

*somewhat  
different*



# Hannover Re: the somewhat different reinsurer

March 2020

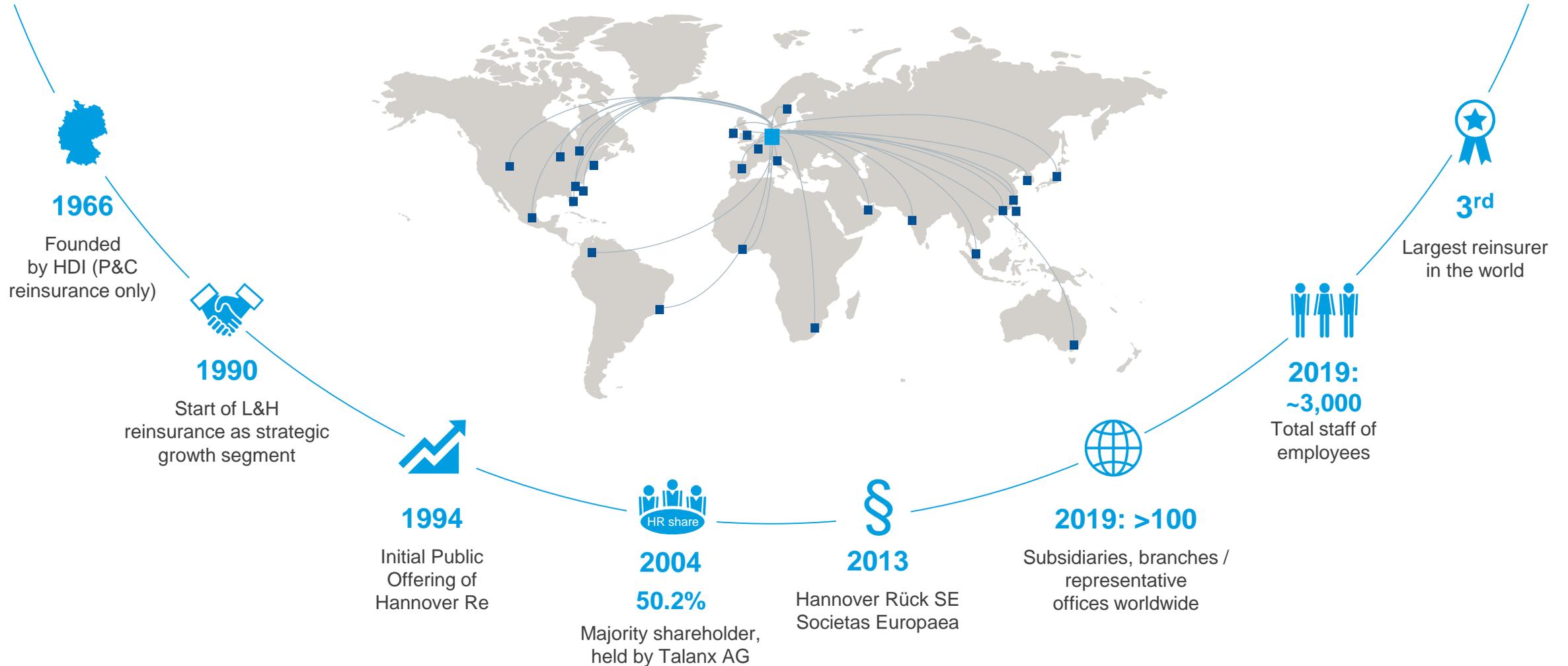
*hannover re*<sup>®</sup>

# Agenda

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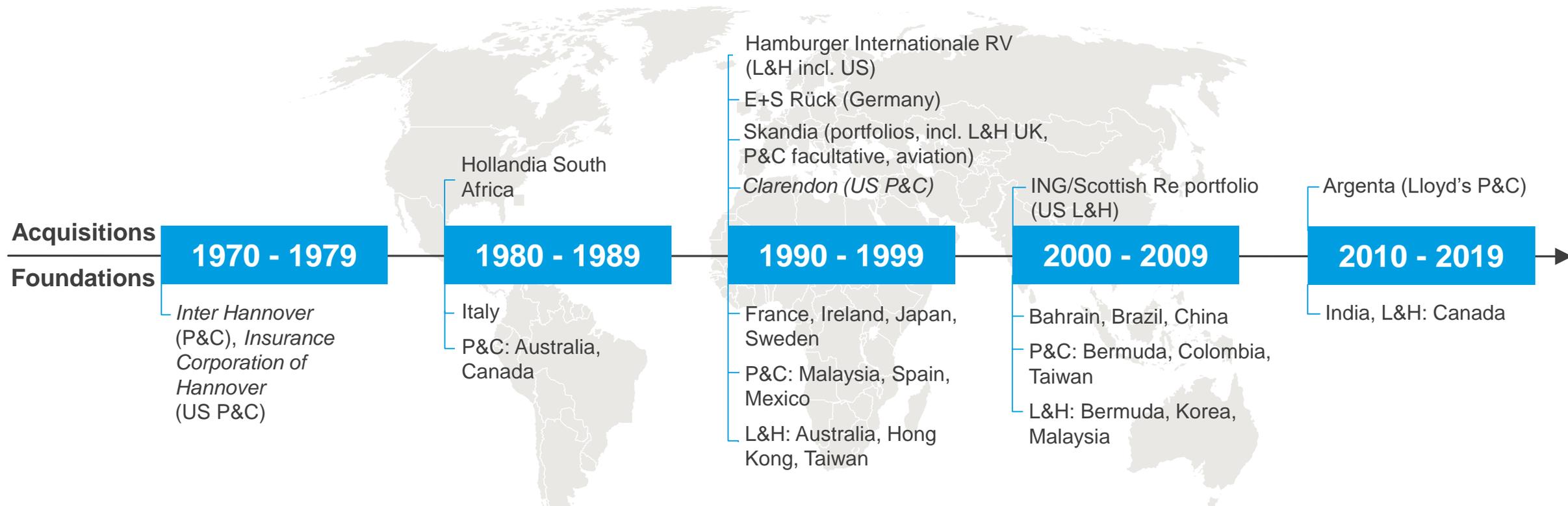
<b>1</b>	Hannover Re Group	<b>2</b>
<b>2</b>	Property & Casualty reinsurance	30
<b>3</b>	Life & Health reinsurance	42
<b>4</b>	Investment management	56
<b>5</b>	Capital management	63
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# Key facts about Hannover Re



# Growth and international expansion mainly organically driven

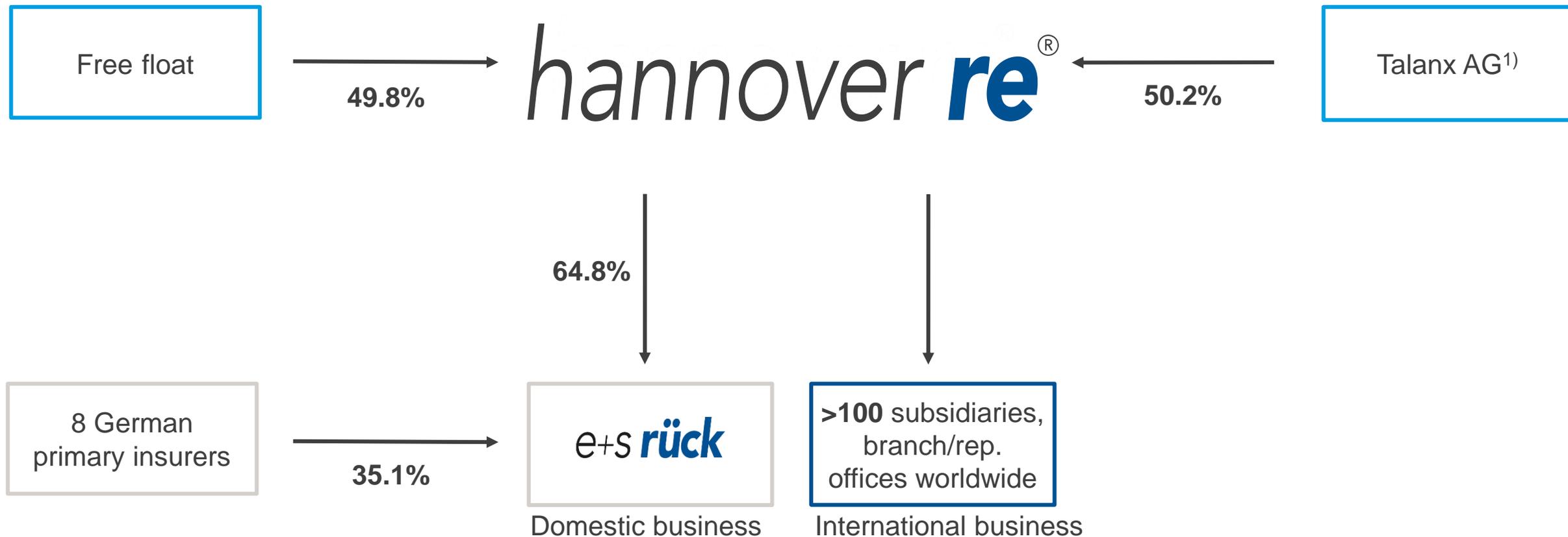
## M&A activity not accompanied by high integration cost and complexity



**Limited appetite for larger M&A results in lean and efficient structures**

Overview of main / material transactions (and main parts of acquisitions) without e.g. minority shareholdings  
 P&C and L&H if not otherwise stated  
*italic* = (at least in part) sold

## Group structure supports our business model



1) Majority shareholder HDI V.a.G.

# Executive Board of Hannover Rück SE



**Chief Executive Officer**

## Jean-Jacques Henchoz

Compliance, Controlling, Innovation Management, Human Resources Management, Internal Auditing, Risk Management, Corporate Development, Corporate Communications



**Chief Financial Officer**

## Roland Vogel

Finance and Accounting, Information Technology, Investment and Collateral Management, Facility Management



**Property & Casualty R/I**

## Dr. Michael Pickel

Germany, Switzerland, Austria, Italy, Latin America, Iberian Peninsula and Agricultural Risks, North America, Group Legal Services, Run-Off-Solutions



**Property & Casualty R/I**

## Sven Althoff

Asia, Australia and Middle East, Aviation and Marine, Credit, Surety and Political Risks, UK, Ireland and London Market, Facultative R/I and Direct Business,



**Property & Casualty R/I**

## Silke Sehm

Continental Europe and Africa, Catastrophe XL (Cat XL), Structured R/I and ILS, Retrocessions



**Life & Health R/I**

## Claude Chèvre

Africa, Asia, Australia/New Zealand, Latin America, Western and Southern Europe, Longevity Solutions



**Life & Health R/I**

## Dr. Klaus Miller

North America, United Kingdom/Ireland, Northern, Eastern and Central Europe

# We are among the top reinsurers in the world

## Premium ranking 2018 in m. USD

Rank	Group	Country	GWP	NPW
1	Swiss Re	CH	36,406	34,042
2	Munich Re	DE	35,814	34,515
3	<b>Hannover Re<sup>1)</sup></b>	<b>DE</b>	<b>21,952</b>	<b>19,791</b>
4	SCOR	FR	17,466	15,773
5	Berkshire Hathaway Inc.	US	15,376	15,376
6	Lloyd's <sup>2)</sup>	UK	14,064	9,926
7	China Re	CN	11,564	10,681
8	RGA	US	11,341	10,544
9	Great West Lifeco	CA	7,737	7,647
10	Korean Re	KR	6,803	4,786
11	General Insurance Corporation of India <sup>3)</sup>	IN	6,582	5,684
12	PartnerRe	BM	6,300	5,803
13	Everest Re	BM	6,225	5,706
14	XL Group	BM	5,219	4,135
15	Transatlantic Holdings	US	4,451	3,969

For further information please see A. M. Best "Market Segment Report" (September 2019)

1) Net premium written data not reported; net premium earned substituted

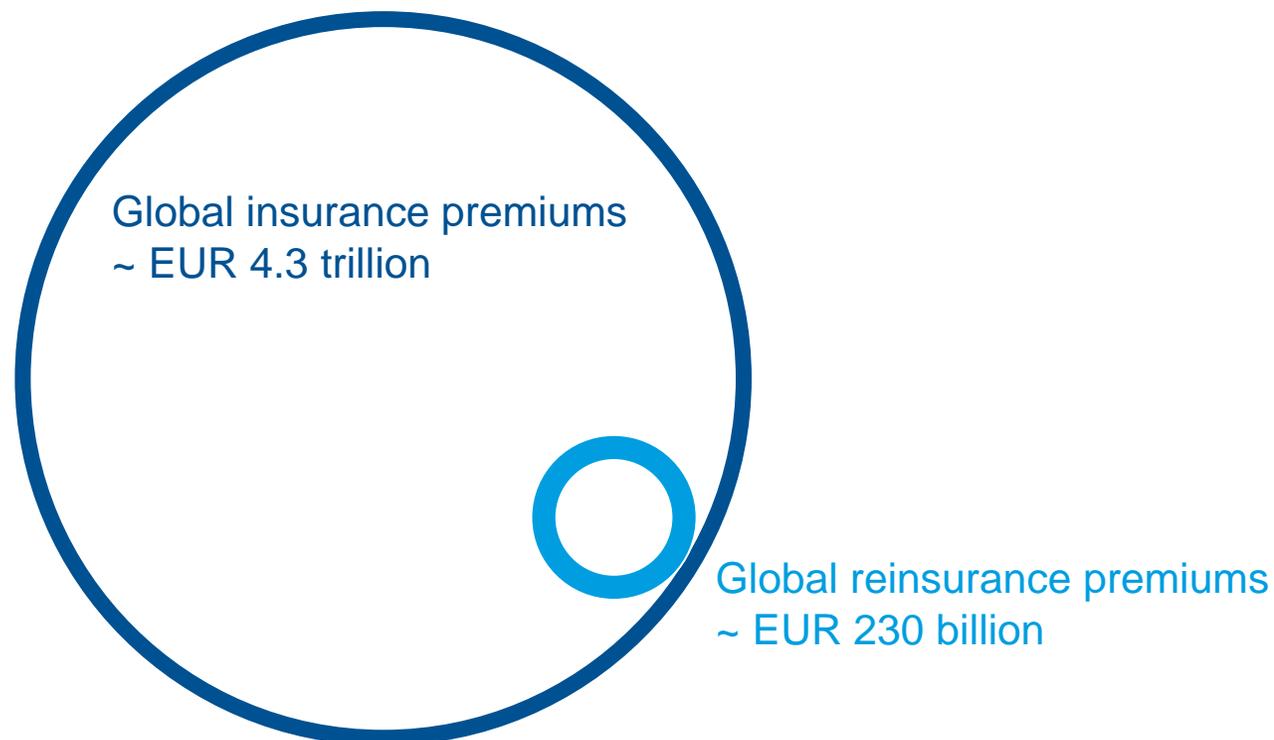
2) Reinsurance only

3) Fiscal year-end March 31, 2019

# Reinsurance has the character of a specialty market

With a share of 5% of the overall insurance market

## Market size primary insurance vs. reinsurance

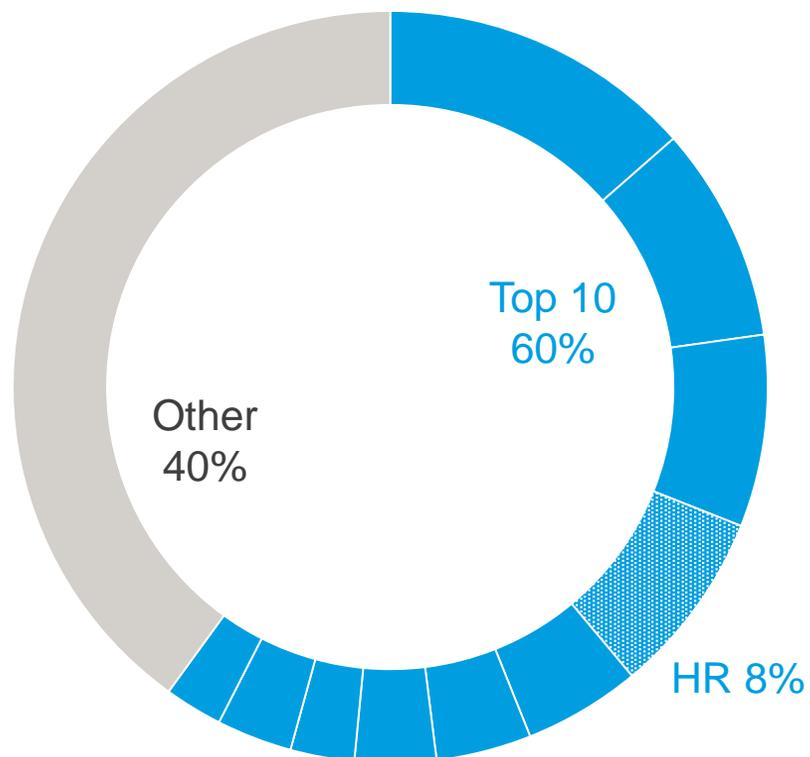


Source: own research (global market size based on estimate of total ceded premiums by primary insurers) as at May 2019

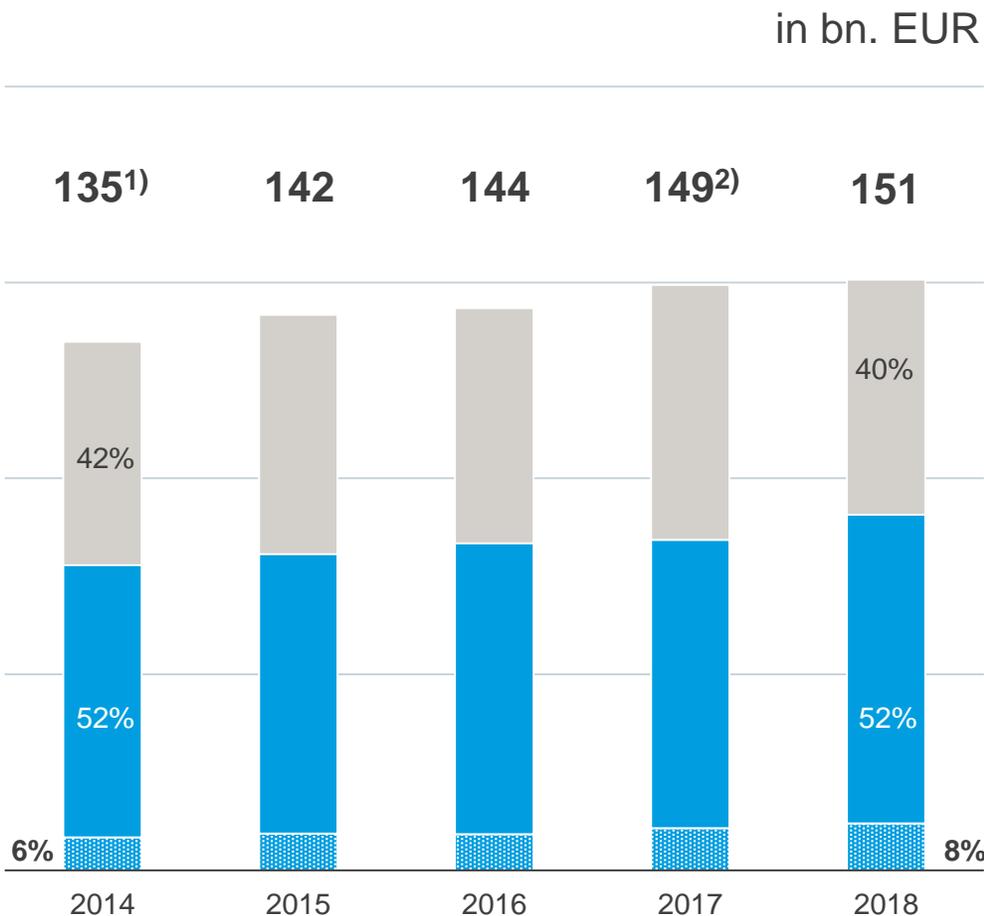
# Growing Property and Casualty reinsurance market

## Hannover Re outperforms the market

### Market size and concentration 2018



Source: own research as at May 2019  
 Top 10 in 2018: Munich Re, Swiss Re, Lloyd's, Hannover Re, Berkshire Hathaway, SCOR, Everest Re, GIC India, XL Group, Alleghany  
 Top 10 ranking for each year  
 1) F/x adjusted (2015 rates)  
 2) Berkshire Hathaway excl. AIG deal



### 4-year CAGR

Category	4-year CAGR
Market	+2.9%
Other	+1.6%
Top 10	+3.8%
HR	+9.4%

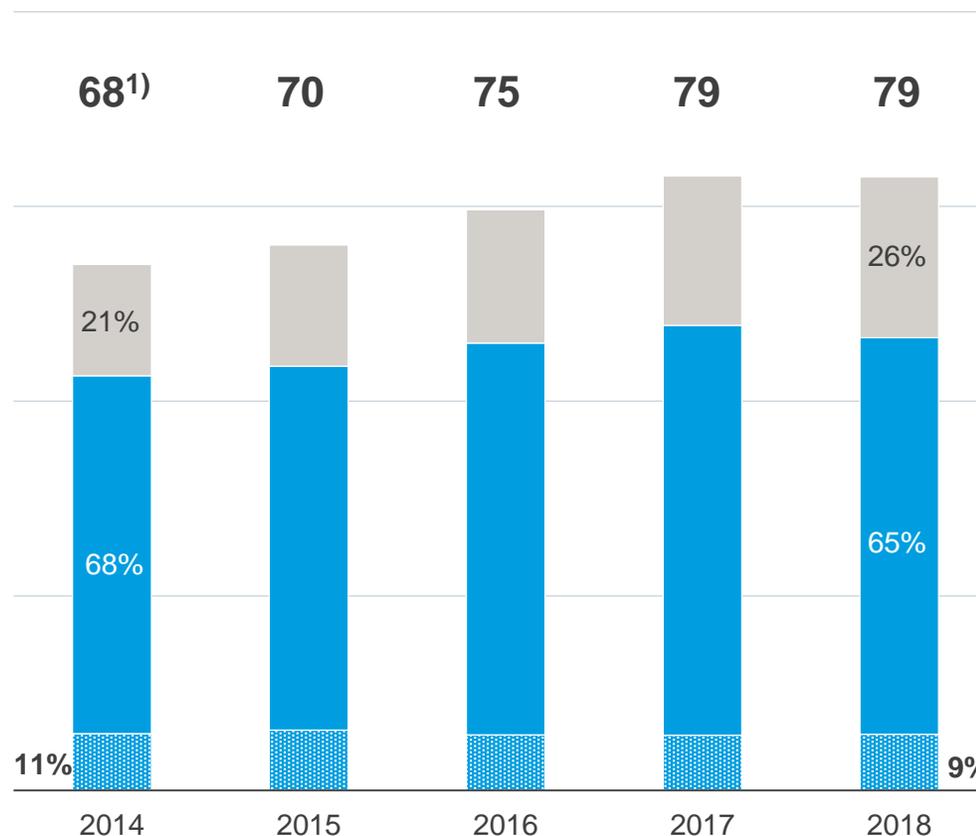
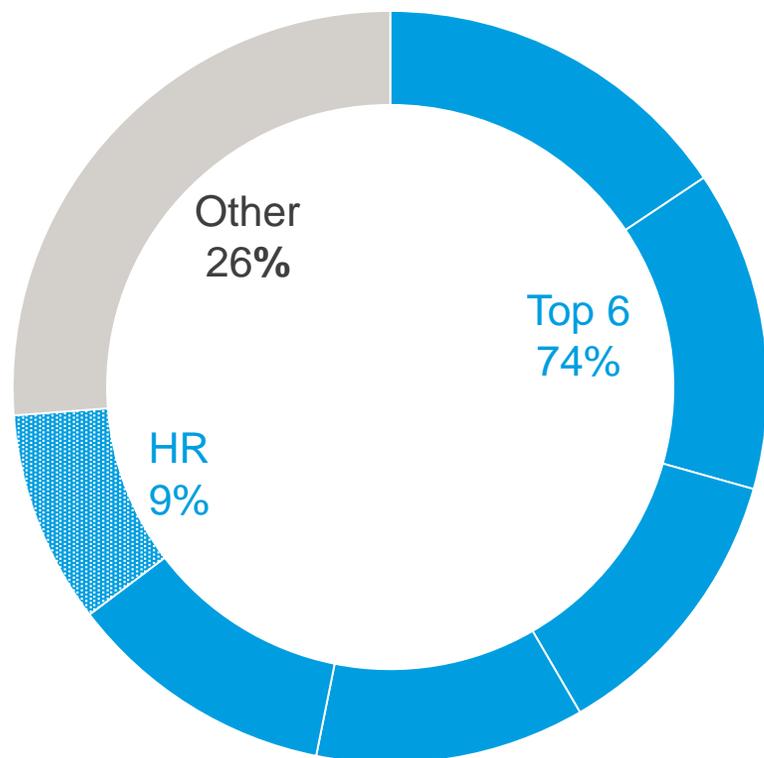
# Life and Health reinsurance in a global perspective

## Concentrated market due to high entry barriers

### Market size and concentration 2018

in bn. EUR

4-year CAGR



Category	4-year CAGR
Market	+3.9%
Other	+9.6%
Top 6	+2.2%
HR	-0.4%

Source: own research as at May 2019

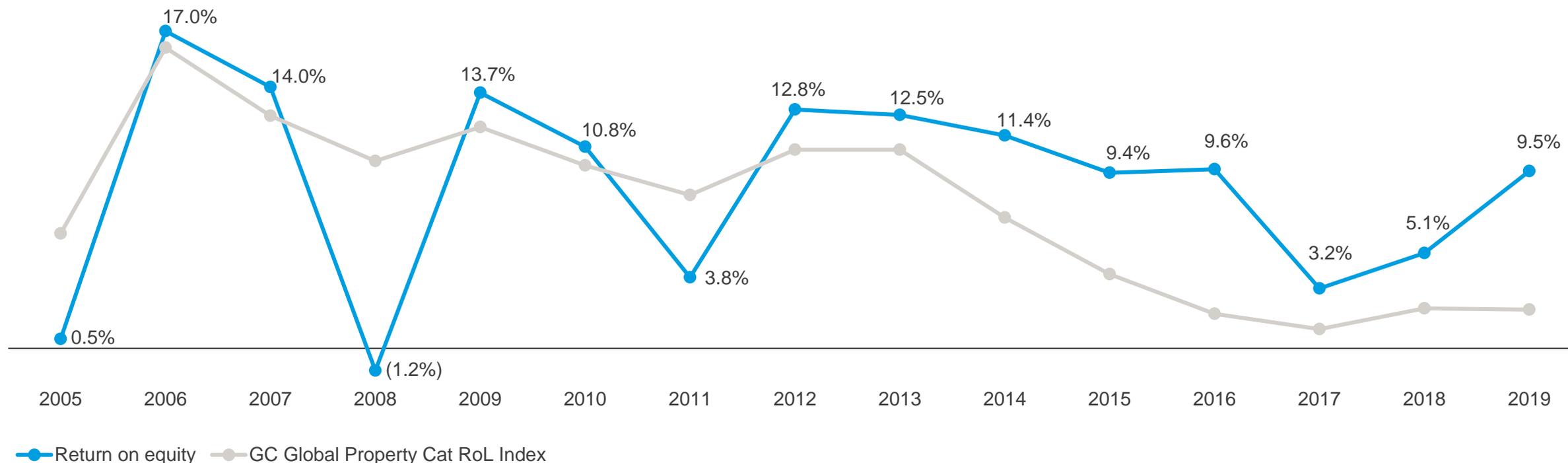
Top 6 in 2018: Swiss Re, Munich Re, RGA, SCOR, Great-West Lifeco, Hannover Re

