

Update on claim reserves and capital position

Eberhard Mueller, CRO / Group Risk Management

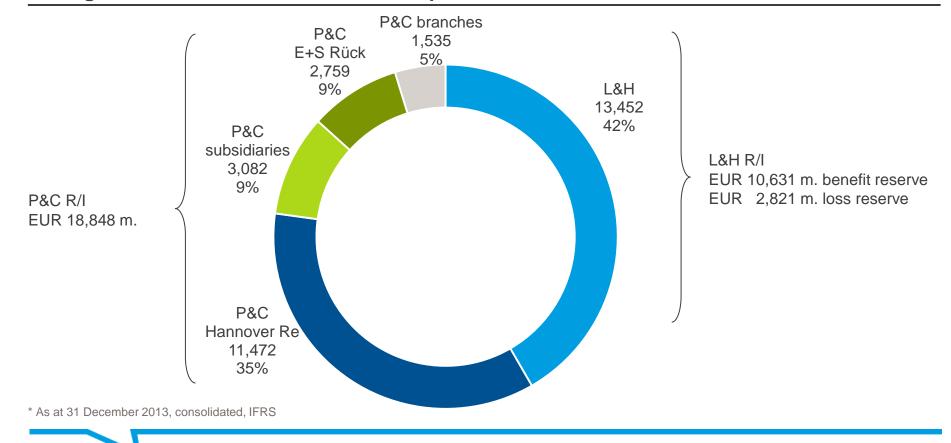


Two segments of reserves in our balance sheet

Recent figures from year-end 2013

Total gross reserves Hannover Re Group*

EUR 32,300 m.



P&C weight 58%, L&H slightly decreased to 42%

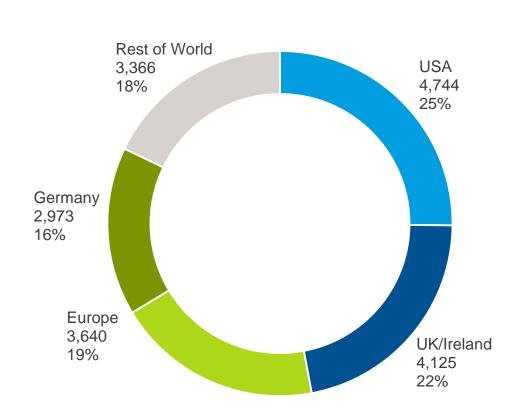


Well-diversified gross P&C loss reserves. . .

...across entities and countries

Total gross P&C reserves HR Group*

EUR 18,848 m.



- Group-wide P&C reserve study (internal and external)
 - Hannover Re/E+S Rück, Canada, France, Bahrain / Takaful
 - calculations by GRM RES: EUR 14,939 m. (79%)
 - Bermuda, Australia, Malaysia, Shanghai
 - by external appointed actuaries:
 EUR 1,332 m. (7%)
 - UK(IICH), Ireland, Sweden, South Africa
 - by HR Group own actuaries: EUR 2,577 m. (14%)

^{*} As at 31 December 2013, consolidated, IFRS

Internal reserve studies 2009 - 2013 reviewed

by Towers Watson show increasing redundancies*

► For the HR Group, over the last 5 years, on average 3.1% of the net earned loss ratio for P&C business is due to net reserve redundancy increases

in m. EUR

Year	Redundancy	Increase redundancy	Effect on loss ratio	P&C premium (net earned)
2009	867	276	5.3%	5,230
2010	956	89	1.6%	5,394
2011	1,117	162	2.7%	5,961
2012	1,307	190	2.8%	6,854
2013	1,517	210	3.1%	6,866
2009 - 2013 total		927		30,305
2009 - 2013 average		185	3.1%	6,061

^{*} Redundancy of loss and loss adjustment expense reserve for its P&C insurance business against held IFRS reserves, before tax and minority participations. Towers Watson reviewed these estimates - more details shown in slide V (appendix)

No change in reserving policy in 2013



Reported loss triangles for HR/E+S*...

