

Hannover Re's reserves as at 31 Dec 2016



#### **Data description and information**

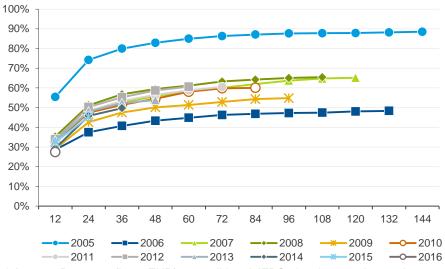
Understanding the data is crucial for interpretation, analysis and results!

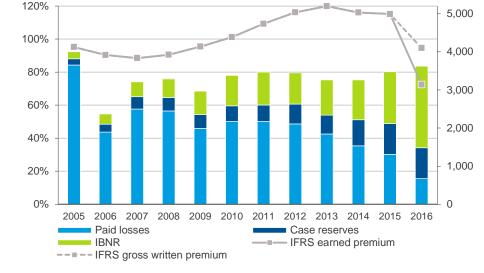
- Statistical gross reported loss triangles based on cedents' original advices (paid and case reserve information)
- Converted to EUR with exchange rates as at 31 December 2016
- ► Figures in triangles do not include business written in branch offices and subsidiaries
- Data on underwriting-year basis
- ▶ Data are combined triangles for companies HR and E+S Rück

### Reported claims triangle for HR/E+S\*

Total (~3/4 of HR Group reserves shown in 9 individual triangles)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	4,124	55.4%	74.2%	79.9%	82.9%	85.0%	86.3%	87.1%	87.6%	87.8%	87.9%	88.2%	88.5%	92.3%	84.3%	3.8%	4.2%
2006	3,917	28.6%	37.5%	40.7%	43.3%	44.9%	46.3%	46.8%	47.3%	47.4%	48.0%	48.3%		54.6%	43.7%	4.8%	6.2%
2007	3,834	33.9%	47.6%	52.6%	55.8%	58.2%	60.0%	62.0%	63.7%	64.8%	65.1%			74.2%	57.7%	7.5%	9.0%
2008	3,923	35.2%	51.2%	56.8%	59.4%	61.2%	63.2%	64.2%	65.0%	65.4%				75.9%	56.5%	8.2%	11.3%
2009	4,138	29.0%	42.6%	47.5%	50.1%	51.3%	52.9%	54.3%	54.8%					68.5%	46.0%	8.3%	14.2%
2010	4,385	32.7%	47.4%	51.4%	54.5%	58.1%	59.8%	60.0%						78.0%	50.2%	9.5%	18.4%
2011	4,734	33.5%	48.2%	53.4%	56.4%	58.7%	60.5%							80.1%	50.1%	10.0%	19.9%
2012	5,035	33.9%	50.3%	55.2%	58.7%	60.6%								79.6%	48.7%	12.0%	18.9%
2013	5,195	33.4%	48.1%	52.3%	53.8%									75.3%	42.6%	11.4%	21.3%
2014	5,030	29.3%	45.8%	49.7%										75.3%	35.4%	15.8%	24.2%
2015	4,992	32.5%	45.3%											80.3%	30.2%	18.6%	31.4%
2016	3,140	27.4%												83.6%	15.5%	18.7%	49.4%

