



Source: Shutterstock [M]

## Strong track record – and new ideas

Analysts' conference 2016

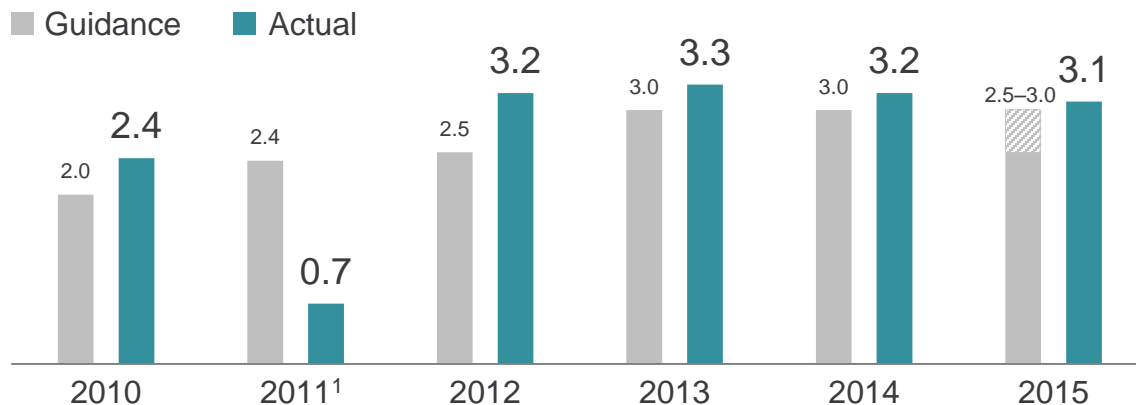
Munich, 16 March 2016

---

|    |                                     |                      |
|----|-------------------------------------|----------------------|
| 2  | Strong track record – and new ideas | Nikolaus von Bomhard |
| 17 | Munich Re (Group)                   | Jörg Schneider       |
| 32 | Risk management                     | Bernhard Kaufmann    |
| 45 | <b>ERGO</b>                         | Markus Rieß          |
| 56 | Reinsurance Property-casualty       | Torsten Jeworrek     |
| 76 | Reinsurance Life                    | Joachim Wenning      |
| 90 | Backup                              |                      |

# Under-promise/over-deliver – Strong balance sheet continues to support sound earnings ...

## Delivering on promised net result



€bn

## Earnings outlook 2016

Strong balance sheet



Challenging reinsurance and capital markets

## Munich Re's balance sheet

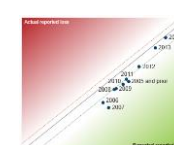
Sound capitalisation according to all metrics



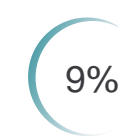
High level of unrealised investment gains<sup>2</sup>



Rock-solid reserving position



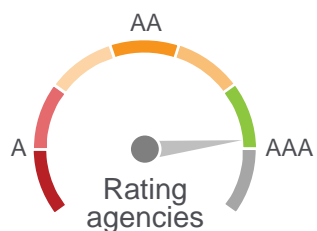
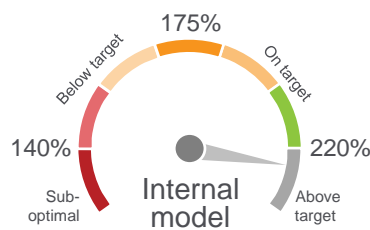
Low goodwill in relation to shareholders' equity<sup>2</sup>



**Munich Re once again delivering strong results, despite persistent challenges of declining reinsurance margins and low interest rates**

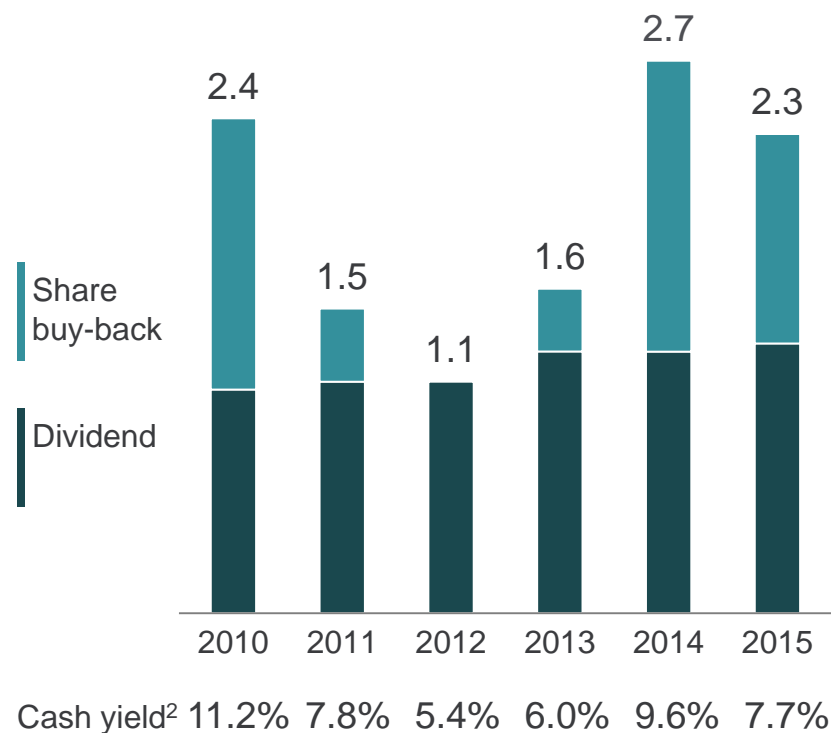
<sup>1</sup> Assuming normal nat cat claims based on 8.5% budget, net result would have exceeded guidance.