Top 6 ranking for each year

1) F/x adjusted (2015 rates)

# Reinsurance market conditions will improve... ...when the RoE becomes sufficiently low

Development of return on equity and Guy Carpenter Global Property Cat RoL index



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 - 2018), own calculation

# Reinsurance is and will be an attractive product

## Drivers for reinsurance demand

### Drivers



#### Global trends

- Value concentration
- Protection gap
- Demographic change

#### New products/markets

- Emerging markets
- Digitalisation/Cyber
- Emerging risks

#### Capital requirement

- Regulatory changes
- Risk-based capital models
- Ratings, local GAAP, IFRS

#### Volatile earnings

- Expectations of shareholders, regulators and rating agencies

### Impact on insurance



- Increasing demand for insurance of non-diversifying risks
- New risks lead to higher volatility and need for additional know-how
- High cost of capital/ need for capital management

### Value proposition R/I



- Strong capital base
- Diversification
- Expertise in risk management
- Support and expertise in product development and pricing
- Optimising capital requirements
- Reducing cost of capital
- Managing earnings volatility
- Support in distributing products in new markets

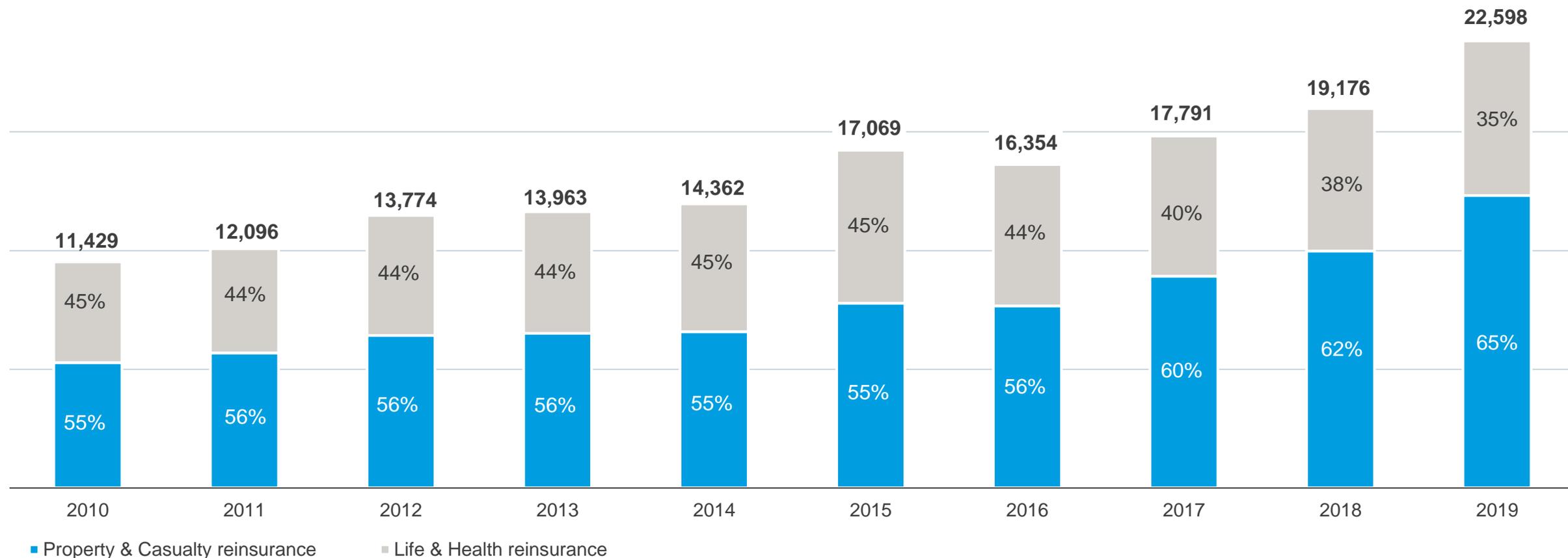
Demand for reinsurance

# Favourable premium growth accelerates in last 3 years

## 10-year CAGR: +8.2%

Gross written premium

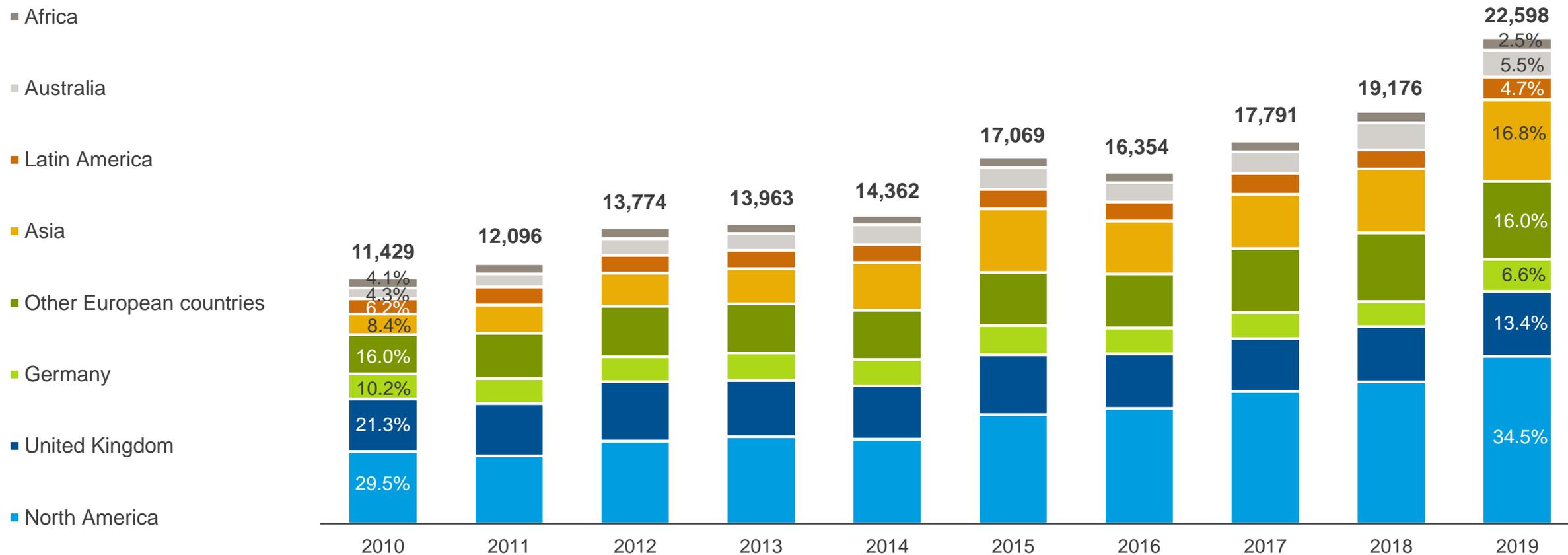
in m. EUR



# Well balanced international portfolio growth

## Gross written premium

in m. EUR

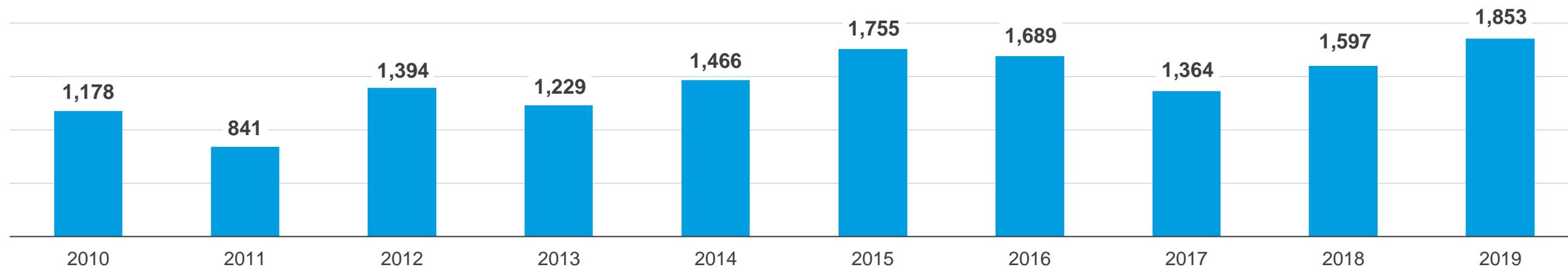


# Strong earnings track record

## 2019: Record result in a challenging environment

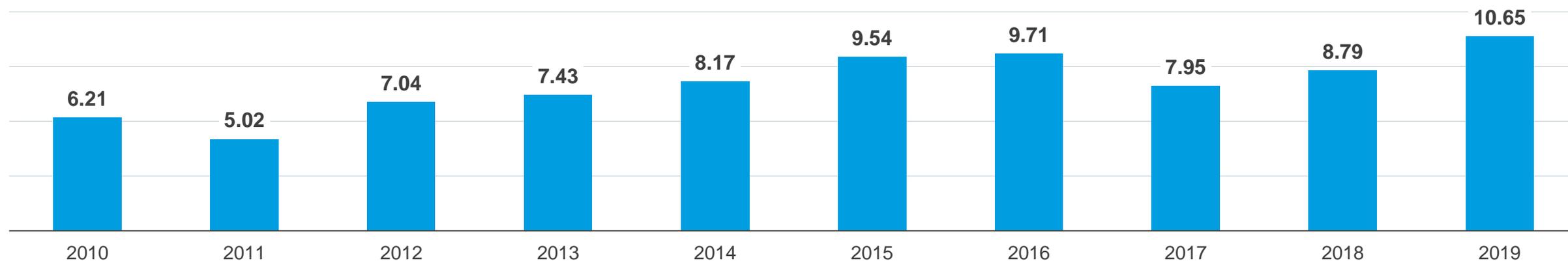
### Operating profit (EBIT)

in m. EUR



### Earnings per share (EPS)

in EUR

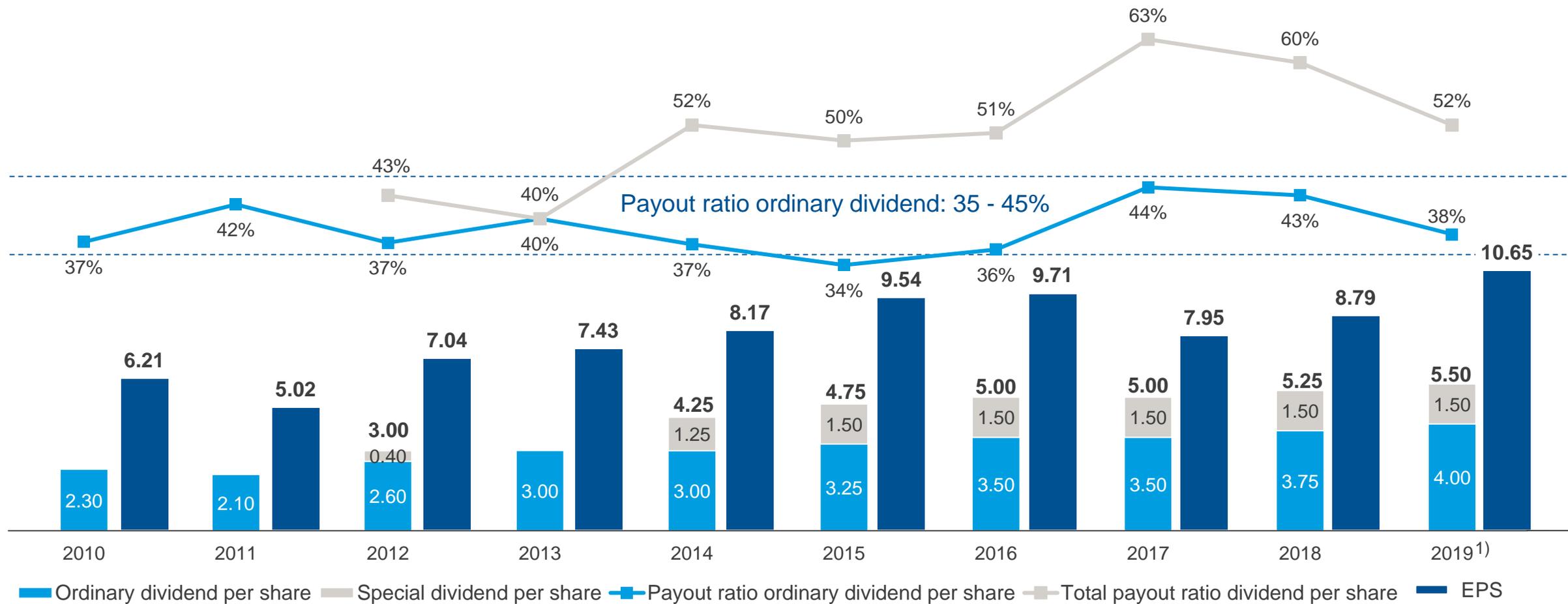


# Increased dividend reflects strong earnings power

## Higher retention of profits enables us to fund future growth

### Dividend per share

in EUR



1) Dividend proposal; subject to consent of AGM

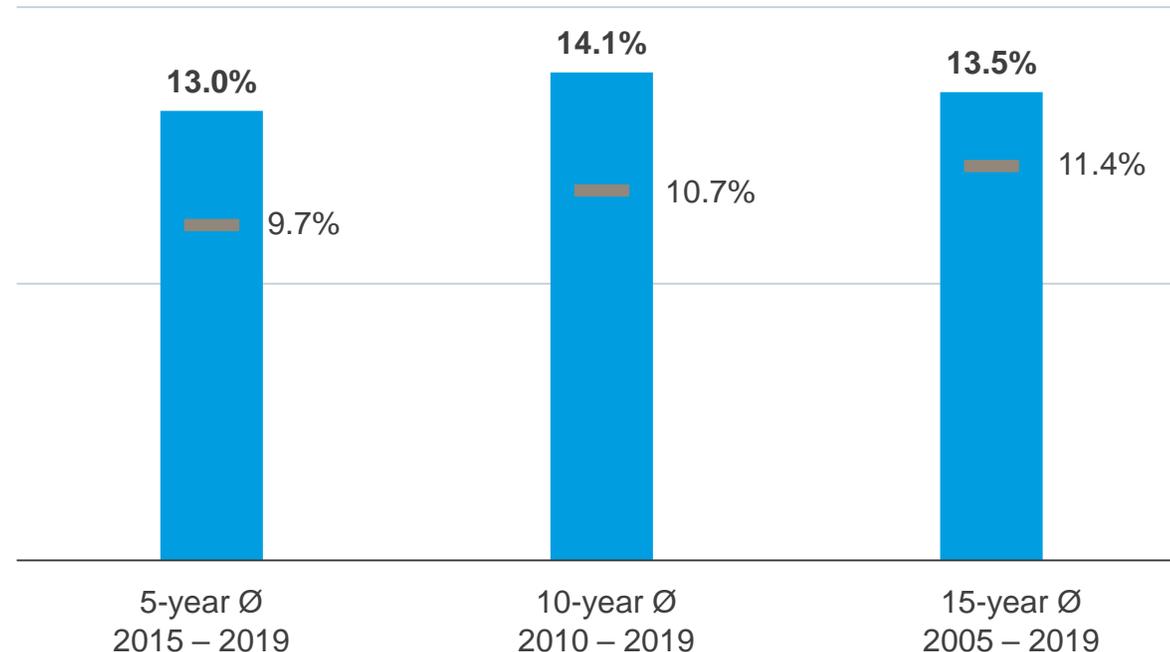
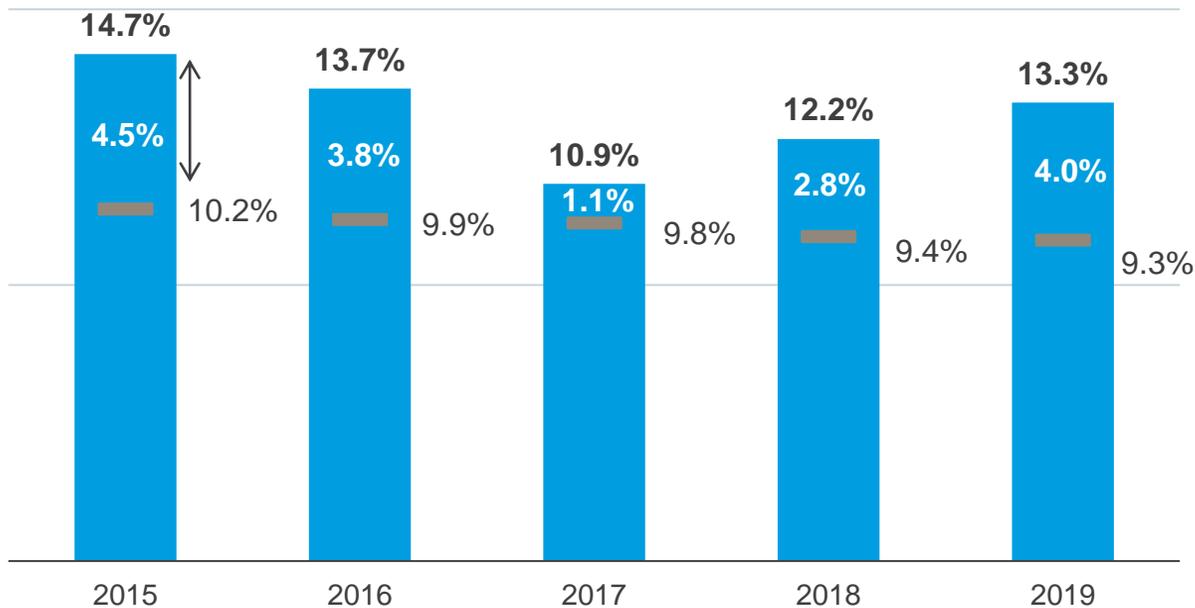
# Return on Equity significantly exceeds target

## 2019 is the 11<sup>th</sup> consecutive year with double-digit RoE

Return on Equity: yearly



Return on Equity: average



■ Actual    
 — Minimum target<sup>1)</sup>    
■ Average shareholders' equity    
↕ Spread over minimum target

1) After tax; target: 900 bps above 5-year rolling average of 10-year German government bond rate ("risk free")

# Hannover Re is one of the most profitable reinsurers

## No. 1 position in 2019 and on 5-year average RoE

Company	2015		2016		2017		2018		2019		2015 - 2019	
	RoE	Rank	RoE	Rank	RoE	Rank	RoE	Rank	RoE	Rank	avg. RoE	Rank
<b>Hannover Re</b>	<b>14.7%</b>	<b>1</b>	<b>13.7%</b>	<b>1</b>	<b>10.9%</b>	<b>2</b>	<b>12.2%</b>	<b>1</b>	<b>13.3%</b>	<b>1</b>	<b>13.0%</b>	<b>1</b>
Peer 3, US, Life & Health	7.6%	9	10.6%	4	21.9%	1	7.9%	3	8.7%	6	11.3%	2
Peer 6, Bermuda, Property & Casualty	13.0%	3	12.7%	2	5.7%	5	1.3%	9	11.9%	3	8.9%	3
Peer 9, China, Composite	12.2%	4	7.2%	9	7.2%	3	4.9%	5	not yet reported	-	7.9%	4
Peer 1, Germany, Composite	10.2%	6	8.3%	7	1.3%	7	8.5%	2	9.6%	5	7.6%	5
Peer 7, France, Composite	10.7%	5	9.3%	6	4.4%	6	5.4%	4	6.9%	7	7.3%	6
Peer 10, Korea, Composite	9.7%	7	7.8%	8	6.2%	4	4.7%	6	not yet reported	-	7.1%	7
Peer 8, Bermuda, Property & Casualty	9.5%	8	10.0%	5	-5.3%	10	4.2%	7	12.9%	2	6.3%	8
Peer 2, Switzerland, Composite	13.7%	2	10.6%	3	1.0%	9	1.4%	8	2.5%	8	5.8%	9
Peer 4, US, Property & Casualty	7.5%	10	5.9%	10	1.1%	8	0.5%	10	10.4%	4	5.1%	10
<b>Average</b>	<b>10.9%</b>		<b>9.6%</b>		<b>5.4%</b>		<b>5.1%</b>		<b>9.5%</b>		<b>8.0%</b>	

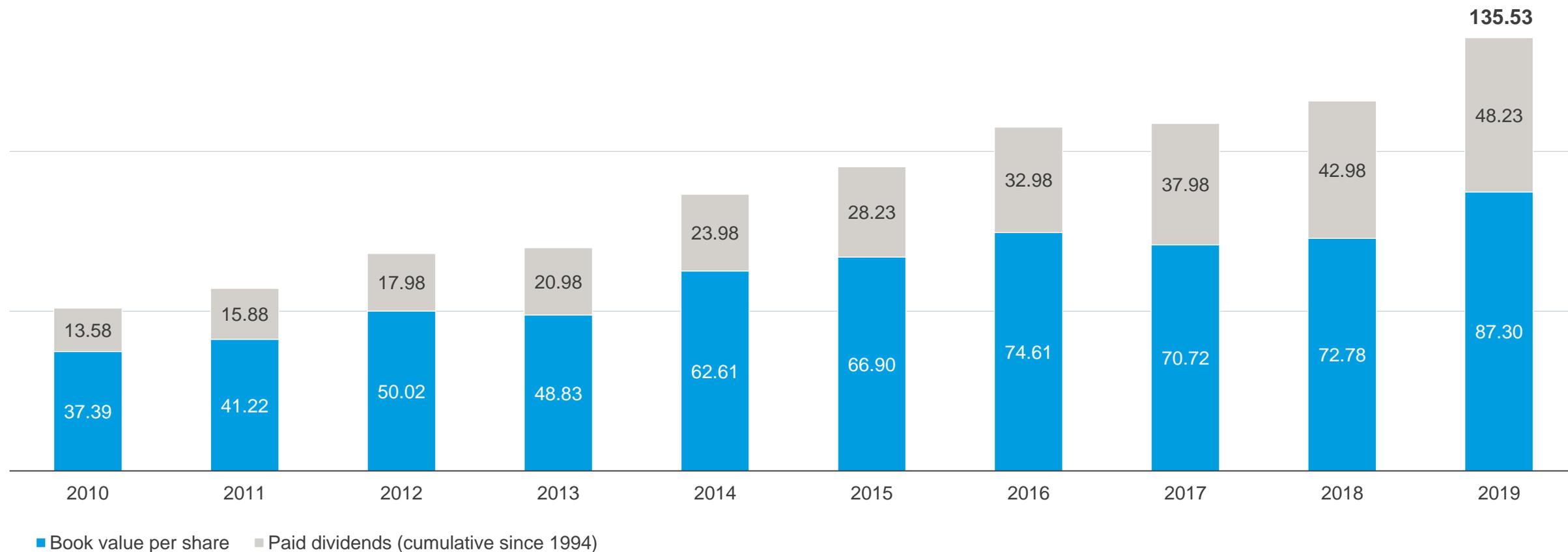
List shows the Top 10 of the Global Reinsurance Index (GloRe)  
Data based on company data, own calculation