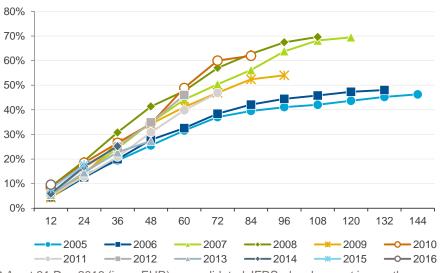


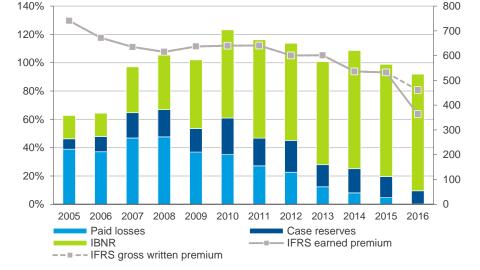


<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months

#### 1 General liability non-proportional (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	741	5.8%	13.5%	19.4%	25.5%	31.6%	37.0%	39.5%	41.1%	42.0%	43.7%	45.2%	46.3%	62.8%	38.9%	7.4%	16.5%
2006	672	4.4%	12.5%	19.9%	27.8%	32.5%	38.4%	42.1%	44.4%	45.8%	47.3%	48.0%		69.4%	37.0%	10.8%	21.5%
2007	635	5.3%	14.5%	24.3%	34.8%	44.2%	50.4%	56.2%	63.8%	68.2%	69.5%			97.1%	46.8%	17.9%	32.4%
2008	615	8.7%	19.2%	30.8%	41.4%	47.7%	57.0%	62.7%	67.5%	69.6%				105.3%	47.6%	19.2%	38.5%
2009	637	4.2%	13.8%	26.6%	34.2%	41.1%	46.9%	52.4%	54.0%					102.0%	36.9%	16.6%	48.5%
2010	640	8.4%	18.5%	26.5%	34.4%	48.9%	60.0%	62.0%						123.2%	35.0%	25.9%	62.4%
2011	641	5.3%	12.9%	20.9%	30.8%	39.8%	46.9%							116.2%	27.1%	19.6%	69.5%
2012	601	5.5%	16.6%	25.0%	34.9%	46.0%								113.7%	22.6%	22.4%	68.7%
2013	601	5.5%	14.6%	22.7%	27.4%									100.7%	12.3%	15.6%	72.8%
2014	536	6.0%	16.9%	25.2%										108.7%	8.0%	17.1%	83.5%
2015	532	7.9%	17.6%											98.8%	4.7%	14.9%	79.3%
2016	364	9.6%												91.9%	0.2%	9.3%	82.4%

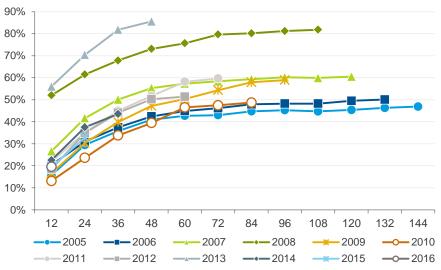


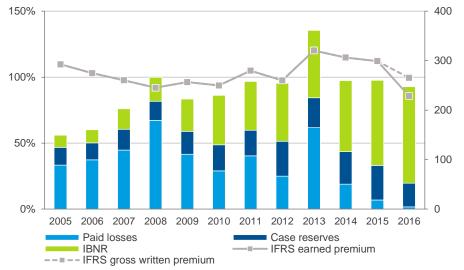


<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months

#### 2 Motor/Accident non-proportional (HR/E+S)

						Statistical	data (as pi	ovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	292	15.7%	29.5%	35.8%	41.0%	42.7%	43.0%	44.8%	45.3%	44.7%	45.4%	46.3%	46.9%	56.0%	33.3%	13.5%	9.2%
2006	275	20.4%	31.0%	37.5%	42.5%	44.9%	46.2%	47.9%	48.3%	48.3%	49.5%	50.1%		60.1%	37.3%	12.9%	9.9%
2007	260	26.6%	41.6%	50.1%	55.3%	57.3%	58.4%	59.4%	60.2%	59.9%	60.5%			76.0%	44.8%	15.8%	15.5%
2008	245	52.0%	61.5%	67.9%	73.1%	75.7%	79.7%	80.2%	81.2%	81.9%				99.9%	67.3%	14.5%	18.1%
2009	257	16.6%	30.4%	39.8%	47.2%	50.4%	54.4%	57.9%	58.9%					83.4%	41.6%	17.3%	24.6%
2010	250	13.1%	23.6%	33.8%	39.5%	46.6%	47.5%	48.7%						86.2%	28.9%	19.8%	37.5%
2011	280	21.9%	35.1%	45.0%	51.7%	58.2%	59.7%							96.7%	40.4%	19.4%	36.9%
2012	260	18.5%	34.9%	44.1%	50.3%	51.4%								95.4%	24.9%	26.5%	44.0%
2013	320	56.0%	70.4%	81.8%	85.6%									135.4%	61.7%	22.7%	51.0%
2014	306	22.6%	37.5%	43.8%										97.4%	18.9%	24.7%	53.8%
2015	299	19.5%	32.8%											97.6%	6.9%	26.2%	64.5%
2016	228	19.5%												92.8%	1.6%	18.2%	73.2%



