



somewhat
different

Current issues on P&C and L&H reinsurance

Ulrich Wallin, Chief Executive Officer

Insurance market losses still very uncertain

Event	Date	Region	Insured market loss estimates (MLE) in bn. USD			
			AIR	RMS	Karen Clark	Core Logic
Hurricane "Harvey"	25. - 28. Aug	USA	>10	22 - 40	15.4	7.5 - 11.5
Hurricane "Irma"	6. - 12. Sep	USA	25 - 35	25 - 35	18	22.5 - 35
		Caribbean	7 - 15	10 - 20	7	-
Hurricane "Maria"	19. - 22. Sep	Puerto Rico Caribbean	40 - 85	15 - 30	30	-
Earthquake Mexico 8.1	07. Sep	Mexico, Chiapas	0.8 - 1.1	-	-	-
Earthquake Mexico 7.1	19. Sep	Mexico, Puebla	0.7 - 2	< 1.2	-	-

Total

49 - 183

2017 cat losses potentially exceed the large loss budget

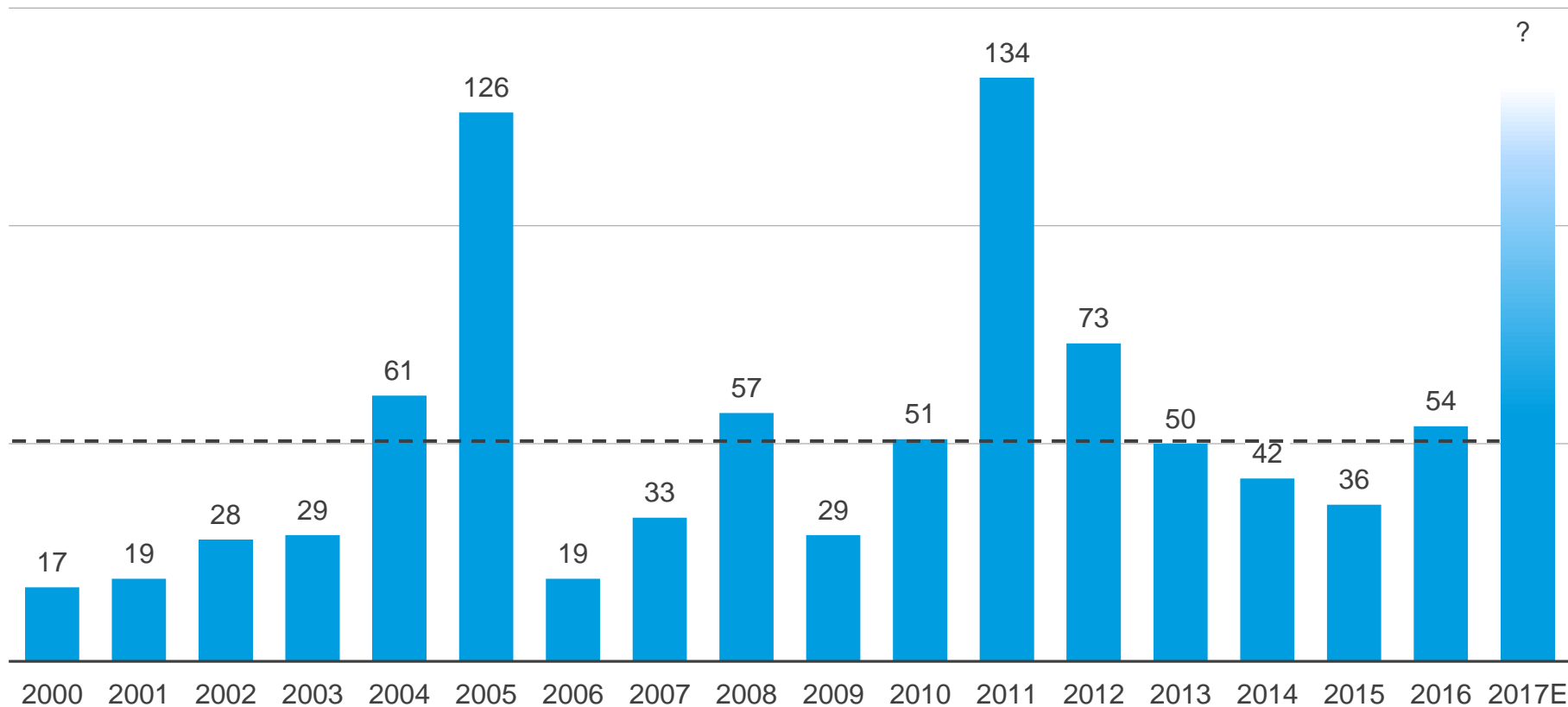
- ▶ Still too early to provide concrete numbers regarding Hannover Re's involvement – however we will advise booked number with Q3 conference call
- ▶ Comprehensive retrocession covers will limit the impact of the losses
- ▶ Based on current assessment of the losses substantial cover continues to be available post the losses
- ▶ Hannover Re currently expects the losses to be an earnings rather than a capital event

