

*somewhat
different*



Hannover Re's reserves as at 31 Dec 2018

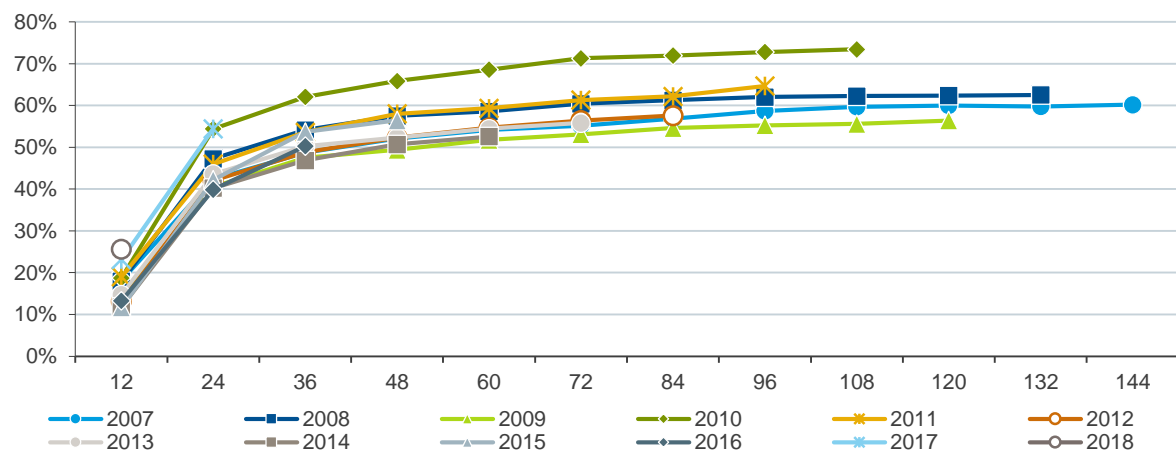
Data description and information

Understanding the data is crucial for interpretation, analysis and results!

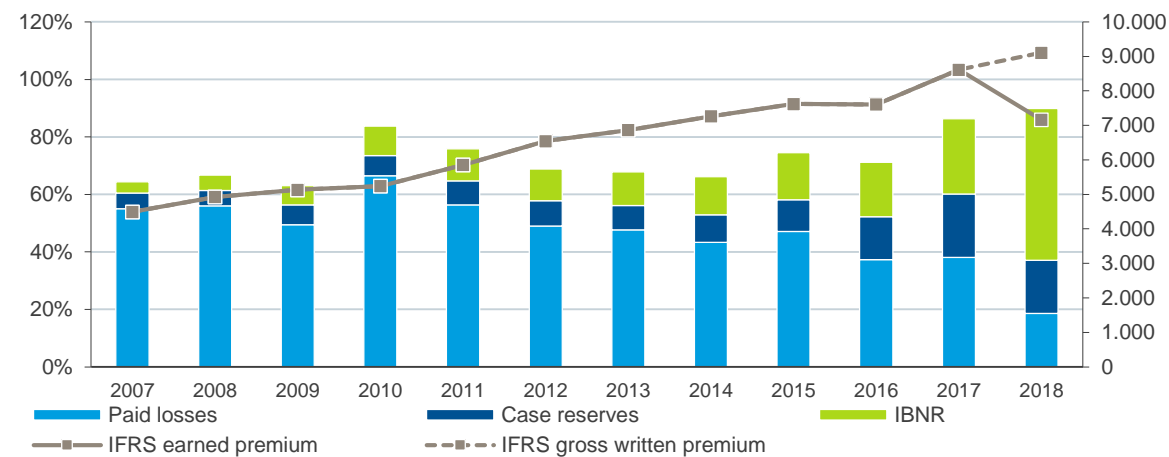
- Financial gross reported loss triangles for Property & Casualty Reinsurance business based on booking date of Hannover Re (paid and case reserve information)
- Converted to EUR with exchange rates as at 31 December 2018
- Data on underwriting-year basis, for the last 12 underwriting years
- Data are combined triangles for companies Hannover Re SE including Branches, E+S Rückversicherungs AG, Hannover Re Ireland, Hannover Re Bermuda, Hannover Re Takaful
- Figures in triangles do not include business written in Hannover Re South Africa and in the primary insurance subsidiaries
- All triangles are on a consolidated data basis
- In comparison to the presentation as at 31 December 2017 the basis for the triangles changed from IFRS earned premium to IFRS written premium.

Reported claims triangle Reinsurance business for HR-Group¹⁾

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	4.535	18,1%	42,3%	48,7%	52,1%	54,1%	55,2%	56,9%	58,7%	59,7%	60,0%	59,8%	60,2%	4.493	64,5%	55,0%	5,2%	4,2%
2008	4.852	18,0%	47,2%	54,1%	57,5%	58,6%	60,4%	61,3%	62,0%	62,3%	62,4%	62,5%		4.924	66,7%	56,0%	5,3%	5,4%
2009	5.138	14,2%	40,5%	47,5%	49,4%	51,8%	53,1%	54,6%	55,3%	55,6%	56,4%			5.132	63,0%	49,5%	6,6%	6,9%
2010	5.247	18,7%	54,4%	62,1%	65,9%	68,6%	71,3%	71,9%	72,8%	73,4%				5.240	83,8%	66,5%	6,9%	10,3%
2011	5.864	19,0%	46,0%	53,6%	58,0%	59,3%	61,3%	62,2%	64,7%					5.853	75,8%	56,2%	8,2%	11,3%
2012	6.564	13,1%	42,0%	48,8%	52,3%	54,7%	56,4%	57,6%						6.546	68,8%	48,9%	8,6%	11,3%
2013	6.892	14,7%	43,6%	50,2%	52,3%	54,5%	55,8%							6.865	67,8%	47,7%	8,3%	11,9%
2014	7.308	11,8%	40,3%	46,9%	50,7%	52,6%								7.263	66,1%	43,3%	9,5%	13,3%
2015	7.702	11,7%	42,2%	53,7%	56,4%									7.619	74,4%	46,8%	10,9%	16,8%
2016	7.728	13,3%	39,9%	50,3%										7.605	71,2%	36,2%	14,8%	20,3%
2017	9.125	23,2%	54,4%											8.615	86,4%	35,8%	21,9%	28,7%
2018	9.106	25,6%												7.163	89,9%	14,2%	18,8%	56,9%