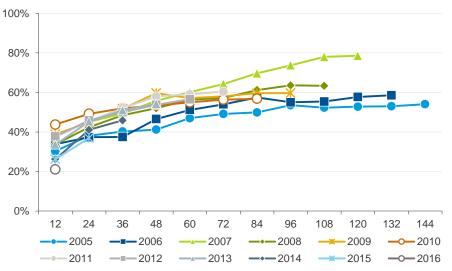


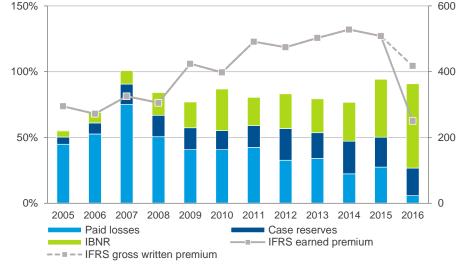


<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months

#### 3 General liability proportional (HR/E+S)

						Statistical	data (as pi	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	295	30.3%	38.1%	40.2%	41.2%	47.0%	49.1%	49.9%	53.5%	52.3%	52.8%	53.0%	54.1%	54.9%	44.8%	5.4%	4.6%
2006	272	33.8%	37.4%	37.5%	46.5%	51.1%	54.0%	57.5%	55.0%	55.4%	57.7%	58.6%		68.9%	52.6%	8.3%	7.9%
2007	325	38.4%	45.2%	49.4%	55.7%	60.1%	64.3%	69.7%	73.7%	78.0%	78.6%			100.8%	75.0%	15.6%	10.2%
2008	305	33.8%	42.4%	48.4%	52.0%	56.3%	57.2%	61.2%	63.6%	63.3%				84.1%	50.4%	16.3%	17.3%
2009	424	38.8%	44.8%	51.7%	59.7%	57.1%	58.0%	59.6%	59.7%					76.9%	40.7%	16.7%	19.5%
2010	398	43.7%	49.2%	52.0%	53.3%	55.0%	56.3%	56.8%						86.7%	40.7%	14.4%	31.6%
2011	491	37.5%	45.4%	52.1%	58.0%	59.1%	60.4%							80.4%	42.4%	16.6%	21.5%
2012	474	37.7%	45.9%	50.0%	53.8%	56.5%								83.1%	32.6%	24.1%	26.4%
2013	502	33.6%	45.3%	51.0%	54.3%									79.3%	33.9%	19.6%	25.8%
2014	528	26.3%	41.1%	45.8%										76.7%	22.3%	24.7%	29.6%
2015	508	26.3%	36.9%											94.2%	27.4%	22.7%	44.1%
2016	250	21.1%												90.8%	5.7%	20.9%	64.1%





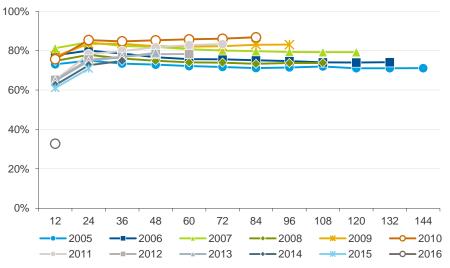


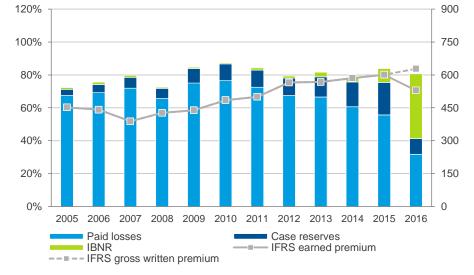
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<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months