2017 losses may reach levels similar to 2005 and 2011

Well above long-term average

Global insured losses: all natural disasters

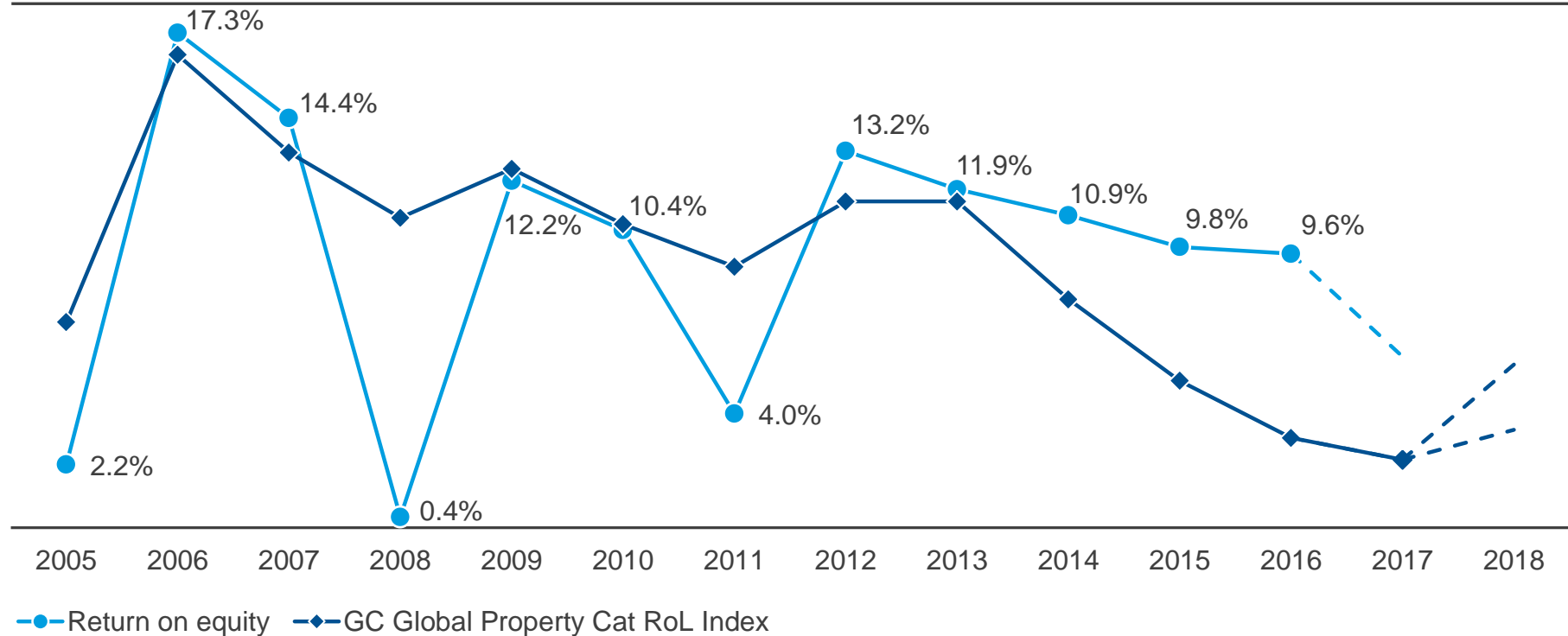
in bn. USD



Source: AonBenfield 2016 Annual Global Climate and Catastrophe Report; 2017: own estimates

Will reinsurance market conditions improve?