<sup>2</sup> As at 31.12.2015.



Attractive shareholder participation<sup>1</sup>

€bn



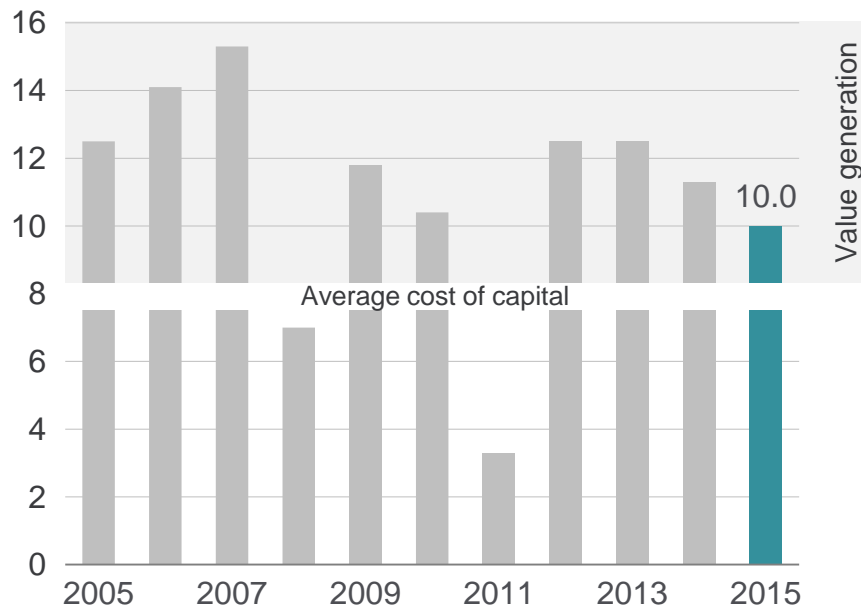
**Further increase of dividend per share to €8.25 in 2016 –  
Total of €20bn returned to shareholders in the last ten years**

<sup>1</sup> Cash-flow view.

<sup>2</sup> Total payout (dividend and buy-back) divided by average market capitalisation.

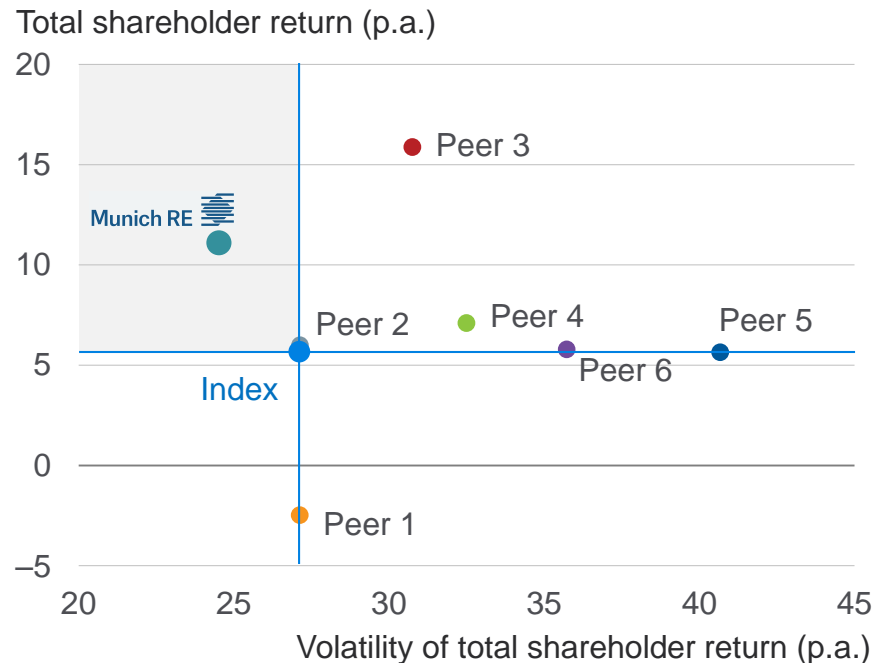
# Strong track record in value generation – Prudence reflected in lower cost of capital