# Continuous increase of value creation

## 10-year CAGR: +12.4%

### Book value and accumulated paid dividends

in EUR

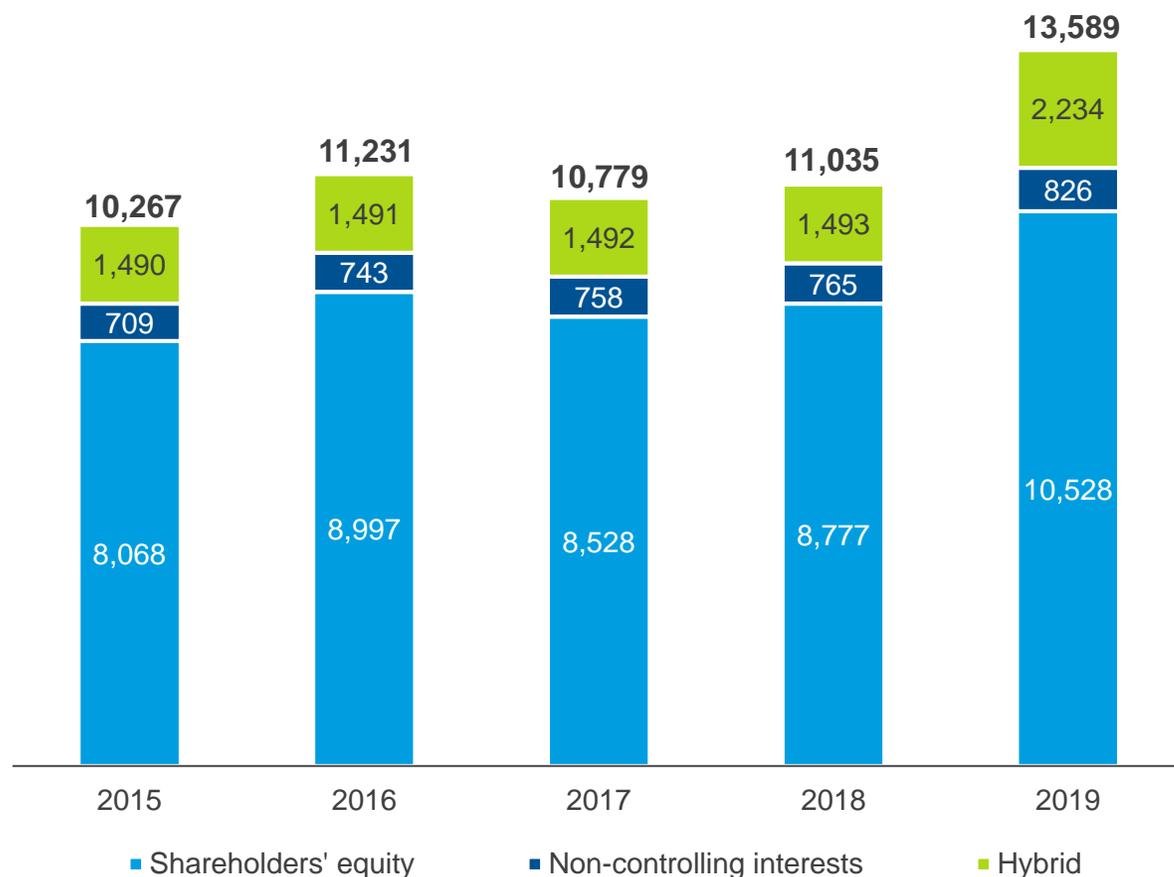


# Shareholders' equity up by 20.0%

## Driven by net income and asset valuation

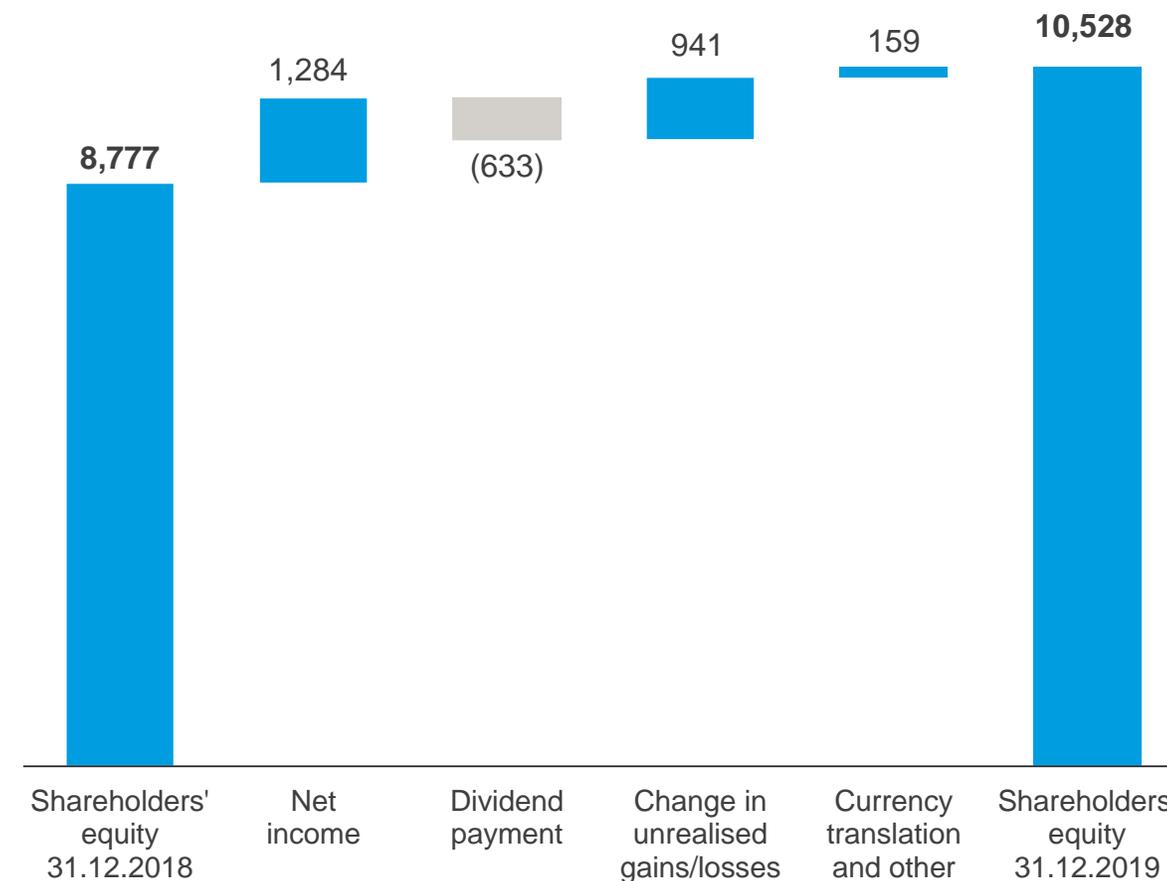
Policyholders' surplus

in m. EUR



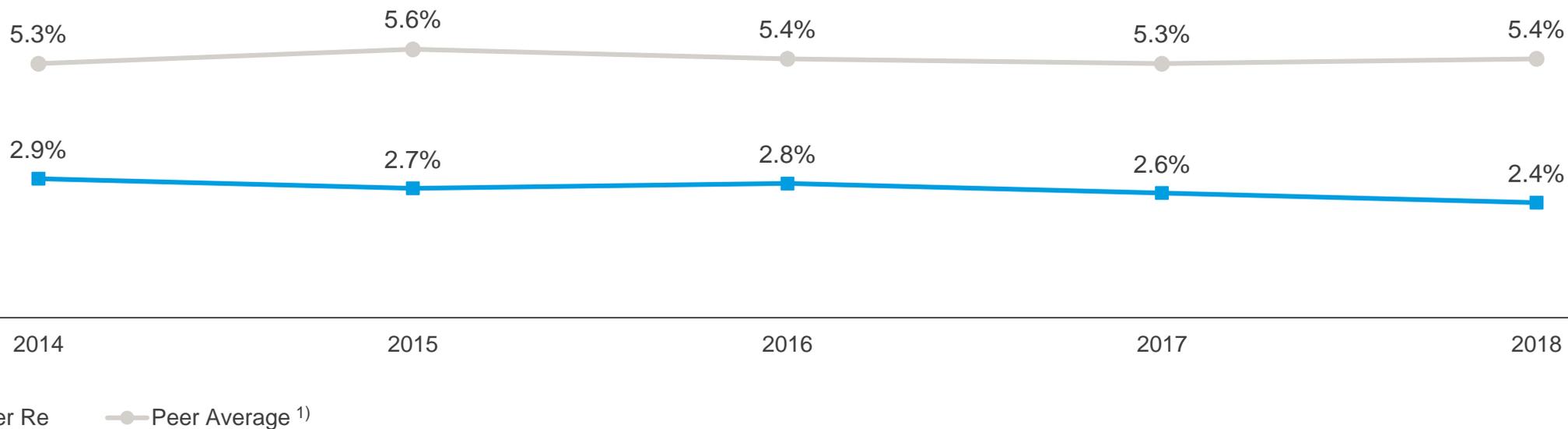
Change in shareholders' equity

in m. EUR



# Low expense ratio is an important competitive advantage

## Administrative expense ratio



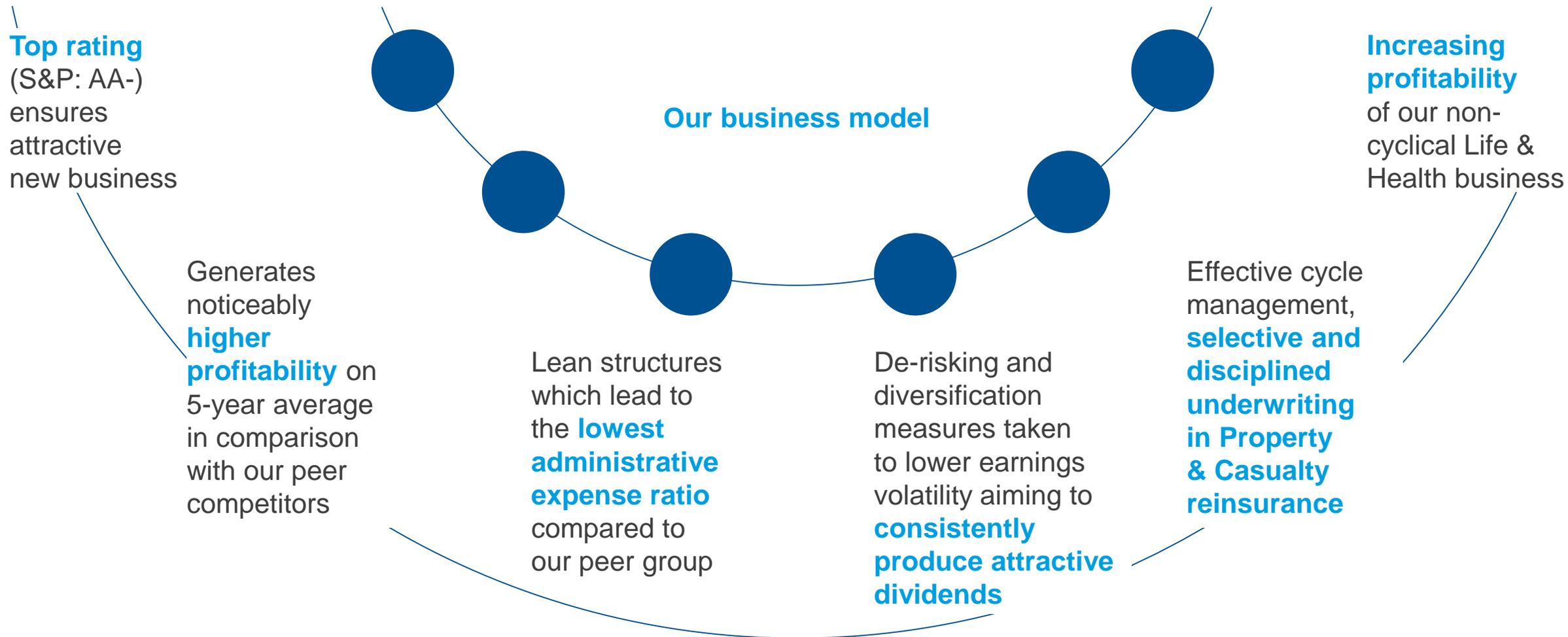
1) Peers: Munich Re, Swiss Re, Scor, Everest Re, RGA; own calculation

# Purpose & Values

The “why” and the “how” articulate our distinctive corporate culture

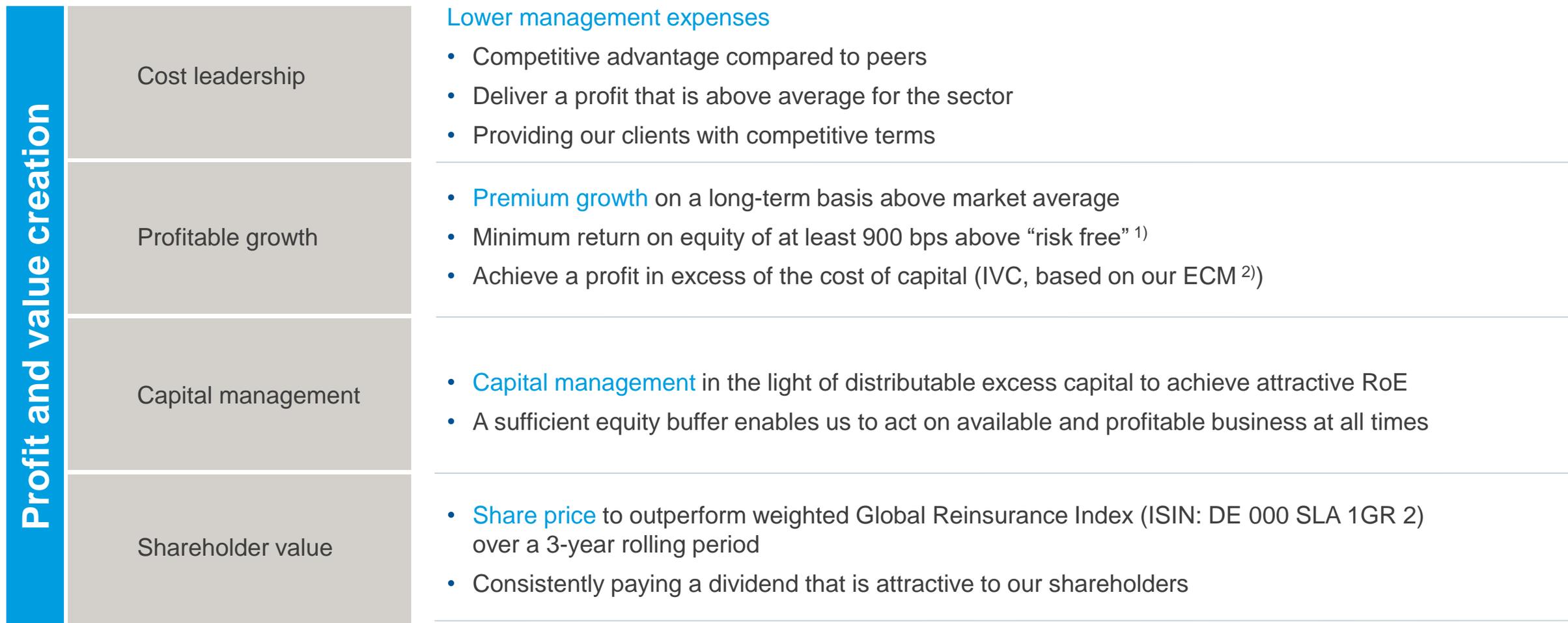


# Our somewhat different approach and strong market position makes us a superior and highly profitable reinsurer



# Our strategy: value creation through reinsurance

## Our overriding target: profit and value creation



1) After tax; target: 900 bps above 5-year average return of 10-year German government bonds

2) Economic Capital Model

# Sustainability at Hannover Re

## Strategic approach: We are committed to sustainability, integrity and compliance

- Commitment to a responsible and transparent corporate governance geared to lasting success
- Continuous refining of our efficiently functioning compliance management
- Maintaining an open and ongoing dialogue with our stakeholders

- Continuous refinement of our environmental management system
- Ongoing evaluation of suppliers according to environmental and social standards
- Engagement in environmental and social projects across all locations



- Development and expansion of sustainable insurance products
- Refinement of the sustainability approach within our asset management
- Intensifying the sharing of knowledge about emerging risks with our customers and business partners
- Promoting, preserving and restoring the physical and mental well-being of employees
- Promoting diversity and equal opportunities

# Sustainability at Hannover Re

## Broad range of activities to support our strategic goals



- **Sustainability Report** since 2011
- Non-financial statement since 2018
- Prime Rating of **ISS ESG** (former oekom research) and regular participation in **CDP rating**
- Member of the **FTSE4Good Index** and **MSCI**
- Participation in various initiatives
- Sustainability strategy: Implementation and regular revision since 2011



- **Carbon neutrality** achieved for the Hannover-based business in 2016
- Environmental management system: certified according to DIN EN ISO 14001 since 2012 and **EMAS Standard** since 2015
- Worldwide social engagement for decades

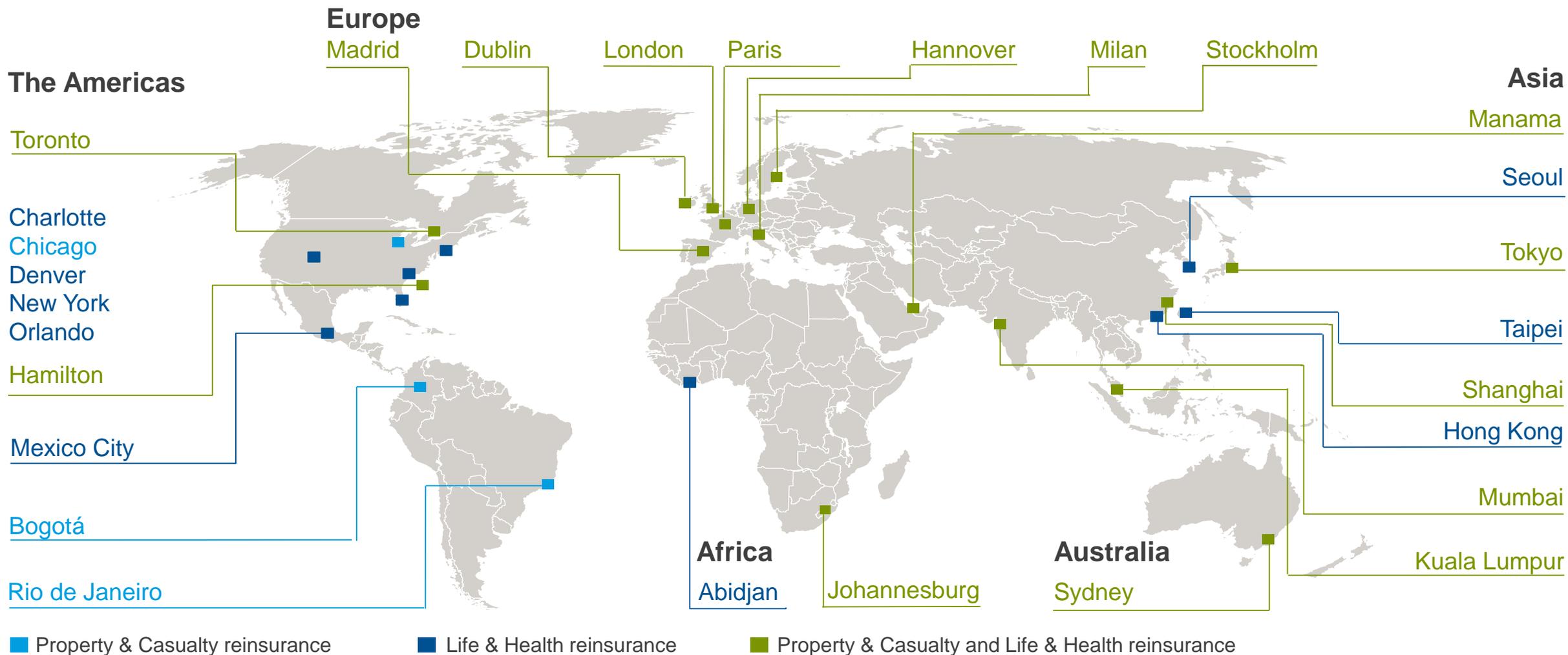


- Development of sustainable insurance solutions (i. e. microinsurance, energy savings warranties)
- Responsible investment policy since 2012; Best-in-Class approach implemented since 2016
- ~ 90% of assets under own management are screened according to **ESG criteria** according to **UN Global Compact**
- Member of different initiatives like **Geneva-Association** and **InsuResilience**



- Company daycare center for infants up to the age of 3
- Mentoring programme for women
- Implementation of an **Employee Assistance Programme (EAP)**
- Participation in the initiative "**Fair company**"

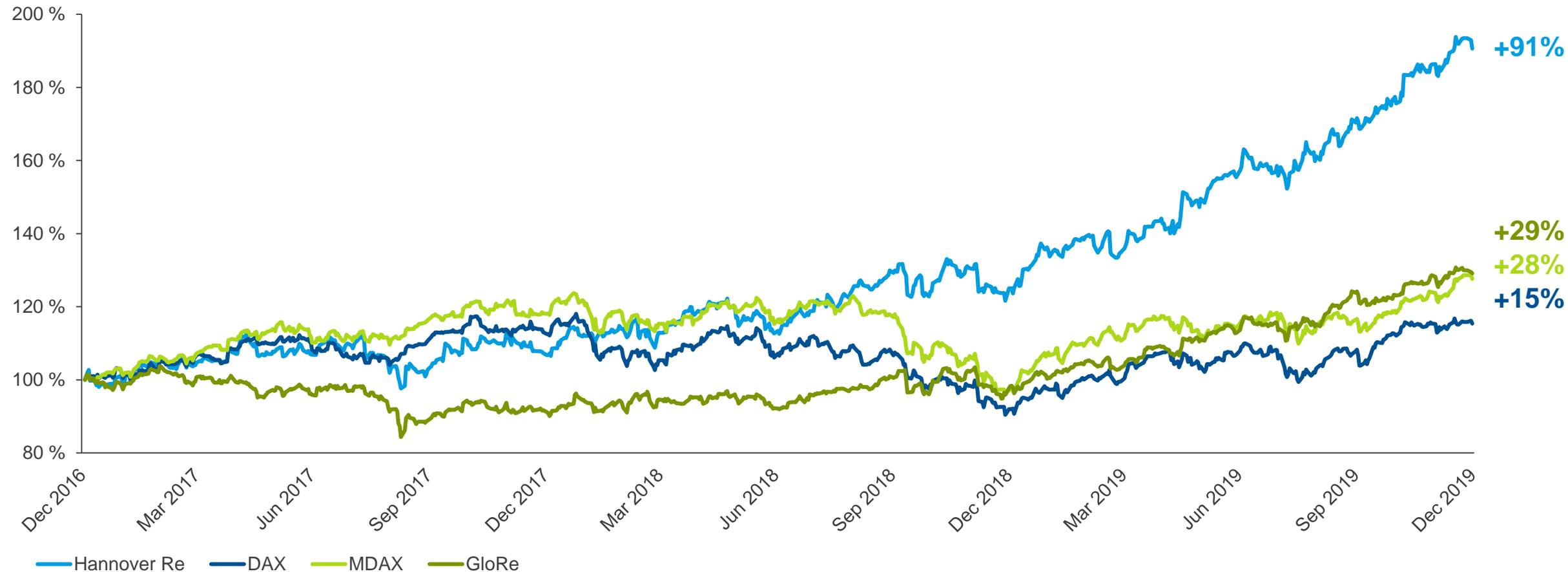
# Present on all continents



# HR share outperforms indices over a 3-year rolling period

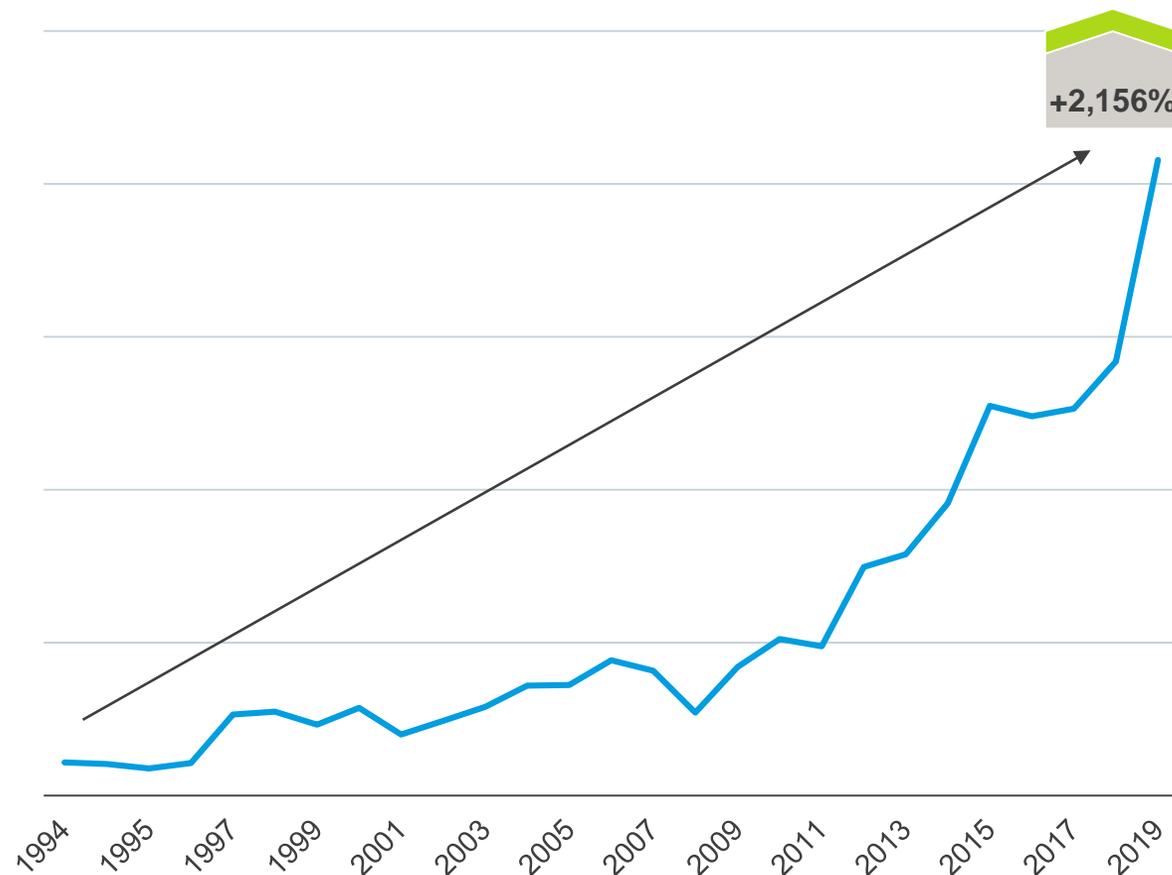
## Performance vs. indices

Performance comparison (incl. reinvested dividends)



# Yearly Total Shareholder Return (TSR) of 13.3%

## Value creation since IPO



in m. EUR	2018	2019
Market capitalisation as of date	14,194	20,779
- Market capitalisation at IPO (Nov 1994)	1,084	1,084
+ Dividend payments (cumulative)	5,574	5,574 <sup>1)</sup>
- Capital increases (1996, 1997, 2001, 2003)	811	811
<b>Value creation since IPO</b>	<b>17,873</b>	<b>24,458</b>

1) Dividend payment for 2019 not yet included

# Agenda

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# We are a preferred business partner

## Property & Casualty reinsurance

### Distribution

#### Distribution channels

- Flexible cost base due to relatively higher share of business written via brokers (~2/3)

### Reserving

Conservative reserve policy led to build-up of reserve redundancies since 2009

- Reduction of P&C earnings volatility
- Protection against inflation risk

### Our strategic contribution from P&C

### Cycle Management

Effective cycle management and focus on profitability

- Selective growth: increase market share in “hard” markets only
- No pressure to grow due to low administrative expense ratio
- Above-average profitability due to stringent underwriting approach with focus on bottom line

### Central U/W

Central underwriting with local talent is key to our success

- Secures consistent underwriting decisions

# Strategy contribution of the P&C business group

## Be among world's most profitable R/I & steer volatility in line with our profit targets



### Our value proposition to our customers

- Tailor-made solutions
  - Comprehensive range of products which can be tailored to our customers' needs
- Solution driven
  - Constant monitoring of markets to identify trends and classes of business that show specific potential for the future
- Flexible organisation
  - Utilisation of all distribution channels, i.e. direct as well as via intermediaries
- Fair and available
  - Short lines of communication towards customers enabling speedy delivery of solutions



### Our profit contribution

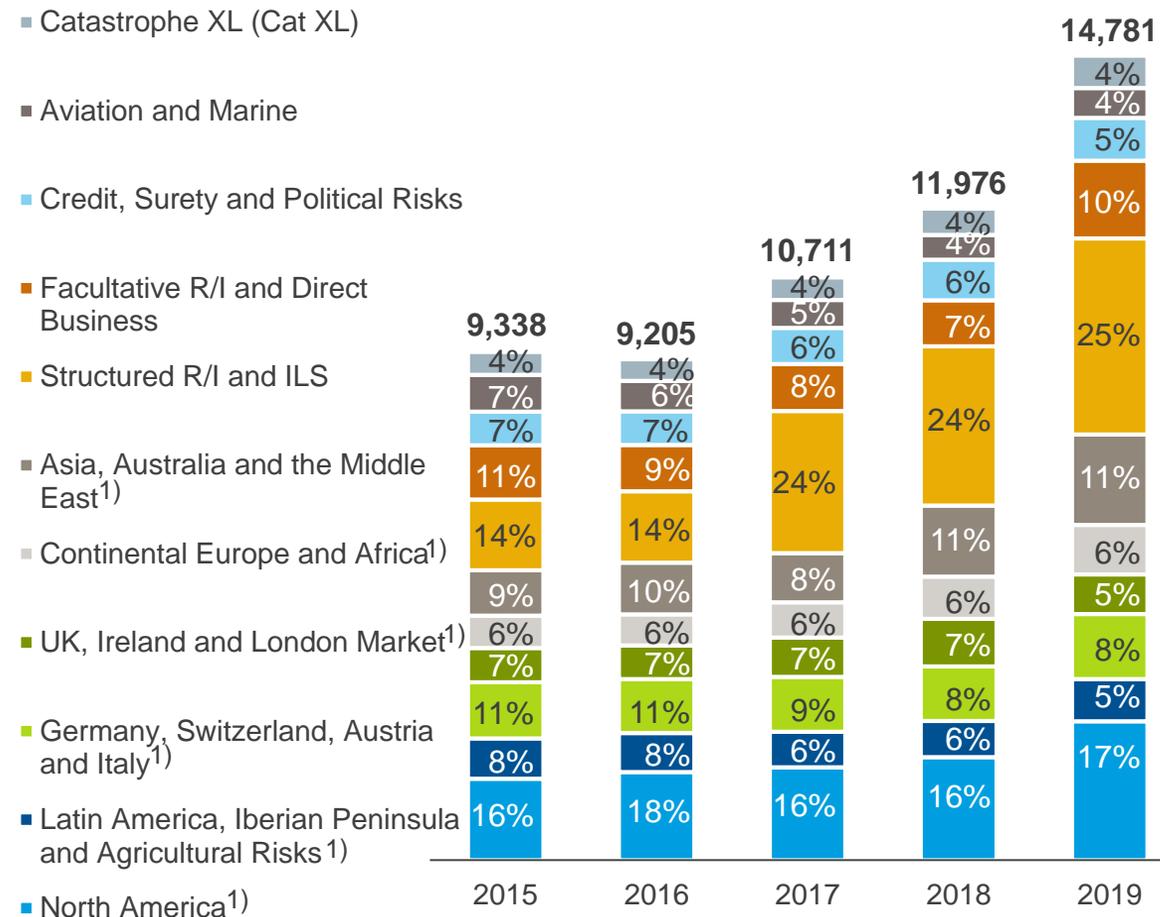
- xRoCA<sup>1)</sup> ≥ 2%
- EBIT margin ≥ 10%
- Combined ratio ≤ 97%