Reconciliation to our balance sheet

in m. EUR

No.	Line of business	Total reserves U/Y 1979 - 2001	U/Y 1979 - 2001 in % of HR Group	Total reserves U/Y 2002 - 2013	U/Y 2002 - 2013 in % of HR Group
1	General liability non-prop.	507.2	2.7%	3,822.2	20.3%
2	Motor non-prop.	448.1	2.4%	1,713.5	9.1%
3	General liability prop.	196.5	1.0%	1,662.0	8.8%
4	Motor prop.	153.8	0.8%	717.0	3.8%
5	Property prop.	26.2	0.1%	998.9	5.3%
6	Property non-prop.	12.9	0.1%	977.7	5.2%
7	Marine	39.0	0.2%	917.9	4.9%
8	Aviation	208.2	1.1%	676.5	3.6%
9	Credit/surety	37.6	0.2%	830.4	4.4%
	All lines of business	1,629.4	8.6%	12,315.9	65.3%

^{*} As at 31 December 2013, consolidated, IFRS figures

...represent about 3/4 of our gross carried reserves



Data description and information

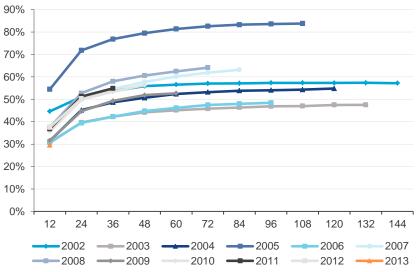
Understanding the data is crucial for interpretation, analysis and results!

- 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 2013
- ► 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 (~2/3 of HR Group reserves shown in 9 individual triangles)

			Statistical data (as provided by cedents)						Booked data								
U/Y	IFRS earned premium	12	24	36	48	60	72	84	96	108	120	132	144	Ultimate loss ratio	Paid losses	Case reserves	IBNR balance
2002	3,678	44.6%	51.1%	53.7%	55.9%	56.6%	57.1%	57.1%	57.3%	57.3%	57.3%	57.4%	57.2%	60.0%	53.2%	4.0%	2.8%
2003	3,605	30.6%	39.7%	42.2%	44.2%	45.1%	45.8%	46.3%	46.9%	47.0%	47.5%	47.5%		52.5%	42.0%	5.2%	5.3%
2004	3,277	31.4%	45.2%	48.6%	50.6%	52.4%	53.2%	53.8%	54.1%	54.3%	54.8%			62.6%	49.0%	5.9%	7.7%
2005	3,539	54.5%	71.8%	76.8%	79.5%	81.4%	82.6%	83.3%	83.6%	83.8%				92.7%	78.1%	5.9%	8.7%
2006	3,386	31.0%	39.5%	42.3%	44.8%	46.1%	47.5%	48.0%	48.5%					59.5%	41.5%	6.9%	11.0%
2007	3,317	36.7%	49.9%	54.7%	57.8%	60.2%	61.9%	63.1%						77.2%	53.2%	9.8%	14.1%
2008	3,445	37.5%	52.7%	58.0%	60.6%	62.5%	64.1%							80.9%	51.2%	11.8%	17.9%
2009	3,633	31.6%	44.7%	49.3%	51.9%	52.7%								72.7%	41.8%	10.4%	20.5%
2010	3,870	35.6%	49.8%	53.5%	56.3%									78.9%	43.5%	12.2%	23.2%
2011	4,089	36.8%	51.2%	54.9%										81.9%	40.8%	13.4%	27.8%
2012	4,174	37.4%	50.3%											83.1%	31.3%	19.1%	32.8%
2013	2,815	29.6%												82.8%	13.1%	17.4%	52.2%







Reserving risk is reflected in the variation in ultimate loss ratios

Total (~2/3 of HR Group reserves shown in 9 individual triangles)