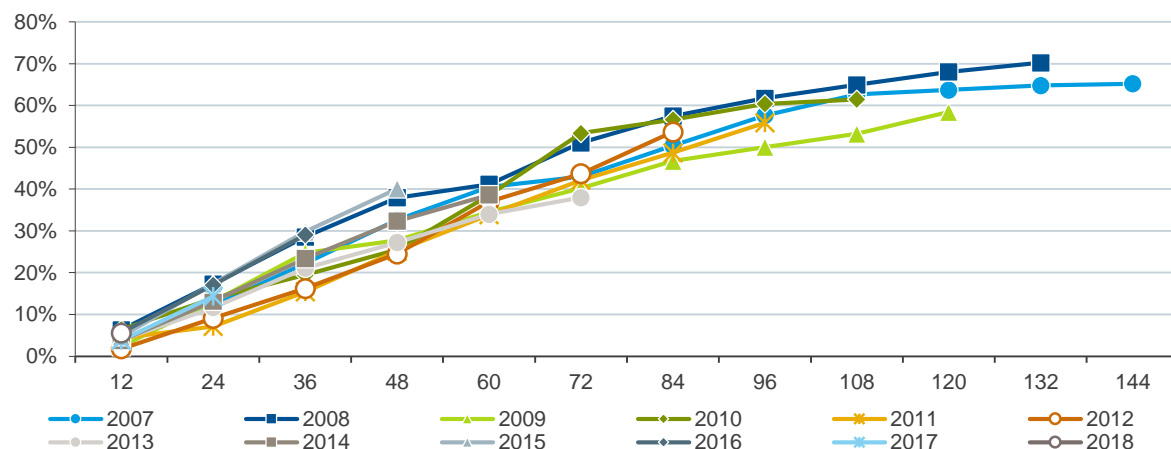
1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months



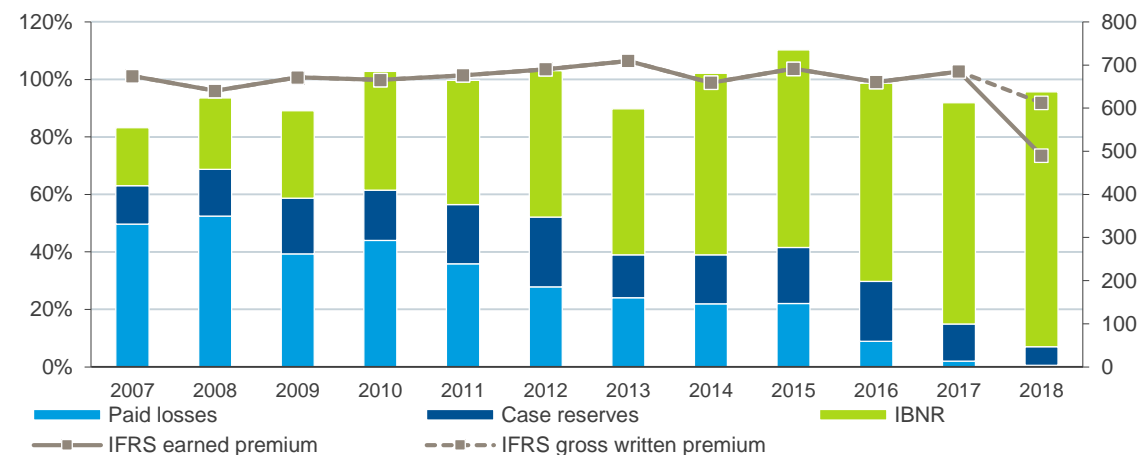
Reported claims triangle¹⁾

1 General liability non-proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	675	3.9%	12.1%	22.2%	32.6%	40.6%	43.0%	50.4%	57.6%	62.6%	63.7%	64.8%	65.2%	674	83.2%	49.7%	13.4%	20.1%
2008	640	6.3%	17.3%	28.5%	37.9%	41.2%	51.1%	57.5%	61.7%	64.9%	68.1%	70.2%		640	93.6%	52.4%	16.2%	24.9%
2009	674	2.3%	13.1%	24.7%	27.7%	34.5%	40.2%	46.7%	50.0%	53.2%	58.4%		671	89.1%	39.3%	19.4%	30.4%	
2010	668	6.4%	13.9%	19.5%	25.5%	38.5%	53.4%	56.6%	60.4%	61.5%			665	102.8%	44.0%	17.5%	41.3%	
2011	680	4.4%	7.2%	15.4%	25.2%	33.9%	42.2%	48.7%	55.8%				676	99.7%	35.8%	20.6%	43.3%	
2012	698	1.8%	9.1%	16.2%	24.5%	37.0%	43.7%	53.7%					690	103.0%	27.9%	24.2%	50.9%	
2013	723	3.9%	11.7%	21.1%	27.2%	34.0%	38.0%						710	89.8%	24.0%	15.0%	50.8%	
2014	666	3.8%	13.2%	23.4%	32.4%	38.6%							659	102.1%	22.0%	17.0%	63.1%	
2015	700	4.7%	17.4%	29.8%	40.1%								691	110.3%	22.1%	19.4%	68.7%	
2016	674	5.7%	17.1%	29.1%									661	98.7%	8.9%	20.8%	69.0%	
2017	713	3.8%	14.4%										685	91.9%	2.0%	13.0%	76.9%	
2018	612	5.5%											490	95.6%	0.5%	6.4%	88.6%	



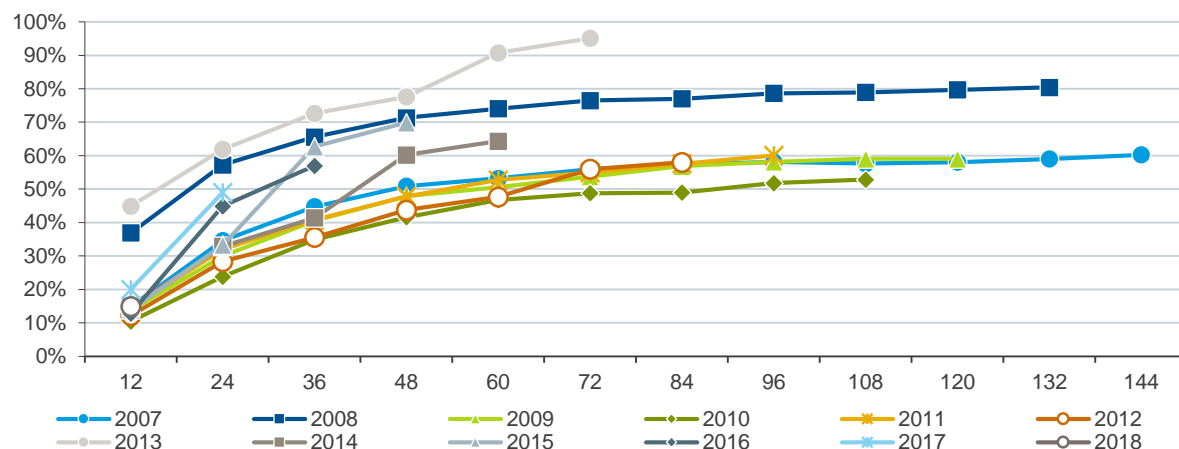
1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months