1) xRoCA= eXcess Return on Capital Allocated

# Property & Casualty reinsurance: diversified growth

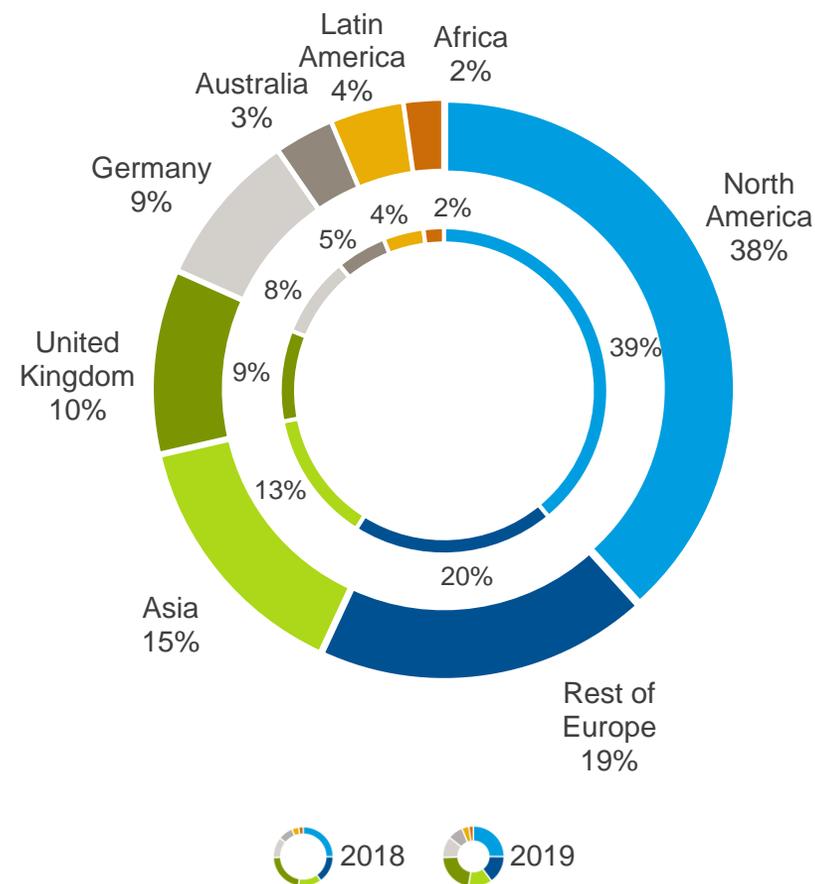
## 5-year CAGR: +13.3%

### GWP split by reporting categories



1) Unless stated in a separate line

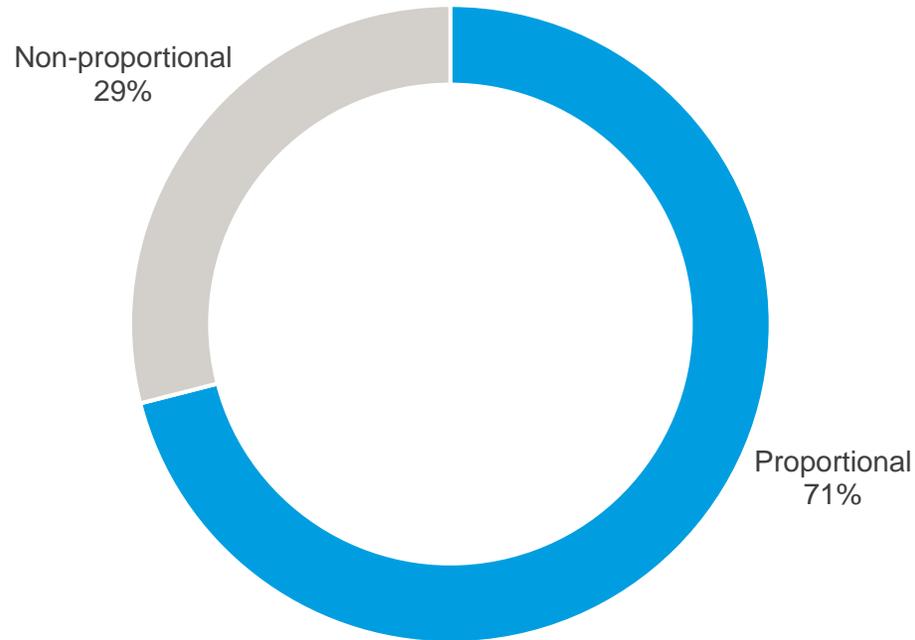
### Gross written premium split by regions



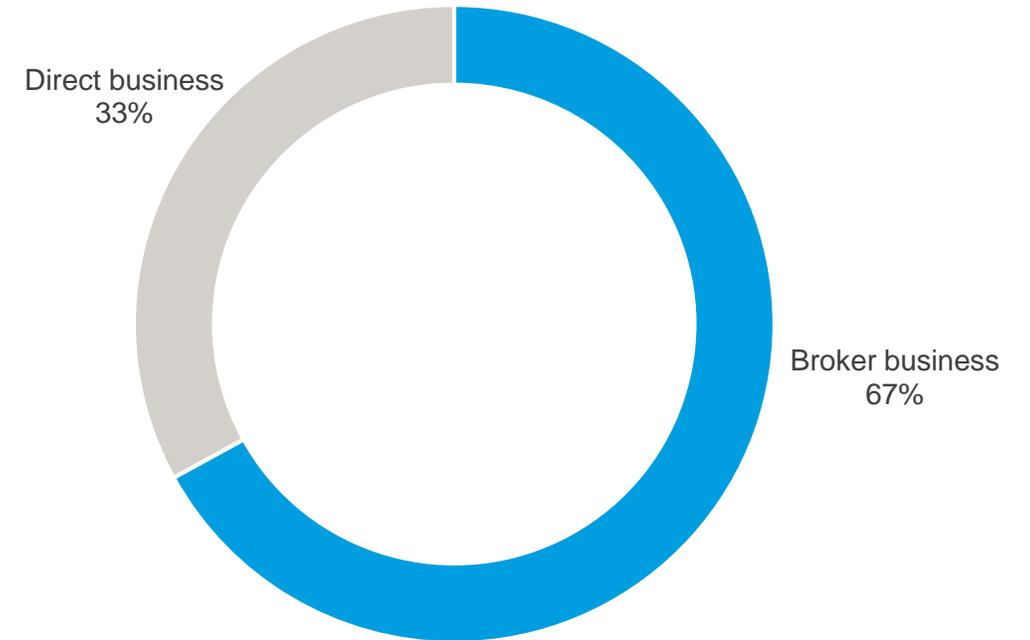
# Around 2/3 of our business is written via brokers

## Around 1/3 of our business is non-proportional

Breakdown of treaties by volume



Breakdown of business written



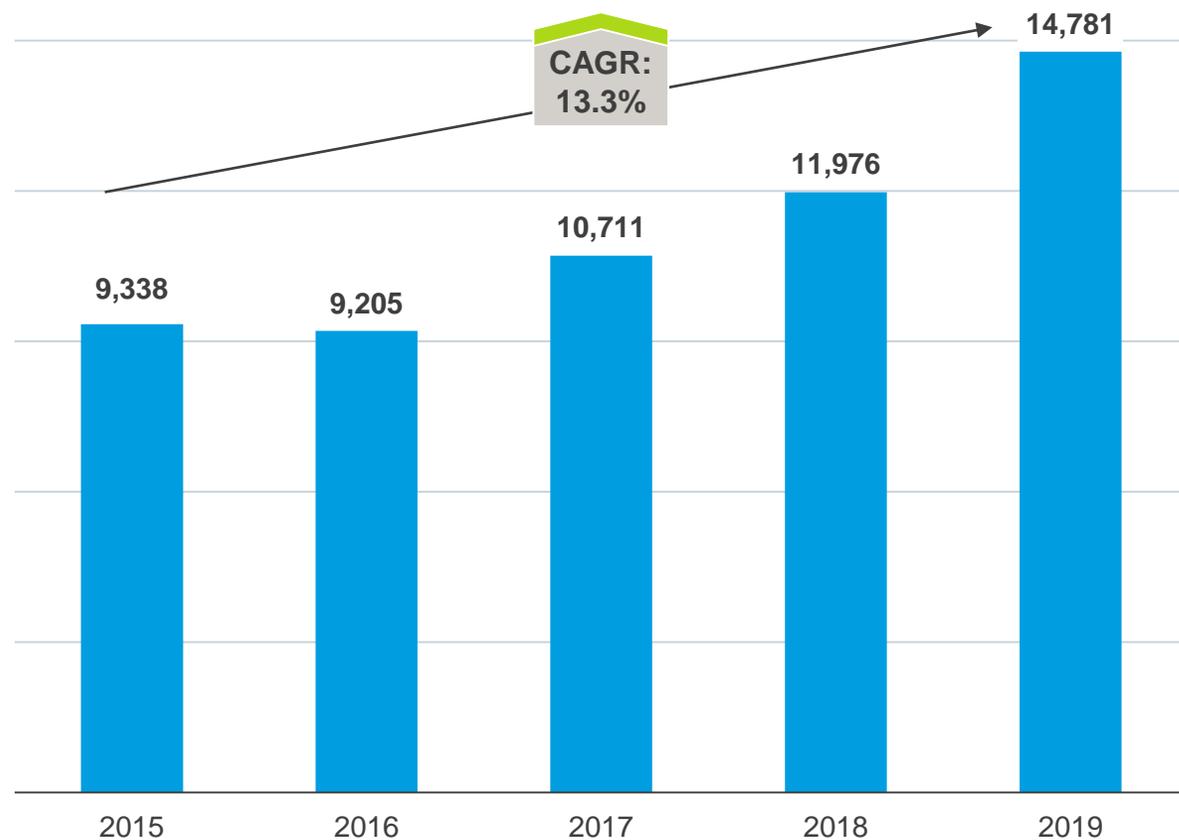
**GWP 2019: EUR 14,781 m.**  
(2018: EUR 11,976 m.)

# Margin-oriented U/W approach leads to profitable growth

## EBIT margin exceeds target of 10%

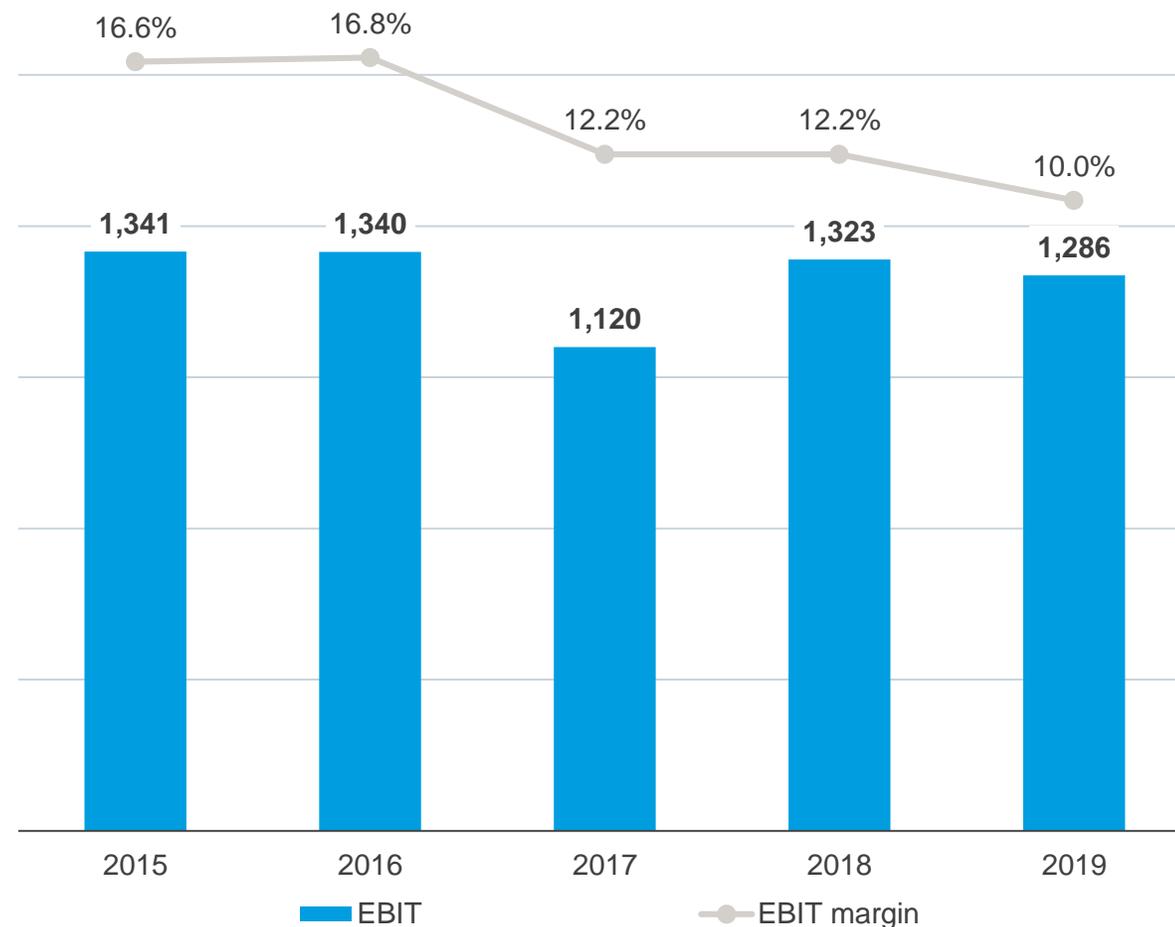
Gross written premium

in m. EUR



EBIT/EBIT margin

in m. EUR



# Target Combined Ratio varies substantially by line of business

## 2019

NPE	+ Economic revaluation	- Capital margin	= Target Combined Ratio
Net premium earned (100%)	Discount effect on P&C net loss reserves (% of NPE)	Capital margin above risk free (pre-tax)	Target Combined Ratio
North America <sup>1)</sup>	7.5%	11.5%	95.9%
Latin America, Iberian Peninsula and Agricultural Risks <sup>1)</sup>	2.6%	7.3%	95.3%
Germany, Switzerland, Austria and Italy <sup>1)</sup>	1.9%	6.6%	95.3%
UK, Ireland and London market <sup>1)</sup>	5.4%	8.8%	96.7%
Continental Europe and Africa <sup>1)</sup>	5.1%	7.3%	98.4%
Asia, Australia and the Middle East <sup>1)</sup>	5.7%	6.3%	98.8%
Structured R/I and ILS	0.7%	1.6%	99.1%
Facultative R/I and Direct Business	5.7%	8.4%	97.2%
Credit, Surety and Political Risks	3.6%	8.2%	95.4%
Aviation and Marine	5.3%	9.4%	95.9%
Catastrophe XL (CAT XL)	4.9%	14.2%	90.7%
<b>Total Property &amp; Casualty R/I</b>	<b>3.9%</b>	<b>6.9%</b>	<b>97.0%</b>

As at March 2020

1) Unless stated in a separate line

# Stable redundancy despite challenging environment

## Reserve study review by Willis Towers Watson confirms reserving level

in m. EUR

Year end <sup>1)</sup>	Redundancy <sup>2)</sup>	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	1,308	190	2.8%	6,854
2013	1,517	209	3.1%	6,866
2014	1,546	29	0.4%	7,011
2015	1,887	341	4.2%	8,100
2016	1,865	-22	-0.3%	7,985
2017	1,813	-52	-0.6%	9,159
2018	1,694	-118	-1.1%	10,804
<b>2009 - 2018 total</b>		<b>1,105</b>		<b>73,364</b>
<b>2009 - 2018 average</b>		<b>110</b>	<b>1.5%</b>	<b>7,336</b>

**Average impact on loss ratio: 1.5% in the past 10 years (not f/x-adjusted)**

1) Figures in m. EUR and unadjusted for changes in foreign exchange rate, i.e. based on actual exchange rates at respective year end

2) Redundancy of loss and loss adjustment expense reserve for its non-life insurance business against held IFRS reserves, before tax and minority participations

Willis Towers Watson reviewed these estimates - more details shown in appendix

# The risk is manageable

## Stress tests for natural catastrophes after retrocessions

### Effect on forecast net income in m. EUR

		2018	2019
Winter storm Europe	100-year loss	(312.0)	(376.3)
	250-year loss	(526.0)	(602.2)
Hurricane US/Carribbean	100-year loss	(1,033.2)	(1,154.9)
	250-year loss	(1,471.6)	(1,595.1)
Typhoon Japan	100-year loss	(216.4)	(216.1)
	250-year loss	(294.0)	(302.0)
Earthquake Japan	100-year loss	(344.3)	(341.2)
	250-year loss	(664.3)	(733.0)
Earthquake US West Coast	100-year loss	(634.8)	(602.7)
	250-year loss	(1,194.7)	(1,258.2)
Earthquake Australia	100-year loss	(191.9)	(148.9)
	250-year loss	(499.8)	(474.8)

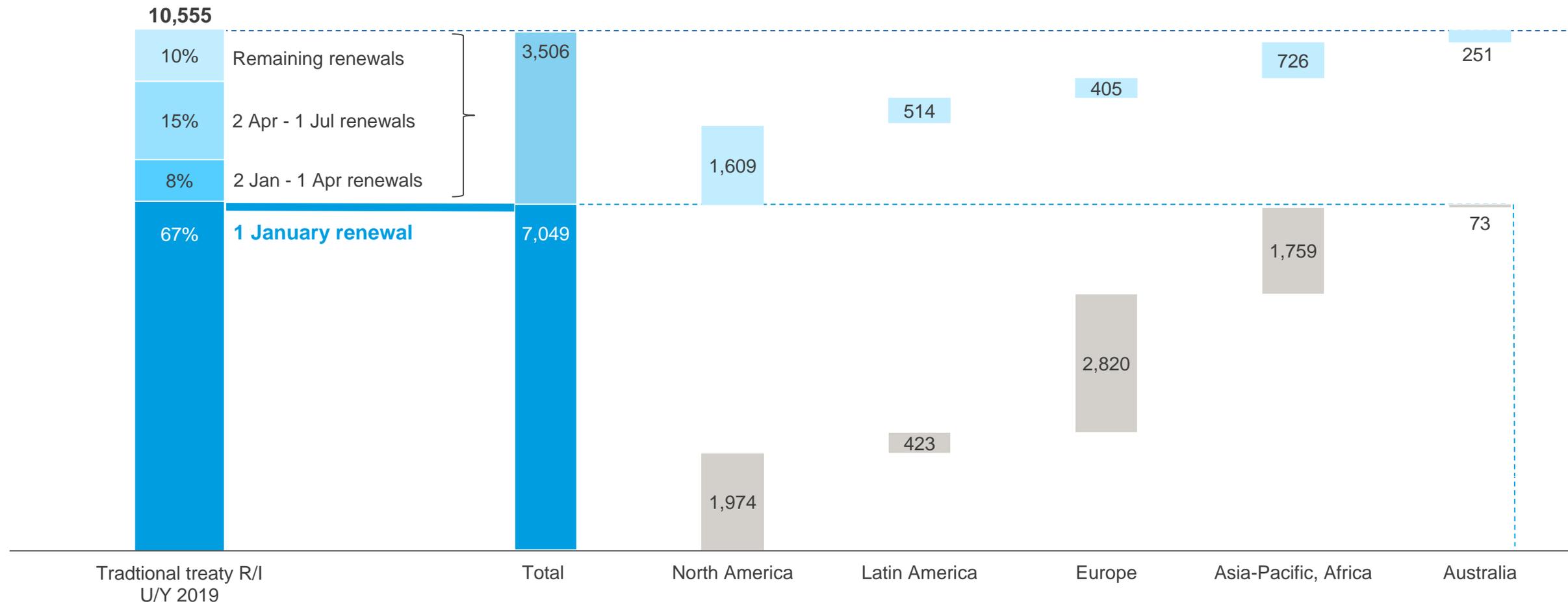
in m. EUR

	Limit 2019	Threshold 2019	Actual utilisation (July 2019)
All natural catastrophe risks <sup>1)</sup>			
200-year aggregate annual loss	2,125	1,913	1,727

1) Loss relative to the underwriting result

# 33% of traditional treaty reinsurance comes up for renewal later... ...with loss-affected areas showing higher shares

Estimated premium income U/Y by regions



All figures in m. EUR

# Treaty premium increased significantly... ...supported by positive price change and active customer relationship mgmt.

Reporting categories	Traditional treaty reinsurance			
	Premium 1/1/2019	Premium 1/1/2020	Premium changes	Price changes
North America <sup>1)</sup>	1,267	1,514	+19.5%	+3.4%
Latin America, Iberian Peninsula <sup>1)</sup> , agricultural business	335	452	+35.1%	+2.1%
Germany, Switzerland, Austria, Italy <sup>1)</sup>	1,165	1,234	+5.9%	+0.1%
UK, Ireland, London market <sup>1)</sup>	1,172	1,431	+22.1%	+7.2%
Continental Europe, Africa <sup>1)</sup>	624	691	+10.6%	-0.9%
Asia, Australia, Middle East <sup>1)</sup>	1,326	1,439	+8.6%	+0.7%
Credit, surety and political risks	598	649	+8.6%	+0.2%
Aviation and Marine	312	354	+13.7%	+5.9%
Cat XL	250	270	+7.8%	+0.7%
<b>Total 1 January renewals</b>	<b>7,049</b>	<b>8,035</b>	<b>+14.0%</b>	<b>+2.3%</b>

Premium estimates in m. EUR

1) All lines of business except those stated separately (excl. Structured R/I and ILS, Facultative R/I and direct)

# Positive price and premium development across both treaty types

## Split by proportional and non-proportional business

Reporting categories	Proportional			Non-proportional		
	Premium 1/1/2020	Premium changes	Price changes	Premium 1/1/2020	Premium changes	Price changes
North America <sup>1)</sup>	733	+28.5%	+2.2%	781	+12.1%	+4.4%
Latin America, Iberian Peninsula, <sup>1)</sup> agricultural business	387	+40.8%	+2.2%	65	+8.7%	+1.6%
Germany, Switzerland, Austria, Italy <sup>1)</sup>	986	+4.6%	+0.3%	248	+11.7%	-0.7%
UK, Ireland, London market <sup>1)</sup>	1,293	+24.7%	+6.5%	138	+2.4%	+12.5%
Continental Europe, Africa <sup>1)</sup>	477	+11.4%	+0.1%	213	+8.9%	-3.1%
Asia, Australia, Middle East <sup>1)</sup>	1,358	+7.5%	+0.6%	82	+28.7%	+3.1%
Credit, surety and political risks	551	+6.9%	-0.1%	99	+18.8%	+1.9%
Aviation and Marine	243	+28.9%	+6.5%	112	-9.5%	+5.0%
Cat XL	-	-	-	270	+7.8%	+0.7%
<b>Total 1 January renewals</b>	<b>6,027</b>	<b>+15.5%</b>	<b>+2.1%</b>	<b>2,007</b>	<b>+9.7%</b>	<b>+2.9%</b>

Premium estimates in m. EUR

1) All lines of business except those stated separately (excl. Structured R/I and ILS, Facultative R/I and direct)

# Agenda

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1	Hannover Re Group	2
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# We are somewhat different

## Life & Health reinsurance

### Undogmatic

We have an undogmatic approach

- Strong entrepreneurial spirit
- Appetite to innovate industry solutions

### Our strategic contribution from L&H

### Responsive

We are committed to time to market & responsiveness

- Rapid decision-making processes
- In-depth knowledge of local markets

### Efficient

We foster an efficient organisational set-up

- 900 experts in 26 offices on all continents
- Highly empowered and qualified staff

### Flexible

We are a highly flexible business partner

- Tailor-made services and solutions
- Ability to anticipate market and client demands

# Strategy contribution of the L&H business group

## We have ambitious profit and growth targets



### Our value proposition to our customers

- Financial solutions
  - Tailored reinsurance structures for efficient capital or liquidity management
- Risk solutions
  - Competitive terms, capacity and reinsurance solutions for all types of technical risks
- Reinsurance services
  - Improvement of sales and underwriting processes



### Our profit contribution

- VNB<sup>1)</sup> ≥ EUR 220 m.
- EBIT growth ≥ 5%
- xRoCA<sup>2)</sup> ≥ 2%

1) Based on Solvency II principles and pre-tax reporting

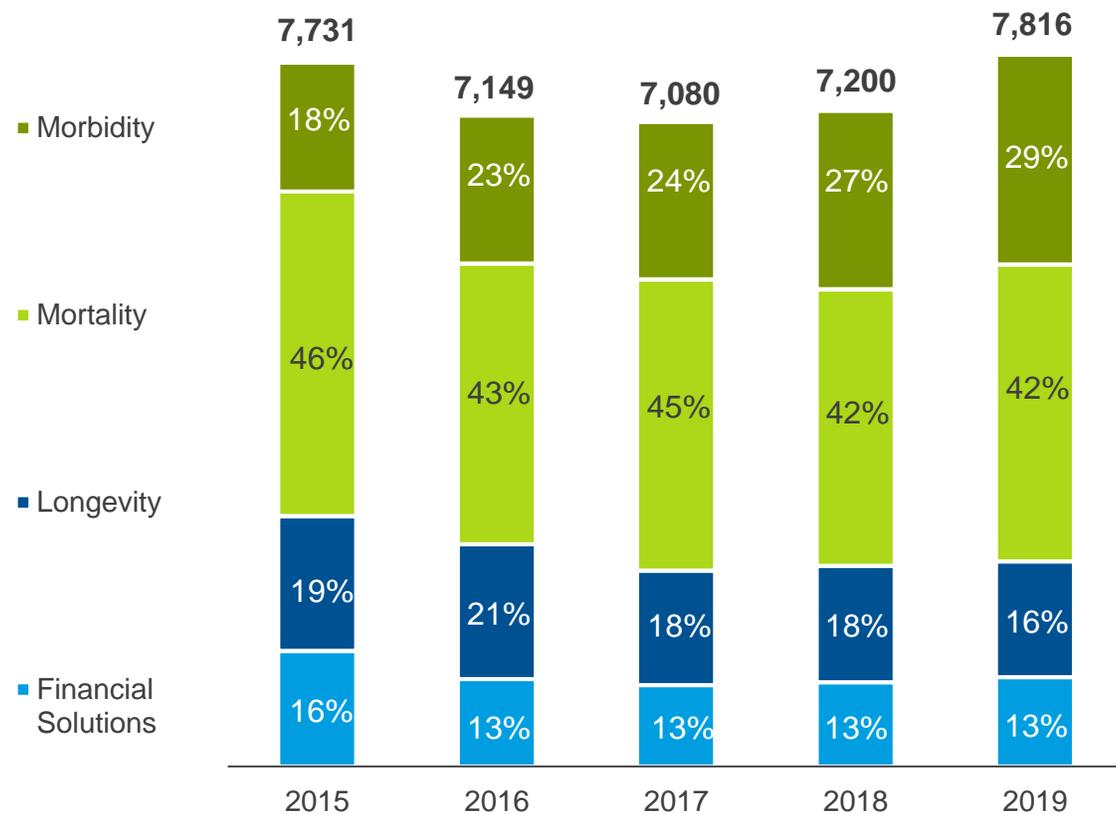
2) xRoCA= excess Return on Capital Allocated

