

2017 Ranking of the largest European insurance groups

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Introduction

As with previous editions, this issue of the Ranking of the largest European insurance groups 2017 is based on the criterion of overall premium volume. We also analyze the trends over the last ten years that have shaped this year's ranking. When conducting our analysis, we studied changes in premium volume over the last ten years at all the insurance groups featured in the 2017 rankings. This process has allowed us to pinpoint key changes for each group, as well as wider trends across the entire industry and levels of convergence in their growth rates. Our findings are presented in overall terms and individually for the Life and Non-Life segments, for which we also discuss the main changes and developments to have unfolded.

The first part of this report shows the ranking of insurance groups in 2017 across the different segments, along with the balance sheet and earnings of the groups that make up the overall ranking and the combined ratios for the largest Non-Life insurance groups. Since the year witnessed a number of significant natural disasters, this issue also provides information on the cost of these events for each Non-Life insurance group and reveals the overall impact on their combined ratio.

The second part of this report shows the solvency ratio for each of the insurance groups featured on the overall, Life and Non-Life tables. These ratios have been retrieved from the reports that each of these groups is required to make public.

Last but not least, the third part addresses the degree of convergence between the insurance groups under analysis. As part of our analysis, we examine changes in the value of premiums written by the market players over the past ten years, while attempting to draw a distinction between long-standing trends and more recent trends confined to this point of the economic cycle. We also show the relationship between the size and growth capacity of each player, highlighting common trends and patterns in relation to their convergence.

This report also includes an appendix containing a graphical analysis of the cycle and trend for each insurance group in the ranking, following the same methodology used in our study.

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1. Rankings

1.1. Overall ranking

In 2017, two significant events impacted the performance of the main insurance groups operating in Europe. Interest rates remained low and this is continuing to weigh heavily on the Life savings and traditional annuities businesses, while also affecting the return on investment. Meanwhile, a number of severe natural disasters across various regions had a sizable impact on the income statement of the Non-Life segment.

Aside from these more general concerns, UK insurers, or those groups with operations in the United Kingdom, were hit hard by the recent review of the Ogden discount rate, which the courts use to calculate the amount of compensation payable in the event of personal injury. The new rate, which became effective in March 2017, now stands at -0.75% (down 3.25 points) and has led to a significant increase in the amount of compensation that must be paid out. The US fiscal reform is another process to have impacted the results of European insurance groups with interests in the country. Lastly, we would be remiss not to mention the French government's recent decision to push through a "temporary and exceptional" increase in corporate income tax for companies with revenues exceeding 1 billion euros in 2017. The tax hike has been introduced to offset another tax vetoed by the French courts and to allow the French government to honor its commitment of lowering the nation's public deficit.

Size and growth

The global insurance market turned in a positive performance in 2017, mainly on the back of Non-Life insurance. Emerging markets, notably Asian economies, were the driving force behind the growth in this segment, with the two powerhouses, namely China and India, both outperforming. Meanwhile, the Life insurance

segment turned in a mixed bag in 2017, showing significant growth in emerging Asian countries but losing ground in developed markets, where sales of Life and Savings insurance products were down in the two largest markets, meaning Japan and the United States.

Against this backdrop, the 15 largest insurance groups in Europe measured by premium volume earned 579.6 billion euros between them in 2017, revealing a slight year-on-year increase of 0.8% (see Table 1.1-a). As happened in 2016, the Non-Life segment of these groups generally outperformed the Life segment in terms of premium income as the global economy continued to recover.

French group Axa continues to top the ranking with a premium volume of 92.05 billion euros, down 2.3% year on year as the growth reported in its Transversal & Central Holdings segment failed to offset the slowdown observed across its other business lines.

A total of ten groups reported growth in their premium income. Of these, three reported growth of around 6%, namely BNP Paribas Cardif (10.2%). Talanx (6.3%) and Prudential (5.9%). Trailing these were MAPFRE (2.9%), Poste Vita (2.3%), CNP (1.9%), Aviva (1.8%), Allianz (1.3%), Ergo (0.9%) and Covéa (0.4%). All other groups reported lower premium income than in 2016.

Significantly, the international direct health insurance portfolio of Munich Health was transferred to Ergo in February 2017, thus significantly increasing the latter's premium volume. However, since its figures for 2016 were also restated, growth at Ergo came to just 0.9%. This explains the insurer's one-place improvement to fourteenth in the table, ahead of Covéa. The German group has reported growth across all segments in both Germany and its international business, with its Non-Life insurance outperforming the other segments.

Table 1.1-a
Total market: overall ranking of European insurance groups, 2017
Ranking by premium volume

				Premium	s (millions	of euros)		%∆	% YoY	0/ V-V
	Group	Country	2007	2016	2017	Δ 2007 -2016	Δ 2016- 2017	premium 2007- 2017	premium 2007-2017 annual average	% YoY premium 2016-2017
1	AXA	France	86,116	94,220	92,050	8,104.0	-2,170.0	6.9%	0.6%	-2.3%
2	ALLIANZ	Germany	65,788	76,331	77,345	10,543.0	1,014.0	17.6%	1.6%	1.3%
3	GENERALI	Italy	66,218	68,907	68,537	2,689.2	-370.0	3.5%	0.3%	-0.5%
4	PRUDENTIAL	United Kingdom	26,827	47,438	50,236	20,610.7	2,798.4	87.3%	7.9%	5.9%
5	ZURICH	Switzerland	34,465	43,650	41,391	9,184.8	-2,259.0	20.1%	1.8%	-5.2%
6	TALANX	Germany	19,130	31,106	33,060	11,976.0	1,954.0	72.8%	6.6%	6.3%
7	CNP	France	31,499	31,495	32,077	-4.7	582.7	1.8%	0.2%	1.9%
8	AVIVA	United Kingdom	45,286	30,962	31,515	-14,324.4	553.5	-30.4%	-2.8%	1.8%
9	CRÉDIT AGRICOLE ASSURANCES	France	20,667	30,775	30,426	10,108.0	-349.0	47.2%	4.3%	-1.1%
10	MAPFRE	Spain	12,311	22,813	23,481	10,502.2	667.5	90.7%	8.2%	2.9%
11	AEGON	The Netherlands	26,900	23,453	22,826	-3,447.0	-627.0	-15.1%	-1.4%	-2.7%
12	BNP PARIBAS CARDIF ¹	France	16,334	20,133	22,188	3,799.4	2,055.0	35.8%	3.3%	10.2%
13	POSTE VITA	Italy	5,541	19,939	20,405	14,397.7	465.6	268.2%	24.4%	2.3%
14	ERG0	Germany	16,401	17,389	17,546	987.8	157.0	7.0%	0.6%	0.9%
15	COVÉA	France	12,210	16,411	16,474	4,200.6	63.1	34.9%	3.2%	0.4%

Total Top 5	279,414	330,545	329,559	51,131.8	-986.6
Total Top 15	485,693	575,020	579,556	89,327.4	4,535.8

^{1/} Data retrieved from its annual report. In 2017, the group presents information under IFRS and so 2016 figures have been updated accordingly.

When compared with the previous year, there has been no change in the companies featured on the table, meaning no new arrivals or departures. However, one can observe three changes of position in 2017 among the different groups that make up the ranking. Thanks to the healthy performance of all its business lines, the Talanx group moved up one place to sixth, knocking CNP down into seventh spot. MAPFRE returns to tenth place, having yielded this position in 2016 in the face of heavy growth at Aegon. The last change occurred near the bottom of the table as Ergo and Covéa swapped placed, as mentioned previously.