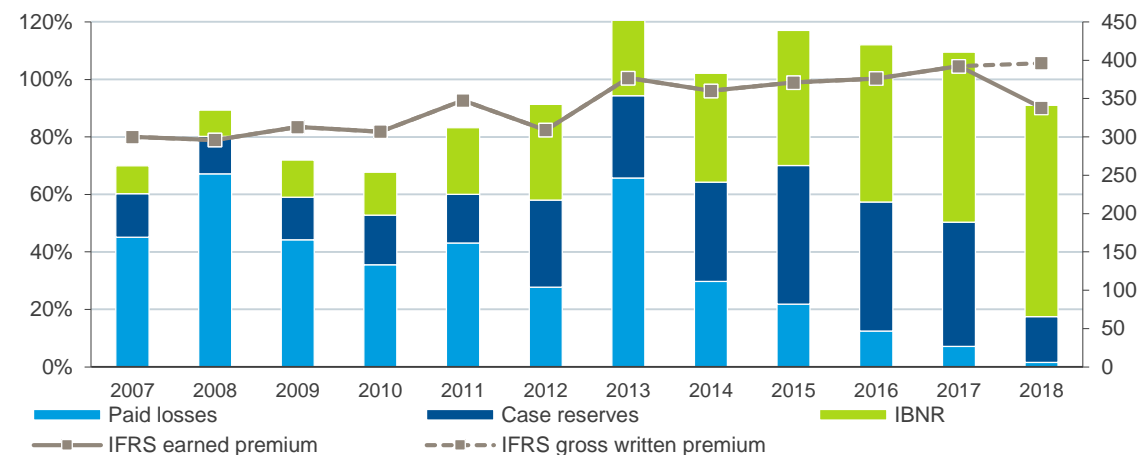
Reported claims triangle¹⁾

2 Motor/Accident non-proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	300	14.9%	34.6%	44.8%	50.9%	53.2%	56.0%	57.3%	58.2%	57.6%	58.0%	59.0%	60.3%	300	69.9%	45.1%	15.1%	9.7%
2008	296	36.9%	57.2%	65.6%	71.3%	74.1%	76.5%	77.0%	78.6%	78.9%	79.7%	80.4%		296	89.3%	67.1%	13.0%	9.1%
2009	313	13.7%	30.0%	40.5%	47.9%	50.5%	53.7%	56.9%	58.2%	59.1%	59.0%			313	72.0%	44.2%	14.8%	13.0%
2010	307	10.4%	23.8%	34.8%	41.6%	46.7%	48.7%	48.9%	51.8%	52.8%				307	67.7%	35.5%	17.3%	15.0%
2011	348	14.4%	32.0%	40.8%	47.8%	52.7%	54.9%	57.5%	60.1%					348	83.2%	43.1%	16.9%	23.2%
2012	309	12.2%	28.3%	35.6%	43.7%	47.6%	55.9%	58.0%						309	91.3%	27.7%	30.3%	33.3%
2013	377	44.9%	61.9%	72.7%	77.6%	90.8%	95.1%							377	128.9%	65.7%	28.5%	34.7%
2014	360	14.8%	32.9%	41.4%	60.2%	64.3%								360	102.1%	29.8%	34.5%	37.8%
2015	371	13.9%	33.3%	62.7%	69.9%									371	117.1%	21.9%	48.2%	47.0%
2016	379	12.8%	44.9%	56.9%										376	112.1%	12.4%	44.9%	54.7%
2017	403	20.0%	49.0%											392	109.5%	7.1%	43.2%	59.2%
2018	396	14.9%												338	91.0%	1.5%	15.9%	73.6%



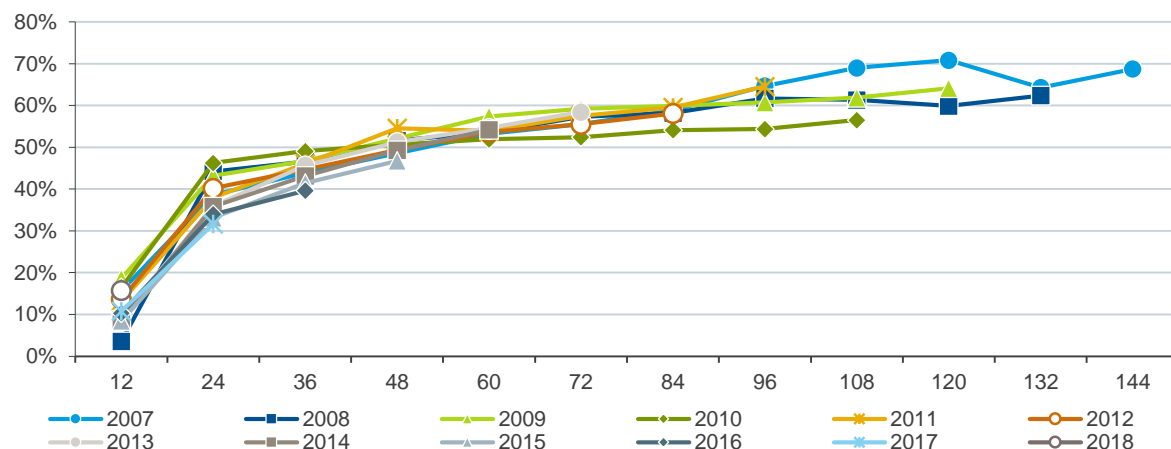
1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months