# Life & Health reinsurance: worldwide portfolio

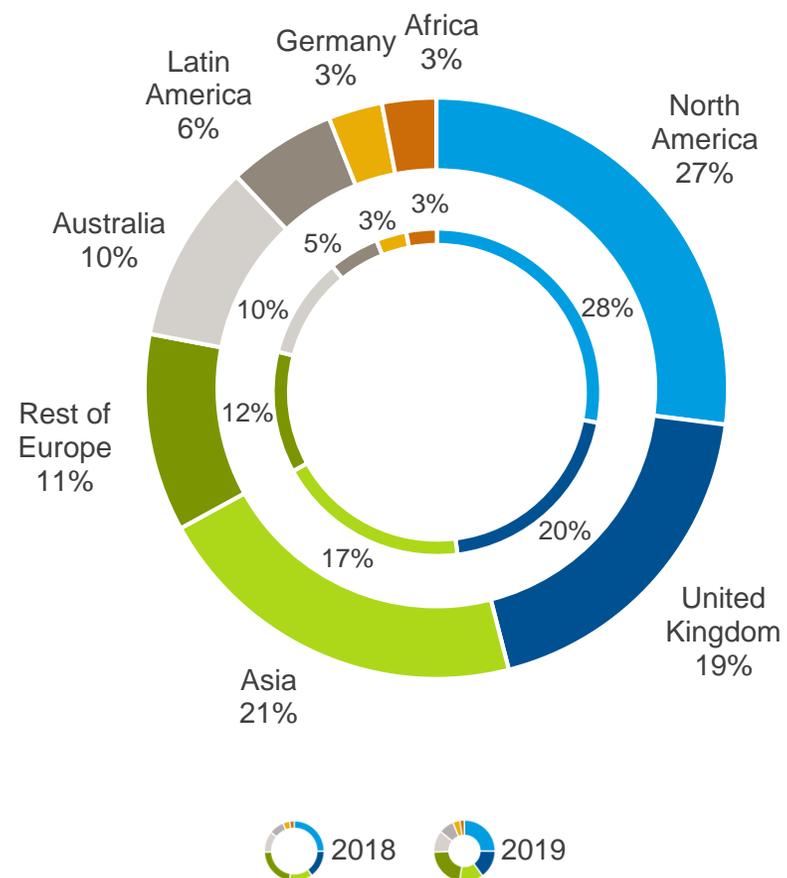
## 5-year CAGR: +3.9%

### GWP split by reporting categories

in m. EUR



### Gross written premium split by regions

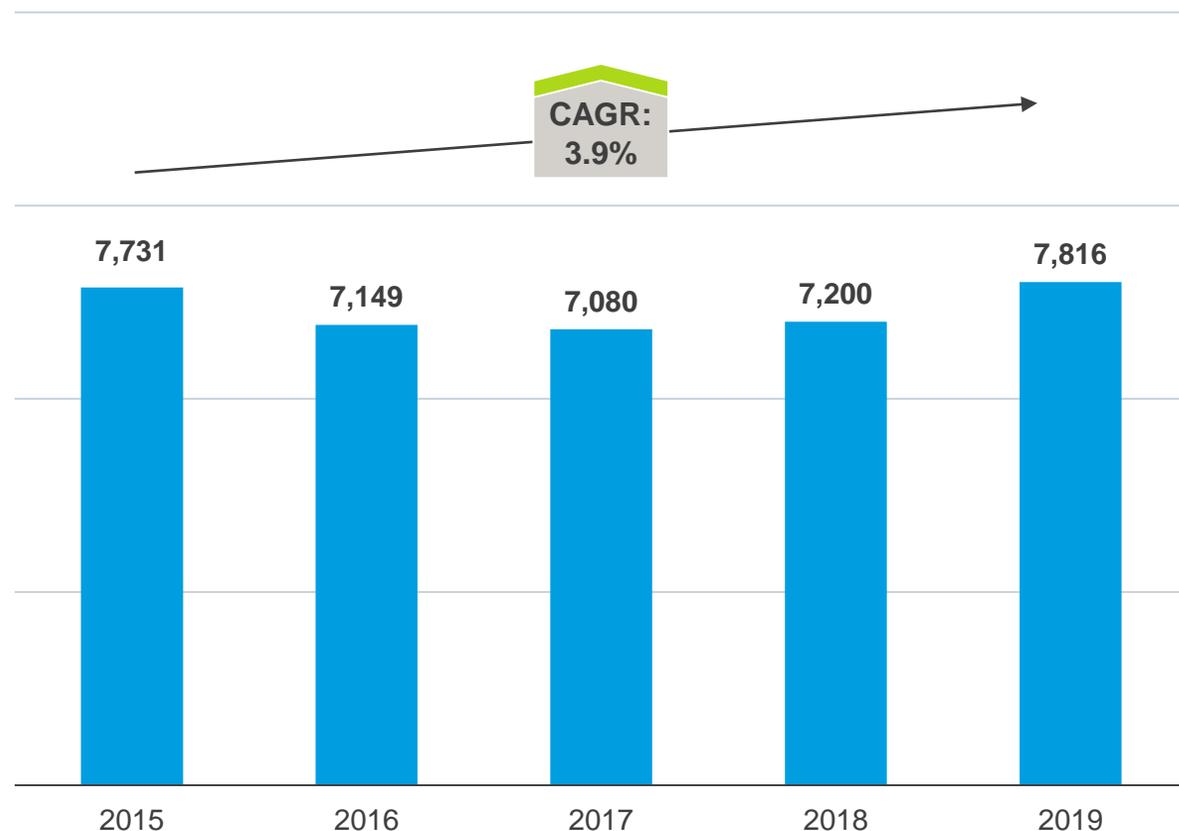


# Good underlying profitability in Life & Health reinsurance

## 2019: Improved profitability in US mortality and positive one-off effect boost result

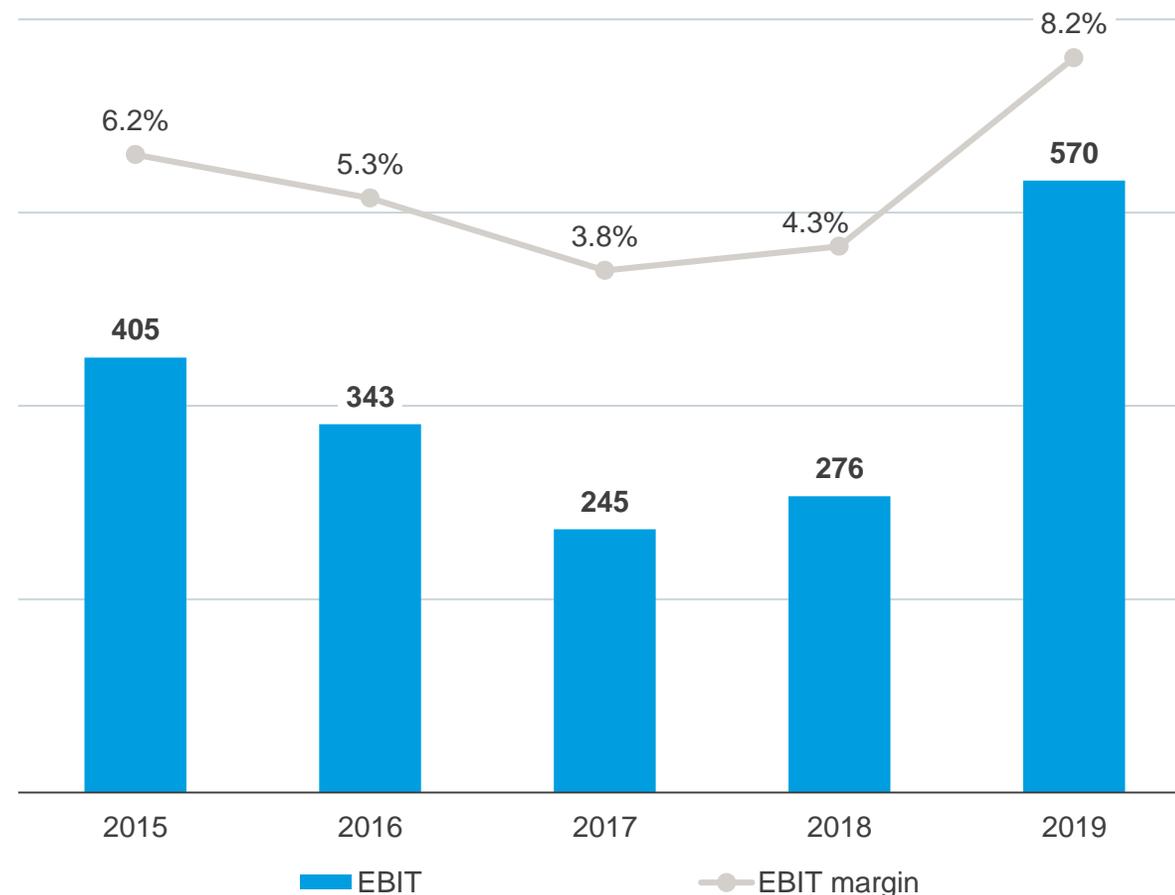
Gross written premium

in m. EUR



EBIT/EBIT margin

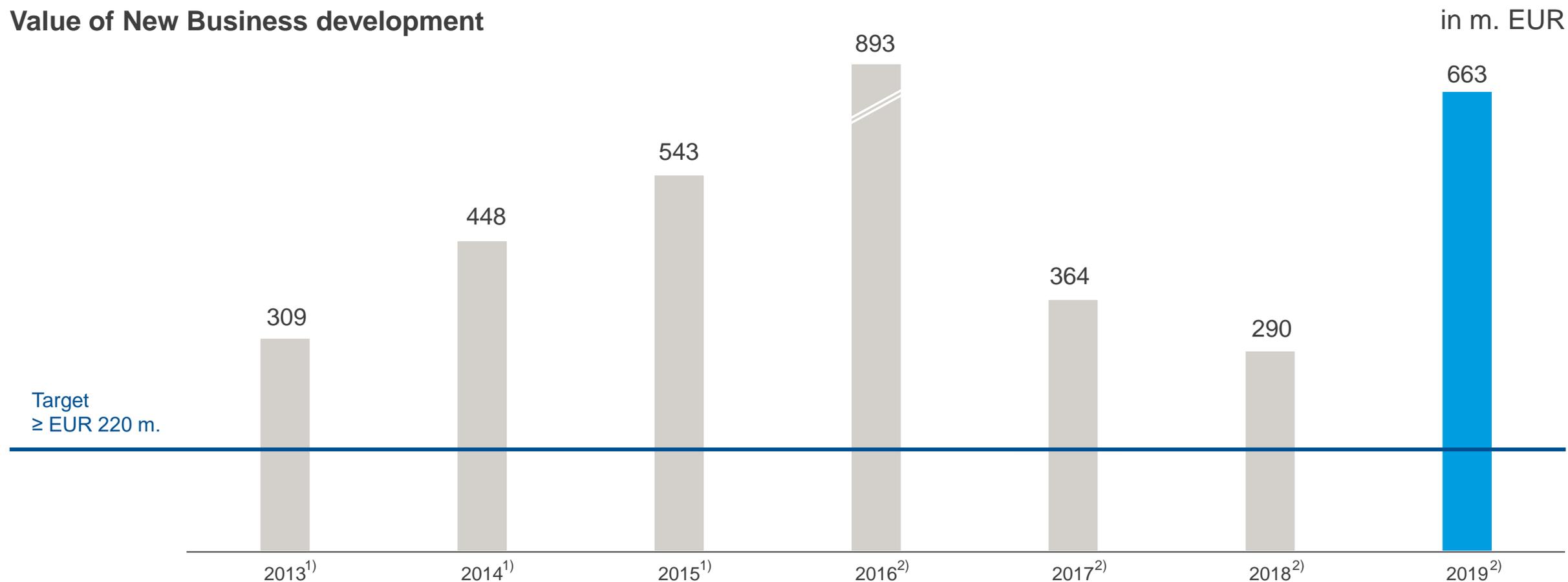
in m. EUR



# Value of New Business well above target

## Driven by Financial Solutions and Longevity business

### Value of New Business development



1) Based on MCEV principles and post-tax reporting (in 2015 cost of capital already increased from 4.5% to 6% in line with Solvency II)

2) Based on Solvency II principles and pre-tax reporting

# Writing attractive traditional life & health business

## Whilst positioning ourselves for sustainable growth with a clear strategic focus

### Risk Solutions

Provide terms and capacity for all types of technical risks

### Financial Solutions

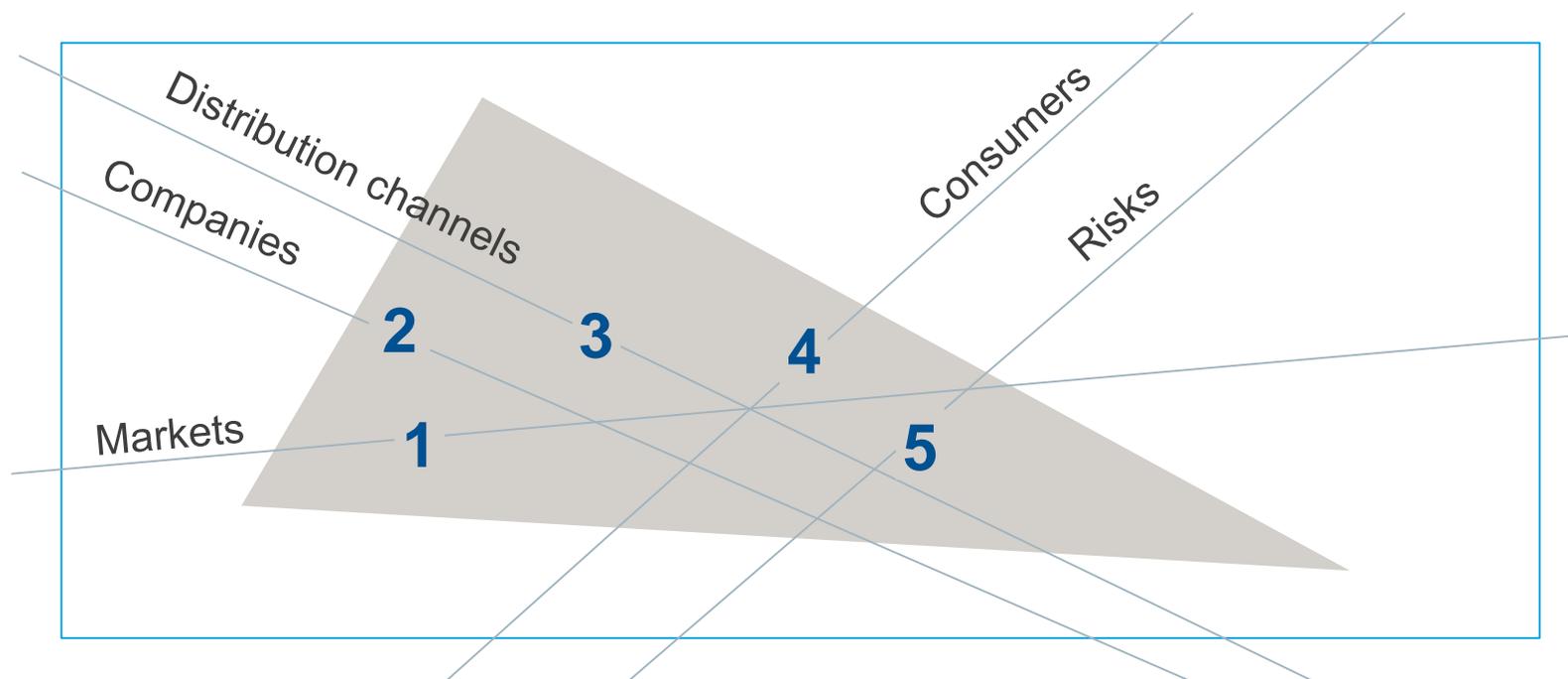
Achieve financial objectives for our clients

### Reinsurance Services

Meet the individual needs of our clients

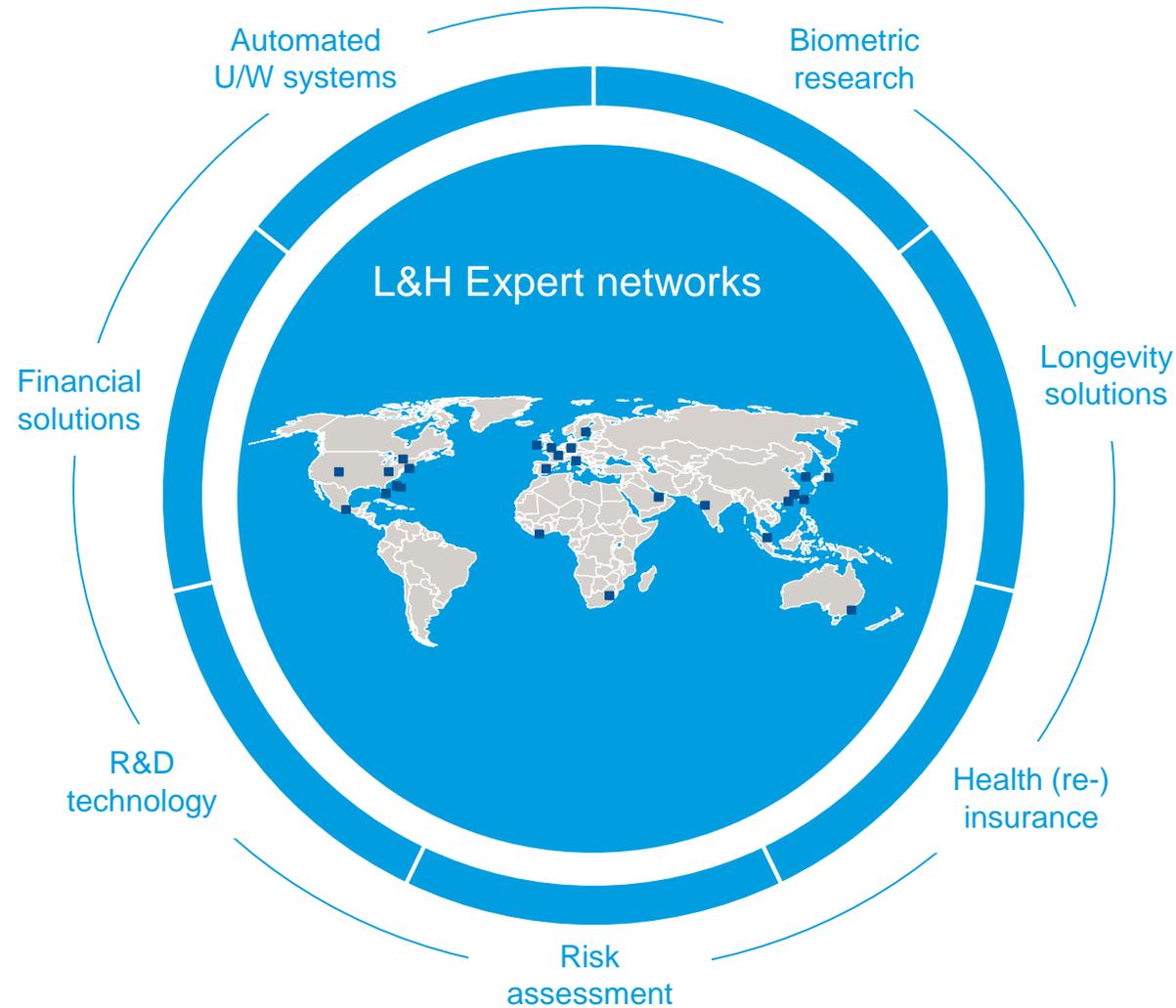
## Our strategic focus

- 1 High growth markets
- 2 Companies in transition
- 3 Alternative distribution channels
- 4 Underserved consumers
- 5 Hard-to-quantify risks



□ Reinsurance universe    ▲ Positive economic value expected

# Our clients are served in the markets by our network of offices... ...and by our solution-orientated expert networks



# Complete offerings

## Risk and financial solutions & services

Risk Solutions	
Competitive terms and appropriate capacity for technical risks	
Mortality	Longevity
Morbidity	
Health	Disability
Long Term Care	Critical Illness

Profitability depends largely on the underlying biometric risks

Financial Solutions
Structured agreements to achieve certain financial objectives
New Business Financing
Reserve & Solvency Relief
Embedded Value Transaction

Profitability is less likely to be affected by the underlying biometric risks

Reinsurance Services	
Comprehensive range geared towards individual needs	
Products	Processes
Biometrics	Risk Assessment
Underwriting Systems	

Only in combination with risk solutions and/or financial solutions

# Example risk solution: mortality & longevity

## Risks

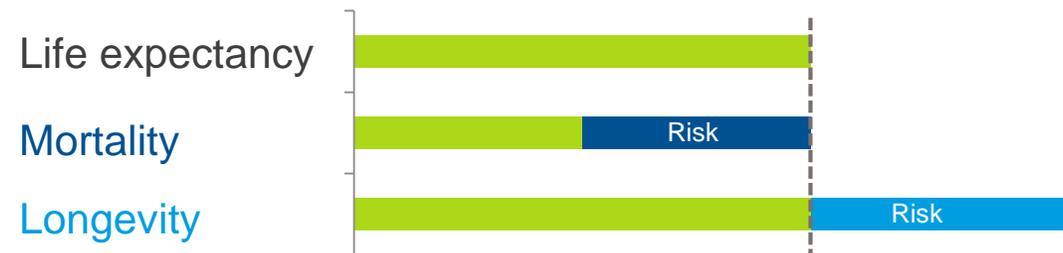
### Mortality

Risk of paying more death benefits than expected

### Longevity

Risk of paying annuities longer than expected

## Trigger



## Longevity: enhanced annuities<sup>1)</sup>

Illustration: 50k single premium, male 65, 3% interest

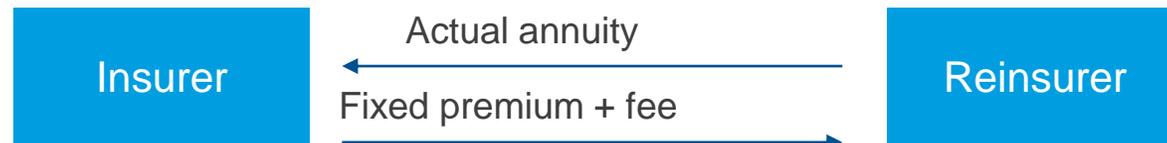
Status of health →	Healthy	Obesity	Diabetes	Cancer
Annuity increase →	+0% (standard)	+9%	+23%	+85%
Monthly annuity →	244	267	300	452

## Longevity: risk transfer



Lifelong annuity

no investment participation



1) Allows people in ill health to receive a higher regular income in recognition of the fact that they, on average, have a shorter life expectancy than a healthy person

# Example risk solution: morbidity - critical illness

## Morbidity

Risk of experiencing a higher claims burden from traditional health, critical illness, long-term care, and disability covers

## Product: Critical illness insurance



Helps consumers to protect their life quality in case of a life-threatening disease



## Payment



Income protection / medical insurance  
Payment of claim incurred

Critical Illness  
Payment of lump sum insured

## Hannover Re's contribution



- + Coverage of > than 160 diseases
- + Design, pricing & claims assessment
- + Advice & training in underwriting risks
- + Track record as innovator in the market

## Example: services offered with risk and/or financial solutions



### Products

Innovative, e.g. products with little or no underwriting



### Processes

Lean, e.g. distribution directly to individuals, without advisers



### Biometrics

Cover of death, disease or disability risks at an appropriate cost



### Risk assessment

Support for proper medical & claims assessment



### U/W systems

hr | Quirc, hr | ReFlex or hr | Ascent

# Primary differences between L&H and P&C business

## Simplified illustration

Accounting considerations (premium)



IBNR reserve impact



Involvement of brokers



Number of competitors



Number of reinsurer participating in one treaty



Premium margin as meaningful benchmark



Reinsurance contract terms



Saving component in premium



Share of proportional business



Property & Casualty business ▲ Life & Health business ◆

## Takeaways for the Life & Health Business Group

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**1** **Business**  
All lines of life, health & annuities

**2** **Focus**  
Biometric risks not asset risk

**3** **Relationship**  
Long term due to very long run-off

**4** **Service**  
An important component

**5** **Premium**  
Not the only meaningful benchmark → EBIT

**6** **Financial solutions business**  
Key driver of earnings

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# Strong operating cash flow fuels growth of AuM (+12.9%)