Return on equity %



11-year average ROE: ~11.0% –  
Clearly exceeds average cost of capital: ~8%

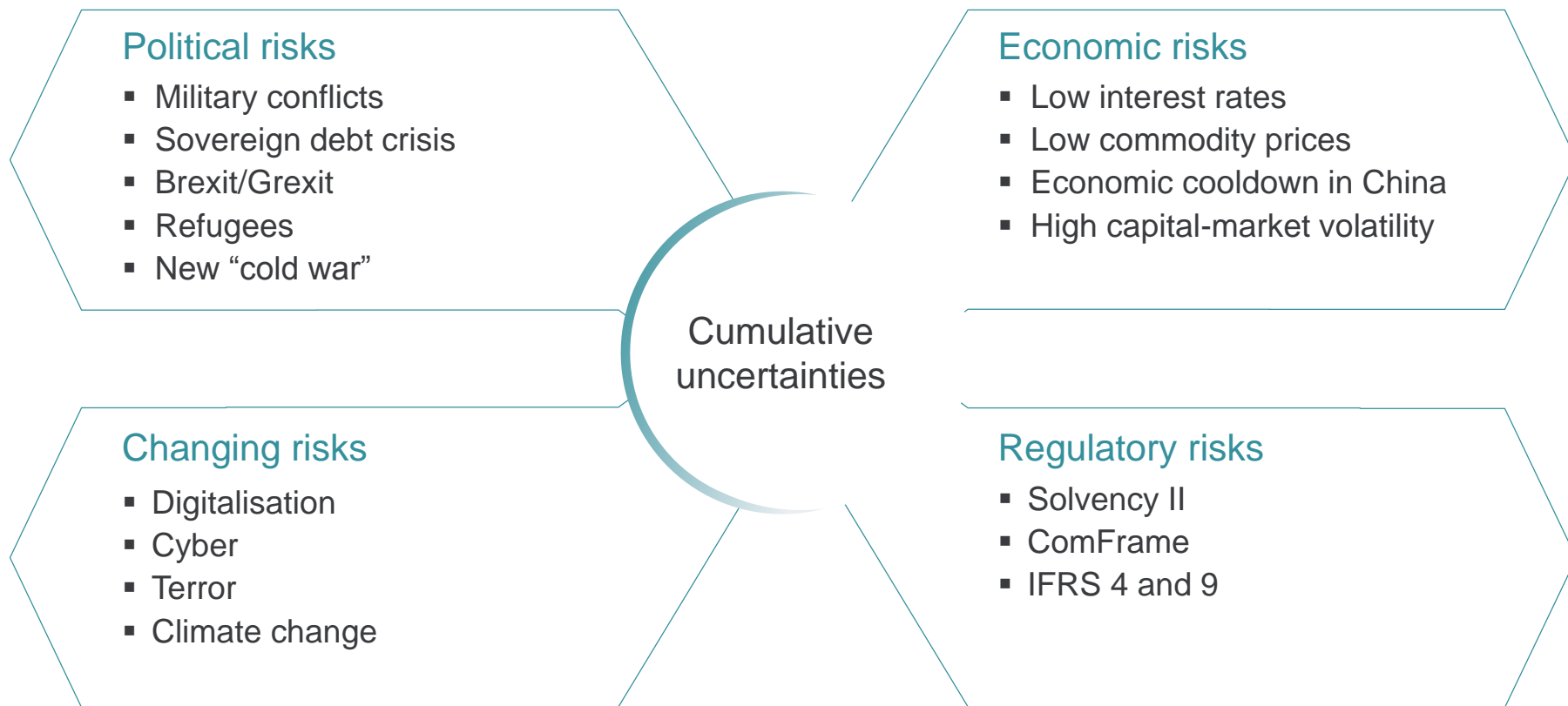
Risk/return profile<sup>1</sup> %



Annualised TSR: ~11.1% –  
Outperforming major peers and insurance index

## Balanced business portfolio paves the way for sustainable profitability

<sup>1</sup> Annualised total shareholder return defined as price performance plus dividend yield over the period from 1.1.2005 until 29.2.2015; based on Datastream total return indices in local currency; volatility calculation with 250 trading days per year. Peers: Allianz, Axa, Generali, Hannover Re, Swiss Re, ZIG, Stoxx 600 Insurance (“index”).



**Proactive risk management builds up resilience in an unpredictable and unstable environment**

# Economic/political risks – Munich Re has continuously strengthened its capital position



## Proactive risk management ...

### Ongoing analysis of scenarios

Monitoring of emerging risks and reaction to changed market conditions

### Clearly defined risk appetite

Integrated business model with clear focus on managing insurance risks

### Group-wide strategic risk management framework

Risks generally well captured by risk models – binding strategic risk criteria and operational limits embedded

## ... limiting economic impact of volatile capital markets

- Diversified investment portfolio
- Hedging strategy
- Reasonable credit-risk exposure
  - Relatively small investment share in corporate/bank bonds
- Sound rating structure

**Crisis resilience – Munich Re well-positioned to manage through volatile capital markets, based on deeply embedded risk management and high level of discipline**

# Regulatory risks – Munich Re well-positioned for Solvency II and business opportunities it presents



## Solvency II framework

Risk-based supervision

Insurers' business models are adequately reflected

Industry remains adequately capitalised

High degree of transparency

Business opportunities for reinsurers, driver of product innovation

## Munich RE

Certified full internal model deeply embedded in risk and business management

Focus on profitable underwriting and liability-driven investments – well-diversified risk profile clearly recognised