U/Y	Ultimate loss ratio 2008	Ultimate loss ratio 2009	Ultimate loss ratio 2010	Ultimate loss ratio 2011	Ultimate loss ratio 2012		Ultimate loss ratio 2013	Paid losses 2013	Case reserves 2013	IBNR balance 2013
2002	61.1%	62.2%	61.5%	61.0%	60.3%	_	60.0%	53.2%	4.0%	2.8%
2003	54.8%	57.1%	54.8%	53.5%	52.7%		52.5%	42.0%	5.2%	5.3%
2004	66.9%	65.8%	65.1%	63.8%	62.8%	-	62.6%	49.0%	5.9%	7.7%
2005	98.9%	96.2%	96.2%	95.8%	94.1%		92.7%	78.1%	5.9%	8.7%
2006	66.2%	65.2%	63.3%	62.1%	60.9%	-	59.5%	41.5%	6.9%	11.0%
2007	79.5%	80.2%	78.3%	77.1%	77.5%	-	77.2%	53.2%	9.8%	14.1%
2008	85.8%	84.8%	83.2%	84.1%	81.8%	-	80.9%	51.2%	11.8%	17.9%
2009		78.8%	78.3%	75.8%	73.1%	-	72.7%	41.8%	10.4%	20.5%
2010			81.2%	84.1%	81.4%	-	78.9%	43.5%	12.2%	23.2%
2011			(85.6%	82.4%		81.9%		13.4%	27.8%
2012				00.070	89.1%		83.1%	31.3%	19.1%	32.8%
2012					03.170	-	82.8%	13.1%	17.4%	52.2%

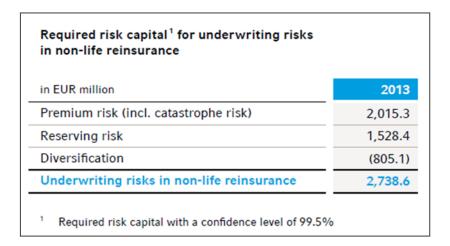
As at 31 December 2013 (in m. EUR), consolidated, IFRS, development in months

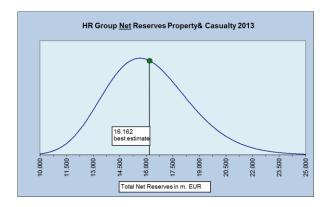


Reserving risk

One of our greatest risks in Property & Casualty. . .

- ► The probability that a loss originated by underwriting risks (reserve risk, premium risk, cat risk) exceeds EUR 1,520 m. is only 4%
- In other words: our confidence level is 96%
- ▶ If the pure reserve risk is considered, the confidence level would be even higher





...is well managed by our high confidence level



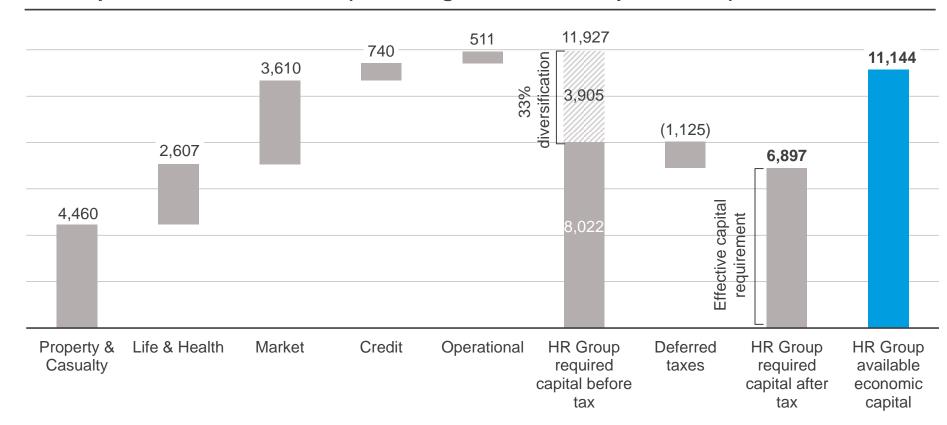
Capitalisation

Hannover Re maintains a strong capital position

Capitalisation ratio: 162% (relative to internal target VaR 99.97%)

Risk capital for the 99.97% VaR (according to economic capital model)

in m. EUR



As at December 2013

In the past year the presentation of risks has been changed. In view of a more transparent presentation of diversification and tax effects the required capital for the different risk categories is now shown before consideration of tax effects and as the change relative to the expected target (instead of initial value).