#### 4 Motor/Accident proportional (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	452	73.1%	75.0%	73.4%	72.9%	72.2%	71.8%	71.2%	71.5%	72.0%	71.1%	71.1%	71.1%	72.3%	67.5%	3.8%	1.0%
2006	441	77.7%	80.1%	78.6%	76.7%	75.7%	75.6%	75.2%	74.7%	74.1%	74.0%	74.1%		75.6%	69.2%	5.0%	1.4%
2007	388	81.3%	84.3%	82.4%	81.9%	80.8%	80.1%	79.8%	79.4%	79.3%	79.3%			79.8%	71.9%	6.7%	1.2%
2008	427	74.8%	77.9%	76.1%	74.9%	74.1%	73.9%	73.3%	73.7%	73.8%				72.6%	65.5%	6.2%	0.7%
2009	439	77.2%	83.5%	83.5%	82.3%	82.1%	82.3%	83.0%	83.1%					84.7%	75.0%	8.8%	0.8%
2010	485	75.7%	85.4%	84.8%	85.3%	85.7%	86.1%	86.8%						87.4%	76.5%	10.2%	0.7%
2011	500	65.1%	78.3%	79.9%	81.7%	82.8%	83.3%							84.3%	72.5%	10.4%	1.3%
2012	565	65.2%	75.5%	76.9%	78.3%	78.3%								79.3%	67.4%	10.6%	1.2%
2013	568	64.7%	74.8%	76.7%	79.0%									81.7%	66.6%	12.2%	2.8%
2014	586	62.6%	72.6%	74.8%										78.5%	60.7%	15.1%	2.7%
2015	601	61.1%	70.9%											83.9%	55.7%	19.8%	8.5%
2016	529	32.8%												80.7%	31.8%	9.5%	39.4%



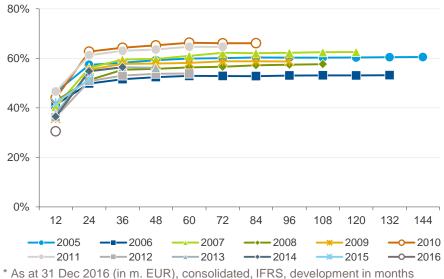


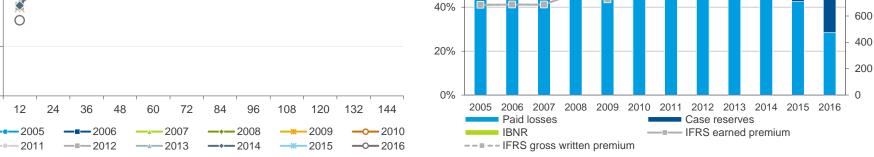
<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months