Strong capital position

Extensive reporting to stakeholders

Market-leader position in structuring complex tailor-made solutions

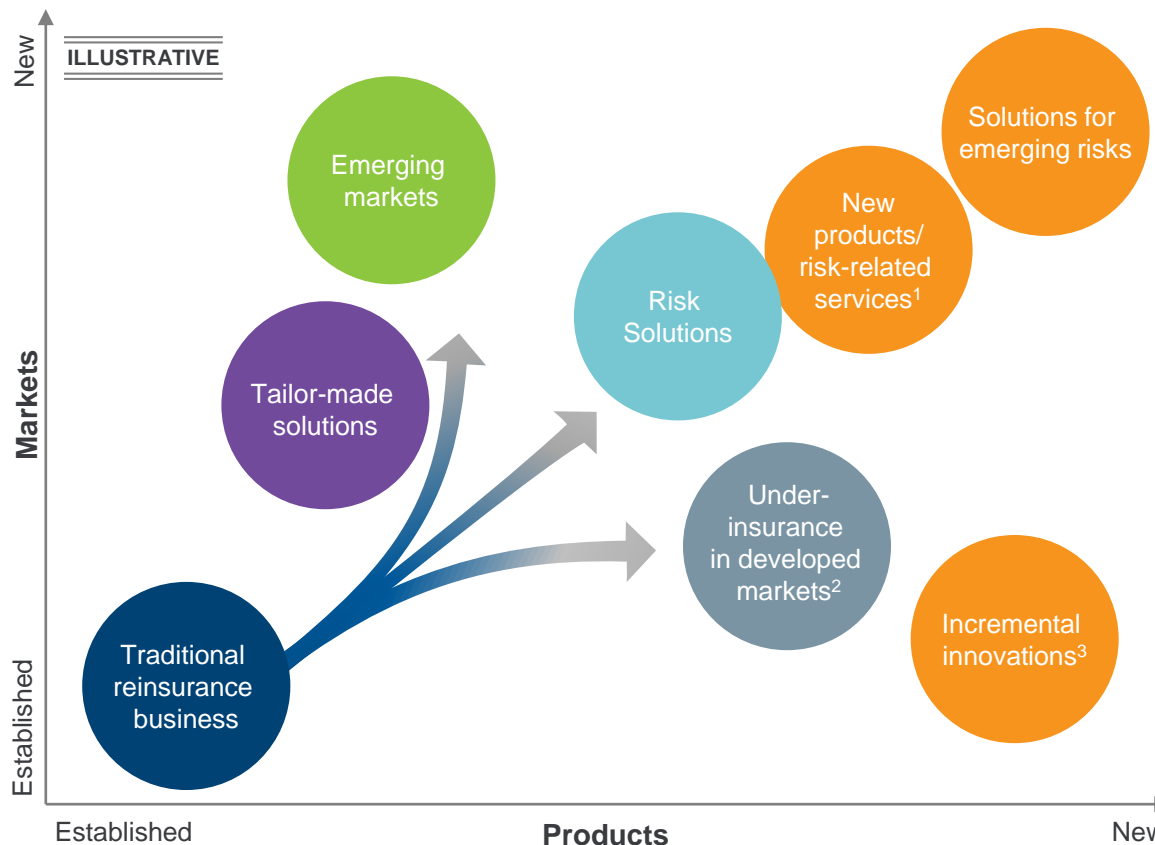
**Munich Re welcomes Solvency II standards for risk-based capitalisation**



# Changing risks – Munich Re actively shaping the transformation of the (re-)insurance industry



- Munich Re's strong footprint facilitates expansion to attractive growth markets
  - Providing services and capacity to (new) clients
- 
- Short-term: Important earnings generator
  - Mid-/long-term: Declining contribution – compensated for by new products and markets



- Underwriting know-how and expert network key to developing innovative solutions
  - Munich Re with the right infrastructure
- 
- Client proximity important for understanding changing demand
  - Munich Re launches new products that meet evolving/ changing client needs

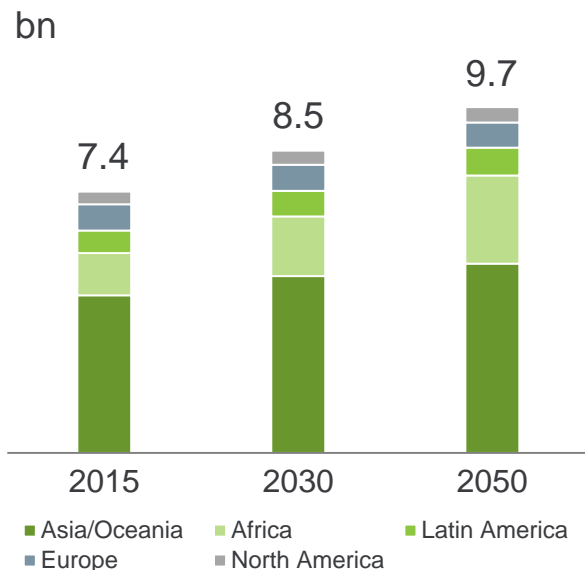
**Efficiently running the traditional book while continuously exploring new products/markets**

<sup>1</sup> e.g. Cyber insurance, performance guarantees for renewable energies. <sup>2</sup> e.g. Liability risks of atomic power plants or oil platforms.

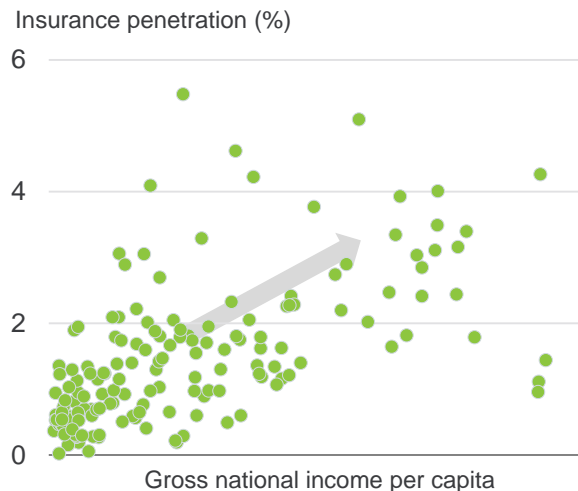
<sup>3</sup> e.g. Satellite life-time insurance.