Results and balance sheet

The aggregate operating results of all the insurance groups featured in the ranking were down 1.4% to 51.3 billion euros, having been hit hard by higher than normal catastrophe losses, particularly the damage caused by Hurricanes Harvey, Irma and María in the Americas, which undermined the results reported by the Non-Life segment (see Table 1.1-b).

However, an improved set of results at the Life and asset management segments, coupled with cost discipline and an improved financial result, led to a 12.1% increase in net profit. It should also be noted that certain groups have benefited also from the fiscal reform in the United States.

The aggregate net result at the 15 largest European insurance groups amounted to 34.01 billion euros in 2017 (see Table 1.1.-c). Six groups reported lower earnings (Allianz, Zurich, Talanx, Crédit Agricole Assurance, MAPFRE and Covéa), almost all of which saw their Non-Life business impacted by the increase in losses from natural disasters, as just mentioned.

The insurance groups that reported the biggest earnings growth were Aegon (302.9%), BNP Paribas Cardif (103.8%) and Aviva (79.8%). The Dutch group's net result

Table 1.1-b
Total market: operating results of European insurance groups, 2017
(millions of euros)

Crown	Country		Total		
Group	Country	2016	2017	% change	
AXA	France	9,149	7,735	-15.5	
ALLIANZ	Germany	10,413	10,148	-2.5	
GENERALI	Italy	4,783	4,895	2.3	
PRUDENTIAL	United Kingdom	5,179	6,367	22.9	
ZURICH	Switzerland	4,070	3,372	-17.2	
TALANX	Germany	2,307	1,807	-21.7	
CNP	France	2,462	2,756	11.9	
AVIVA	United Kingdom	3,663	3,502	-4.4	
CREDIT AGRICOLE ASSURANCES	France	2,164	2,076	-4.1	
MAPFRE	Spain	1,805	1,509	-16.4	
AEGON	The Netherlands	1,913	2,103	9.9	
BNP PARIBAS CARDIF	France	1,030	1,488	44.5	
POSTE VITA	Italy	604	799	32.3	
ERG0	Germany	1,106	1,168	5.6	
COVÉA	France	1,313	1,526	16.2	
Total		51,961	51,251	-1.4	

Source: MAPFRE Economic Research (with data retrieved from the groups' SFCR)

Table 1.1-c
Total market: net results of European insurance groups, 2017

Group	Country	Net ro (millions		% YoY 2016-2017	Attribut controlling (millions o	company	% YoY 2016-2017
		2016	2017	2016-2017	2016	2017	2010-2017
AXA	France	6,193	6,603	6.6%	5,829	6,209	6.5%
ALLIANZ	Germany	7,329	7,207	-1.7%	6,962	6,803	-2.3%
GENERALI	Italy	2,239	2,295	2.5%	2,081	2,110	1.4%
PRUDENTIAL	United Kingdom	2,338	2,728	16.7%	2,338	2,727	16.7%
ZURICH	Switzerland	3,149	2,934	-6.8%	2,907	2,663	-8.4%
TALANX	Germany	1,564	1,270	-18.8%	903	672	-25.6%
CNP	France	1,497	1,623	8.4%	1,200	1,285	7.0%
AVIVA	United Kingdom	1,045	1,879	79.8%	856	1,709	99.8%
CREDIT AGRICOLE ASSURANCES	France	1,374	1,356	-1.3%	1,368	1,352	-1.2%
MAPFRE	Spain	1,245	1,098	-11.8%	776	701	-9.7%
AEGON	The Netherlands	586	2,361	302.9%	586	2,361	302.9%
BNP PARIBAS CARDIF	France	494	1,007	103.8%	498	1,007	102.2%
POSTE VITA	Italy	396	546	37.9%	396	546	37.9%
ERG0	Germany	41	272	563.4%	n/a	n/a	n/a
COVÉA	France	837	831	-0.6%	825	818	-0.8%

Total 30,327 34,011 12.1%

Table 1.1-d
Total market: balance sheets of European insurance groups, 2017
(in billions of euros)

							LIABI	LITIES*						
		Sh	arehold	ers' equ	iity		Τe	chnical	provisio	ns				
Group	Capital and reserves		Non- controlling interests		Total		Technical provisions		Policyholder/ insured party risk		Other		Total liabilities	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
AXA	71	70	5	6	76	75	449	440	176	176	192	179	893	870
ALLIANZ	67	66	3	3	70	69	578	587	111	119	125	127	884	901
GENERALI	25	25	1	1	26	26	361	362	61	68	74	80	521	537
PRUDENTIAL	17	18	0	0	17	18	289	291	183	191	62	56	551	556
ZURICH	28	28	2	2	29	29	165	163	114	101	37	58	346	352
TALANX	9	9	6	5	15	14	111	112	11	11	21	21	157	158
CNP	18	18	2	2	19	20	314	311	47	54	38	38	419	423
AVIVA	21	20	2	1	23	22	255	238	153	159	85	80	516	498
CRÉDIT AGRICOLE ASSURANCES	15	16	0	0	15	16	255	262	53	60	38	40	361	377
MAPFRE	9	9	2	2	11	11	45	45	2	2	9	9	68	68
AEGON	24	24	0	0	24	24	139	128	206	197	56	47	425	396
BNP PARIBAS CARDIF	5	5	0	0	5	5	134	136	42	48	21	23	202	212
POSTE VITA	3	3	-	-	3	3	107	120	7	4	2	2	119	129
ERGO ¹	n/a	n/a	n/a	n/a	8	7	127	129	8	9	10	10	153	155
COVÉA	13	14	0	0	14	14	80	81	5	6	5	5	103	106

^{*/} The (-) symbol means there is no available figure for that item. Zero (0) means any value below one.

^{1/} Figures calculated as the sum of its three segments: Life and Health Germany, Property & Casualty Germany, and International

Table 1.1-d (continued)
Total market: balance sheets of European insurance groups, 2017
(in billions of euros)

					AS	SETS				
		Inves	tment							
Group	Investment		Policyholder/ insured party risk		Cash		Oth	ner	Total assets	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
AXA	588	574	175	175	26	24	104	98	893	870
ALLIANZ	537	547	111	119	14	17	221	218	884	901
GENERALI	391	396	78	75	11	13	41	52	521	537
PRUDENTIAL	311	318	183	191	12	12	45	36	551	556
ZURICH	165	162	114	101	7	7	60	83	346	352
TALANX	119	119	11	11	3	3	25	25	157	158
CNP	336	333	47	54	1	1	35	35	419	423
AVIVA	237	221	156	173	45	49	78	56	516	498
CRÉDIT AGRICOLE ASSURANCES	296	304	52	60	1	2	11	11	361	377
MAPFRE	45	45	2	2	1	2	19	19	68	68
AEGON	156	137	204	194	11	11	54	54	425	396
BNP PARIBAS CARDIF	149	153	43	48	1	2	9	9	202	212
POSTE VITA	109	122	7	4	1	1	2	2	119	129
ERG0 ¹	131	133	8	9	n/a	n/a	14	14	153	155
COVÉA	86	88	5	6	2	2	11	11	103	106

^{1/} Figures calculated as the sum of its three segments: Life and Health Germany, Property & Casualty Germany, and International

benefited from realized capital gains of 413 million euros and from profit of 554 million euros in connection with the US tax reform. The BNP Paribas Cardif group posted excellent operating earnings in 2017 in response to business growth and a controlled loss ratio. Meanwhile, profit growth at Aviva is down to an improvement in operating profit, lower integration and restructuring costs and the impact of the change made to the Ogden discount rate in 2016.

Lastly, Table 1.1-d shows basic information on the balance sheets of the European insurance groups featured in this ranking.