Comparison of RoE and RoL

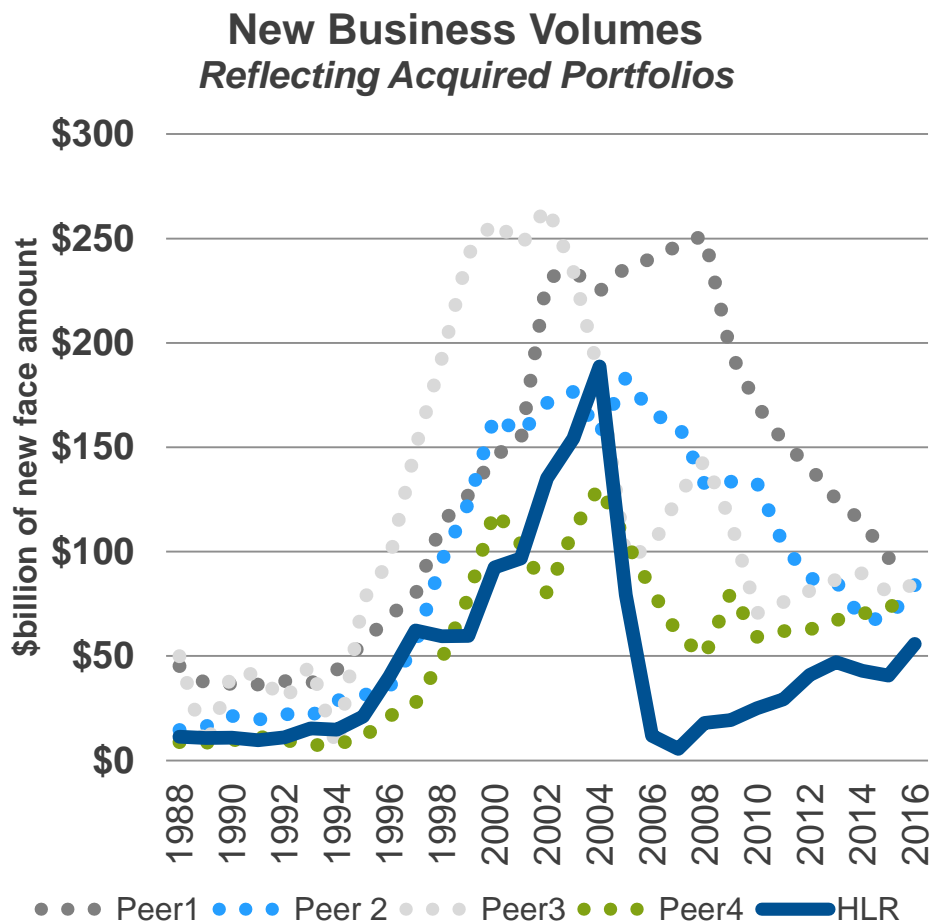


Source: Guy Carpenter
 Return on equity based on company data (Top 10 of the Global Reinsurance Index (GloRe) with more than 50% reinsurance business 2005 - 2016), own calculation

Change in U/W sentiment should lead to improved conditions

US mortality results challenged by pre-2005 issue years

- ▶ As disclosed in 2nd quarter, US mortality results are challenged by issue years prior to 2005
- ▶ Much of Hannover Re's exposure to this era comes through the former ING Re portfolio acquired in 2009
- ▶ New business written since 2009 has grown robustly and profitably
- ▶ Overall US mortality portfolio is overweight on business from the mid-1990s to the mid-2000s