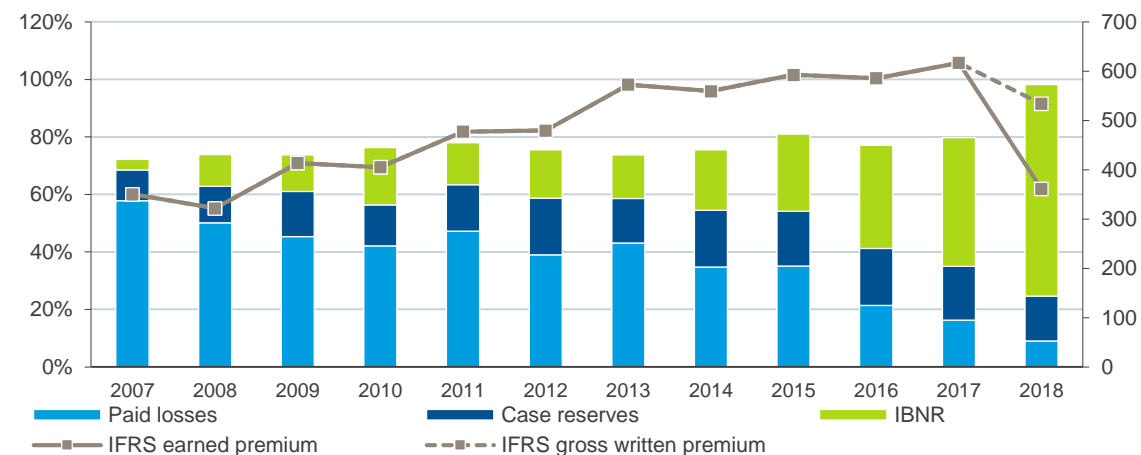
Reported claims triangle¹⁾

3 General liability proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	357	15.7%	38.6%	43.9%	48.6%	53.2%	55.5%	58.8%	64.7%	69.0%	70.9%	64.3%	68.7%	350	72.2%	57.8%	10.7%	3.7%
2008	314	3.6%	44.2%	46.6%	51.6%	53.5%	57.3%	58.2%	61.7%	61.3%	59.9%	62.4%		322	73.9%	50.1%	12.7%	11.1%
2009	415	18.7%	43.2%	46.7%	52.1%	57.4%	59.2%	59.9%	60.7%	61.9%	64.1%			414	73.7%	45.3%	15.7%	12.7%
2010	407	16.5%	46.3%	49.1%	50.6%	51.9%	52.4%	54.1%	54.4%	56.5%				405	76.3%	42.1%	14.3%	19.9%
2011	480	13.2%	38.0%	46.0%	54.5%	53.9%	57.6%	59.5%	64.5%					477	77.9%	47.3%	16.1%	14.5%
2012	481	13.7%	40.2%	44.7%	49.3%	53.6%	55.5%	58.1%						480	75.5%	39.0%	19.7%	16.7%
2013	576	9.4%	36.0%	45.7%	51.2%	54.6%	58.4%							573	73.8%	43.1%	15.5%	15.2%
2014	564	8.8%	35.8%	43.2%	49.3%	54.2%								559	75.6%	34.8%	19.7%	21.1%
2015	602	8.4%	33.1%	41.5%	46.8%									593	81.0%	35.1%	19.1%	26.8%
2016	599	10.3%	33.9%	39.6%										586	77.0%	21.3%	19.8%	35.8%
2017	679	10.8%	31.7%											617	79.7%	16.3%	18.7%	44.7%
2018	534	15.8%												361	98.2%	9.0%	15.7%	73.6%



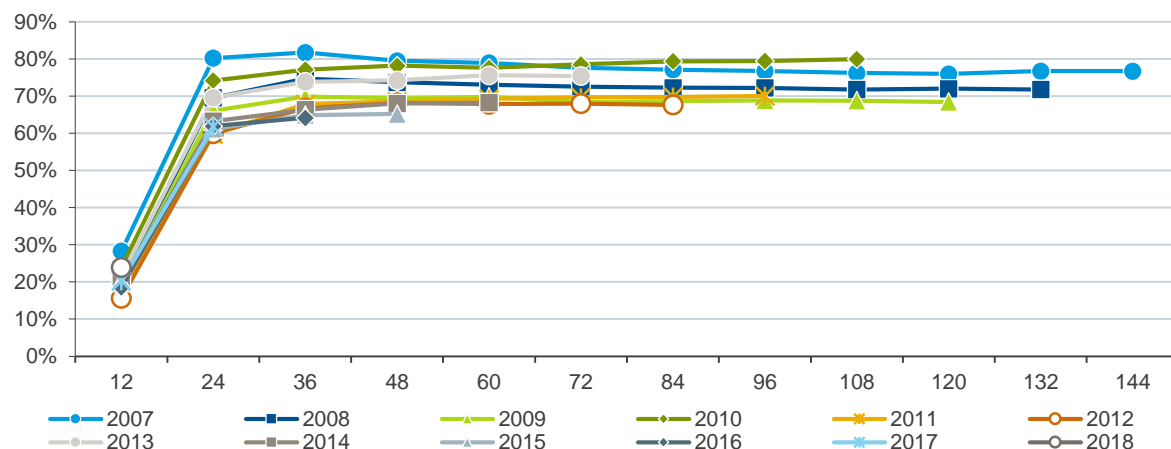
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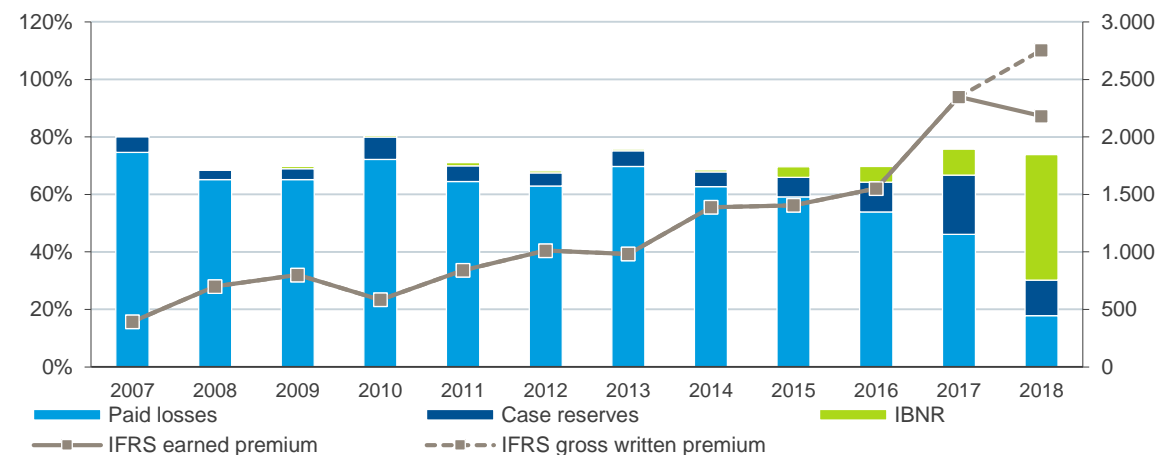
Reported claims triangle¹⁾