1.2. Non-Life ranking

Size and growth

The 15 largest European insurance groups operating within the Non-Life segment wrote 255.4 billion euros in premiums in 2017, up 1.7% year on year (see Table 1.2-a). The increase was mainly organic and featured a significant contribution from the European insurance markets, where various groups concentrate most of their business, notably Germany, France, Spain and certain countries from Central and Eastern Europe. The sound performance of the insurance industry in the Americas, especially in the United States, Canada, Brazil and Mexico, was also behind the improvement seen in Europe. Automobile insurance made an especially significant contribution to growth in 2017.

Allianz tops the table once again in the Non-Life segment, with a premium volume of 52.26 billion euros, followed by Axa, Zurich and Generali. These four groups amass 46% of total premiums between them. The first change in the ranking can be seen in the fifth and sixth-placed groups, with Talanx now moving up to fifth and MAPFRE dropping to sixth.

Moving down the table, the next competitors also swapped places. Ergo, whose premiums have risen sharply due to the portfolio it

received from Munich Health, climbs one place in comparison to the 2016 ranking, while Aviva slips to eighth. Talanx has seen the biggest increase in premium volume in 2017, contributing over 2 billion euros to total growth across the table. In its case, the main driver was Non-Life reinsurance, which gained 16.4% to reach 10.71 billion euros.

Only three insurers reported a reduction in their Non-Life premiums in euros: Axa, Zurich and RSA. Starting with the British group, gross premiums written were up 5.2% in local currency. Growth in Sweden and Norway was partially offset by a slight slump in Denmark, while premiums saw double-digit gains in Canada and the United Kingdom and were up 4% for international operations.

Combined ratio

Natural disasters, mainly those affecting North America, had a significant impact on the results of the Non-Life segment for the main European insurance groups in 2017. Hurricanes Harvey, Irma and María all made landfall on the east coast of North America and the Caribbean in the third quarter of the year. Meanwhile, two earthquakes struck Mexico in September and we also witnessed forest fires in California in the fourth quarter of 2017, all of which negatively impacted the technical result at most groups. According to preliminary estimates released by Swiss Re Institute, the total insured damage caused by the three hurricanes came to some 92 billion US dollars. while the two outbreaks of forest fires in California caused a combined damage covered by insurance of close to 13 billion dollars. For the Tehuantepec and Puebla earthquakes in Mexico, the cost of the insured damage is estimated at 1.2 billion dollars.

Because these events had a significant impact on the results reported by the insurance groups featured in this year's ranking, we have analyzed this impact using the information provided by the groups themselves.

Table 1.2-a Non-Life market: overall ranking of European insurance groups, 2017 Ranking by premium volume

				Premium	s (million	s of euros)	%Δ	% YoY	
	Group	Country	2007	2016	2017	Δ 2007- 2016	Δ 2016- 2017	premium 2007- 2017	premium 2007-2017 (annual average)	% YoY premium 2016-2017
1	ALLIANZ	Germany	44,289	51,535	52,262	7,246.0	727.0	18.0%	1.6%	1.4%
2	AXA	France	28,598	35,534	34,965	6,936.0	-569.0	22.3%	2.0%	-1.6%
3	ZURICH	Switzerland	25,882	29,990	29,279	4,108.1	-711.2	13.1%	1.2%	-2.4%
4	GENERALI	Italy	20,845	20,507	20,749	-337.5	242.0	-0.5%	0.0%	1.2%
5	TALANX	Germany	11,596	17,675	19,854	6,079.0	2,179.0	71.2%	6.5%	12.3%
6	MAPFRE	Spain	9,293	17,700	18,155	8,406.8	454.7	95.4%	8.7%	2.6%
7	ERG0	Germany	10,073	13,296	13,572	3,223.0	275.5	34.7%	3.2%	2.1%
8	AVIVA	United Kingdom	16,613	11,797	12,013	-4,816.0	216.0	-27.7%	-2.5%	1.8%
9	COVÉA	France	8,803	11,659	11,955	2,855.8	295.7	35.8%	3.3%	2.5%
10	GROUPAMA	France	9,922	9,263	9,392	-659.0	129.0	-5.3%	-0.5%	1.4%
11	RSA	United Kingdom	9,638	8,786	8,675	-852.1	-111.3	-10.0%	-0.9%	-1.3%
12	UNIPOL	Italy	4,313	7,856	7,964	3,543.0	108.0	84.7%	7.7%	1.4%
13	R+V	Germany	4,057	7,180	7,700	3,123.0	520.0	89.8%	8.2%	7.2%
14	SAMPO GROUP	Finland	4,085	4,458	4,737	373.1	278.9	16.0%	1.5%	6.3%
15	CRÉDIT AGRICOLE ASSURANCES ¹	France	2,051	3,828	4,138	1,777.0	310.0	101.8%	9.3%	8.1%

Total Top 5	131,209	155,241	157,109	24,031.6	1,867.8
Total Top 15	210,058	251,064	255,409	41,006.2	4,344.2

Source: MAPFRE Economic Research (with data retrieved from the groups' annual reports) 1/ Premium volume as set out in its Solvency and Financial Condition Report (SFCR).

Table 1.2-b Non-Life market: combined ratios, 2016-2017

1/01										
		Combined ratio		Expense ratio			Loss ratio			
Group	Country	2016	2017	% chg.	2016	2017	% chg.	2016	2017	% chg.
ALLIANZ	Germany	94.3	95.2	0.9	28.7	28.7	0.0	65.6	66.5	0.9
AXA ¹	France	96.4	96.3	-0.1	27.2	27.3	0.1	69.2	69.0	-0.2
ZURICH	Switzerland	98.1	100.9	2.8	31.7	31.8	0.1	66.4	69.1	2.7
GENERALI	Italy	92.3	92.8	0.5	27.3	27.8	0.5	65.0	65.0	0.0
TALANX	Germany	95.7	100.4	4.7	27.9	28.5	0.6	67.8	71.9	4.1
MAPFRE	Spain	97.4	98.1	0.7	27.4	27.5	0.1	70.0	70.7	0.7
ERGO ²	Germany	97.0	97.5	0.5	35.1	33.5	-1.6	61.9	64.1	2.2
AVIVA	United Kingdom	100.1	96.6	-3.5	30.9	31.3	0.4	69.2	65.3	-3.9
COVÉA	France	98.0	97.5	-0.5	n.a	n.a	n.a	n.a	n.a	n.a
GROUPAMA	France	100.3	98.9	-1.4	41.1	40.0	-1.1	59.2	58.9	-0.3
RSA	United Kingdom	94.2	94.0	-0.2	29.6	28.1	-1.5	64.6	65.9	1.3
UNIPOL	Italy	95.6	96.4	0.8	27.5	27.4	-0.1	68.1	69.0	0.9
R+V ³	Germany	99.0	104.6	5.6	n/a	n/a	n/a	n/a	n/a	n/a
SAMPO GROUP ⁴	Finland	84.4	85.3	0.9	16.6	16.4	-0.2	67.8	68.9	1.1
CREDIT AGRICOLE ASSURANCES ⁵	France	95.9	96.8	0.9	29.7	33.1	3.4	66.2	63.7	-2.5

Source: MAPFRE Economic Research (with data retrieved from the groups' annual reports)

Our analysis shows once again that the insurance groups are all adept at risk management. Despite having to insure heavy losses, they have managed to keep their technical results below 100% (or very slightly above), with reinsurance playing a crucial role when it comes to mitigating losses (see Table 1.2-b). In some cases, the high catastrophe loss ratio was offset by lower costs on other serious losses.

In 2017, the combined ratio improved at five of the groups under analysis, while worsening at the ten remaining groups. With a combined ratio exceeding 100 we find R+V (104.6%), Zurich (100.9%) and Talanx (100.4%).