We control capital basis and operational volatility

Overview of top-level strategic targets

	Q2/2014	Limit
Available capital (in m. EUR)	11,144	
Required capital (in m. EUR)	6,897	
Coverage	4,247	
Capital adequacy ratio	162%	100%

Probability of ruin	Q2/2014	Limit
Probability of a total loss of shareholders' equity	0.1‰	0.3‰
Probability of a total loss of economic capital	<0.1‰	0.3‰

Monitoring of capital basis (excl. hybrid capital)

Probability of adverse earnings	Q2/2014	Limit
Probability of a negative net income	5.1%	10.0%
Probability of a negative EBIT	3.7%	10.0%

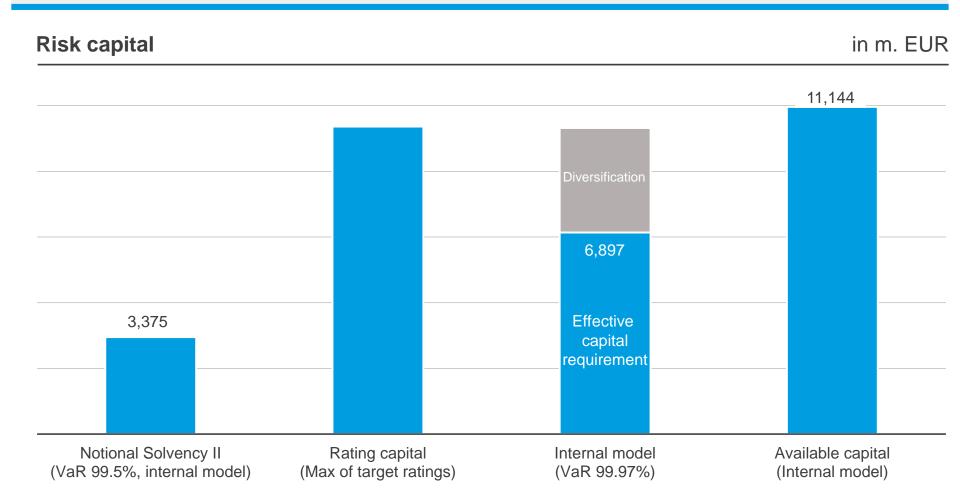
Monitoring of operational volatility

Required capital: Value-at-Risk at a confidence level of 99.97%



Holding of undiversified capital due to rating targets

Solvency II will not be a driving capital factor



All figures as at December 2013

Hannover Re is well capitalised

Available capital significantly exceeds required capital

	2009	2010	2011	2012	2013
Solvency margin ¹⁾	60.4%	69.5%	68.3%	72.9%	71.7%
Solvency margin 99.97% VaR ²⁾	158.6%	154.9%	159.7%	170.0%	161.6%
Solvency margin 99.5% VaR ²⁾	-	336.1%	302.5%	335.2%	330.2%
Debt/equity ratio 3)	32.1%	36.5%	30.9%	33.3%	34.3%
Interest coverage 4)	14.9x	13.8x	8.5x	13.3x	9.7x
Reserve/premium ratio 5)	270.1%	275.1%	292.7%	268.4%	270.6%

^{1) (}Shareholders' equity + non-controlling interests + hybrid)/Net premium earned

²⁾ According to our internal model

³⁾ Debt/(Stockholders' equity + non-controlling interests)

⁴⁾ EBIT/Interest on hybrid capital

⁵⁾ Net reserves/net premium earned (group)