4 Motor/Accident proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	413	28.3%	80.2%	81.8%	79.5%	78.9%	77.6%	77.1%	76.8%	76.2%	76.0%	76.8%	76.7%	394	80.3%	74.7%	5.4%	0.2%
2008	677	20.0%	69.6%	74.7%	73.8%	73.0%	72.6%	72.3%	72.2%	71.8%	72.0%	71.8%		699	68.8%	65.1%	3.2%	0.4%
2009	800	19.2%	66.1%	69.9%	69.5%	69.8%	68.4%	68.7%	68.9%	68.8%	68.5%			800	69.7%	65.2%	3.7%	0.8%
2010	583	24.0%	74.2%	77.1%	78.2%	77.6%	78.6%	79.4%	79.5%	80.0%				583	80.5%	72.2%	7.7%	0.6%
2011	840	18.3%	59.7%	67.9%	68.6%	69.3%	69.7%	69.8%	70.1%					840	71.1%	64.5%	5.5%	1.1%
2012	1,011	15.7%	60.0%	66.8%	68.2%	67.9%	68.0%	67.7%						1,011	68.2%	62.9%	4.6%	0.8%
2013	982	21.7%	69.6%	73.9%	74.3%	75.6%	75.4%							982	75.7%	69.7%	5.5%	0.5%
2014	1,388	19.9%	63.3%	66.4%	68.0%	68.3%								1,388	68.5%	62.7%	5.2%	0.6%
2015	1,406	20.4%	61.2%	64.9%	65.2%									1,406	69.5%	59.1%	6.8%	3.6%
2016	1,555	18.6%	61.9%	64.2%										1,552	69.7%	53.9%	10.3%	5.5%
2017	2,536	20.3%	61.8%											2,348	75.7%	46.1%	20.7%	9.0%
2018	2,754	23.9%												2,181	73.8%	17.8%	12.4%	43.6%



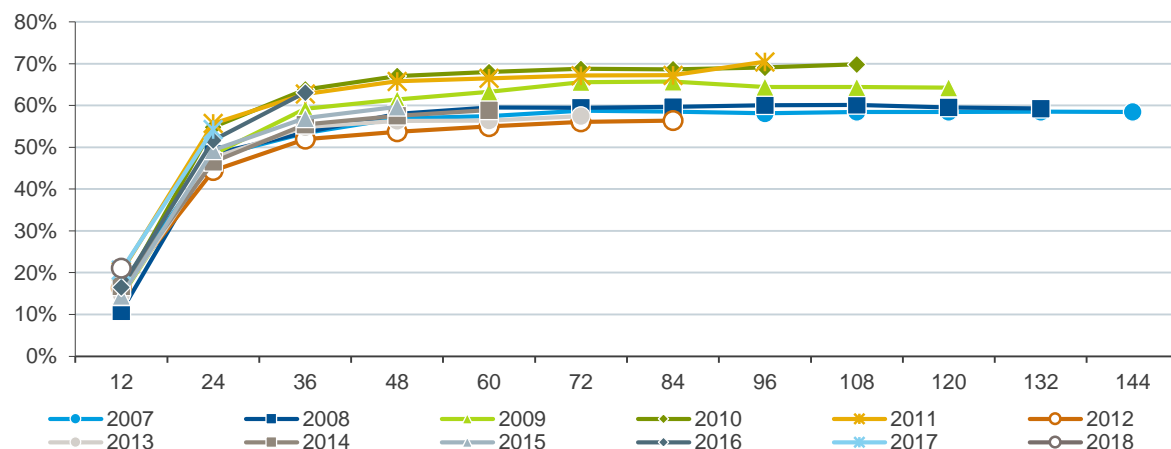
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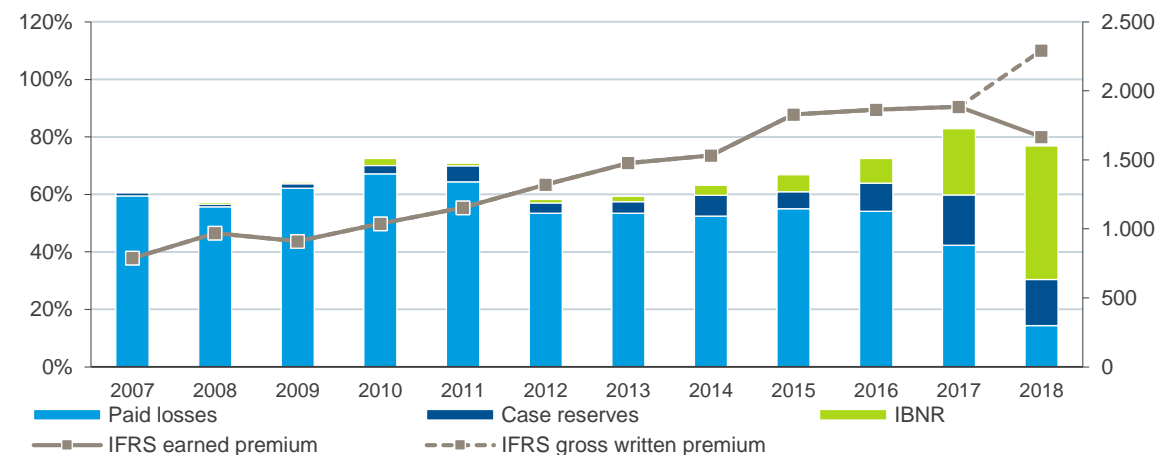
Reported claims triangle¹⁾

5 Property proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	816	17.1%	47.8%	53.4%	56.9%	57.4%	58.8%	58.5%	58.1%	58.5%	58.5%	58.5%	58.5%	788	60.9%	59.5%	1.1%	0.3%
2008	927	10.8%	48.4%	53.6%	58.0%	59.5%	59.5%	59.7%	60.1%	60.1%	59.6%	59.3%		969	57.2%	55.7%	0.9%	0.6%
2009	911	14.4%	48.3%	59.2%	61.4%	63.3%	65.6%	65.7%	64.4%	64.4%	64.3%		910	64.2%	62.2%	1.5%	0.5%	
2010	1,039	15.6%	54.8%	63.8%	67.0%	68.0%	68.8%	68.7%	69.1%	69.9%			1,038	72.4%	67.1%	2.9%	2.4%	
2011	1,155	20.2%	55.7%	62.8%	65.8%	66.5%	67.2%	67.2%	70.4%				1,154	70.9%	64.3%	5.6%	1.0%	
2012	1,324	16.4%	44.4%	52.0%	53.7%	55.0%	56.1%	56.4%					1,321	58.2%	53.4%	3.6%	1.2%	
2013	1,482	14.8%	47.5%	54.8%	56.3%	56.4%	57.5%						1,477	59.4%	53.4%	4.0%	2.0%	
2014	1,557	16.7%	46.5%	55.5%	57.6%	58.9%							1,532	63.2%	52.4%	7.2%	3.5%	
2015	1,873	14.5%	49.3%	57.0%	59.7%								1,829	66.8%	55.0%	5.9%	5.9%	
2016	1,905	16.5%	51.7%	63.1%									1,863	72.5%	54.1%	9.8%	8.6%	
2017	2,072	20.6%	54.3%										1,884	82.8%	42.3%	17.6%	22.9%	
2018	2,293	21.1%											1,666	76.8%	14.4%	16.0%	46.4%	