Virtually all the insurance groups featured in our study were affected to some degree or another by the catastrophic events that struck the Atlantic coast of North America and the Caribbean in the third quarter of 2017, with the notable exceptions of Unipol, which operates mainly in Italy; Sampo, which offers insurance solutions and services in Nordic and Baltic countries; and Ergo, whose business is concentrated in Europe (69% in Germany and 31% international, but mainly in Central and Eastern European countries). At Aviva, claims relating to adverse meteorological conditions and natural disasters remained high for its general insurance business in Canada.

^{1/} The combined ratio refers to the Property & Casualty segment and does not include Health or "Life style protection" insurance

^{2/} Property & Casualty Germany

^{3/} Combined ratio, gross

^{4/} The combined ratio is for group subsidiary If, where premiums account for 92% of the group's total premiums under Ownership and Contingency

^{5/} Data obtained from the 2017 annual report of the Crédit Agricole group

German group Talanx reported an impact on the combined ratio of 10 percentage points (pp) due to large losses, with a net charge across the entire group of 1.62 billion euros, of which 1.23 billion was posted to cover natural disasters. Hurricane Irma caused the largest major loss, costing 387 million euros. Combined with Hurricanes Harvey and Maria and the two earthquakes in Mexico, the impact of natural disasters in August and September was around one billion euros. The combined ratio worsened by 4.7 pp to reach 100.4%.

Insured losses from natural disasters at the Allianz group reached a new high in 2017 at 1.11 billion euros, hurting its combined ratio by 2.4 pp and bringing it 95.2%, up 0.9 pp on 2016. At Zurich, total catastrophe losses added 5.8 pp to the insurer's combined ratio in 2017, due largely to Hurricanes Harvey, Irma and Maria in the Atlantic, which caused an estimated 700 million dollars in losses (621 million euros), net of reinsurance. The group's overall combined ratio was 100.9%, 2.7 pp more than in 2016.

Operating profit at Generali's *Property & Casualty* segment was down 4.9% on the previous year, mainly as a result of losses from natural disasters, which totaled 416 million euros in the wake of the hurricanes in the United States and the storms in Central Europe, among other factors. The group's combined ratio stood at 92.8% (+0.5 pp versus 2016), with natural disasters adding 2.1 pp to the ratio.

In accepted reinsurance, R+V was also affected by catastrophic events such as Hurricanes Harvey, Irma and Maria and the earthquake in Mexico. Expected losses from these extraordinary events come to roughly 200 million euros.

Hurricanes Harvey, Irma and Maria and the two earthquakes that struck Mexico in September also pushed up the loss experience at MAPFRE, which also had to contend with the *El Niño Costero* flooding that affected Peru and Colombia in February.

The net impact (retained cost after tax and non- controlling interests) of these natural disasters on the MAPFRE Group's attributable profit at 31 December 2017 was 125.6 million euros for the insurers and 183.8 million euros including MAPFRE RE.

The three major hurricanes in the United States and the Caribbean and the earthquakes in Mexico cost RSA a total of 72 million pounds sterling (82 million euros) net of reinsurance. However, the group's large losses totaled 713 million pounds sterling (814 million euros), mainly in the United Kingdom and Canada.

Meanwhile, the cost of the meteorological phenomena at Groupama was a 2.2 pp increase in its ratio, although reinsurance coverage went some way to mitigating this negative impact. Hurricanes Irma y Maria had a gross impact of 330 million euros on the group's statements and a net impact of 38 million. Its combined ratio improved by 1.4 pp thanks to a stable loss ratio for low intensity claims, lower costs under serious claims and a 1.4 pp increase in the cost of claims related to meteorological conditions, the impact of which was cushioned by the effectiveness of its reinsurance programs.

Turning to the Axa group, the result of its Property & Casualty segment was up 3%. While its combined ratio for the year in progress has been worsening mainly in response to the scale of the natural disasters, this trend was offset by an improvement in payments and reserves for losses incurred in previous years. The combined ratio for this segment improved by ten tenths of a percentage point to reach 96.3%. Meanwhile, the major natural events of 2017 cost group company Axa Corporate Solutions a total of 80 million euros.

Insurance group Crédit Agricole Assurance also felt the effects of Hurricane Maria and Storm Ana, which struck Europe in December, although there is no available data showing what impact it had on the group's combined ratio.

Last but not least, Covéa was also affected by various climatic events during the year, notably Hurricanes Irma and Maria. The total cost of all these events came to 449 million euros, gross of reinsurance, and 280 million euros, net. The group also had to contend with the fires and flooding in California.

1.3. Life ranking

Size and growth

In 2017, the Life segment turned in a mixed bag of results across the different markets. While growth was down in developed markets, there were mixed results across emerging markets: Growth was up in Eastern Europe, but slowed in Latin America, while emerging Asian countries reported two-digit growth, with China leading the way.

Combined premium volume at the 15 largest European Life insurers featured in this report amounted to 370.5 billion euros in 2017, showing a slight year-on-year increase of 0.4% (see Table 1.3). The Axa group remains in first place, with a premium volume of 57.08 billion euros, down 2.7% on 2016. Growth in the United States and in the international operations segment was wiped out by negative growth in Europe and Asia, especially Japan.

The Prudential group reported a 5.9% increase in its premium volume thanks to the solid performance of its businesses in the United States, Asia and Europe, making it the group to have reported the biggest growth in absolute terms in the Life segment in 2017 (2.8 billion euros). This growth has brought it to second place in the rankings, ahead of Generali, which slips one place. Further highlights included growth at BNP Paribas Cardif (1.87 billion euros) and at Poste Vita (443 million euros), pushing each of them up one place in the table. Significantly, the Life business at the French group has been posting sharp growth in Asia and Latin America.

Meanwhile, the heavy slump in premiums at Legal & General, which was placed fourteenth in 2016, has knocked it off the table altogether in 2017, with newcomer HSBC entering the race in fifteenth place. This change, coupled with a slump in premium volume and loss of position at Swiss group Zurich, has enabled Swiss Life to move up two spots in the ranking, despite reporting a drop in premiums, which was partly down to the 6% reduction at its collective Life business in Switzerland.

Table 1.3 Life market: overall ranking of European insurance groups, 2017 Ranking by premium volume

			Premiums (millions of euros)			%Δ	% YoY			
	Group	Country	2007	2016	2017	Δ 2007- 2016	Δ 2016- 2017	premium 2007- 2017	premium 2007-2017 (annual average)	% YoY premium 2016-2017
1	AXA	France	57,807	58,686	57,086	879.0	-1,600.0	-1.2%	-0.1%	-2.7%
2	PRUDENTIAL	United Kingdom	26,827	47,438	50,236	20,610.7	2,798.4	87.3%	7.9%	5.9%
3	GENERALI	Italy	45,373	48,400	47,788	3,026.7	-612.0	5.3%	0.5%	-1.3%
4	CNP	France	29,203	28,539	28,724	-664.4	184.9	-1.6%	-0.1%	0.6%
5	CRÉDIT AGRICOLE ASSURANCES ¹	France	18,616	26,392	26,372	7,776.4	-20.4	41.7%	3.8%	-0.1%
6	ALLIANZ	Germany	21,522	24,929	25,212	3,407.0	283.0	17.1%	1.6%	1.1%
7	POSTE VITA	Italy	5,536	19,820	20,263	14,284.7	443.2	266.1%	24.2%	2.2%
8	AEGON	The Netherlands	24,210	20,400	19,952	-3,810.0	-448.0	-17.6%	-1.6%	-2.2%
9	BNP PARIBAS CARDIF ²	France	14,665	17,981	19,848	3,316.4	1,866.5	35.3%	3.2%	10.4%
10	AVIVA	United Kingdom	28,673	19,164	19,502	-9,508.4	337.5	-32.0%	-2.9%	1.8%
11	TALANX	Germany	8,437	13,431	13,206	4,994.0	-225.0	56.5%	5.1%	-1.7%
12	SWISS LIFE	Switzerland	8,251	11,812	11,179	3,561.1	-633.4	35.5%	3.2%	-5.4%
13	SOGECAP	France	8,886	10,740	10,869	1,853.7	129.6	22.3%	2.0%	1.2%
14	ZURICH	Switzerland	6,999	11,636	10,669	4,637.2	-966.6	52.4%	4.8%	-8.3%
15	HSBC	United Kingdom	6,630	9,587	9,577	2,957.0	-9.8	44.5%	4.0%	-0.1%

Total Top 5	177,827	209,455	210,206	31,628.4	750.9
Total Top 15	311,634	368,955	370,483	57,321.1	1,527.8

^{1/}The premium volume for this segment is as stated in its SFCR report.
2/ Premiums for 2016 were obtained from its 2016 annual report, which is presented under French GAAP. Premiums for 2017 are as stated in its SFCR report, since it does not present separate information by business line in its annual report.