5 Property proportional (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	684	46.4%	57.4%	58.3%	59.3%	59.9%	60.1%	60.4%	60.3%	60.3%	60.4%	60.5%	60.6%	60.9%	59.6%	0.9%	0.4%
2006	686	41.3%	49.9%	51.6%	52.4%	52.9%	52.9%	52.8%	53.1%	53.2%	53.1%	53.2%		53.7%	52.0%	1.3%	0.5%
2007	686	40.4%	56.2%	59.5%	59.8%	61.0%	62.2%	62.1%	62.3%	62.5%	62.6%			63.1%	60.7%	1.6%	0.8%
2008	776	42.8%	51.3%	55.4%	55.8%	56.4%	56.6%	57.2%	57.4%	57.7%				56.5%	53.4%	2.5%	0.6%
2009	725	35.7%	55.4%	57.8%	57.9%	58.2%	58.8%	58.9%	58.8%					58.4%	55.5%	2.2%	0.8%
2010	820	44.0%	62.8%	64.3%	65.3%	66.3%	66.1%	66.1%						67.9%	63.1%	3.2%	1.6%
2011	939	46.6%	61.3%	63.1%	63.6%	64.7%	64.7%							65.3%	59.9%	3.8%	1.6%
2012	1,034	36.3%	50.8%	53.1%	53.8%	53.9%								57.3%	50.7%	4.0%	2.6%
2013	1,188	37.7%	54.7%	56.5%	56.2%									60.7%	51.1%	5.1%	4.5%
2014	1,136	36.5%	54.8%	56.4%										64.5%	45.9%	12.1%	6.4%
2015	1,341	42.1%	51.5%											69.3%	42.5%	11.1%	15.7%
2016	765	30.5%												81.8%	28.4%	21.1%	32.4%





80%

60%

1.400

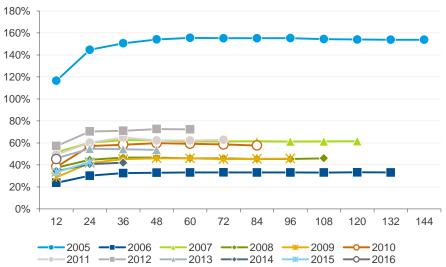
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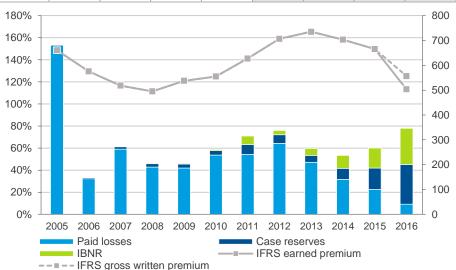
Hannover Re's reserves as at 31 Dec 2016

#### 6 Property non-proportional (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	661	116.6%	144.8%	150.6%	154.1%	155.5%	155.2%	155.2%	155.3%	154.4%	154.0%	153.8%	153.8%	154.0%	152.8%	0.9%	0.3%
2006	576	23.8%	30.3%	32.6%	33.0%	33.2%	33.2%	33.2%	33.2%	33.1%	33.3%	33.2%		33.4%	32.1%	1.1%	0.2%
2007	518	51.6%	60.3%	62.7%	62.3%	61.3%	61.5%	61.5%	61.2%	61.4%	61.6%			61.7%	59.0%	2.2%	0.5%
2008	495	37.6%	44.7%	46.7%	46.8%	46.1%	46.0%	45.5%	45.4%	46.1%				46.5%	42.8%	3.0%	0.7%
2009	537	28.8%	41.9%	45.3%	46.0%	46.0%	45.2%	45.6%	45.8%					46.2%	41.8%	3.6%	0.7%
2010	555	38.3%	57.2%	58.4%	59.8%	59.3%	58.7%	57.7%						58.8%	53.6%	4.0%	1.1%
2011	628	49.5%	60.3%	65.0%	62.3%	62.2%	62.8%							70.9%	54.2%	8.8%	7.9%
2012	707	57.3%	70.5%	71.1%	72.7%	72.4%								76.0%	64.2%	7.9%	4.0%
2013	735	46.2%	54.7%	54.4%	53.8%									59.5%	47.1%	6.2%	6.2%
2014	703	34.4%	40.8%	42.0%										53.4%	31.7%	9.9%	11.8%
2015	665	33.6%	42.6%											60.1%	22.5%	19.4%	18.2%
2016	504	45.3%												77.8%	9.2%	35.9%	32.8%