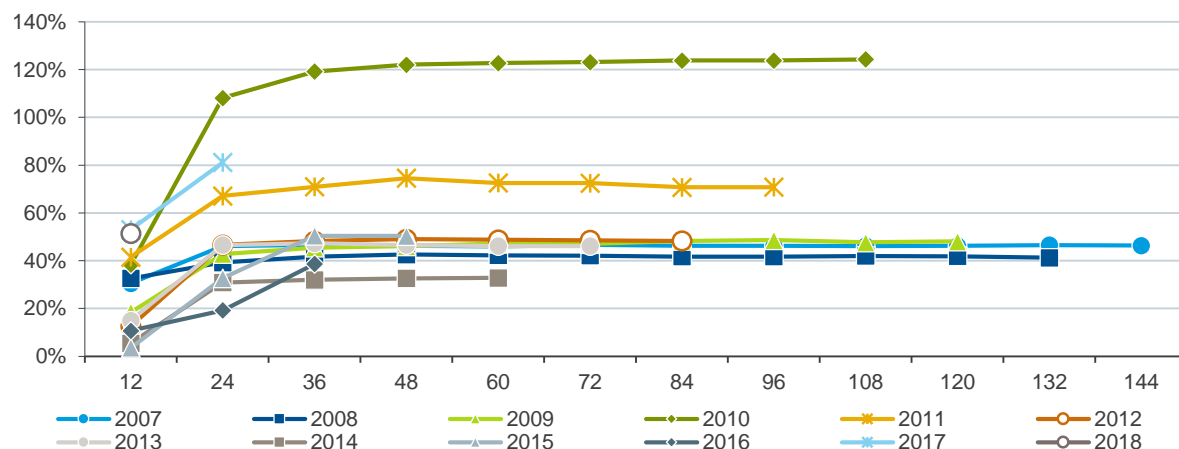
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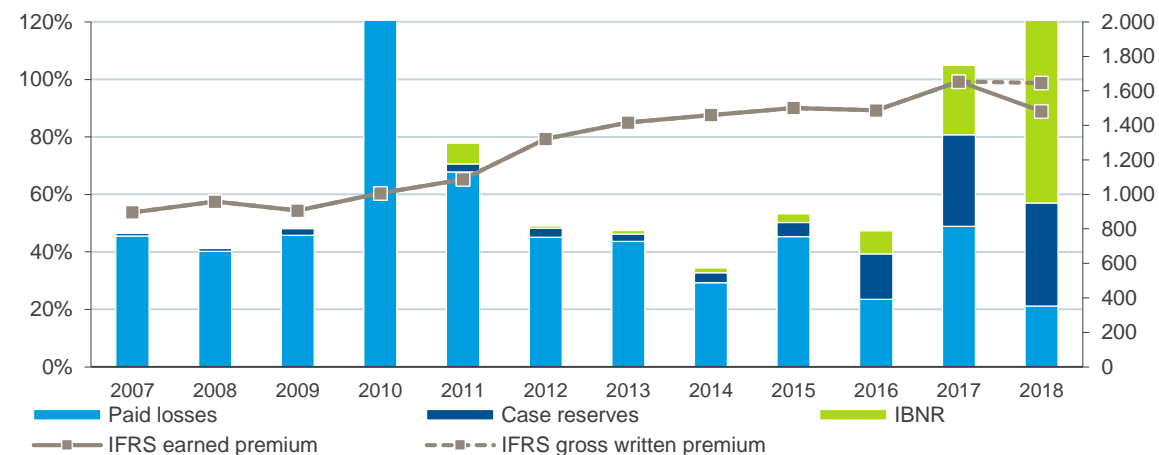
Reported claims triangle¹⁾

6 Property non-proportional

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	897	30.5%	46.1%	46.6%	46.2%	46.0%	46.6%	46.2%	46.2%	46.2%	46.2%	46.5%	46.4%	896	46.5%	45.6%	0.8%	0.1%
2008	958	32.6%	39.3%	41.7%	42.6%	42.2%	42.1%	41.7%	41.7%	42.0%	41.8%	41.3%		958	41.5%	40.2%	1.1%	0.2%
2009	906	18.4%	42.8%	45.4%	46.1%	47.2%	47.0%	48.3%	48.6%	47.7%	48.1%			906	48.3%	45.8%	2.3%	0.2%
2010	1,006	38.4%	108.2%	119.2%	122.1%	122.7%	123.2%	123.8%	123.8%	124.3%				1,006	129.6%	121.2%	3.1%	5.3%
2011	1,087	41.5%	67.1%	70.9%	74.6%	72.6%	72.5%	70.8%	70.8%					1,087	77.8%	67.8%	2.9%	7.1%
2012	1,322	12.6%	46.6%	48.2%	49.0%	48.8%	48.6%	48.3%						1,322	49.0%	45.1%	3.1%	0.9%
2013	1,417	15.0%	46.6%	47.3%	46.5%	46.1%	46.1%							1,416	47.4%	43.7%	2.5%	1.3%
2014	1,460	5.4%	30.9%	32.0%	32.6%	32.8%								1,460	34.4%	29.2%	3.5%	1.7%
2015	1,502	3.5%	32.7%	50.5%	50.4%									1,501	53.2%	45.3%	4.9%	3.0%
2016	1,517	10.7%	19.2%	38.6%										1,487	47.3%	23.5%	15.8%	8.0%
2017	1,648	53.1%	81.1%											1,654	104.9%	48.9%	31.8%	24.2%
2018	1,646	51.4%												1,482	125.9%	21.1%	35.9%	68.8%