2. Solvency ratios

On the subject of solvency levels, EU insurance groups had until June 2018 to release their Solvency and Financial Condition Report (SFCR). This is the second full-year report since Solvency II was implemented, as per the new risk-based prudential regulations in force in the European Union since January 1, 2016.

Significantly, all the groups featured in the 2017 ranking are able to report sound levels of solvency. Ten of the groups now have eligible own funds of over twice the minimum capital requirement for insurance groups, three more than in 2016. The ratios released by the Swiss insurance groups have been calculated through the use of internal models under the Swiss Solvency Test¹ (see Table 2).

Table 2 Solvency ratios of the European insurance groups featured in the ranking, 2017

Group	Country	2016	2017
COVÉA	France	351%	372%
GROUPAMA	France	289%	315%
MUNICH RE	Germany	316%	297%
POSTE VITA	Italy	295%	279%
TALANX (HDI)	Germany	236%	253%
ALLIANZ	Germany	218%	229%
GENERALI	Italy	178%	207%
AXA	France	197%	205%
AEGON	The Netherlands	157%	201%
MAPFRE	Spain	210%	200%
CRÉDIT AGRICOLE ASSURANCES	France	161%	195%
CNP ASSURANCES	France	177%	190%
R+V	Germany	188%	189%
SWISS LIFE ³	Switzerland	160%	170%
AVIVA	United Kingdom	172%	169%
PRUDENTIAL	United Kingdom	171%	168%
UNIPOL	Italy	141%	166%
RSA	United Kingdom	158%	163%
SOGECAP	France	154%	163%
BNP PARIBAS CARDIF	France	146%	157%
SAMPO GROUP	Finland	155%	156%
ZURICH⁴	Switzerland	122%	132%
ERG0 ¹	Germany	n/a	n/a
HSBC ²	United Kingdom	n/a	n/a

Source: MAPFRE Economic Research (with data retrieved from the groups' SFCR)

^{1/} ERGO does not present its own solvency ratio since it belongs to the Munich Re group.

^{2/} HSBC HOLDINGS PLC presents a solvency ratio as a bank under the CRD, but does not need to present a SFCR for insurance.

Despite being consolidated for accounting purposes under the European group (HSBC Holdings plc), its insurance business happens to belong to its Asian division (HSBC Group) and therefore falls under the supervision of Asian supervisory bodies.

3/ Swiss Life presents a solvency ratio as per the internal model compliant with the Swiss Solvency Test authorized by FINMA on December 31, 2017.

4/ The solvency ratio published by Zurich derives from the Z-ECM internal model in compliance with the Swiss Solvency Test authorized by Swiss supervisor FINMA with the aim of securing an AA rating.

3. Convergence analysis

3.1 Convergence analysis

The analysis contained in this section focuses on the trend growth differential shared by a group of competitors (those that make up the respective ranking) versus trend growth for the total market ("total market" meaning all groups that make up the respective full ranking²).

Given the dynamics of this growth differential, a distinction is made between "converging" insurance groups (those whose trend growth differential reduces over time until it eventually disappears), "diverging" groups (those whose growth differential widens over time); and "neutral" groups (those whose differential is insignificant when compared to the market's trend growth). These convergence categories are analyzed for the three segments addressed in this ranking: Overall, Non-Life and Life (see Charts 3-a, 3-b and 3-c).

Life segment

In the case of the Life segment (Chart 3-c), we can observe a "converging" group (comprising Generali, Crédit Agricole, Allianz, Zurich, Poste Vita, Aviva, Talanx and HSBC), which have shifted from well above-market trend growth in 2007 to growth rates practically the same as the market in 2017.

Conversely, we can see a "diverging (positive)" group (comprising Prudential and Aegon), whose trend has shifted from a growth differential lower than the market in 2007 to exceeding the market's growth in 2017.

Lastly, the "neutral" group (comprising Axa, CNP, Swiss Life and Sogecap) presents a zero trend growth differential when compared to the market's overall trend, meaning these insurers have been growing in tandem with the general market trend.

Disparity in the growth rates of the Life segment intensified over the period under analysis (2007-2017). Accordingly, the differential or spread between "converging" and "diverging" to trend growth has been widening, and with it the companies that make up the groups. As a result, the "neutral" group has lost ground, mainly to the detriment of the "converging" group (Generali, Crédit Agricole, Allianz and Zurich) and, to a lesser extent, the "diverging" group.

Non-Life segment

Turning to the Non-Life segment (Chart 3-b), we have a "converging" group (Zurich, MAPFRE, Generali and Crédit Agricole), which has gone from above-market growth to matching its growth rate. Meanwhile, the "diverging (positive)" group (Allianz, Axa, Talanx, Aviva, Unipol and R+V) has shifted from lower-thanmarket growth to exceeding the market growth trend. Lastly, we have a "neutral" group (Covea, Groupama, RSA, Ergo and Sampo Group). The Non-Life segment has revealed a replacement process over the last ten years whereby the large insurance groups have been losing ground to smaller groups in terms of growth.

Total market

The joint dynamics of the "converging" and "diverging" groups in the Life and Non-Life segments reveal the industry's overall dynamics (Chart 3-a). The chart shows that the "converging" group (MAPFRE and Axa) have converged from above-market growth rates to matching general market growth. Analytically speaking, the excess trend growth for this group in 2008 equals the sum of the excess reported in the Life and Non-Life segments, which shows the similar relative size of both businesses at that time.



The "diverging (positive)" group comprises Zurich, CNP, Crédit Agricole, Aegon and Poste Vita. As a result of the shared dynamics in the Life and Non-Life segments, the total market went from growing below the overall trend to exceeding it. Meanwhile, the "neutral" group (Allianz, Generali, Prudential, Talanx, Aviva, Ergo, Covea and BNP) reveals the trend growth of the total market.

3.2 Analysis of market developments

Total market

Growth

In historical terms (see Chart 3-e), the highest accumulated growth was reported at the smallest insurance groups in 2007 (measured in premium volume). This reflects the convergence dynamics of insurance market players and is especially evident in the case of Poste Vita and MAPERE.

Meanwhile, Chart 3-g confirms that the yearon-year growth rate in 2016-2017 has been positive overall (0.8%). When compared with the average growth of the total market over the last ten years (+1.8%), this explains the slowdown we have been seeing in recent years.

The current expansion (2016-2017) in the total market (see Table 1.1-a and Chart 3-d) has been around 4.5 billion euros, largely in response to the business increase at the smaller insurance groups (which gained 5.5 billion euros between them), offsetting the 1 billion euro reduction in business at the five largest insurance groups.