Source: SOA/Munich Re Surveys

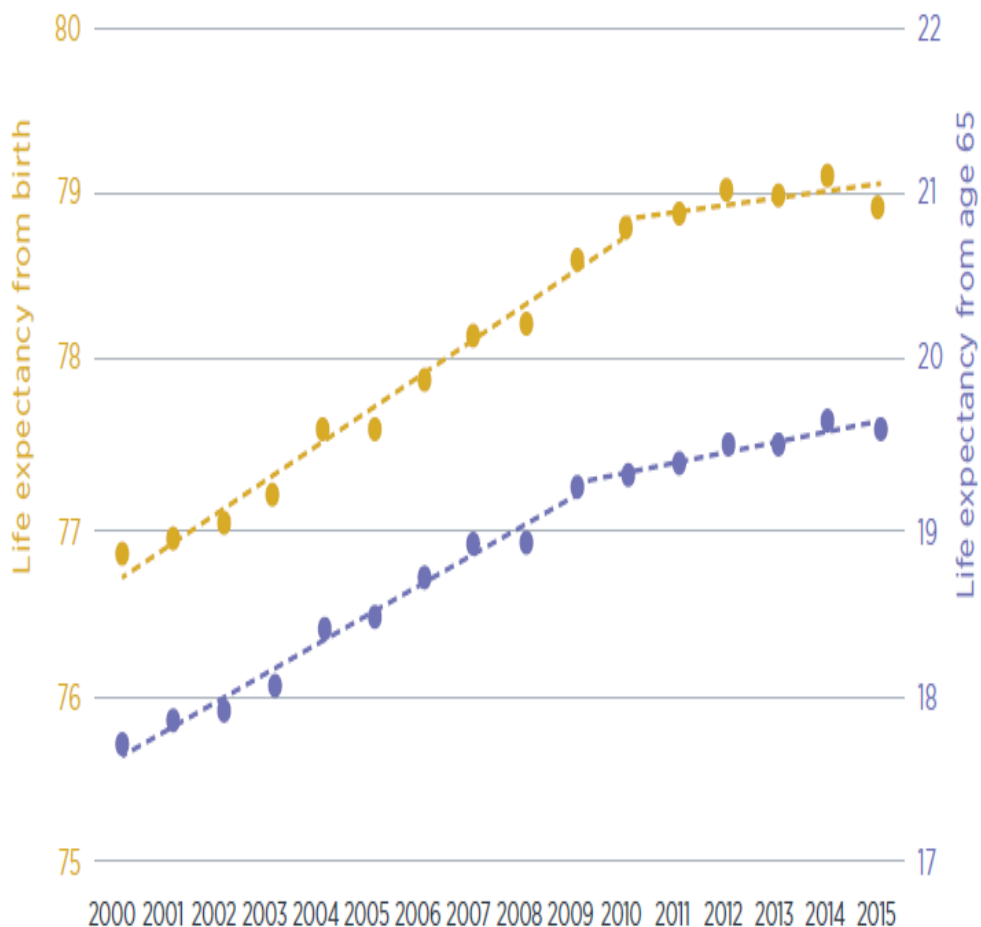
Initiatives to improve results

- ▶ Prior to 2016, total results were moderately impacted by lagging pre-2005 issues
 - Driven by post-level term dynamics and lagging performance on older YRT business
 - Pockets of poorly performing of YRT business addressed through inforce management
- ▶ IFRS accounting based upon US GAAP FAS60 “lock-in principle”
 - Reserves based upon original Purchase GAAP assumptions
- ▶ Since 2015 underperformance of older YRT business on permanent plans of insurance has accelerated significantly
- ▶ In late 2016, a coordinated initiative to improve results was launched
 - Two-year scope (2017 – 2018)
 - Phase 1 focused on improved models, analytics, and refined assumptions
 - Phase 2 focused on mitigating actions and inforce management

Pre-2005 issue years suffer from several challenges

Considerations in past eras	Purchase assumptions “locked-in”	Aggravated by multiple forces	Recent trends add to challenges
<ul style="list-style-type: none"> ▶ Poor underwriting integrity in late 1990s to mid-2000s when exceptions and table shaving were common ▶ Older business has been through decades of anti-selective lapse and market forces including the significant reduction in prices related to fluid testing and preferred underwriting 	<ul style="list-style-type: none"> ▶ ING acquisition assumptions contemplated issues to some degree but not sufficiently for issues in remaining business ▶ Cost of underwriting slippage and degree of anti-selective lapsation has exceeded expectations ▶ IFRS reserves continue to reflect locked in Purchase GAAP assumptions 	<ul style="list-style-type: none"> ▶ Low interest rates have reduced interest crediting on permanent policies and increased proportion of mortality reinsured ▶ Activity in secondary market (more active in this era) increases anti-selective persistency ▶ Inforce actions of ceding companies in some cases add to challenges 	<ul style="list-style-type: none"> ▶ Post level term dynamics of premium increases, persistency, and resulting mortality proving adverse to original assumptions ▶ Recent mortality trend developments include effects from reduced or stalled mortality improvements for business in this era now further from original underwriting

Recent mortality trends suggest lag in improvements



Source: Joint Longevity Bulletin -IFA/SOA/CIA- July 2017

- ▶ US mortality improvements stalling in population since 2010 following decades of steady improvements
- ▶ The trends in mortality improvements are multifaceted
 - Rate of improvement is historically volatile across time periods
 - Jump in suicide rate since 2008 as well as drug-related deaths from growing epidemic of opiate overdose are among the contributing factors in the near term
- ▶ Long-term outlook remains positive
- ▶ Acquired ING portfolio correlates more closely with population trends than more recent business due to mix and duration from underwriting

Focus through 2018 on inforce management

Will contribute noise to 2018 results with improvements thereafter

- ▶ Majority of issues exist on YRT of permanent business
 - Primarily pre-2005 issue years
- ▶ Adding resources to inforce management to substantially address issues
- ▶ Will work with clients to take appropriate actions per treaty terms
- ▶ Plan will take through 2018 to execute
- ▶ Actions and resolution likely to create volatility in quarterly IFRS results
- ▶ Improved earnings profile in 2019 and beyond for US mortality and overall L&H

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.