# Underinsurance in emerging markets provides business opportunities

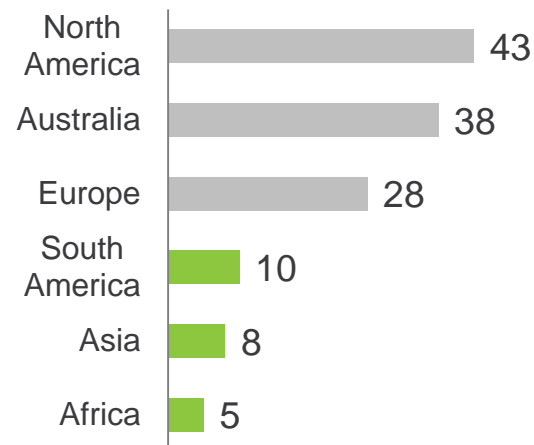
## Young and growing population<sup>1</sup>



## Insurance penetration still low<sup>2</sup>



## Insured share of nat cat losses<sup>3</sup> %



Demographic changes –  
Rise of affluent middle class and  
significant population growth ...

... drive economic growth –  
Higher wealth and better  
education further increases  
insurance spending/penetration

Emerging markets often highly  
exposed to nat cat risks –  
Higher risk awareness reduces  
underinsurance

**Future growth driven by demographic/economic changes – Munich Re is tapping the potential with know-how, client proximity and a strong capital position**

<sup>1</sup> Source: United Nations, Department of Economic and Social Affairs, Population Division (2015). <sup>2</sup> Source: Munich Re, Economic Research. Non-life, 2014. <sup>3</sup> Source: Munich Re, Geo Risks Research, NatCatSERVICE. 1980–2014.

# Structural transformation of the (re-)insurance industry provides challenges and opportunities

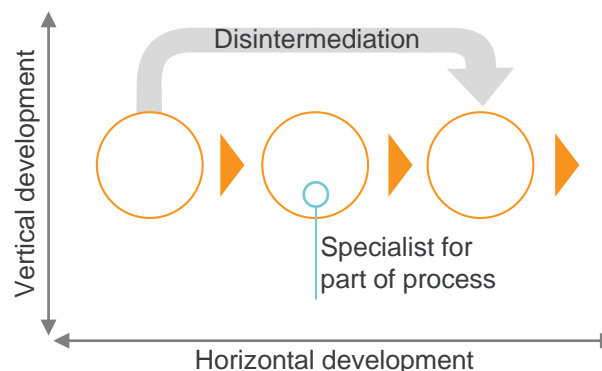


Breakup of the insurance value chain – New competitors, changing products/services and distribution

## Horizontal/vertical

Expansion of product range

- with additional products/services
- along the insurance value chain



## Specialist

Taking over sections of the value chain

## Disintermediation

New players integrate insurance services into their product range

Drivers of the transformation process – Digitalisation can improve claims and administration expenses

New technologies

Changing risk landscape – Prevention is reducing claims frequency<sup>1</sup>, new exposures are evolving<sup>2</sup>

Big data

Data owners can obtain a competitive advantage – by improving underwriting (risk selection) and claims management

Digitalised processes

Significantly improving operational efficiency

**Munich Re well-prepared to seize opportunities and open up new profit pools**

<sup>1</sup> e.g. Smart/connected home devices, autonomous driving. <sup>2</sup> e.g. Cyber risks.

# Integrated business model and infrastructure is facilitating swift adaptation to a changing environment



Munich Re provides solutions along the entire value chain ...

**New clients and demands**

Adapting to changing purchasing behaviour and new client needs

**Efficient and digital business processes**

Exploiting potential for digital processes – reducing complexity

**New risk-related services**

Predictive and preventive services are being linked to insurance products

**Digital customer and sales experience**

Optimising the customer journey – personalised digital products and services

**New (re) insurance products**

Pushing out the frontiers of insurability with covers for previously uninsured new and changing risks

**New business models**

Digital technology allows the value chain to be redesigned

... facilitated by our core competencies



**Data analytics**

Data aggregation and analysis



**Cooperation**

Partnership models inside and outside the insurance industry



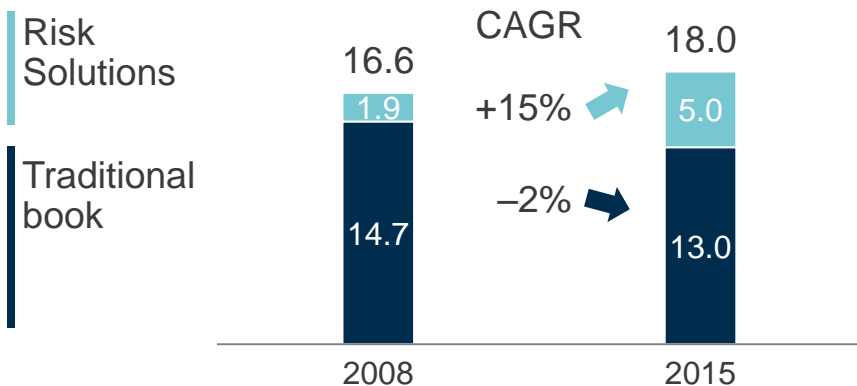
**Agile IT**

Fast, efficient and flexible

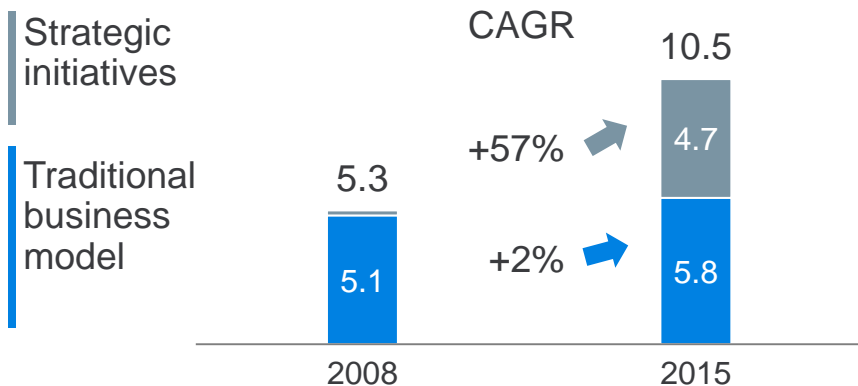
**Munich Re combines core competencies within the Group – ~€500m<sup>1</sup> premium generated by innovative products**