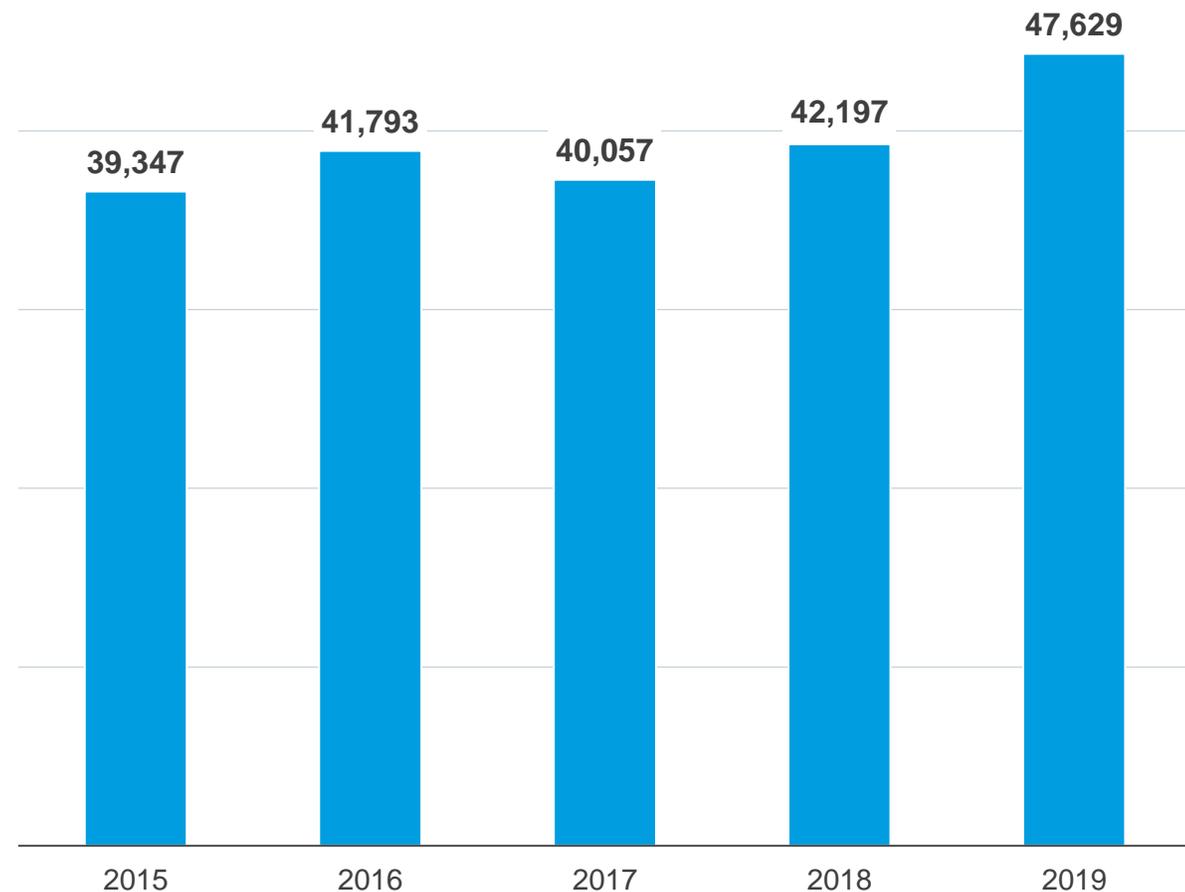
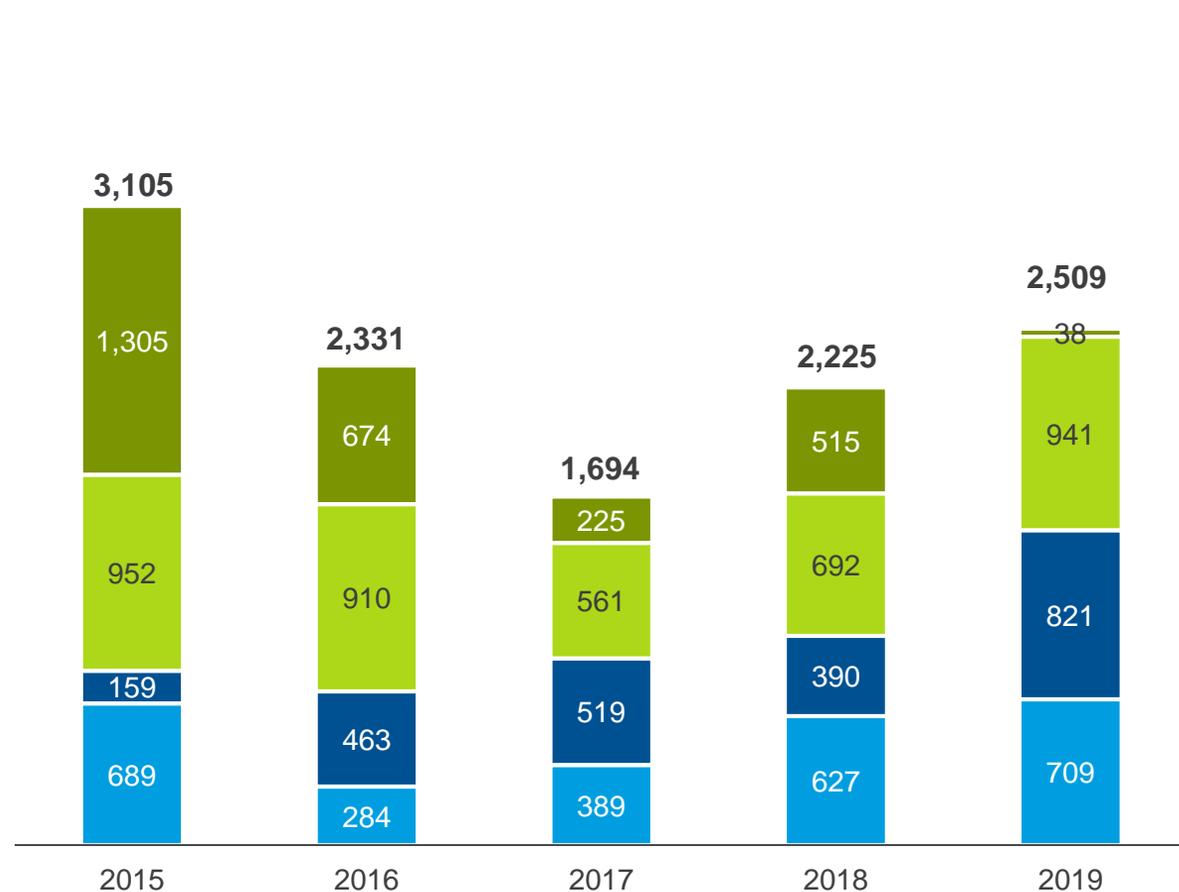
AuM growth supported by increase in valuation reserves and currency translation

Operating cash flow

in m. EUR

Assets under own management (AuM)

in m. EUR

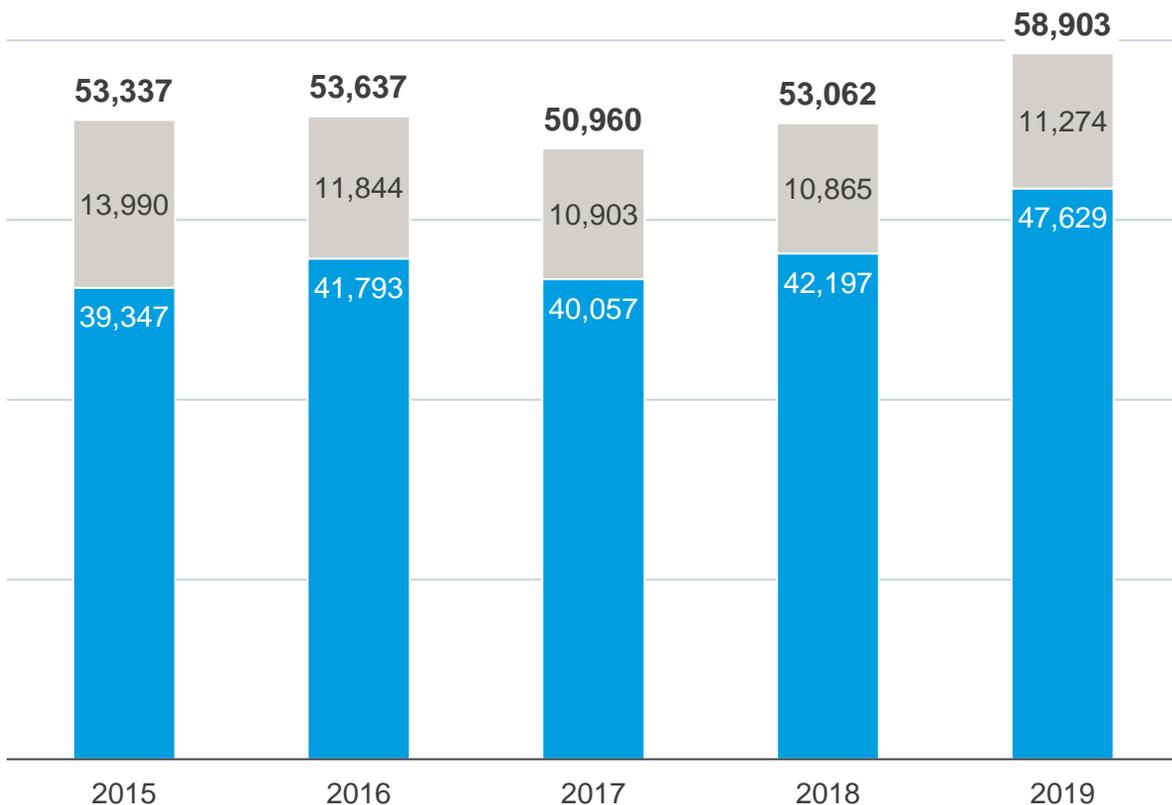


■ Q1 ■ Q2 ■ Q3 ■ Q4

# Very pleasing net investment income

Total investments

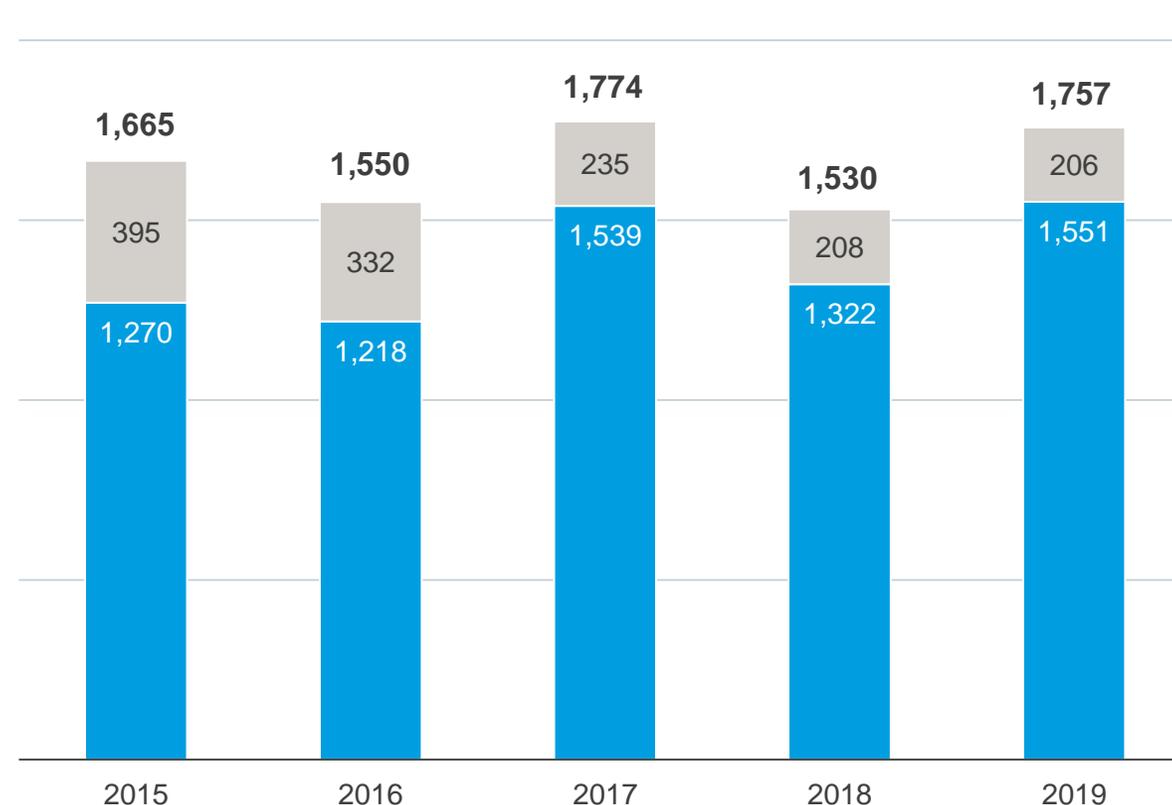
in m. EUR



- Assets under own management
- Funds withheld and contract deposits

Investment income

in m. EUR



- Income and expenses on funds withheld and contract deposits
- Net income from assets under own management

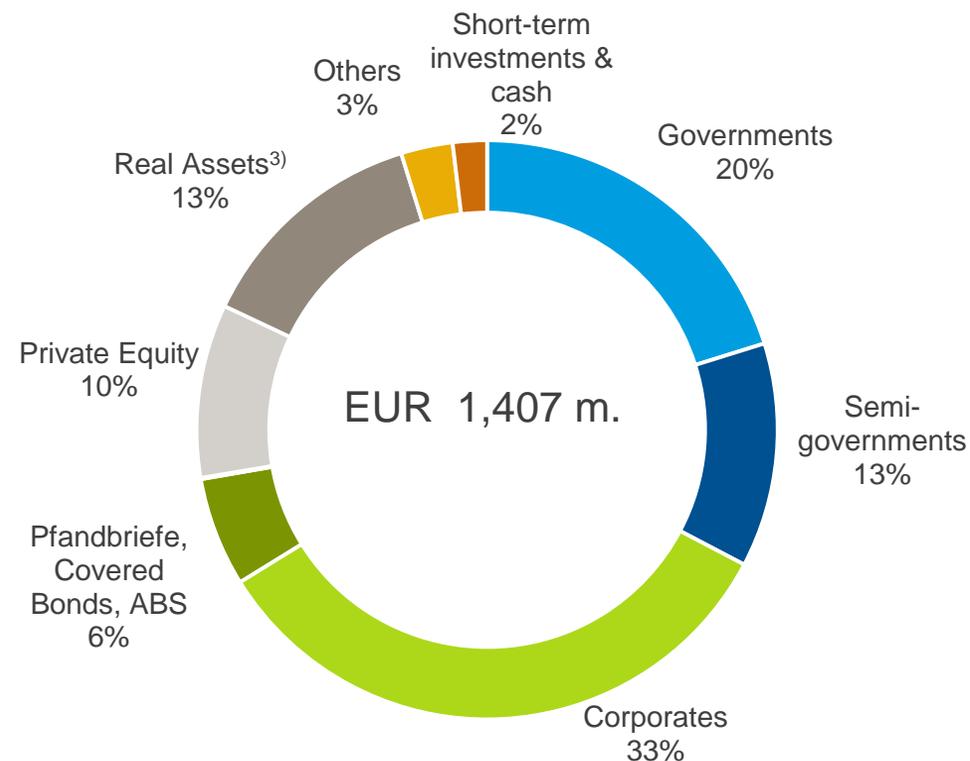
# Ordinary investment income well supported by alternative asset classes

## Credit profile slightly more offensive with increased share in Emerging Markets

### Asset allocation<sup>1)</sup>

Investment category	2015	2016	2017	2018	2019
<b>Fixed-income securities</b>	<b>87%</b>	<b>87%</b>	<b>87%</b>	<b>87%</b>	<b>87%</b>
- Governments	26%	28%	30%	35%	35%
- Semi-governments	17%	18%	17%	16%	15%
- Corporates	34%	33%	32%	29%	31%
Investment grade	30%	28%	27%	25%	26%
Non-investment grade	4%	4%	5%	4%	4%
- Pfandbriefe, Covered bonds, ABS	10%	9%	8%	7%	7% <sup>2)</sup>
<b>Equities</b>	<b>3%</b>	<b>4%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>
- Listed equity	1%	2%	<1%	<1%	<1%
- Private equity	2%	2%	2%	2%	2%
<b>Real Assets</b>	<b>4%</b>	<b>5%</b>	<b>5%</b>	<b>6%</b>	<b>5%</b>
<b>Others</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>
<b>Short-term investments &amp; cash</b>	<b>5%</b>	<b>4%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>
<b>Total market values in bn. EUR</b>	<b>39.8</b>	<b>42.3</b>	<b>40.5</b>	<b>42.7</b>	<b>48.2</b>

### Ordinary income split



1) Economic view based on market values without outstanding commitments for Private Equity and Alternative Real Estate as well as fixed-income investments of EUR 1,429.9 m. (EUR 1,326.4 m.) as at 31 December 2019

2) Of which Pfandbriefe and Covered Bonds = 66.9%

3) Before real estate-specific costs. Economic view based on market values as at 31 December 2019

# High-quality fixed income book well balanced

Geographical allocation mainly in accordance with our broad business diversification

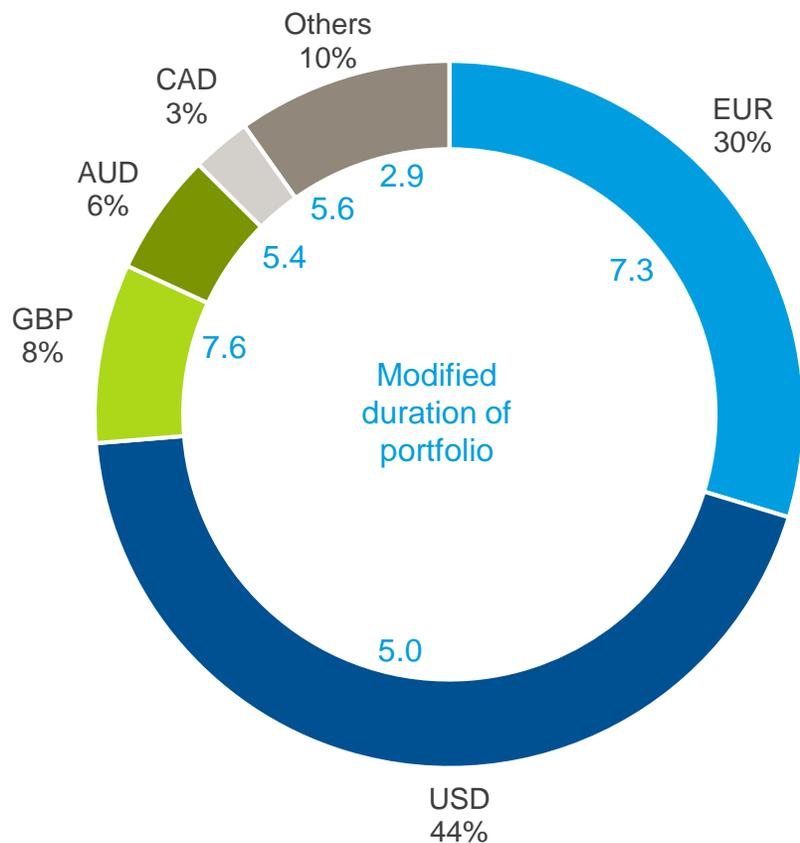
	Governments	Semi-governments	Corporates	Pfandbriefe, Covered bonds, ABS	Short-term investments, cash	Total
AAA	73%	53%	1%	58%	-	44%
AA	13%	26%	12%	22%	-	16%
A	8%	7%	28%	12%	-	15%
BBB	4%	1%	48%	7%	-	19%
<BBB	2%	13%	11%	1%	-	7%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>-</b>	<b>100%</b>
Germany	21%	34%	4%	20%	19%	17%
UK	8%	3%	7%	10%	15%	7%
France	1%	2%	8%	6%	0%	4%
GIIPS	1%	1%	4%	5%	0%	2%
Rest of Europe	3%	13%	16%	23%	2%	10%
USA	47%	10%	33%	14%	14%	33%
Australia	3%	10%	7%	10%	9%	7%
Asia	11%	14%	7%	1%	28%	10%
Rest of World	5%	15%	14%	10%	13%	10%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Total b/s values in m. EUR</b>	<b>16,743</b>	<b>7,007</b>	<b>14,162</b>	<b>3,152</b>	<b>1,559</b>	<b>42,624</b>

IFRS figures as at 31 December 2019

# Currency allocation matches liability profile of balance sheet

## Duration-neutral strategy continued with slightly longer neutral point

### Currency split of investments



- Modified duration of fixed-income mainly congruent with liabilities and currencies
- Increase of modified duration against 2018 mainly due to decreased interest rates and credit spreads as well as due to new hybrid bond and changed liability modelling
- GBP's higher modified duration predominantly due to life business; EUR driven by hybrid bond issuance

### Modified duration

2019	5.7
2018	4.8
2017	4.8
2016	5.0
2015	4.4

# Stress tests on assets under own management

## Focus on credit and real assets risks

Portfolio	Scenario	Change in market value in m. EUR	Change in OCI before tax in m. EUR
Equity (listed and private equity)	-10%	-121	-121
	-20%	-241	-241
Fixed-income securities	+50 bps	-1,202	-1,141
	+100 bps	-2,337	-2,218
Credit spreads	+50%	-757	-749
Real Assets	-10%	-262	-105

As at 31 December 2019

# Agenda

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# Our capital structure consists not only of equity

## Use of hybrids, securitisations etc. lowers cost of capital and levers RoE

- Equity capital is by far the most expensive. Therefore, we make optimal use of equity substitutes:
  - Conventional reinsurance/retrocession on an opportunistic basis (i. e. use of other reinsurers' capital)
  - Alternative capital market transactions
  - E. g. hybrid capital.

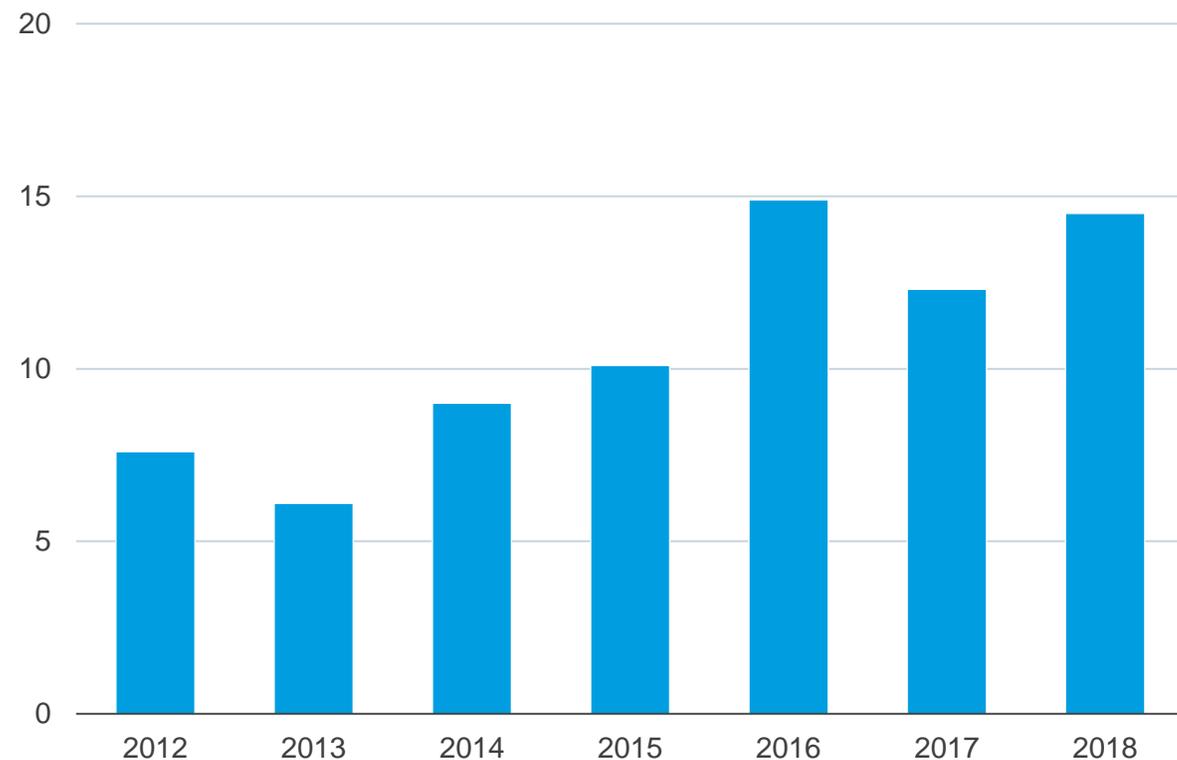
Type	Nominal amount	Issue date	Issue ratings S&P / AM Best / Fitch	First call date	Maturity	Coupon rate
Dated subordinated bond ISIN: XS2063350925	EUR 750 m.	2019-10-09	A	2029-07-09	2039-10-09	Until first reset date: 1.125% p. a. and thereafter 2.38% p. a. above 3 months EURIBOR
Senior unsecured bond ISIN: XS1808482746	EUR 750 m.	2018-04-18	AA- / - / A+	2028-01-18	2028-04-18	Annually on every April 18
Undated subordinated bond Format: PerpNC10,8 ISIN: XS1109836038	EUR 500 m.	2014-09-15	A / a+ / A-	2025-06-26	Perpetual	Until first call date: 3.375% p. a. and thereafter 3.25% p. a. above 3 months EURIBOR
Dated subordinated bond Format: 30,6NC10,6 ISIN: XS0856556807	EUR 500 m.	2012-11-20	A / aa- / A-	2023-06-30	2043-06-30	Until first call date: 5.00% p. a. and thereafter 4.30% p. a. above 3 months EURIBOR
Dated subordinated bond Format: 30NC10 ISIN: XS0541620901	EUR 500 m.	2010-09-14	A / aa- / A-	2020-09-14	2040-09-14	First 10 years: 5.75% p. a. and thereafter 4.235% p. a. above 3 months EURIBOR

**Competitive advantage through low cost of capital (WACC)**

# Leverage ratios support HR's excellent ratings

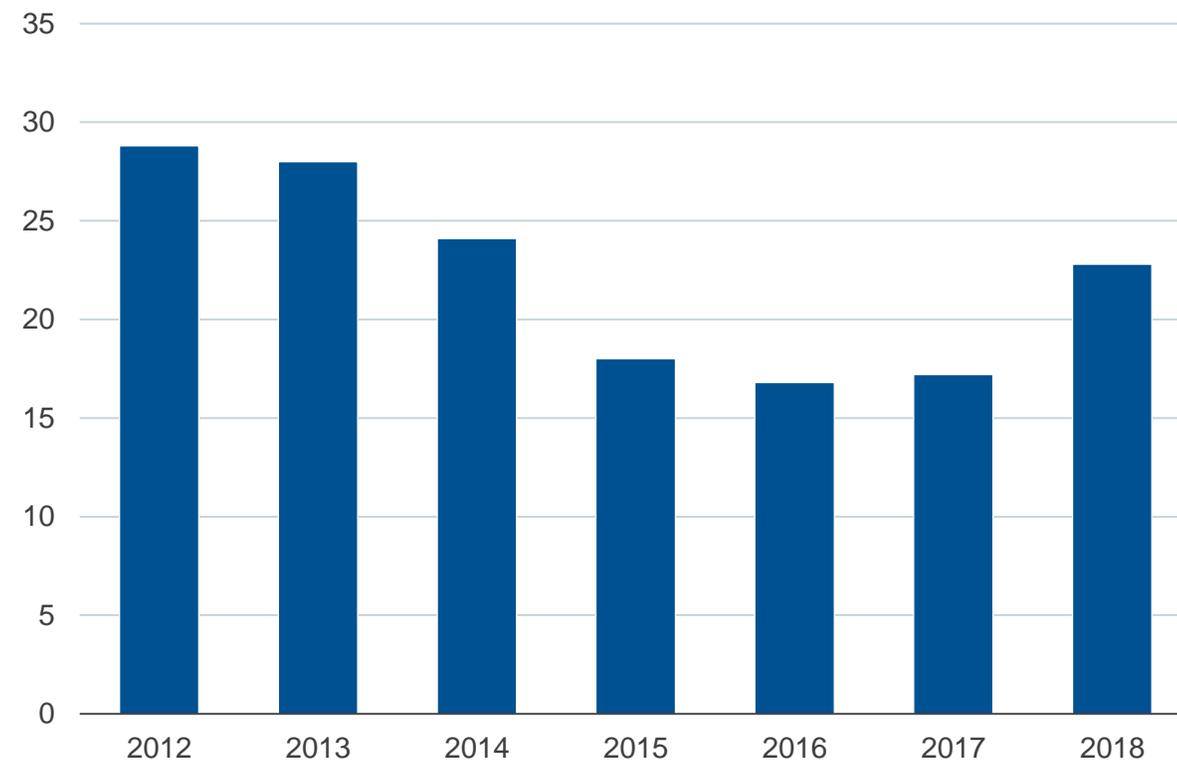
## S&P's view on Hannover Re

**Fixed Charge Coverage (x)<sup>1)</sup>**



**Financial Leverage<sup>2)</sup>**

in %

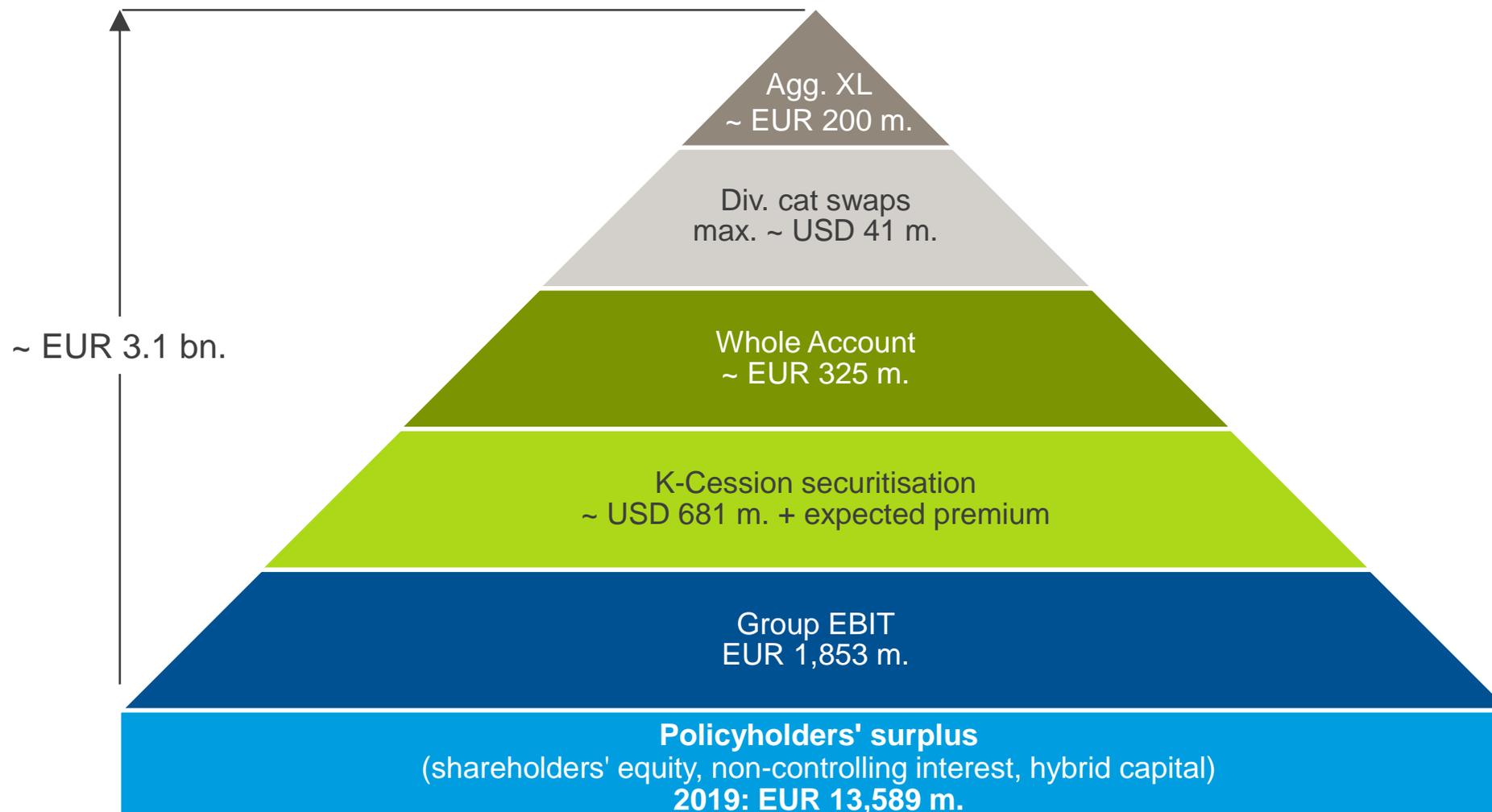


Source: Standard & Poor's rating report of Hannover Re as of 29 August 2019

1) Fixed charge coverage: EBITDA divided by sum of interest expenses and interest on operating lease (S&P definition)

2) Financial leverage: calculated as debt & hybrid capital, pension and operating lease commitments as of economic capital available (S&P definition)

# Several levels of protection provide more NatCat capacity... ...and thus create additional earnings at a defined risk appetite



As at March 2020

# Financial strength ratings

## Group

General Reinsurance Corp.