Point in the cycle

Chart 3-f shows that in aggregate terms the total market grew at below its long-term trend in 2017, although it is rapidly converging towards this trend following the reduction observed in 2016.

The aforementioned pick-up in the total market in the last year seems to mark the beginning of the end of the negative point in the cycle, which now appears to be bottoming out. Even so, growth at most groups was below the secular trend in 2017, although the gap has been steadily narrowing (see Chart A-1 in the appendix to this report).

Non-Life segment

Growth

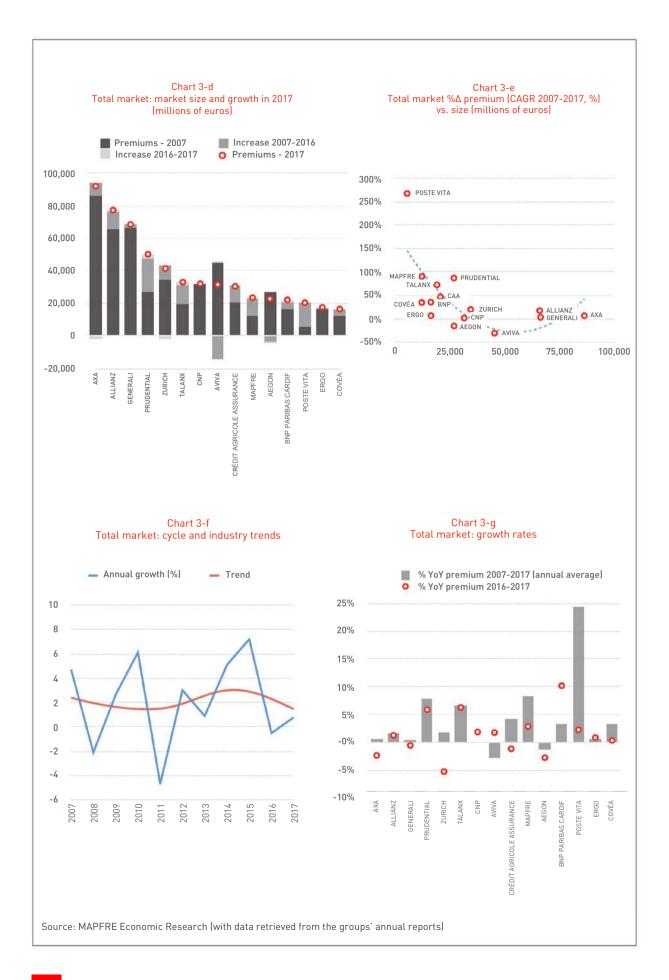
In general terms and showing a similar picture to the total market, Chart 3-i confirms that the Non-Life insurance groups with the lowest business volume (measured in premiums in 2007) have reported the highest accumulated growth rates over the ten-year period, while the larger groups were unable to muster the same cumulative growth.

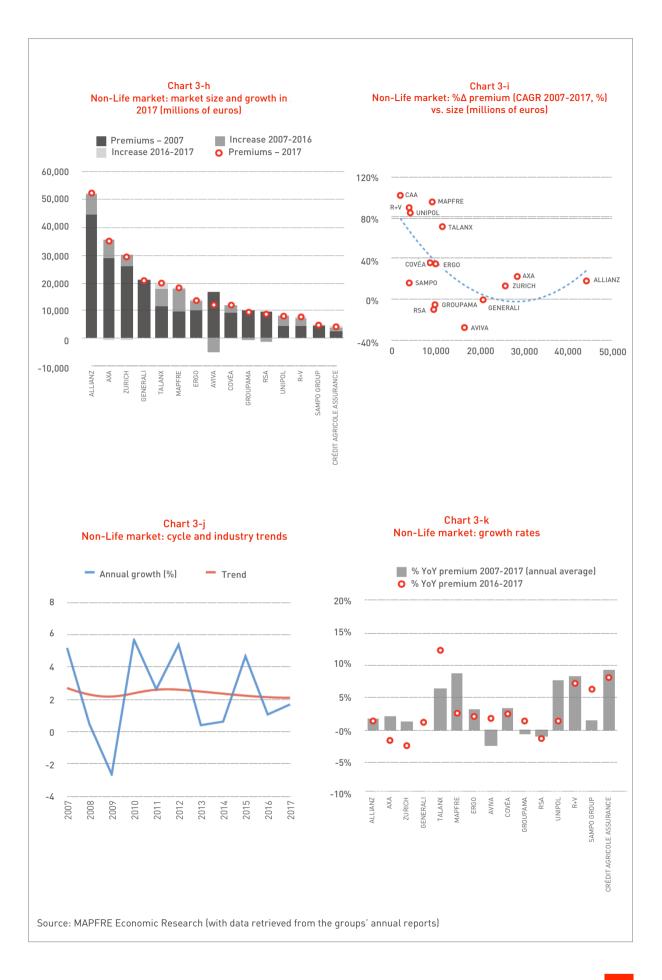
The year-on-year growth rate in 2016-2017 for the Non-Life segment has been positive (1.7%). As with our analysis of the total market, this figure is at odds with the average growth reported by the whole market (+2%) over the last ten years, revealing the slowdown we have seen over the period (Chart 3-k).

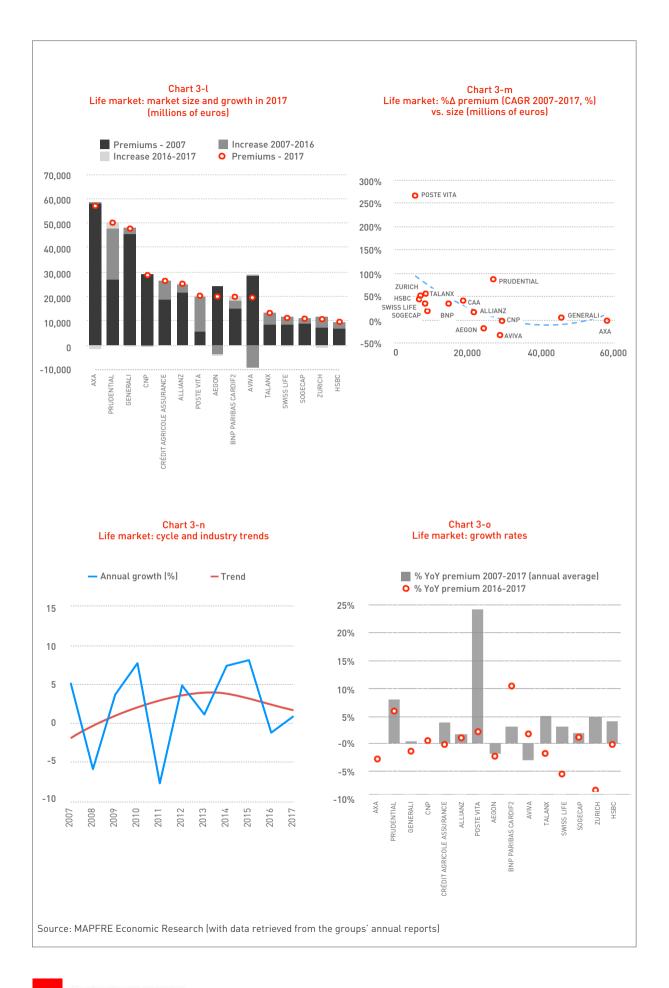
However, the Non-Life segment saw no market contraction in either 2016-2017 or during the previous ten years (see Table 1.2-a and Chart 3-h) and last year it gained 4.3 billion euros.

Point in the cycle

Chart 3-h shows that almost all Non-Life insurance groups reported business growth in 2016-2017 (albeit very moderate growth), with the exception of Axa, Zurich and RSA.