Internal model is basis for capital monitoring and allocation Risk map overview

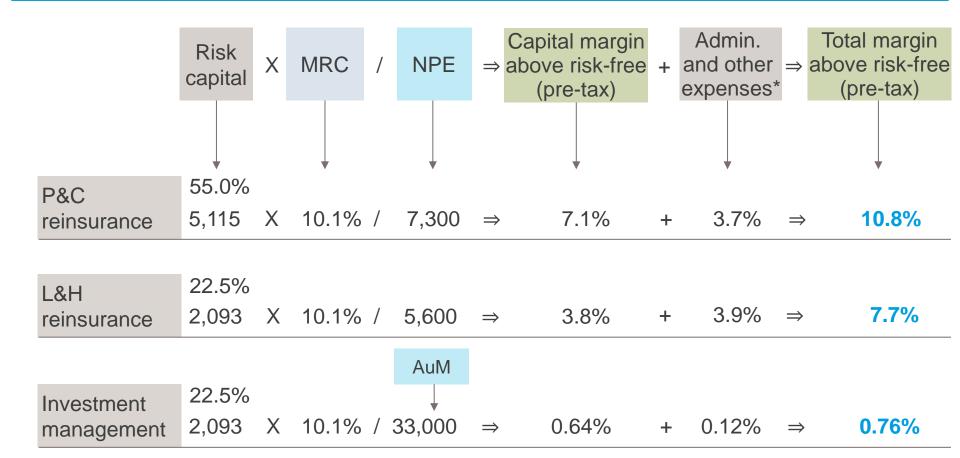
Property & Casualty underwriting risks	Life & Health underwriting risks	Market risk	Credit risk	Operational risks
Premium	Longevity & Mortality	Equity	Cedant default	People
Catastrophe	Morbidity & Disability	Interest rate	Retrocession default	Systems
Reserve	Lapse	Real estate	Default of other counterparties	Processes
	Catastrophe	Foreign exchange		External events
		Spread		

- ▶ Risk factor and dependency model calibration is based on
 - Hannover Re's internal loss data base and expert assessments
 - Publically available and private market data
- ► The capital model covers the business operations of the Hannover Re Group, i.e. including all its subsidiaries
- ▶ Main applications of the model, such as capital cost allocation and strategic asset allocation, cover the whole insurance group



Capital allocation depends on risk profile

... for our underwriters and our investment decisions?



As at September 2013; risk capital, NPE: figures in m. EUR

^{*} E.g. expenses for the company as a whole

Significant capital growth in 2013

Reconciliation (economic capital/shareholders' equity)

Reconciliation (economic capital / shareholders' equity) in m. EUR	2013	2012
Shareholders' equity	6,530.0	6,714.1
Value adjustments for Property & Casualty reinsurance	1,627.8	775.2
Value adjustments for Life & Health reinsurance	1,116.5	930.5
Value adjustments for assets under own management	357.6	599.0
Value adjustments due to tax effects and other	(725.8)	(558.1)
Economic equity	8,906.1	8,460.7
Hybrid capital	2,237.8	2,233.0
Available economic capital	11,143.9	10,693.7

- ▶ P&C: positive result with further reserve strengthening
- ► L&H: new business delivers positive capital contribution
- Additional reserves built up for assets under management



Required risk capital is carefully managed

Risk grows in line with capital basis and business

	20	13	2012		
Required risk capital in m. EUR	Confidence level 99.97%	Confidence level 99.5%	Confidence level 99.97%	Confidence level 99.5%	
Underwriting risk Property & Casualty reinsurance	4,459.9	2,738.6	4,025.5	2,610.6	
Underwriting risk Life & Health reinsurance	2,607.3	1,434.3	2,592.8	1,336.6	
Market risk	3,609.5	2,032.9	3,465.0	1,898.0	
Credit risk	739.5	324.0	737.2	316.6	
Operational risk	510.7	296.8	556.9	267.5	
Diversification	(3,905.2)	(2,187.7)	(3,781.5)	(2,237.9)	
Tax effects	(1,124.8)	(1,263.7)	(1,303.8)	(1,000.9)	
Hannover Re Group	6,896.9	3,375.2	6,292.1	3,190.5	