# Reinsurance – Portfolio mix on the move

Property-casualty – GWP<sup>1</sup> €bn



Life – GWP<sup>1</sup> €bn



As a leading Tier-1 reinsurer, successfully managing cyclical and structural market changes

- Active cycle and portfolio management in traditional business ...
- ... while continuously expanding attractive growth areas, e.g. Risk Solutions, as well as tailor-made and innovative products

Strong existing book complemented with well-established initiatives and innovative capacity

- Traditional mortality risk remains core ...
- ... while strategic initiatives have become a substantial part of the portfolio, mainly driven by organic growth in Asia and financially motivated reinsurance business

**Traditional business remains an important earnings generator, while investment in new products/solutions safeguards future profitability**

<sup>1</sup> Gross premiums written.

# ERGO – Becoming a significant earnings contributor for Munich Re (Group)

## Challenges

- Disappointing earnings development
- Insufficient success story
- Weakness in traditional life business

## Strength

- Internationally diversified client base
- Multiple product lines
- Strong digital footprint

## Strengthening operational power

- Focus on process excellence
- Modular product concepts
- Stronger IT platforms

## Digitalisation

- Uncompromising exploitation of digital opportunities to transform business model

**New ERGO**



## Product spectrum

- Stronger focus on financial products and MEAG synergies

## Internationalisation

- Defending market position in CEE markets
- Selectively expanding business in Asian markets

## Sales force

- Consequent omni-channel approach with strong agent force where available

**Strengthening the groundwork while paving the way for ERGO's future set-up**

# Munich Health – Business measures show first signs of stabilisation

## Organisation



- Enhanced organisational structures implemented
- Improvements in underwriting and client management
- Further specified strategic focus
- Intensified Group-wide business synergies

## Markets/clients



- Growth initiatives for South-East Asia and Middle East
- Repositioning in the US
- Enhanced customer experience across Munich Health
- Strengthened value proposition for reinsurance clients

## Innovation/digitalisation



- Digital health target picture
- Development and implementation of innovative and digital health solutions
- Embedding of business analytics into processes, decisions and value proposition

**Agenda 2016 – Intensified attention on forward-looking strategies and increased future-oriented initiatives**

## Munich Re (Group)

### GROSS PREMIUMS WRITTEN<sup>1</sup>

€47–49bn

Focus on bottom-line growth prevails

### RETURN ON INVESTMENT

~3%

Solid return given ongoing low interest-rate environment

### NET RESULT

€2.3–2.8bn

RoRaC target of 15% after tax over the cycle to stand

## Reinsurance

### COMBINED RATIO

~98%

### NET RESULT

€1.9–2.4bn

## ERGO

### COMBINED RATIO

Germany: ~95%  
International: ~99%

### NET RESULT

€250–350m

## Munich Health

### COMBINED RATIO

~99%

### NET RESULT

€50–100m

<sup>1</sup> By segment: Reinsurance €26–28bn, ERGO €15.5–16bn, Munich Health slightly below €5bn.