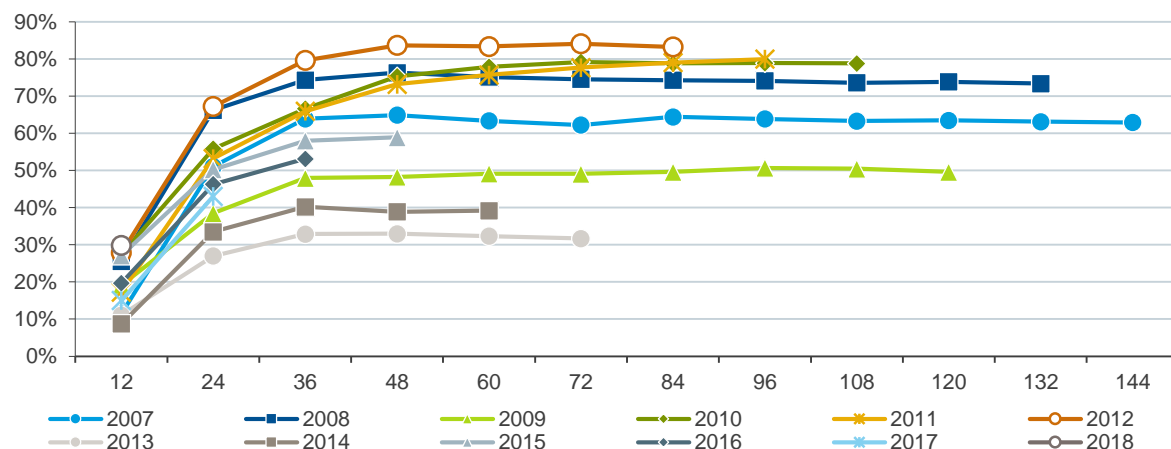
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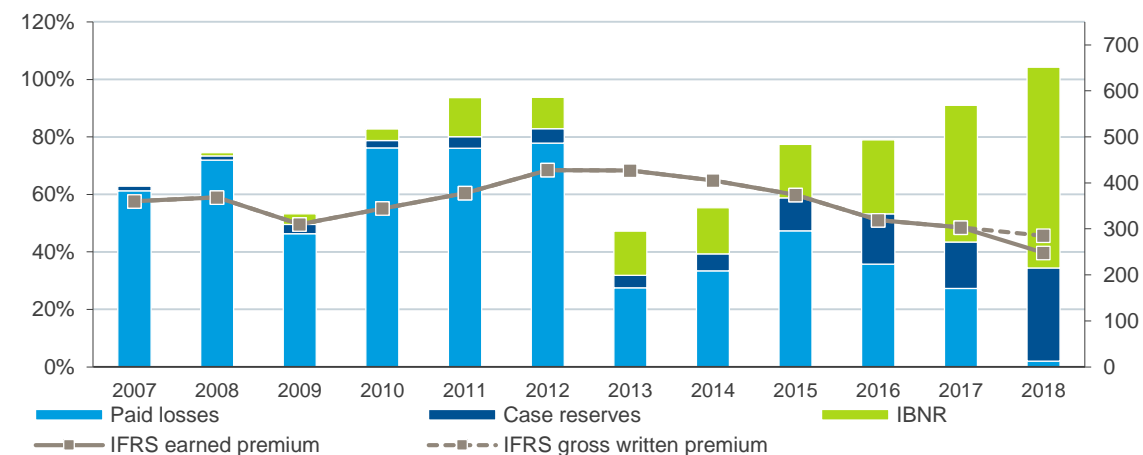
Reported claims triangle¹⁾

7 Marine

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	360	11.4%	51.1%	63.9%	64.9%	63.3%	62.2%	64.4%	63.9%	63.3%	63.5%	63.1%	62.9%	360	63.4%	61.2%	1.7%	0.5%
2008	368	25.5%	66.2%	74.3%	76.3%	75.2%	74.5%	74.3%	74.1%	73.6%	73.9%	73.4%		368	74.5%	71.9%	1.4%	1.1%
2009	310	19.1%	38.5%	48.0%	48.3%	49.1%	49.1%	49.6%	50.7%	50.5%	49.6%			310	53.3%	46.3%	3.3%	3.7%
2010	344	27.5%	55.9%	66.6%	75.3%	77.9%	79.2%	78.8%	78.9%	78.8%				344	82.7%	76.2%	2.5%	4.0%
2011	378	17.3%	53.2%	65.9%	73.2%	75.7%	77.7%	79.0%	80.0%					378	93.7%	76.0%	4.0%	13.7%
2012	428	27.9%	67.2%	79.7%	83.7%	83.4%	84.1%	83.3%						428	93.8%	77.8%	5.1%	10.9%
2013	428	11.1%	27.0%	32.9%	33.0%	32.3%	31.7%							427	47.2%	27.5%	4.4%	15.3%
2014	405	8.7%	33.5%	40.2%	38.9%	39.2%								405	55.4%	33.4%	5.9%	16.1%
2015	375	27.1%	50.3%	58.0%	58.9%									374	77.4%	47.3%	11.5%	18.6%
2016	319	19.7%	46.3%	53.1%										319	79.0%	35.8%	17.4%	25.8%
2017	305	15.0%	43.1%											303	91.0%	27.3%	16.1%	47.6%
2018	285	29.8%												248	104.2%	2.0%	32.5%	69.8%



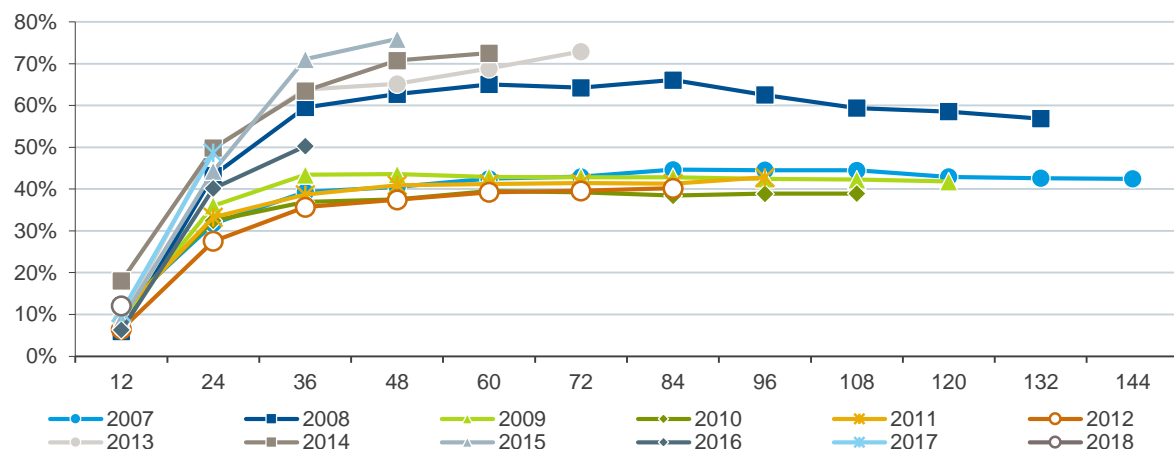
1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months