Capital allocation provides steering effect towards diversification

. . .on this segment level and on individual risk / treaty basis

Diversification effect within the P&C reinsurance business group Risk capital* per line of business for the 99.5% VaR in m. EUR	2013
North America	734.9
Germany	458.3
Marine	289.7
Aviation	269.6
Credit, surety & political risks	789.1
Structured reinsurance products & ILS	146.2
UK, London market & direct business	375.9
Worldwide treaty	508.2
Global cat. XL	562.6
Facultative business	636.6
Diversification	(2,032.5)
Total Property & Casualty	2,738.6

^{*} The presentation of risks has been changed analogue to the presentation of the different risk categories. In view of a more transparent presentation of diversification effects the required capital is now shown as the change relative to the expected target (instead of initial value).



Improving diversification within Life & Health

...due to growing annuity business

Required risk capital* underwriting risks Life & Health reinsurance in m. EUR	2013		
Mortality risk	1,216.6		
Longevity risk	693.7		
Morbidity and disability risk	293.3		
Lapse risk	485.9		
Diversification	(1,255.2)		
Underwriting risk Life & Health	1,434.3		

 $^{^{\}ast}$ Required risk capital at a confidence level of 99.5%

Market risks by risk category

Dominating factor is the composition of the fixed-income portfolio

Required risk capital ¹⁾ market risks in m. EUR	2013		
Credit and spread risk	1,408.1		
Interest rate risk	812.9		
Foreign exchange risk	816.0		
Equity risk ²⁾	531.0		
Real estate risk	287.7		
Diversification	(1,822.8)		
Market risk	2,032.9		



¹⁾ Required risk capital at a confidence level of 99.5%

²⁾ Incl. private equity

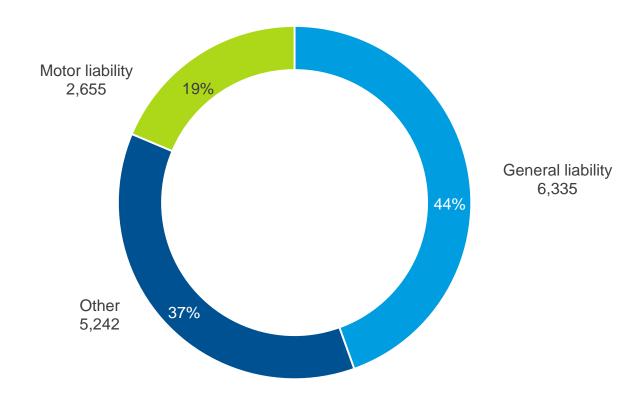
Appendix

About 45% related to general liability

Driven by premium volume in recent U/Y

Gross P&C reinsurance loss reserves*

EUR 14,231 m.



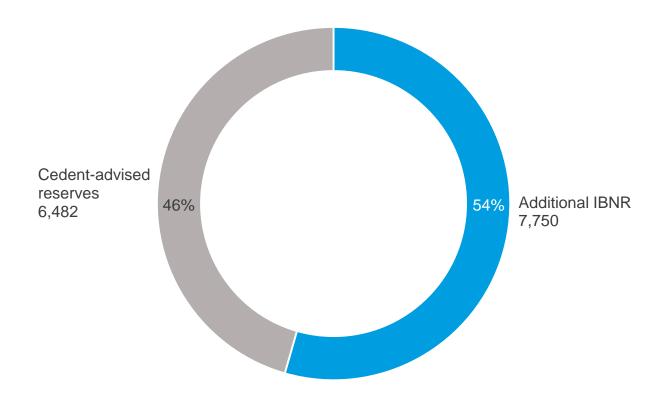
^{*} HR and E+S as at 31 December 2013, consolidated, IFRS figures

Estimation system & bulk IBNR

Roughly one half of own IBNR is self-made

"Home-made" IBNR*

EUR 14,231 m.