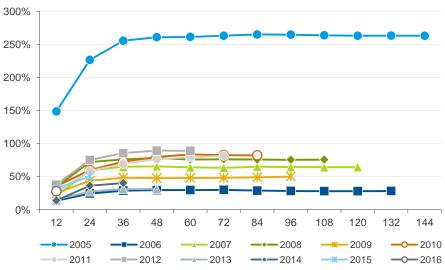




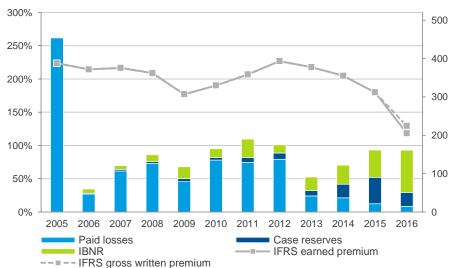


7 Marine (HR/E+S)

						Statistical	data (as pi	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	388	148.6%	226.5%	255.7%	260.9%	261.4%	263.2%	265.2%	264.7%	263.8%	263.2%	263.3%	263.2%	263.1%	261.8%	1.3%	0.0%
2006	372	13.5%	24.5%	28.8%	29.7%	29.8%	30.0%	29.0%	28.4%	28.1%	28.0%	28.4%		34.6%	27.0%	1.2%	6.4%
2007	375	20.9%	59.4%	65.0%	65.7%	64.0%	63.4%	65.1%	64.6%	64.2%	64.4%			69.6%	61.6%	2.6%	5.4%
2008	362	34.2%	72.2%	76.1%	78.2%	76.0%	76.2%	75.9%	75.5%	75.7%				85.9%	73.0%	2.7%	10.3%
2009	307	25.2%	43.7%	48.3%	47.9%	48.0%	48.3%	49.0%	50.1%					67.8%	45.5%	4.6%	17.7%
2010	330	35.4%	60.1%	72.8%	79.9%	83.8%	82.5%	82.3%						95.1%	78.2%	3.5%	13.5%
2011	359	26.3%	58.7%	69.4%	76.8%	79.4%	81.6%							109.5%	74.5%	7.4%	27.5%
2012	393	37.9%	75.2%	85.6%	89.5%	89.1%								100.8%	79.2%	9.5%	12.1%
2013	378	15.2%	27.6%	31.3%	31.3%									52.5%	24.2%	7.9%	20.3%
2014	355	14.0%	36.2%	40.3%										70.4%	21.3%	20.3%	28.8%
2015	312	32.1%	50.3%											93.3%	12.3%	39.7%	41.2%
2016	205	27.9%												93.0%	8.6%	20.8%	63.6%