## Hannover Re

Munich Re

Swiss Re

SCOR

XL Bermuda

Transatlantic Re

PartnerRe

Everest Re

Lloyd's

## S&P

AA+

AA-

AA-

AA-

AA-

AA-

A+

A+

A+

A+

## A.M. Best

A++

A+

A+

A+

A+

A+

A+

A+

A+

A

As at 2 March 2020

# An above-average rating has numerous benefits...

...although we might not (yet) get paid for it

---



We have a better showing of business than the average player

- Access to all lines of business
  - We enjoy a highly diversified, high quality book of business
- 



We are on virtually all broker lists, with cedents often demanding specific R/Is

---



We get very high allocations when we quote for business

- >90% vs. some 50% for a Bermuda start-up
- 



We create lower capital charges for our cedents

- "AA" range S&P capital charge on reinsurance recoverables = 0.8% ("A" = 1.4%, BBB = 3.1%)
  - As an above-average rated R/I, we "minimise" our cedents' cost of capital
- 



Our cost of financing in the capital markets is lower

- Hybrid bonds trade at tighter spreads
- Better conditions for LoCs and credit lines

# We cope with a challenging regulatory environment

## Recent developments

### Data protection

- EU General data protection regulation (GDPR)
- International data protection regulation (e.g. PIPA in South Africa)

### IT and cyber security

- Requirements on IT security in (re-) insurance (VAIT)
- EIOPA cyber risk initiative

### Solvency II review

- Level 2 review in 2018
- Review of the Solvency II directive (level 1) in 2020

### IAIS common framework for insurance regulation (ComFrame)

- International capital standards (ICS)
- Monitoring phase until 2025

### Conduct and sustainability regulation

- Insurance distribution directive
- Sustainability reporting

### Disruption

- Brexit
- US tax reform (Base erosion and abuse tax on affiliate premium)

### Internal model regulation

- Market risk benchmark study
- EIOPA initiative of further involvement in internal model review

### Major changes in accounting standards

- IFRS 17
- IFRS 9

# Group capital position remains comfortable

## Growth in own funds exceeds SCR growth, driven also by hybrid bond issuance in Q4

in m. EUR	Solvency II <sup>1)</sup> 31.12.2018	Solvency II <sup>2)</sup> 31.12.2019	Internal Metrics 31.12.2019
Available Economic Capital / Eligible Own Funds <sup>3)</sup>	12,635	14,399	15,035
Solvency Capital Requirements (SCR)	5,135	5,719	5,719
Excess Capital	7,499	8,680	9,316
<b>Capital Adequacy Ratio</b>	<b>246%</b>	<b>252%</b>	<b>263%</b>
<b>Minimum Target Ratio (Limit / Threshold)</b>		<b>180% / 200%</b>	

1) Small deviations compared to annual report 2018 since the amounts are based on final Solvency II year-end reporting as presented in the Solvency and Financial Condition Report (SFCR)

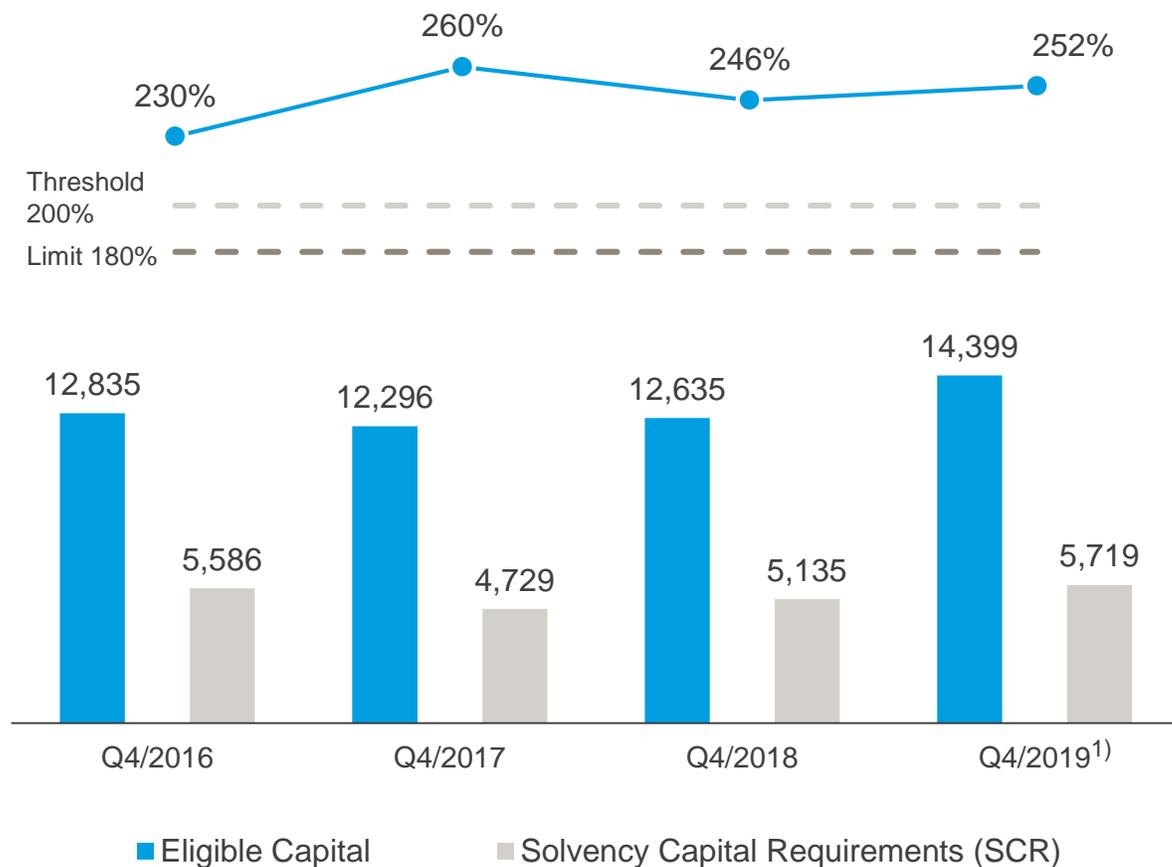
2) Full internal model incl. the application of the dynamic volatility adjustment (subject to regulatory approval), own funds based on the Solvency II reporting as of 31 December 2019, audit opinions not issued yet

3) Including haircut (EUR 636 m.) for minority interests (mostly E+S Rückversicherung AG)

# Improving capital adequacy ratio

## Strong growth supported by excellent operating earnings

### Development of the (regulatory) capital adequacy ratio



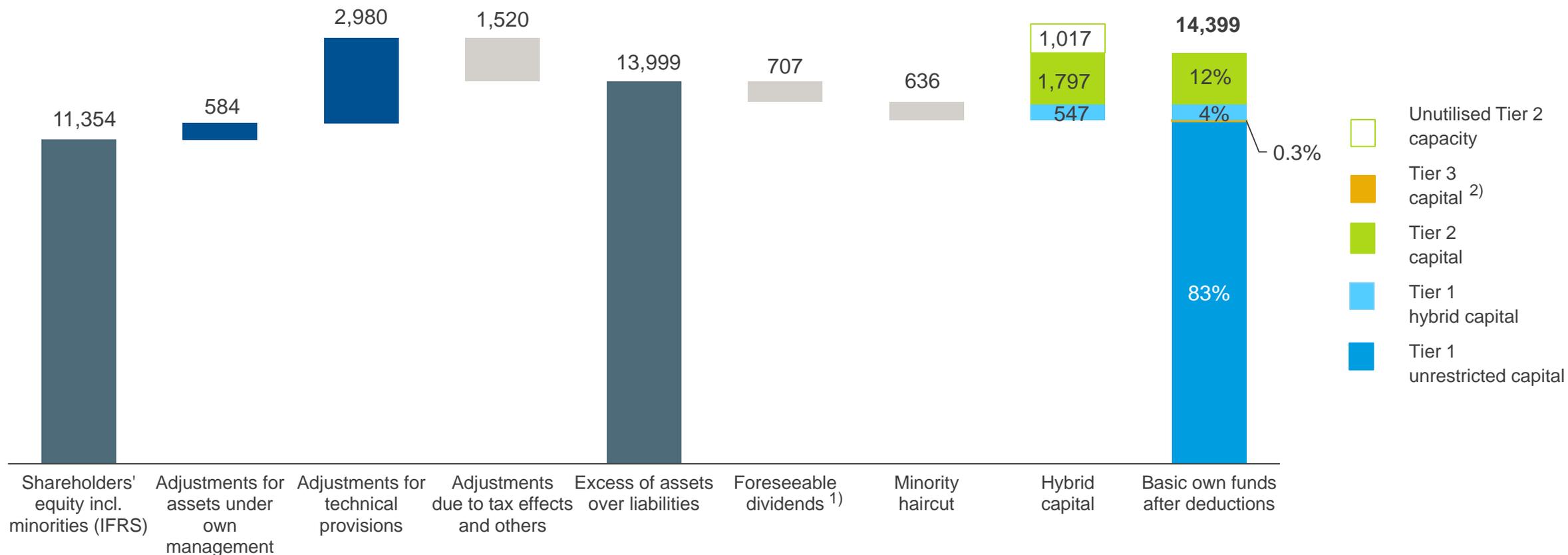
- **2018:** Decrease in solvency ratio mainly due to higher capital requirements as a result of growing business and widening of credit spreads, with offsetting effects from first-time application of volatility adjustment in Q4/2018.
- **2019:** Increase in solvency ratio due to the additional hybrid bond issued in 2019. The increase in capital requirements is a result of increasing business volumes, partly offset by first-time application of the dynamic volatility adjustment in Q4/2019.

1) Solvency Capital Requirements Q4/2019 include the application of the dynamic volatility adjustment (subject to regulatory approval)

# High-quality capital base with 87% Tier 1 Unutilized Tier 2 provides additional flexibility

## Reconciliation of IFRS Shareholders' equity vs. Solvency II own funds

in m. EUR



As at 31 December 2019, the related audits are at present not fully completed

1) Foreseeable dividends and distributions refer to Hannover Rück SE dividend including non-controlling interests

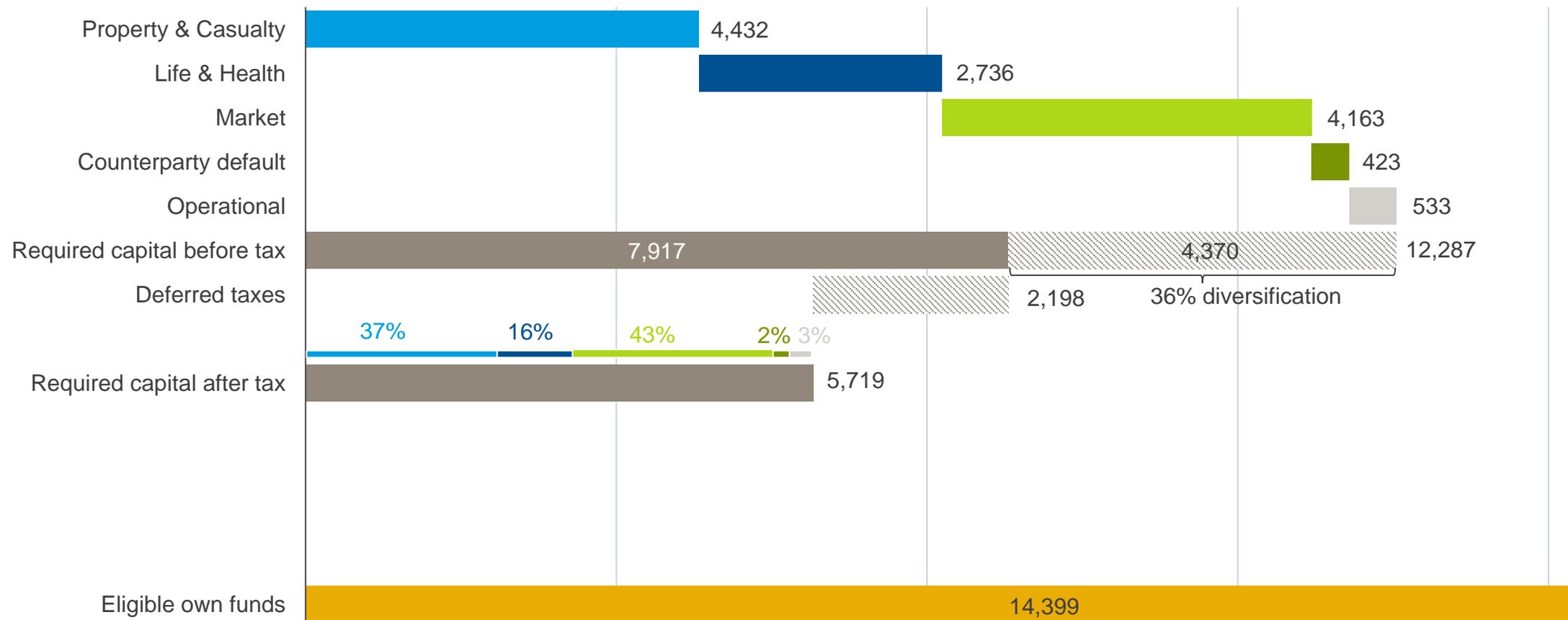
2) Net deferred tax assets

# Efficient capital deployment supported by significant diversification

## Eligible own funds at record high

### Solvency Capital Requirements

in m. EUR



As at 31 December 2019

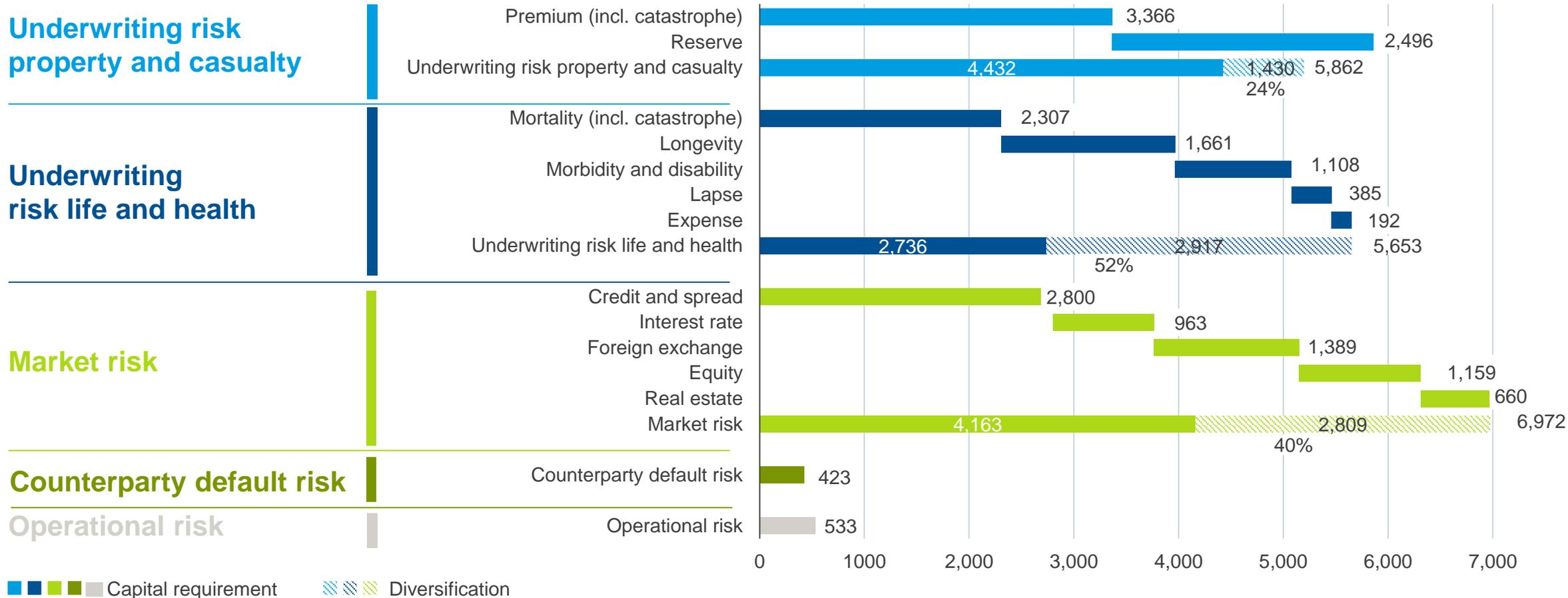
Solvency capital requirements based on the full internal model incl. the application of the dynamic volatility adjustment (subject to regulatory approval)

The capital allocation is based on TVaR which takes dependencies between risk categories into account

# Hannover Re is well diversified within each risk category... ...and has a well balanced risk profile

Risk capital for the 99.5% VaR (according to economic capital model)

in m. EUR

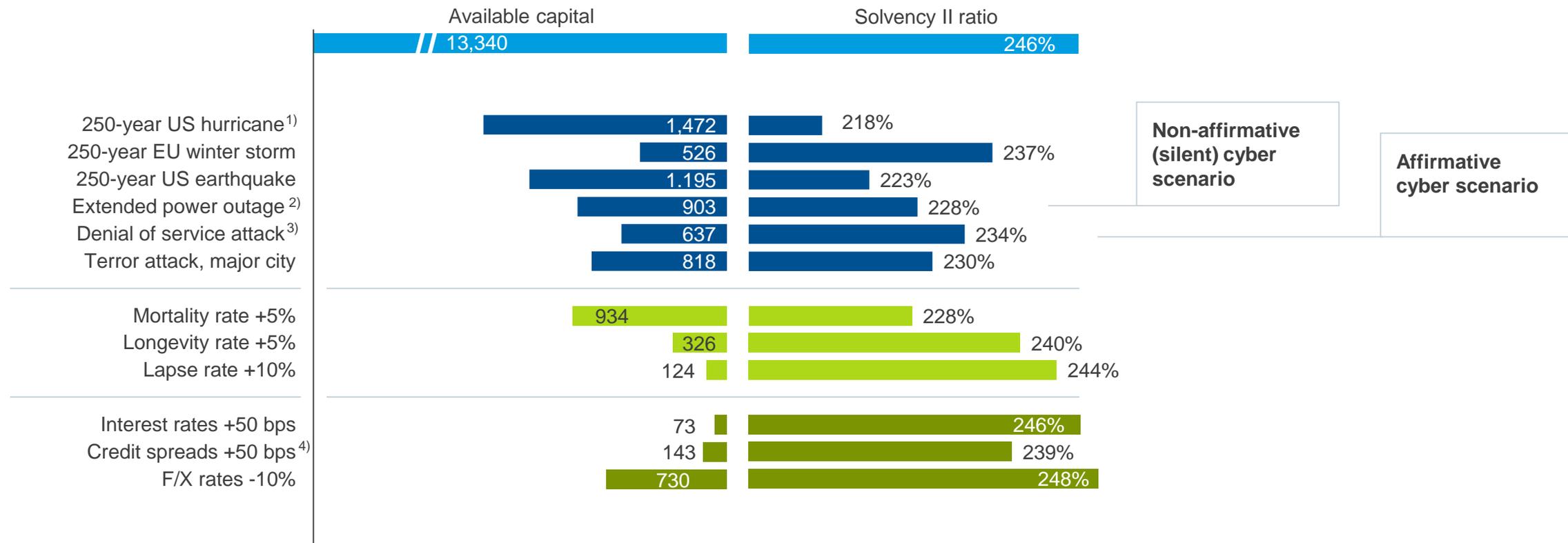


As at 31 December 2019

# Individual risks with limited impact on own funds

## Substantial excess capital to withstand stress events

### Sensitivities and stress tests



As at 31 December 2018, in m. EUR; post-tax

1) A return period of 250 years is equivalent to an occurrence probability of 0.4%; based on the aggregate annual loss. Car – Caribbean

2) Approx. 3 weeks of power outage in a larger area of a developed country

3) Distributed denial-of-service-attack on main DNS provider

4) +50bps for Hannover Re average portfolio bucket. Stress level differs by rating and duration. Includes impact of changes in static volatility adjustment

# Agenda

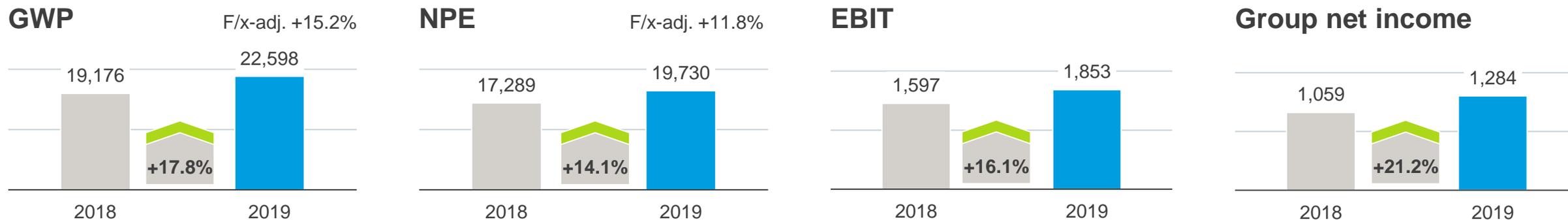
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1	Hannover Re Group	2
2	Property & Casualty reinsurance	30
3	Life & Health reinsurance	42
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# Double-digit growth in earnings and premium

Improved RoE well above target, despite 20% increase in shareholders' equity



**13.3%**

**Return on Equity**

Well above minimum target of 9.3%

**87.30 EUR**

**Book value per share**

+20.0% driven by strong earnings as well as interest rates and spread increases

**252%**

**Solvency II ratio**

31.12.2019



## P&C Reinsurance

EBIT: 1,286 m.

- Satisfying EBIT margin (10.0%)
- C/R of 98.2% above target due to large losses exceeding budget and Typhoon Jebi
- Strong premium growth (f/x-adj. +20.4%) driven by diversified growth in traditional business and Structured R/I



## L&H Reinsurance

EBIT: 570 m.

- Strong earnings contribution based on overall favourable underlying profitability as well as positive one-off effect in Q2/2019 and absence of recapture charges for US mortality business in H2/2019 lead to an EBIT increase of 107%
- Premium growth (f/x-adj. +6.7%) mainly from APAC



## Investments

NI: 1,757 m.

- Ordinary investment income increased by 4.5%
- RoI from AuM: 3.5%, exceeds increased guidance of ≥3.2%
- AuM increased by +12.9% to more than 47 bn.