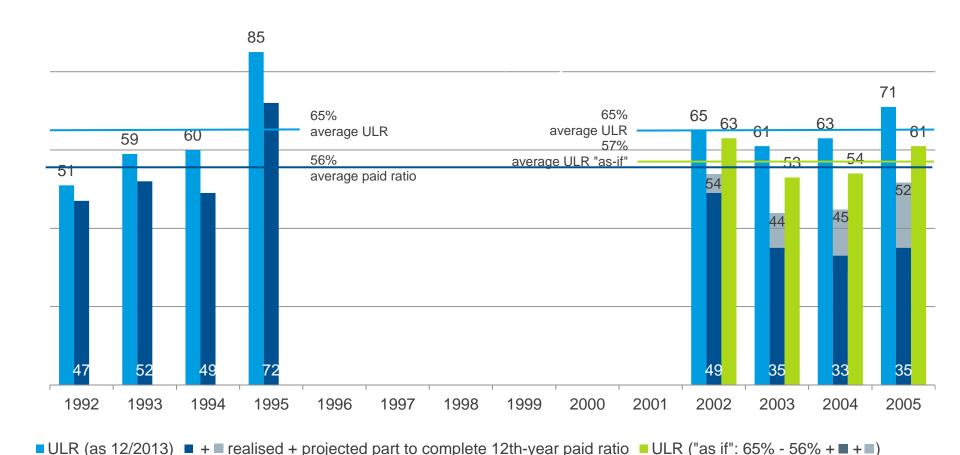
^{*} HR and E+S as at 31 December 2013, consolidated, IFRS figures

US/Bermuda liability non-proportional: looks promising

On average still ~7%pts higher ULRs than mature years suggest

Ultimate Loss Ratios (ULR)

in %



hannover **re**®

Individual aspects

Special A&E reserves

- ▶ 2013 A&E reserves are prudent best estimates and exceed the corresponding internal reserve study estimates reviewed by Towers Watson*
 - IBNR factor of 5.9 reduced from 6.6 at previous year-end
 - Paid Survival ratio increased to 32.1 years from 29.1 years at previous year-end

Financial year	Case reserves	HR additional reserves for A&E (in TEUR)	Total reserve for A&E (in TEUR)	3-year-average paid (in TEUR)	Survival ratio	IBNR factor = add. reserves/case reserves
2007	26,532	119,192	145,724	5,555	26.2	4.5
2008	22,988	127,164	150,152	6,008	25.0	5.5
2009	26,216	171,363	197,579	8,130	24.3	6.5
2010	29,099	182,489	211,588	9,270	22.8	6.3
2011	28,422	193,957	222,379	8,574	25.9	6.8
2012	27,808	182,240	210,049	7,210	29.1	6.6
2013	28,839	170,805	199,643	6,224	32.1	5.9

^{*} More details of Towers Watson's review are shown in slide V (Appendix)