Despite the general growth of all insurance groups featured in this year's ranking (only Aviva, Groupama and RSA reported negative year-on-year rates in 2007-2017), the year-on-year rate for each insurance group in 2016-2017 is considerably lower than the average growth rate over the last ten years (see Chart 3-k). In fact, Chart 3-j shows that in aggregate terms the market grew below its long-term trend, after reaching its most recent cyclical high in 2015.

Meanwhile, if we analyze the charts showing the cycle and trend of each group in the Non-Life ranking (see Chart A-2 in the appendix), we can observe that premium volume grew above the trend in most cases. This is especially significant when we consider that average growth at the 15 largest Non-Life insurance groups in 2016-2017 was 1.7%, while their historical average annual growth (2007-2017) was around 2%. This effectively shows that there has been a generalized cyclical slowdown, although less so now given the levels of convergence we are seeing across the market.

Life segment

Growth

Table 1.3 and Charts 3-l and 3-o show widespread growth in 2016-2017. The total increase in premiums came to 1.5 billion euros in the period, trailing the historical average growth (0.5% on average for the whole table during 2016-2017 vs. an average of 1.7% over the previous ten years).

This is partly because the Life business has endured a significant slowdown over the last three years due to the prevailing climate of low interest rates, as shown by recent evidence.

As has also happened with the Non-Life segment, smaller insurers registered the strongest secular growth over the last ten years (see Chart 3-m), especially Poste Vita, which more than doubled in size (x2.6) over the period.

Point in the cycle

As with the Non-Life ranking, growth rates at the 15 largest Life insurance groups were below their current trend (Chart 3-n), meaning they are now at a negative point in the cycle due to the prevailing macroeconomic landscape described above. However, this situation is expected to change as European businesses ready themselves for the more-than-likely future normalization of monetary policy within the Eurozone.

Our detailed analysis (see Chart A-3 in the appendix) shows that growth at most of the European Life insurance groups included in this report outpaced their secular trend, although their median growth is still slightly below. On a final note, the convergence process explained in the section on the Non-Life segment applies equally to the Life business.

Data and metrics

Source of data

As in previous years, this ranking was prepared with information released by the insurance groups themselves in their annual reports and in their Solvency and Financial Condition reports (SFCR). The ranking was built from gross premiums written, as reported by each group in overall terms, after consolidation adjustments. At some companies, there may be differences between the total and the sum of their segments due to those adjustments. In the case of Crédit Agricole Assurances, the premiums for each segment were obtained from the SFCR report while the total was taken from the consolidated income statement included in its annual report.

Sample

For the period under analysis (2007-2017), the sample comprises the 15 largest European insurance groups in overall terms and also specifically for the Life and Non-Life segments. Since the weight of these insurance groups to the overall global and European insurance market is not known —unlike the report on insurance groups in Latin America³— this report does not address market size or concentration, focusing instead on the cyclical and secular dynamics of the insurance sector in Europe (based on this sample of insurance groups), for which we have employed a dynamic premium analysis.

Intertemporal comparability

We have conducted our dynamic analysis assuming a constant sample of participants over time. After obtaining the ranking by premium volume for the current year (2017), the same information was located for each insurance group for the 2007-2016 period. This enables the changes in each of the participants under analysis to be reviewed up to their present position in the table.

Our dynamic analysis also relies on the data published by the groups each year in their annual reports, while –for comparison purposes— we have included the 2016 income and earnings figures published by the insurance groups in their 2017 annual reports.

Metrics

The integrated analysis contained in this report aims to provide a static and dynamic ordinal classification of European insurance groups that operate a global business. This can be analyzed from a purely static perspective (with a ranking of size based on premium volume) and also from a dynamic perspective to provide a more accurate picture of how each of the insurance groups has performed over time, while also showing wider trends and patterns common to all competitors and the degree of convergence in their growth rates. Put differently, we are talking about the dynamics that have shaped their current standings.

Accordingly, the weight of each group in the ranking is measured according to its premium size in euros in the current year (in this case 2017) and over the previous ten years (2007 to 2016). This provides a perspective on the historic changes in premiums ($\Delta 2007-2016$ and Δ 2016-2017) up to the present day, thus drawing a distinction between secular changes over the last ten years (i.e. trends) and changes in the last year alone, which are more to do with the economic cycle. After obtaining the premium value in euros for those years and the year-onyear growth rates calculated over each historical series, the growth path was broken down into trend and cyclical components. Trend was determined using a Hodrick-Prescott filter. which applies a Lambda parameter of 6.25 (as with the approach used to extract the GDP trend of developed countries on an annual basis, the premiums of European insurers are treated as consumption, which in annual terms requires a similar parameter).

Charts 3-d, 3-h and 3-l show premium value in 2007, the gross increase seen in premium value over the 2007-2016 period and the increase in premiums through to 2017. Charts 3-g, 3-k and 3-o compare the growth rate for the last year against the historical average growth rate so as to spot patterns where business growth has picked up or slowed down at each of the groups featured in this report.

Meanwhile, the extracted trend for each of the growth series at the insurance groups is used to calculate the growth trend for each group in relation to each of the segments and also to compare the convergence between each of the groups and the total market (meaning all groups). These metrics are shown in Charts 3-e, 3-i and 3-m, where shared trends are compared. Charts 3-f, 3-j and 3-n provide a graphical analysis of trend exposure across the wider industry (the sample), while the trends of each group are shown in the appendix to this report (Charts A-1, A-2 and A-3).

Exchange rates used

We used the average exchange rate for the year when calculating the premiums and earnings shown in this report, while for balance sheet figures we used the end-of-period exchange rate, as shown below.

Euro (EUR) vs.	2007	2016	2017			
Pound sterling (GBP)						
Average	1.4613	1.2169	1.1416			
End of period		1.1716	1.1260			
United States dollar (U	SD)					
Average	0.7260	0.9054	0.8866			
End of period		0.9508	0.8330			
Swiss franc (CHF)						
Average	0.6088	0.9317	0.8545			

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Non-Life market: growth rates.....

Life market: market size and growth in 2017

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References

1/ For comparison purposes, please note that the solvency ratio released by Zurich was calculated using the Z-ECM internal model, which, for values of around 120%, is calibrated for an AA target rating. Under Solvency II this would be roughly equivalent to a ratio of 196%. ERGO does not present a solvency ratio since it belongs to the Munich Re group.

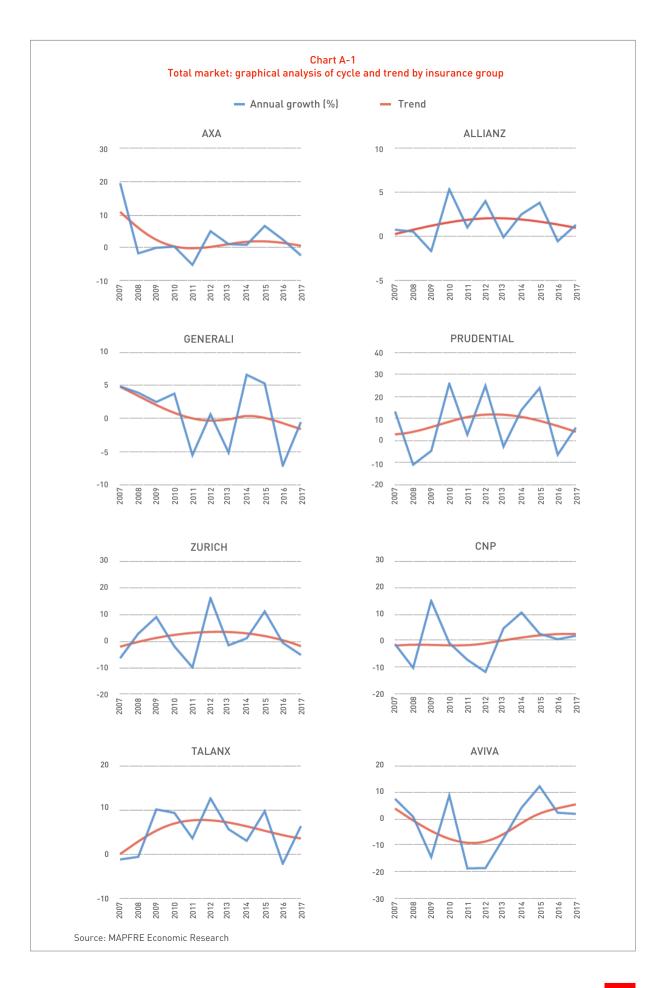
2/ To do so: a) the secular growth rates are compared against the current growth rate; b) the recent premium increase is compared against the increase over the last ten years; and c) the cyclical part is separated from the longer-term trend in premium growth rates in each specific case and for the market in general, as well as for the Life and Non-Life segments.