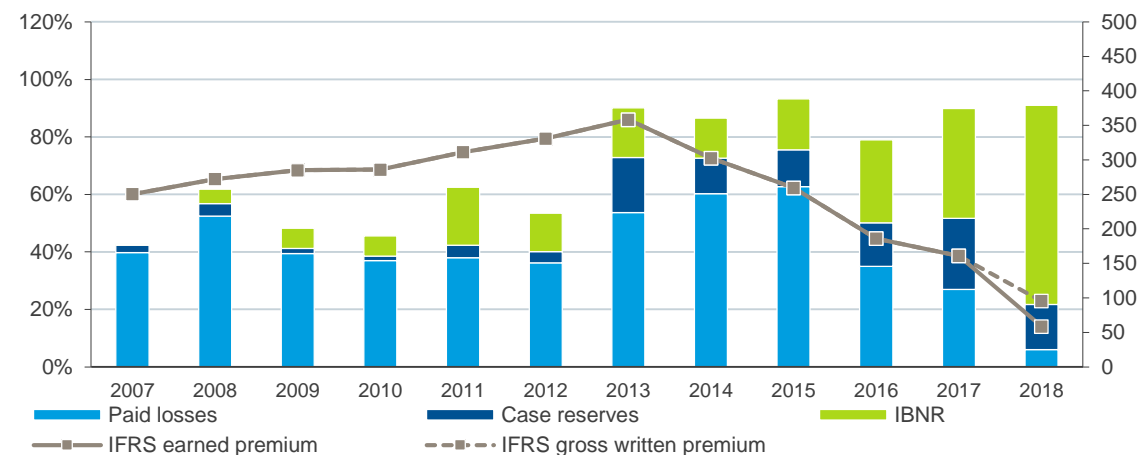
Reported claims triangle¹⁾

8 Aviation

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	250	11.3%	31.7%	39.3%	40.6%	42.5%	43.0%	44.7%	44.5%	44.5%	42.9%	42.6%	42.5%	250	42.8%	39.8%	2.5%	0.5%
2008	272	6.0%	43.3%	59.5%	62.7%	65.1%	64.3%	66.1%	62.5%	59.4%	58.5%	56.8%		272	61.8%	52.5%	4.3%	5.0%
2009	285	9.0%	36.0%	43.4%	43.6%	42.9%	42.8%	42.8%	42.5%	42.3%	41.8%			285	48.3%	39.4%	1.8%	7.0%
2010	286	11.1%	32.4%	36.9%	37.5%	39.6%	39.2%	38.4%	38.9%	38.9%				286	45.5%	37.0%	1.5%	7.1%
2011	311	10.3%	33.3%	38.7%	40.9%	41.2%	41.4%	41.3%	42.8%					311	62.5%	38.0%	4.3%	20.2%
2012	331	6.5%	27.5%	35.7%	37.5%	39.2%	39.6%	40.2%						331	53.4%	36.2%	3.9%	13.3%
2013	358	8.7%	49.8%	63.8%	65.2%	68.9%	72.9%							358	90.1%	53.7%	19.1%	17.2%
2014	303	18.0%	49.8%	63.5%	70.8%	72.5%								303	86.6%	60.3%	12.3%	14.0%
2015	260	8.6%	44.3%	71.1%	75.9%									260	93.2%	62.7%	12.8%	17.7%
2016	186	6.3%	40.1%	50.3%										186	79.0%	34.9%	15.3%	28.8%
2017	171	10.6%	48.7%											161	89.9%	27.0%	24.6%	38.3%
2018	95	12.0%												59	91.0%	6.0%	15.7%	69.3%



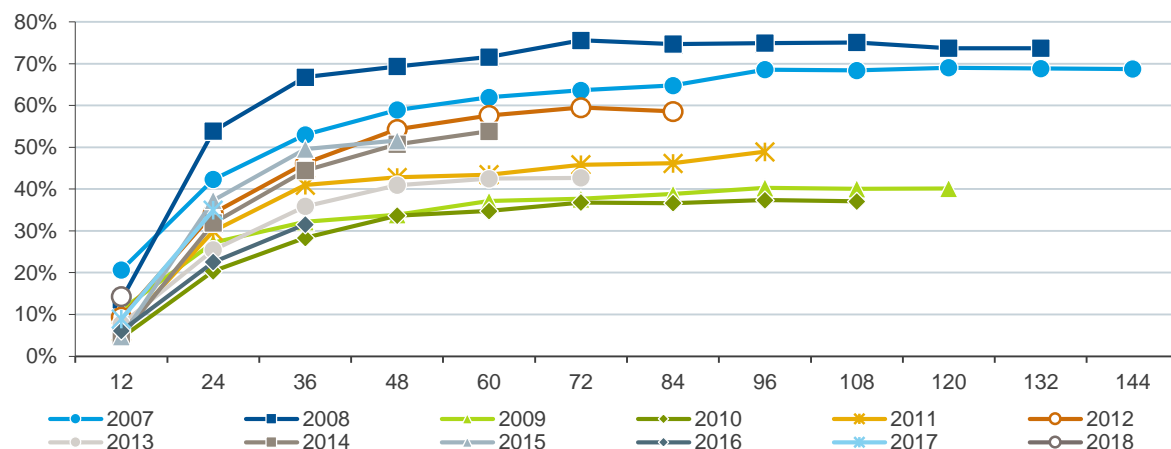
1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months



Reported claims triangle¹⁾

9 Credit/Surety

U/W year	IFRS written premium	HR- financial year												Booked data				
		12	24	36	48	60	72	84	96	108	120	132	144	IFRS earned premium	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2007	465	20.7%	42.3%	53.0%	58.9%	61.9%	63.6%	64.8%	68.6%	68.4%	69.0%	68.8%	68.7%	481	67.6%	64.1%	2.3%	1.2%
2008	401	13.5%	53.9%	66.8%	69.3%	71.6%	75.6%	74.7%	74.9%	75.1%	73.7%	73.7%		400	77.4%	68.6%	5.0%	3.7%
2009	525	11.1%	27.2%	32.2%	33.9%	37.1%	37.7%	38.8%	40.3%	40.1%	40.2%			523	42.5%	37.0%	3.4%	2.1%
2010	606	4.5%	20.4%	28.3%	33.6%	34.8%	36.8%	36.6%	37.4%	37.1%				604	40.9%	34.6%	2.6%	3.8%
2011	584	6.0%	30.0%	41.0%	42.8%	43.4%	45.8%	46.2%	48.9%					582	50.0%	42.6%	6.4%	1.1%
2012	659	9.4%	34.2%	46.2%	54.3%	57.6%	59.5%	58.6%						654	71.2%	53.4%	5.9%	11.9%
2013	549	7.7%	25.4%	35.9%	40.9%	42.5%	42.7%							545	54.0%	37.8%	5.6%	10.6%
2014	606	4.7%	31.9%	44.5%	50.7%	53.8%								597	72.2%	46.9%	7.8%	17.6%
2015	612	4.7%	37.3%	49.6%	51.6%									595	78.4%	44.7%	8.3%	25.3%
2016	594	6.1%	22.5%	31.5%										575	61.9%	26.1%	6.5%	29.4%
2017	599	8.9%	34.9%											571	69.4%	23.2%	13.9%	32.3%
2018	490	14.3%												339	71.9%	7.9%	13.5%	50.5%



1) As at 31 Dec 2018 (in m. EUR), consolidated, IFRS, development in months