---

Strong track record – and new ideas

Nikolaus von Bomhard

**Munich Re (Group)**

Jörg Schneider

Risk management

Bernhard Kaufmann

ERGO

Markus Rieß

Reinsurance Property-casualty

Torsten Jeworrek

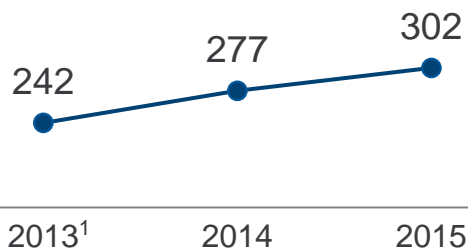
Reinsurance Life

Joachim Wenning

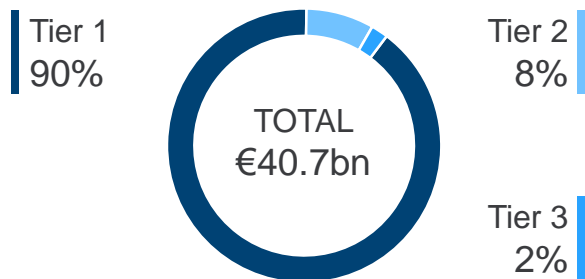
Backup

# Strong capital position according to all metrics ...

Solvency II %

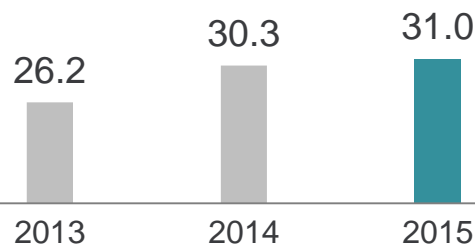


Solvency II ratio well above target capitalisation

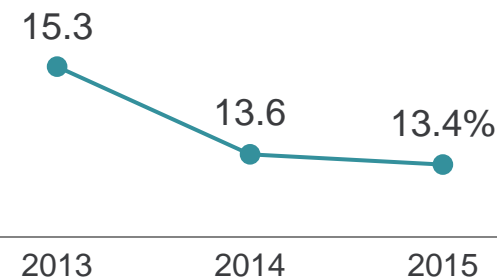


High-quality eligible own funds

IFRS €bn

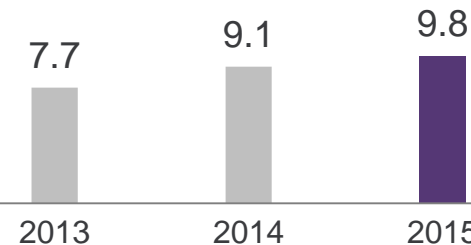


Strong shareholders' equity despite capital repatriation

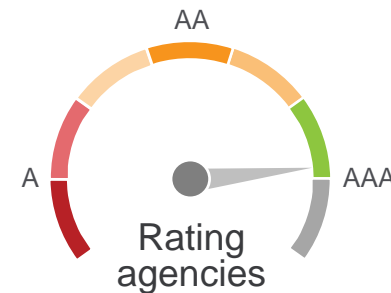


Debt leverage<sup>2</sup> among the lowest in the insurance industry

German GAAP/Rating €bn



Strengthened equalisation provision largely protects HGB earnings



Substantial capital buffer<sup>3</sup> supports AA rating

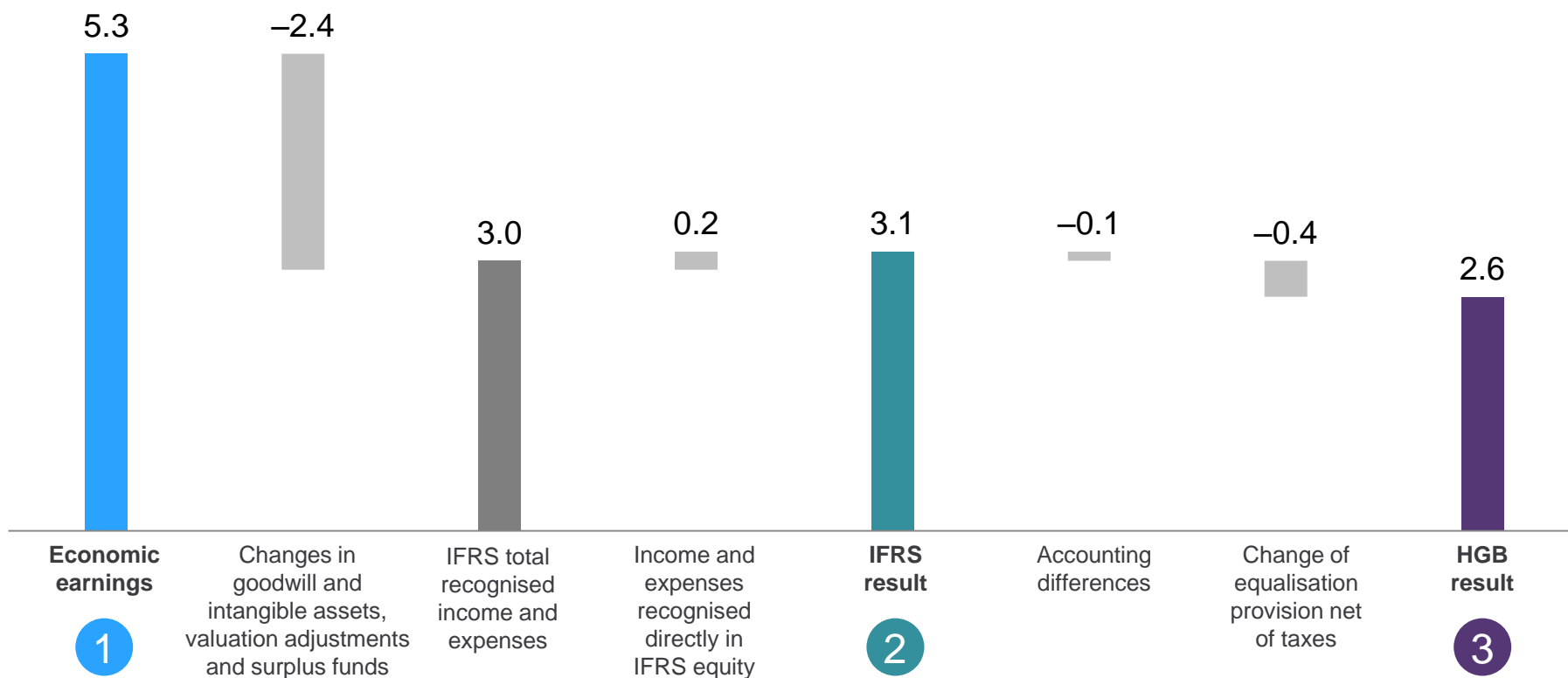
... facilitates financial flexibility, including high shareholder distribution

<sup>1</sup> According to internal model. <sup>2</sup> Strategic debt (senior, subordinated and other debt) divided by total capital (strategic debt + equity). <sup>3</sup> S&P capital.