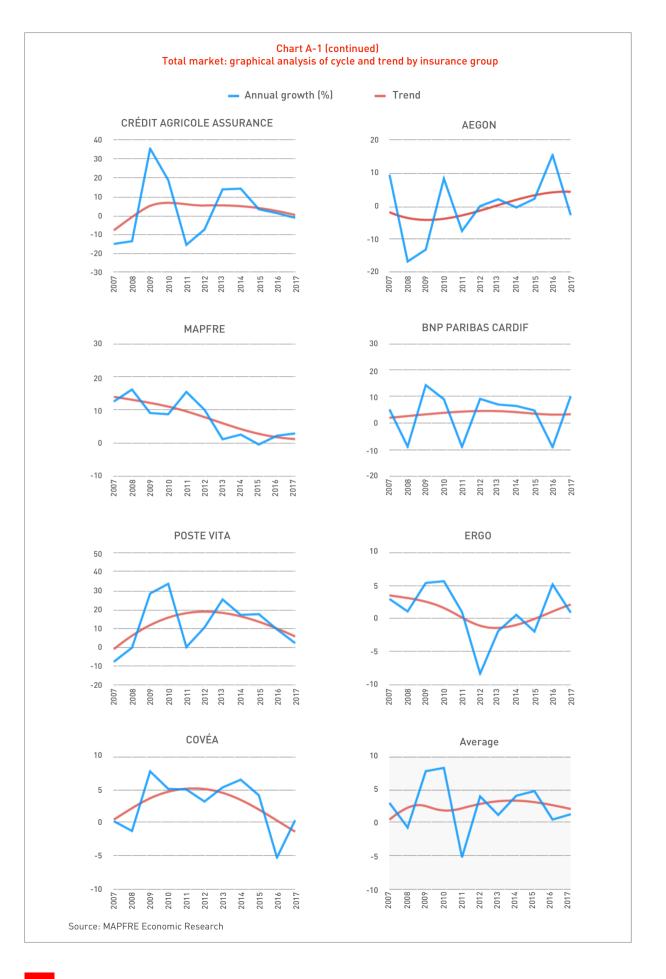
3/ See: MAPFRE Economic Research, 2016 Ranking of Insurance Groups in Latin America, Madrid, Fundación MAPFRE, June 2017.

Appendix

Graphical analysis of cycle and trend

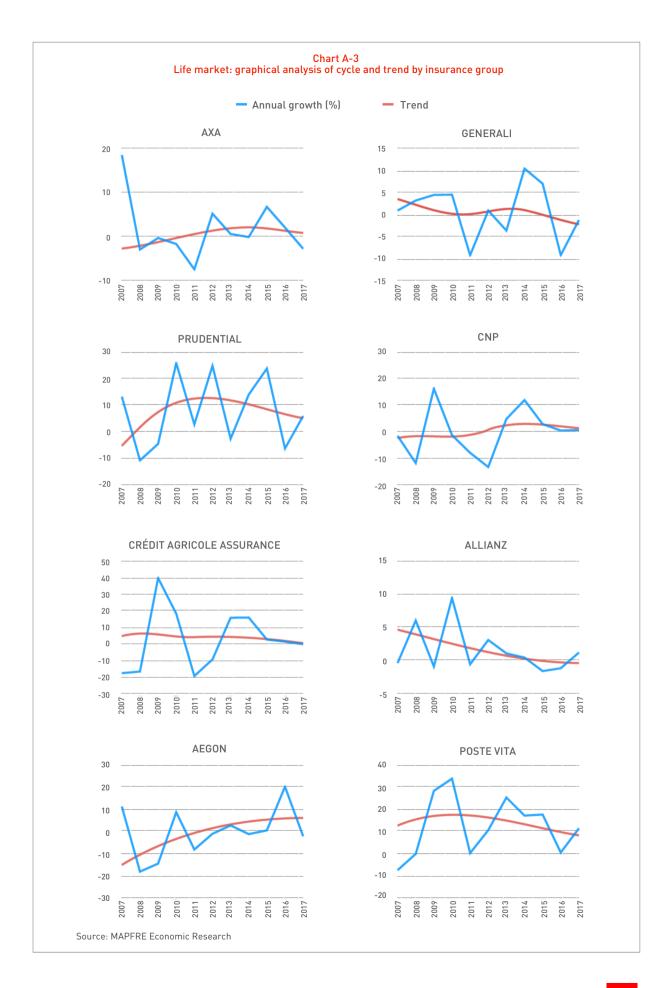
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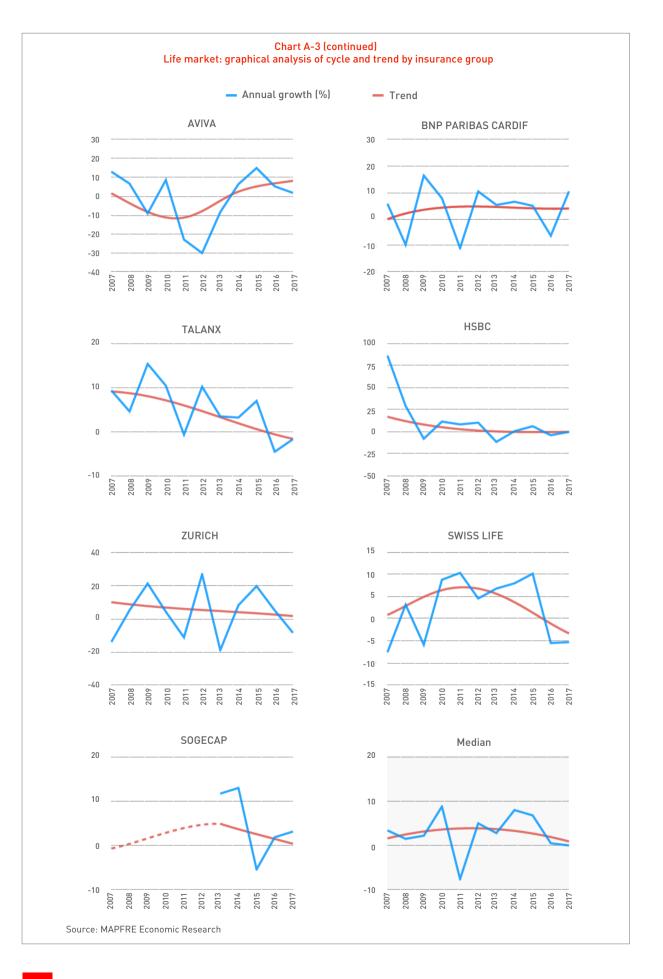












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