0.2%	1.2%	252,722	29,879	222,842	11.8%	8,502,647	5,563,733	2,938,913	5.2	28.8	2.0
2014	1.4%	0.2%	1.2%	284,126	36,103	248,022	12.7%	9,437,112	6,239,852	3,197,260	5.1	26.4	2.0
2015	1.4%	0.2%	1.2%	309,772	42,147	267,625	13.6%	089'008'6	6,514,331	3,286,349	4.8	23.3	1.8

Source: MAPFRE Economic Research (with data from the Superintence of Inisurance, Central Bank of Paraguay)
<sup>1</sup> Estimate regarding net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A. 18. Argentina: main figures and indicators of the insurance market, 2005-2015 (amounts in millions of pesos)

													_		_					
	ROA³	0.7%	3.2%	2.3%	1.7%	%0.4	3.6%	4.3%	4.5%	4.5%	2.6%	%9.9		al market	Non-Life	1.2	1.1	1.0	6.0	c
	R0E <sup>2</sup>	3.3%	15.9%	11.9%	%0.6	21.0%	18.9%	22.8%	23.3%	23.6%	28.6%	32.5%		IPG as a multiple of the real market	Life	8.9	6.4	8.9	8.6	7
	Financial Result	1,728	2,392	1,659	1,494	4,897	4,758	6,259	10,685	16,772	24,876	37,335		IPG as a m	Total	2.8	2.7	2.7	2.6	, c
	Technical Result	-1.894	-1.981	-1.194	-1.577	-4.004	-3.290	-3.139	-7.662	-12.274	-16.835	-20.591		gap (	Non-Life	10,963	13,767	16,024	18,783	06/01
	Combined ratio1	120.4	116.1	107.4	107.9	117.7	110.7	107.4	113.5	116.2	116.2	114.0		Insurance protection gap	Life	26,401	32,226	41,422	50,481	010 /1
	Net equity	5,765	6'6'9	7,754	10,746	10,746	12,982	15,597	20,094	26,858	36,964	55,241		nsul	Total	37,364	45,993	57,446	69,264	000
	Technical	19,528	23,704	28,150	33,188	38,042	42,329	55,231	69,572	92,121	123,804	175,855			Depth⁴	29.2%	29.4%	28.5%	22.4%	1/ 00/
	Liabilities	22,989	27,794	32,821	45,386	45,386	54,630	66,480	84,977	112,499	151,932	216,415		oita, pesos)	Non-Life	241	304	385	204	\ C
	Investments	21,050	26,130	29,906	34,850	40,938	49,541	59,175	75,000	04,740	137,164	201,340		Density (premiums per capita, pesos)	Life	100	127	153	145	001
	Assets	28,754	34,773	40,575	56,132	56,132	67,612	82,077	105,071	139,358	188,896	271,656		Density (pr	Total	341	431	539	679	715
	Non-Life	9,426	12,005	15,370	20,305	24,198	32,566	43,509	57,437	78,127	108,389	152,387		s/GDP)	Non-Life	1.6%	1.7%	1.7%	1.8%	,00
Premiums	Life	3,891	5,001	6,118	5,852	4,898	6,218	8,704	11,625	15,262	21,032	28,285		Penetration (premiums/GDP)	Life	0.7%	0.7%	0.7%	0.5%	/0/ 0
	Total	13,317	17,006	21,488	26,157	29,097	38,784	52,213	69,062	63,389	129,421	180,672		Penetr	Total	2.3%	2.4%	2.4%	2.3%	/00 0
	Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015			Year	2005	2006	2007	2008	0000

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	Density (premiums per capita, pesos)	ita, pesos)		Insur	Insurance protection gap	gap (	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	2.3%	0.7%	1.6%	341	100	241	29.2%	37,364	26,401	10,963	2.8	8.9	1.2
2006	2.4%	0.7%	1.7%	431	127	304	29.4%	45,993	32,226	13,767	2.7	9.9	1.1
2007	2.4%	0.7%	1.7%	539	153	385	28.5%	57,446	41,422	16,024	2.7	8.9	1.0
2008	2.3%	0.5%	1.8%	679	145	204	22.4%	69,264	50,481	18,783	2.6	9.8	6.0
2009	2.3%	0.4%	1.9%	715	120	294	16.8%	75,729	56,250	19,479	2.6	11.5	0.8
2010	2.3%	%7.0	2.0%	643	151	792	16.0%	99,138	75,206	23,932	2.6	12.1	0.7
2011	2.4%	%7.0	2.0%	1,256	209	1,047	16.7%	126,467	62,889	30,578	2.4	11.0	0.7
2012	2.6%	0.4%	2.2%	1,644	277	1,368	16.8%	152,523	117,633	34,890	2.2	10.1	9.0
2013	2.8%	0.5%	2.3%	2,201	360	1,841	16.3%	177,824	138,760	39,064	1.9	9.1	0.5
2014	2.8%	0.5%	2.4%	3,019	491	2,528	16.3%	246,064	194,185	51,879	1.9	9.2	0.5
2015	3.1%	0.5%	2.6%	4,173	653	3,519	15.7%	299,635	246,927	52,708	1.7	8.7	0.3