Details on reserve review by Towers Watson

- → The scope of Towers Watson's work was to review certain parts of the held loss and loss adjustment expense reserve, net of outwards reinsurance, from Hannover Rück SE's consolidated financial statements in accordance with IFRS as at each 31 December from 2009 to 2013, and the implicit redundancy margin, for the non-life business of Hannover Rück SE. Towers Watson concludes that the reviewed loss and loss adjustment expense reserve, net of reinsurance, less the redundancy margin is reasonable in that it falls within Towers Watson's range of reasonable estimates.
 - · Life reinsurance and health reinsurance business are excluded from the scope of this review.
 - Towers Watson's review of non-life reserves as at 31 December 2013 covered 99.1% / 99.1% of the gross / net held non-life reserves of €18.8 billion and € 17.7 billion respectively.
 Together with life reserves of gross €2.8 billion and net €2.6 billion, the total balance sheet reserves amount to €21.7 billion gross and €20.3 billion net.
 - The results shown in this presentation are based on a series of assumptions as to the future. It should be recognised that actual future claim experience is likely to deviate, perhaps materially, from Towers Watson's estimates. This is because the ultimate liability for claims will be affected by future external events; for example, the likelihood of claimants bringing suit, the size of judicial awards, changes in standards of liability, and the attitudes of claimants towards the settlement of their claims.
 - The results shown in Towers Watson's reports are not intended to represent an opinion of market value and should not be interpreted in that manner. The reports do not purport to encompass all of the many factors that may bear upon a market value.
 - Towers Watson's analysis was carried out based on data as at evaluation dates for each 31 December from 2009 to 2013. Towers Watson's analysis may not reflect development or information that became available after the valuation dates and Towers Watson's results, opinions and conclusions presented herein may be rendered inaccurate by developments after the valuation dates.
 - As is typical for reinsurance companies, the claims reporting can be delayed due to late notifications by some cedants. This increases the uncertainty in the estimates.
 - Hannover Rück SE has asbestos, environmental and other health hazard (APH) exposures which are subject to greater uncertainty than other general liability exposures. Towers
 Watson's analysis of the APH exposures assumes that the reporting and handling of APH claims is consistent with industry benchmarks. However, there is wide variation in
 estimates based on these benchmarks. Thus, although Hannover Rück SE's held reserves show some redundancy compared to the indications, the actual losses could prove to be
 significantly different to both the held and indicated amounts.
 - Towers Watson has not anticipated any extraordinary changes to the legal, social, inflationary or economic environment, or to the interpretation of policy language, that might affect
 the cost, frequency, or future reporting of claims. In addition, Towers Watson's estimates make no provision for potential future claims arising from causes not substantially
 recognised in the historical data (such as new types of mass torts or latent injuries, terrorist acts), except in so far as claims of these types are included incidentally in the reported
 claims and are implicitly developed.
 - In accordance with its scope Towers Watson's estimates are on the basis that all of Hannover Rück SE's reinsurance protection will be valid and collectable. Further liability may exist for any reinsurance that proves to be irrecoverable.
 - Towers Watson's estimates are in Euros based on the exchange rates provided by Hannover Rück SE as at each 31 December evaluation date. However, a substantial proportion of the liabilities is denominated in foreign currencies. To the extent that the assets backing the reserves are not held in matching currencies, future changes in exchange rates may lead to significant exchange gains or losses.
 - Towers Watson has not attempted to determine the quality of Hannover Rück SE's current asset portfolio, nor has Towers Watson reviewed the adequacy of the balance sheet provisions except as otherwise disclosed herein.
- → In its review, Towers Watson has relied on audited and unaudited data and financial information supplied by Hannover Rück SE and its subsidiaries, including information provided orally. Towers Watson relied on the accuracy and completeness of this information without independent verification.
- → Except for any agreed responsibilities Towers Watson may have to Hannover Rück SE, Towers Watson does not assume any responsibility and will not accept any liability to any person for any damages suffered by such person arising out of this commentary or references to Towers Watson in this document.



Disclaimer

This presentation does not address the investment objectives or financial situation of any particular person or legal entity. Investors should seek independent professional advice and perform their own analysis regarding the appropriateness of investing in any of our securities.

While Hannover Re has endeavoured to include in this presentation information it believes to be reliable, complete and up-to-date, the company does not make any representation or warranty, express or implied, as to the accuracy, completeness or updated status of such information.

Some of the statements in this presentation may be forward-looking statements or statements of future expectations based on currently available information. Such statements naturally are subject to risks and uncertainties. Factors such as the development of general economic conditions, future market conditions, unusual catastrophic loss events, changes in the capital markets and other circumstances may cause the actual events or results to be materially different from those anticipated by such statements.

This presentation serves information purposes only and does not constitute or form part of an offer or solicitation to acquire, subscribe to or dispose of, any of the securities of Hannover Re.

© Hannover Rück SE. All rights reserved. Hannover Re is the registered service mark of Hannover Rück SE.