Figures in EUR millions, unless otherwise stated

# Remarkable premium and earnings growth

## Improved result from Life & Health and favourable investment income

### Group figures in m. EUR

	Q4/2018	Q4/2019	Δ	2018	2019	Δ
Gross written premium	4,184	5,204	+24.4%	19,176	22,598	+17.8%
Net premium earned	4,515	5,338	+18.2%	17,289	19,730	+14.1%
Net underwriting result	52	(35)	-166.7%	(51)	(216)	-
- Incl. funds withheld	97	24	-75.6%	157	(10)	-106.2%
Net investment income	375	425	+13.5%	1,530	1,757	+14.8%
- From assets under own mgmt.	330	366	+11.1%	1,322	1,551	+17.3%
- From funds withheld	45	59	+31.3%	208	206	-0.7%
Other income and expenses	12	68	-	118	312	+165.2%
<b>Operating profit/loss (EBIT)</b>	<b>440</b>	<b>458</b>	<b>+4.2%</b>	<b>1,597</b>	<b>1,853</b>	<b>+16.1%</b>
Financing costs	(20)	(23)	+15.9%	(78)	(87)	+11.3%
<b>Net income before taxes</b>	<b>419</b>	<b>434</b>	<b>+3.6%</b>	<b>1,518</b>	<b>1,766</b>	<b>+16.3%</b>
Taxes	(63)	(127)	+102.8%	(373)	(393)	+5.3%
<b>Net income</b>	<b>357</b>	<b>307</b>	<b>-13.8%</b>	<b>1,146</b>	<b>1,373</b>	<b>+19.9%</b>
- Non-controlling interests	23	26	+17.1%	86	89	+3.7%
<b>Group net income</b>	<b>334</b>	<b>281</b>	<b>-15.9%</b>	<b>1,059</b>	<b>1,284</b>	<b>+21.2%</b>
Retention	90.4%	88.5%		90.7%	90.0%	
EBIT margin (EBIT/Net premium earned)	9.7%	8.6%		9.2%	9.4%	
Tax ratio	14.9%	29.2%		24.6%	22.2%	
Earnings per share (in EUR)	2.77	2.33		8.79	10.65	

# Strong growth based on improving reinsurance market environment

## Satisfactory results despite large losses exceeding budget

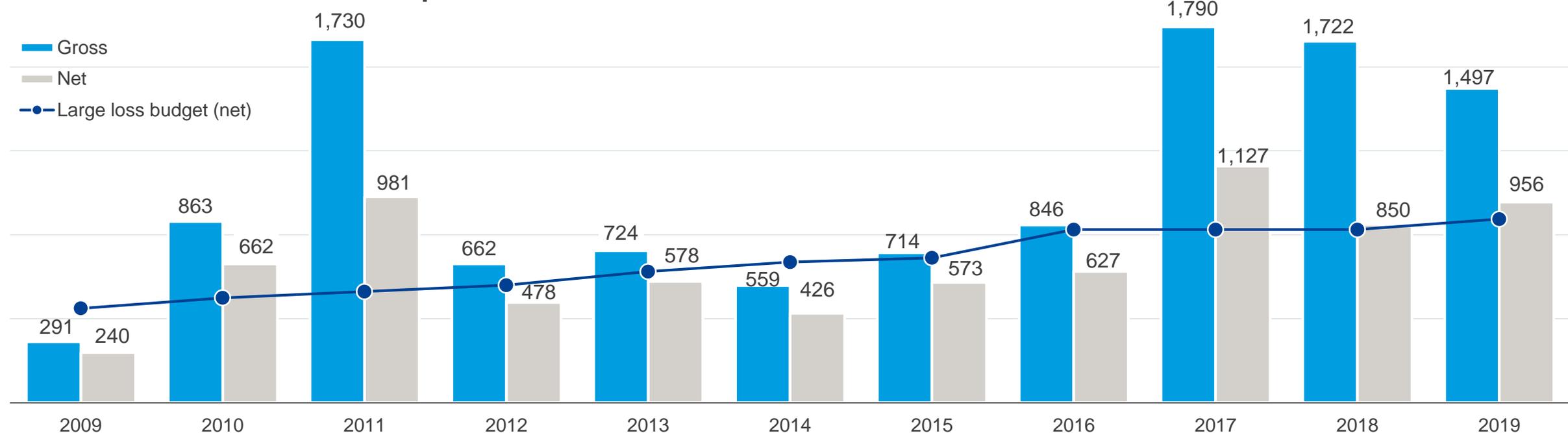
Property & Casualty R/I in m. EUR	Q4/2018	Q4/2019	2018	2019
Gross written premium	2,318	3,128	11,976	14,781
Net premium earned	2,787	3,515	10,804	12,798
Net underwriting result incl. funds withheld	114	110	373	235
Combined ratio incl. interest on funds withheld	95.9%	96.9%	96.5%	98.2%
Net investment income from assets under own management	242	254	999	1,022
Other income and expenses	(37)	3	(50)	29
<b>Operating profit/loss (EBIT)</b>	<b>319</b>	<b>367</b>	<b>1,323</b>	<b>1,286</b>
Tax ratio	12.6%	29.9%	23.4%	25.4%
<b>Group net income</b>	<b>257</b>	<b>232</b>	<b>929</b>	<b>872</b>
Earnings per share (in EUR)	2.13	1.92	7.70	7.23

### YTD

- GWP f/x-adjusted +20.4%, growth from traditional reinsurance (+21.6%) as well as Structured R/I (+15.7%)
- NPE f/x-adjusted +15.8%
- Major losses of EUR 956 m. (7.5% of NPE) above budget of EUR 875 m.
- Negative development of typhoon Jebi impacted the combined ratio by approx. EUR 80 m.
- Positive overall run-off result and (unchanged) conservative initial reserving
- US casualty development and decision on Ogden rate change lead to reduction in reserve redundancies
- Net investment income increased mainly driven by strong ordinary investment income
- Other income and expenses benefitted from disposal of participation in Q3/2019
- EBIT margin of 10.0% exactly in line with target
- Tax ratio at normalised level

# Large losses exceed budget by EUR 81 million

## Natural and man-made catastrophe losses<sup>1)</sup>



### Natural and man-made catastrophe losses in % of Property & Casualty premium

5%	5%	14%	12%	25%	16%	9%	7%	9%	8%	7%	6%	8%	7%	9%	8%	17%	12%	14%	8%	10%	7%
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### Large loss budget (net) in m. EUR

450	500	530	560	625	670	690	825	825	825	825	875
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1) Up to 2011 claims over EUR 5 m. gross, from 2012 onwards claims over EUR 10 m. gross

# Large losses above budget due to frequency of man-made losses

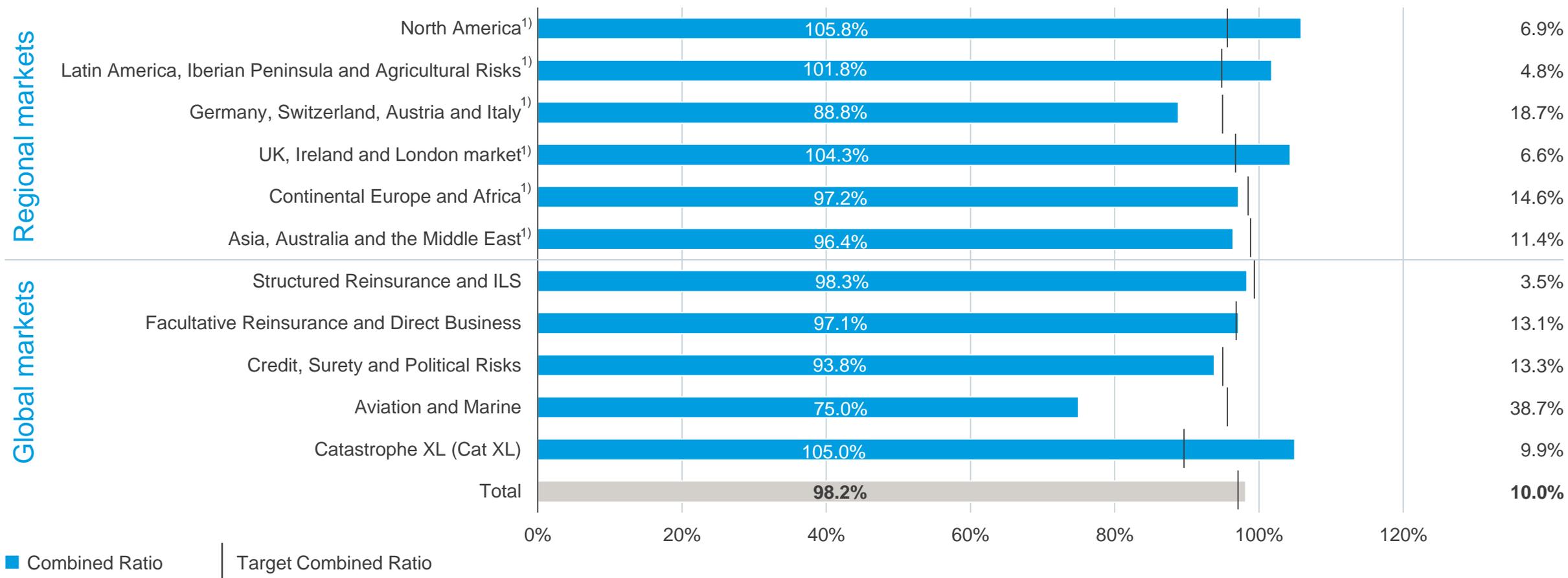
## Large losses from natural catastrophes in line with expectations

Catastrophe losses <sup>1)</sup> in m. EUR	Date	Gross	Net
Flood, Australia	26 Jan - 7 Feb	37.1	27.5
Storm / flood, USA	12 - 13 Mar	20.2	17.6
Tornados, USA	25 - 29 May	40.8	38.7
Hailstorm "Jörn", Germany	10 Jun	23.9	14.9
Typhoon "Lekima", China	10 - 11 Aug	14.8	14.3
Hurricane "Dorian", Bahamas, USA	1 Sep	221.2	194.7
Typhoon "Faxai", Japan	8 Sep	187.8	83.8
Typhoon "Hagibis", Japan	12 - 13 Oct	447.1	183.8
Earthquake, Albania	26 Nov	15.3	14.9
Bushfire, Australia	1 - 31 Dec	54.9	46.3
<b>10 Natural catastrophes</b>		<b>1,062.9</b>	<b>636.5</b>
2 Marine claims		24.8	15.1
2 Aviation claims		127.9	33.2
6 Property claims		184.6	174.2
2 Credit claims		97.1	97.1
<b>12 Man-made losses</b>		<b>434.4</b>	<b>319.6</b>
<b>22 Major losses</b>		<b>1,497.3</b>	<b>956.1</b>

1) Natural catastrophes and other major losses in excess of EUR 10 m. gross  
 Large loss budget EUR 875 m. thereof EUR 175 m. man-made and EUR 700 m. NatCat

# High large loss experience leads to a Combined Ratio above target

## Q1-4/2019: Combined Ratio vs. Target Combined Ratio



1) All lines of Property & Casualty reinsurance except those stated separately

# Strong earnings contribution from Life & Health reinsurance

## US mortality performance better than expected

Life & Health R/I in m. EUR	Q4/2018	Q4/2019	2018	2019
Gross written premium	1,865	2,076	7,200	7,816
Net premium earned	1,728	1,823	6,485	6,932
Net underwriting result incl. funds withheld	(16)	(86)	(216)	(245)
Net investment income from assets under own management	87	112	320	526
Other income and expenses	50	67	172	289
<b>Operating profit/loss (EBIT)</b>	<b>121</b>	<b>92</b>	<b>276</b>	<b>570</b>
EBIT margin	7.0%	5.1%	4.3%	8.2%
Tax ratio	22.6%	23.6%	32.0%	16.4%
<b>Group net income</b>	<b>93</b>	<b>69</b>	<b>186</b>	<b>472</b>
Earnings per share (in EUR)	0.77	0.57	1.54	3.91

### YTD

- GWP f/x-adjusted +6.7%, mainly from APAC and UK Longevity
- NPE f/x-adjusted growth +5.1%
- US mortality improved significantly due to in-force management actions. Technical result negatively impacted by Australian disability and UK mortality in 1H/2019
- Extraordinary gain from restructuring of a participation in Q2/2019 (EUR 99.5 m.). Favourable ordinary investment income and change in fair value of financial instruments
- Other income and expenses mainly the result of strong contribution from deposit accounted treaties in Financial Solutions in the amount of EUR 287 m. (2018: EUR 198 m.)
- EBIT materially exceeds prior year
- Low tax ratio due to tax-reduced investment gains

# Very pleasing outperformance of RoI target

## Realisations driven by successful real estate transactions and one-off in L&H

in m. EUR	Q4/2018	Q4/2019	2018	2019	RoI
Ordinary investment income <sup>1)</sup>	333	356	1,327	1,407	3.1%
Realised gains/losses	27	74	128	274	0.6%
Impairments/appreciations & depreciations	(12)	(28)	(49)	(81)	-0.2%
Change in fair value of financial instruments (through P&L)	11	-4	31	73	0.2%
Investment expenses	(29)	(33)	(114)	(122)	-0.3%
<b>NII from assets under own mgmt.</b>	<b>330</b>	<b>366</b>	<b>1,322</b>	<b>1,551</b>	<b>3.5%</b>
NII from funds withheld	45	59	208	206	
<b>Total net investment income</b>	<b>375</b>	<b>425</b>	<b>1,530</b>	<b>1,757</b>	

### YTD

- Rise in ordinary income from fixed-income securities and real estate as well as strong results from private equity investments
- Realised gains driven by restructuring of participation in L&H and disposals of two real estate objects as well as positive effects from fixed income portfolios
- Positive development of fair value changes through P&L predominantly due to reinsurance embedded derivatives
- Significant rise in valuation reserves due to lower EUR, USD and GBP yields as well as lower credit spreads on corporates

Unrealised gains/losses of investments	31 Dec 18	31 Dec 19
On-balance sheet	500	1,789
thereof Fixed income AFS	91	1,356
Off-balance sheet	498	524
thereof Fixed income HTM, L&R	227	233
<b>Total</b>	<b>998</b>	<b>2,314</b>

1) Incl. results from associated companies

# Target Matrix 2019

## Almost all targets achieved or exceeded

Business group	Key figures	Strategic targets for 2019	2019
Group	Return on investment <sup>1)</sup>	≥ 2.8%	3.4%
	Return on equity <sup>2)</sup>	≥ 9.3%	13.3%
	Earnings per share growth (y-o-y)	≥ 5%	21.2%
	Economic value creation <sup>3)</sup>	≥ 6.3%	13.5%
	Solvency ratio <sup>4)</sup>	≥ 200%	252%
Property & Casualty R/I	Gross premium growth <sup>5)</sup>	3 - 5%	20.4%
	Combined ratio <sup>6)</sup>	≤ 97%	98.2%
	EBIT margin <sup>7)</sup>	≥ 10%	10.0%
	xRoCA <sup>8)</sup>	≥ 2%	0.1%
Life & Health R/I	Gross premium growth <sup>9)</sup>	3 - 5%	6.7%
	Value of New Business (VNB) <sup>10)</sup>	≥ EUR 220 m.	EUR 663 m.
	EBIT growth <sup>11)</sup>	≥ 5%	106.6%
	xRoCA <sup>8)</sup>	≥ 2%	12.4%

1) Excl. effects from ModCo derivatives

3) Growth in economic equity + paid dividend; target: 600 bps above 5-year average return of 10-year German government bonds

5) On average throughout the R/I cycle at constant f/x rates

7) EBIT/net premium earned

9) Organic growth only; target: annual average growth over a 3-year period, at constant f/x rates

11) Annual average growth over a 3-year period

2) After tax; target: 900 bps above 5-year average return of 10-year German government bonds

4) According to our internal capital model and Solvency II requirements

6) Incl. large loss budget of EUR 875 m.

8) Excess return on allocated economic capital

10) Based on Solvency II principles; pre-tax reporting

# Our business groups at a glance

## 2019 vs. 2018

in m. EUR	Property & Casualty R/I			Life & Health R/I			Total		
	2018	2019	Δ	2018	2019	Δ	2018	2019	Δ
Gross written premium	11,976	14,781	+23.4%	7,200	7,816	+8.6%	19,176	22,598	+17.8%
Net premium earned	10,804	12,798	+18.5%	6,485	6,932	+6.9%	17,289	19,730	+14.1%
Net underwriting result	337	188	-44.3%	(388)	(404)	+4.0%	(51)	(216)	-
Net underwriting result incl. funds withheld	373	235	-36.9%	(216)	(245)	+13.4%	157	(10)	-106.2%
Net investment income	1,035	1,069	+3.3%	492	684	+39.2%	1,530	1,757	+14.8%
From assets under own management	999	1,022	+2.3%	320	526	+64.5%	1,322	1,551	+17.3%
From funds withheld	36	48	+33.1%	172	159	-7.8%	208	206	-0.7%
Other income and expenses	(50)	29	-	172	289	+68.0%	118	312	+165.2%
<b>Operating profit/loss (EBIT)</b>	<b>1,323</b>	<b>1,286</b>	<b>-2.8%</b>	<b>276</b>	<b>570</b>	<b>+106.6%</b>	<b>1,597</b>	<b>1,853</b>	<b>+16.1%</b>
Financing costs	0	(2)	-	0	(2)	-	(78)	(87)	+11.3%
<b>Net income before taxes</b>	<b>1,323</b>	<b>1,283</b>	<b>-3.0%</b>	<b>276</b>	<b>568</b>	<b>+106.0%</b>	<b>1,518</b>	<b>1,766</b>	<b>+16.3%</b>
Taxes	(309)	(326)	+5.4%	(88)	(93)	+5.8%	(373)	(393)	+5.3%
<b>Net income</b>	<b>1,014</b>	<b>958</b>	<b>-5.5%</b>	<b>188</b>	<b>475</b>	<b>+153.2%</b>	<b>1,146</b>	<b>1,373</b>	<b>+19.9%</b>
Non-controlling interest	84	86	+1.8%	2	3	+104.4%	86	89	+3.7%
<b>Group net income</b>	<b>929</b>	<b>872</b>	<b>-6.2%</b>	<b>186</b>	<b>472</b>	<b>+153.7%</b>	<b>1,059</b>	<b>1,284</b>	<b>+21.2%</b>
Retention	90.7%	90.3%		90.7%	89.5%		90.7%	90.0%	
Combined ratio (incl. interest on funds withheld)	96.5%	98.2%		-	-		-	-	
EBIT margin (EBIT / Net premium earned)	12.2%	10.0%		4.3%	8.2%		9.2%	9.4%	
Tax ratio	23.4%	25.4%		32.0%	16.4%		24.6%	22.2%	
Earnings per share (in EUR)	7.70	7.23		1.54	3.91		8.79	10.65	

# Our business groups at a glance

## Q4/2019 vs. Q4/2018

in m. EUR	Property & Casualty R/I			Life & Health R/I			Total		
	Q4/2018	Q4/2019	Δ	Q4/2018	Q4/2019	Δ	Q4/2018	Q4/2019	Δ
Gross written premium	2,318	3,128	+34.9%	1,865	2,076	+11.3%	4,184	5,204	+24.4%
Net premium earned	2,787	3,515	+26.1%	1,728	1,823	+5.5%	4,515	5,338	+18.2%
Net underwriting result	104	96	-7.9%	(52)	(131)	+152.5%	52	(35)	-166.7%
Net underwriting result incl. funds withheld	114	110	-3.3%	(16)	(86)	-	97	24	-75.6%
Net investment income	251	268	+6.6%	123	157	+27.7%	375	425	+13.5%
From assets under own management	242	254	+5.0%	87	112	+28.1%	330	366	+11.1%
From funds withheld	9	14	+48.8%	36	45	+26.7%	45	59	+31.3%
Other income and expenses	(37)	3	-	50	67	+33.6%	12	68	-
<b>Operating profit/loss (EBIT)</b>	<b>319</b>	<b>367</b>	<b>+15.0%</b>	<b>121</b>	<b>92</b>	<b>-23.5%</b>	<b>440</b>	<b>458</b>	<b>+4.2%</b>
Financing costs	0	(1)	-	0	0	-	(20)	(23)	+15.9%
<b>Net income before taxes</b>	<b>319</b>	<b>366</b>	<b>+14.8%</b>	<b>121</b>	<b>92</b>	<b>-23.9%</b>	<b>419</b>	<b>434</b>	<b>+3.6%</b>
Taxes	(40)	(110)	+172.8%	(27)	(22)	-20.7%	(63)	(127)	+102.8%
<b>Net income</b>	<b>279</b>	<b>257</b>	<b>-8.0%</b>	<b>93</b>	<b>70</b>	<b>-24.8%</b>	<b>357</b>	<b>307</b>	<b>-13.8%</b>
Non-controlling interest	22	25	+13.0%	0	1	-	23	26	+17.1%
<b>Group net income</b>	<b>257</b>	<b>232</b>	<b>-9.8%</b>	<b>93</b>	<b>69</b>	<b>-26.0%</b>	<b>334</b>	<b>281</b>	<b>-15.9%</b>
Retention	90.0%	88.5%		91.0%	88.5%		90.4%	88.5%	
Combined ratio (incl. interest on funds withheld)	95.9%	96.9%		-	-		-	-	
EBIT margin (EBIT / Net premium earned)	11.4%	10.4%		7.0%	5.1%		9.7%	8.6%	
Tax ratio	12.6%	29.9%		22.6%	23.6%		14.9%	29.2%	
Earnings per share (in EUR)	2.13	1.92		0.77	0.57		2.77	2.33	

# Overall profitability above margin requirements in Property & Casualty

## Financial year 2020

### Reporting categories

Reporting categories	Volume <sup>1)</sup>	Profitability <sup>2)</sup>
North America <sup>3)</sup>		+
Latin America, Iberian Peninsula and Agricultural Risks <sup>3)</sup>		+
Germany, Switzerland, Austria and Italy <sup>3)</sup>		+
UK, Ireland and London Market <sup>3)</sup>		+/-
Continental Europe and Africa <sup>3)</sup>		+/-
Asia, Australia and the Middle East <sup>3)</sup>		+/-
Structured Reinsurance and ILS		+
Facultative Reinsurance and Direct Business		+
Credit, Surety and Political Risks		+/-
Aviation and Marine		+/-
Catastrophe XL (Cat XL)		+/-

1) In EUR, development in original currencies can be different

2) ++ = well above CoC; + = above CoC; +/- = CoC earned; - = below Cost of Capital (CoC)

3) All lines of business except those stated separately

# Profitability at or above cost of capital in all reporting categories

## Financial year 2020

### Reporting categories

Reporting categories	Volume <sup>1)</sup>	Profitability <sup>2)</sup>
Financial solutions		++
Longevity		+
Mortality		+/-
Morbidity		+/-

1) In EUR, development in original currencies can be different

2) ++ = well above CoC; + = above CoC; +/- = CoC earned; - = below Cost of Capital (CoC)

# Guidance for 2020

## Hannover Re Group

- Gross written premium<sup>1)</sup> \_\_\_\_\_ ~ 5% growth
- Return on investment<sup>2) 3)</sup> \_\_\_\_\_ ~ 2.7%
- Group net income<sup>2)</sup> \_\_\_\_\_ ~ EUR 1.2 bn.
- Ordinary dividend payout ratio<sup>4)</sup> \_\_\_\_\_ 35% - 45%
- Special dividend \_\_\_\_\_ additional payout if profit target is reached and capitalisation remains comfortable

1) At unchanged f/x rates

2) Subject to no major distortions in capital markets and/or major losses in 2020 not exceeding the large loss budget of EUR 975 m.

3) Excluding effects from ModCo derivatives

4) Relative to group net income according to IFRS

# Agenda

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# Financial calendar and our Investor Relations contacts



**6 May 2020**

Annual General Meeting  
Quarterly Statement as at 31 March 2020



**Karl Steinle**

General Manager

Phone: +49 511 5604 - 1500  
karl.steinle@hannover-re.com



**5 August 2020**

Half-yearly report as at 30 June 2020



**Julia Hartmann**

Senior Investor Relations Manager

Phone: +49 511 5604 - 1529  
julia.hartmann@hannover-re.com



**21 October 2020**

Investor's Day 2020



**4 November 2020**

Quarterly Statement as at 30 September 2020



**Axel Bock**

Investor Relations Manager

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**4 February 2021**

1 January P&C Treaty Renewals

# Basic information on the Hannover Re share

## Basic information

International Securities Identification Number (ISIN)	DE 000 840 221 5
Ticker symbols	
-Bloomberg	HNR1
-Thomson Reuters	HNRGn
-ADR	HVRRY
<b>Exchange listings</b>	
-Germany	Xetra, Frankfurt, Munich, Stuttgart, Hamburg, Berlin, Düsseldorf, Hannover (official trading: Xetra, Frankfurt and Hannover)
-USA	American Depositary Receipts (Level 1 ADR programme; 2 ADR = 1 share)
Market segment	Prime Standard
Index inclusion	MDAX
First listed	30 November 1994
Number of issued shares <sup>1)</sup>	120,597,134
Common shares <sup>1)</sup>	EUR 120,597,134
Share class	No-par-value registered shares

1) As at 31 December 2019

# List of abbreviations

## A

ABS	Asset-Backed Securities
ADR	American Depositary Receipts
AFS	Available-For-Sale
AG	Aktiengesellschaft (public company)
AuM	Assets under Management

## B

BAT	Block Assumption Transactions
biz	business
bn.	billion
bps	basis points
b/s	balance sheet

## C

CAGR	Compound Annual Growth Rate
Cat	catastrophe
C/R	Combined Ratio

## D

## E

EBIT	Earnings Before Interest and Taxes
ECM	Economic Capital Model
EPS	Earnings per share
ESG	Environmental, Social, Governance

## F

## G

GIIPS	Greece, Ireland, Italy, Portugal, Spain
GWP	Gross Written Premium

## H

HR	Hannover Re
HTM	Held-To-Maturity

## I

IFRS	International Financial Reporting Standards
ILS	Insurance-Linked Securities
IPO	Initial Public Offering
ISIN	International Securities Identification Number
IVC	Intrinsic Value Creation

## J, K

## L

L&R	Loans & Receivables
LoC	Letter of Credit
LPT	Loss Portfolio Transfer

## M

m.	Million
MCEV	Market Consistent Embedded Value

MCR	Minimum Capital Requirements
mgmt.	management
ModCo	Modified Coinsurance
MtCR	Maximum tolerable Combined Ratio

## N

n. a.	not available
NC	non-callable
NII	Net Investment Income
NPE	Net Premium Earned

## O

OCI	Other Comprehensive Income
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## P

P&L	profit and loss
p. a.	per annum
Perp	perpetual
prop.	proportional

## Q

## R

R/I	Reinsurance
RoE	Return on Equity
Rol	Return on Investment

## S

S&P	Standard & Poor's
SCR	Solvency Capital Requirements
SE	Societas Europaea (European Company)

## T

## U

U/Y	underwriting year
U/W	Underwriting

## V

V. a. G.	Versicherungsverein auf Gegenseitigkeit (mutual insurance company)
VaR	Value at Risk
VNB	Value of New Business

## W

WACC	Weighted Average Cost of Capital
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## X

XL	eXcess of Loss
xRoCA	eXcess Return on Capital Allocated

## Y

YTD	Year To Date
y-o-y	year-on-year

## Z

## Details on reserve review by Willis Towers Watson

- The scope of Willis 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 2015, and the implicit redundancy margin, for the non-life business of Hannover Rück SE. Willis 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 Willis Towers Watson's range of reasonable estimates.
  - Life reinsurance and health reinsurance business are excluded from the scope of this review.
  - Willis Towers Watson's review of non-life reserves as at 31 December 2015 covered 98.2% / 98.1% of the gross and net held non-life reserves of €22.8 billion and € 21.8 billion respectively. Together with life reserves of gross €3.7 billion and net €3.4 billion, the total balance sheet reserves amount to €26.6 billion gross and €25.2 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 Willis 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 Willis 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.
  - Willis Towers Watson's analysis was carried out based on data as at evaluation dates for each 31 December from 2009 to 2015. Willis Towers Watson's analysis may not reflect development or information that became available after the valuation dates and Willis 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. Willis 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.
  - Willis 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, Willis 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 Willis 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.
  - Willis 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.
  - Willis Towers Watson has not attempted to determine the quality of Hannover Rück SE's current asset portfolio, nor has Willis Towers Watson reviewed the adequacy of the balance sheet provisions except as otherwise disclosed herein.
- In its review, Willis Towers Watson has relied on audited and unaudited data and financial information supplied by Hannover Rück SE and its subsidiaries, including information provided orally. Willis Towers Watson relied on the accuracy and completeness of this information without independent verification.
- Except for any agreed responsibilities Willis Towers Watson may have to Hannover Rück SE, Willis 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 Willis Towers Watson in this document.

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