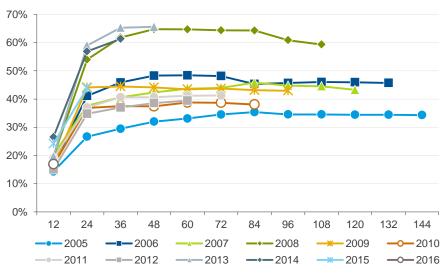


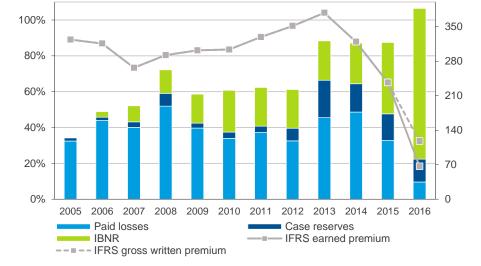




8 Aviation (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	324	14.3%	26.7%	29.5%	32.0%	33.1%	34.5%	35.4%	34.6%	34.6%	34.4%	34.4%	34.3%	34.5%	32.5%	1.7%	0.3%
2006	316	16.8%	41.1%	45.9%	48.3%	48.4%	48.2%	45.3%	45.7%	46.0%	46.0%	45.7%		48.9%	43.9%	1.9%	3.1%
2007	267	20.2%	37.7%	40.6%	42.4%	43.7%	43.9%	45.8%	44.8%	44.5%	43.3%			52.1%	40.0%	3.2%	8.9%
2008	292	19.6%	54.0%	61.8%	64.8%	64.7%	64.3%	64.3%	60.9%	59.3%				72.2%	51.9%	7.2%	13.1%
2009	302	16.3%	44.1%	44.5%	44.1%	43.5%	43.7%	43.1%	42.9%					58.6%	39.7%	2.8%	16.1%
2010	304	16.7%	36.8%	37.5%	37.4%	38.8%	38.7%	38.1%						60.8%	34.0%	3.5%	23.3%
2011	329	19.0%	37.0%	40.6%	40.6%	41.2%	41.3%							62.4%	37.2%	3.6%	21.6%
2012	352	15.0%	34.8%	37.0%	38.6%	39.5%								61.2%	32.6%	7.0%	21.6%
2013	378	19.7%	59.0%	65.3%	65.6%									88.3%	45.5%	20.8%	22.0%
2014	319	26.5%	56.9%	61.3%										87.1%	48.6%	15.8%	22.7%
2015	237	24.2%	43.9%											87.4%	32.7%	15.0%	39.8%
2016	66	16.9%												106.4%	9.6%	12.7%	84.1%



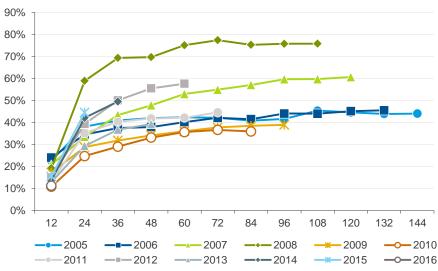


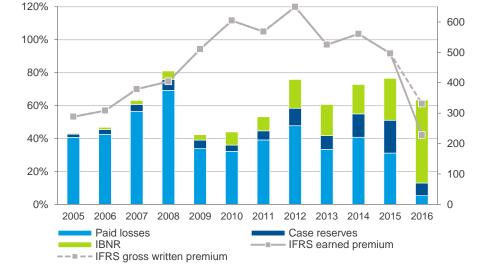
<sup>\*</sup> As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months



9 Credit/Surety (HR/E+S)

						Statistical	data (as p	rovided by	cedents)						Booke	ed data	
U/W year	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2005	288	22.7%	38.1%	40.9%	42.0%	42.4%	42.1%	40.8%	41.6%	45.3%	44.6%	43.9%	44.0%	43.2%	40.7%	1.9%	0.6%
2006	308	24.0%	34.5%	37.4%	37.9%	40.2%	42.1%	41.5%	44.1%	44.0%	45.1%	45.5%		46.8%	42.4%	3.0%	1.3%
2007	379	20.9%	33.5%	43.4%	47.8%	52.9%	54.9%	57.0%	59.6%	59.7%	60.6%			63.2%	56.5%	4.2%	2.5%
2008	404	19.2%	58.9%	69.3%	69.7%	75.1%	77.4%	75.3%	75.7%	75.8%				81.0%	69.2%	6.5%	5.2%
2009	511	17.2%	28.8%	31.8%	34.1%	36.0%	37.9%	38.4%	38.9%					42.3%	33.9%	5.1%	3.3%
2010	605	10.8%	24.7%	29.0%	33.1%	35.6%	36.6%	35.9%						44.0%	32.2%	3.8%	8.0%
2011	568	13.2%	35.2%	40.3%	41.8%	42.1%	44.6%							53.2%	39.1%	5.5%	8.6%
2012	650	15.0%	39.3%	50.1%	55.5%	57.6%								75.8%	47.8%	10.5%	17.5%
2013	525	12.9%	29.3%	36.7%	39.3%									60.7%	33.4%	8.4%	18.9%
2014	561	13.7%	42.1%	49.5%										72.8%	40.8%	14.2%	17.8%
2015	497	15.5%	44.6%											76.5%	31.1%	19.9%	25.5%
2016	228	11.3%												63.4%	5.3%	7.7%	50.4%





 $<sup>^{\</sup>ast}$  As at 31 Dec 2016 (in m. EUR), consolidated, IFRS, development in months