Source: MAPFRE Economic Research (with data from the Superintendence of Insurance of the Nation) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiums

Table A.19. Uruguay: main figures and indicators of the insurance market, 2005–2015 (amounts in millions of pesos)

		Premiums						;	:		i		
Year	Total	Life	Non-Life	Assets	Investments	Liabilities	Technical provisions	Net equity	Combined ratio¹	Technical Result	Financial Result	R0E²	ROA³
2005	7,182	1,305	5,877	15,275	11,269	11,156	8,632	4,119	96.2	225	594	%6.6	2.7%
2006	7,978	1,396	6,582	17,626	13,483	12,780	10,276	4,846	101.8	-116	725	%6.9	1.9%
2007	8,987	1,704	7,284	20,064	15,295	14,570	12,120	5,494	97.8	173	82	3.9%	1.1%
2008	10,784	2,206	8,578	23,677	17,687	18,261	15,009	5,416	102.0	-178	299	-2.8%	%9.0-
2009	12,693	2,719	9,975	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	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	786,07	33,942	32,806	29,069	8,180	101.3	-192	1,455	5.5%	1.1%
2012	21,564	5,684	15,880	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	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	77,793	890'59	65,535	58,548	12,259	101.9	-487	2,699	8.2%	1.3%
2015	34,910	11,672	23,238	96,715	83,041	82,363	74,257	14,352	104.6	-1.432	4,249	6.1%	0.9%

	Penetra	Penetration (premiums/GDP)	s/GDP)	Density (pre	Density (premiums per capita, pesos)	ita, pesos)		Insur	Insurance protection gap	gap	IPG as a mu	IPG as a multiple of the real market	al market
Year	Total	Life	Non-Life	Total	Life	Non-Life	Depth⁴	Total	Life	Non-Life	Total	Life	Non-Life
2005	1.7%	0.3%	1.4%	2,160	393	1,767	18.2%	29,794	20,796	8,998	4.1	15.9	1.5
2006	1.7%	0.3%	1.4%	2,394	419	1,975	17.5%	33,500	23,114	10,387	4.2	16.6	1.6
2007	1.6%	0.3%	1.3%	2,690	510	2,180	19.0%	39,366	27,418	11,948	4.4	16.1	1.6
2008	1.7%	0.3%	1.3%	3,218	829	2,560	20.5%	42,016	28,965	13,051	3.9	13.1	1.5
2009	1.8%	0.4%	1.4%	3,775	808	2,967	21.4%	47,327	32,293	15,034	3.7	11.9	1.5
2010	1.8%	0.4%	1.4%	4,322	1,029	3,293	23.8%	52,490	36,124	16,366	3.6	10.4	1.5
2011	1.9%	0.5%	1.4%	5,212	1,259	3,953	24.2%	58,324	40,205	18,120	3.3	9.4	1.4
2012	2.1%	0.5%	1.5%	6,351	1,674	4,677	26.4%	868'59	45,336	20,563	3.1	8.0	1.3
2013	2.1%	%9.0	1.5%	7,265	2,084	5,181	28.7%	969'02	47,103	23,594	2.9	9.9	1.3
2014	2.3%	0.7%	1.6%	8,860	2,615	6,245	29.5%	78,817	53,596	25,220	2.6	6.0	1.2
2015	2.4%	0.8%	1.6%	10,177	3,403	6,775	33.4%	85,138	57,115	28,023	2.4	4.9	1.2

Source: MAPFRE Economic Research (with data from the Central Bank of Uruguay) <sup>1</sup> Estimate regarding the net earned premium; <sup>2</sup> Return on net equity; <sup>3</sup> Return on assets; <sup>4</sup> Life insurance premiums / Total premiiums



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