# Strong earnings in 2015

Economic earnings, IFRS and German GAAP (HGB) result in 2015

€bn



**All results driven by strong reinsurance contribution**

# 1 Economic earnings driven by good technical result, asset-liability management and one-offs

## Economic earnings 2015

€bn

|                                       | Actual     | Normalised  |  |
|---------------------------------------|------------|-------------|--|
| <b>Operating economic earnings</b>    | <b>3.0</b> | <b>2.1</b>  | <ul style="list-style-type: none"> <li>▪ High VNB (Life Re), benign large losses and reserve releases (P-C Reinsurance) compensate for ...</li> <li>▪ ... negative variances in ERGO L/H Germany</li> <li>▪ Normalisation: Operating economic earnings adjusted for variances for current and prior years</li> </ul>                                   |
| Expected return existing business     | 0.7        |             |  |
| New business value                    | 1.7        |             |  |
| Operating variances existing business | 0.6        |             |  |
| Other operating variances             | 0.0        |             |  |
| <b>Economic effects</b>               | <b>2.0</b> | <b>1.6</b>  | <ul style="list-style-type: none"> <li>▪ Positive impact from interest rate and FX changes; gains in illiquid assets</li> <li>▪ Credit: Yield over risk-free was largely offset by market value losses due to widening spreads</li> <li>▪ Normalisation: Overall small actual/normalised difference – reinsurance above, ERGO below actuals</li> </ul> |
| Interest rate                         | 0.8        |             |  |
| Equity                                | –0.1       |             |  |
| Credit                                | 0.1        |             |  |
| Currency                              | 0.8        |             |  |
| Other <sup>1</sup>                    | 0.4        |             |  |
| <b>Other non-operating earnings</b>   | <b>0.3</b> | <b>–1.1</b> | <ul style="list-style-type: none"> <li>▪ Normalisation: Adjusted for very low effective tax rate (all other line items pre-tax) and extraordinary effects</li> </ul>   |
| <b>Total economic earnings</b>        | <b>5.3</b> | <b>2.6</b>  |  |

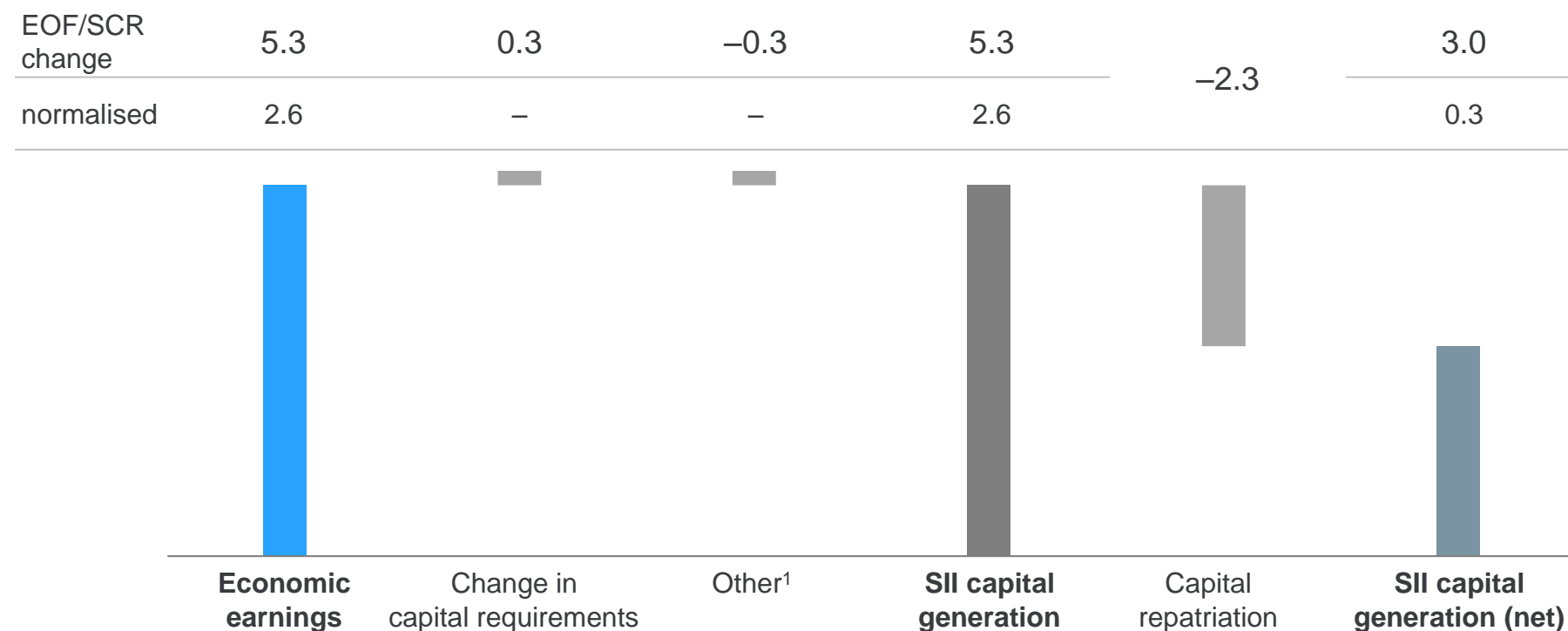
## Outlook 2016: In the range of IFRS result target

<sup>1</sup> Primarily related to illiquid investments: Property, infrastructure, forestry, hedge funds, private equity.

# 1 Strong Solvency II capital generation supports financial flexibility

SII capital generation 2015 (including change in SCR)

€bn



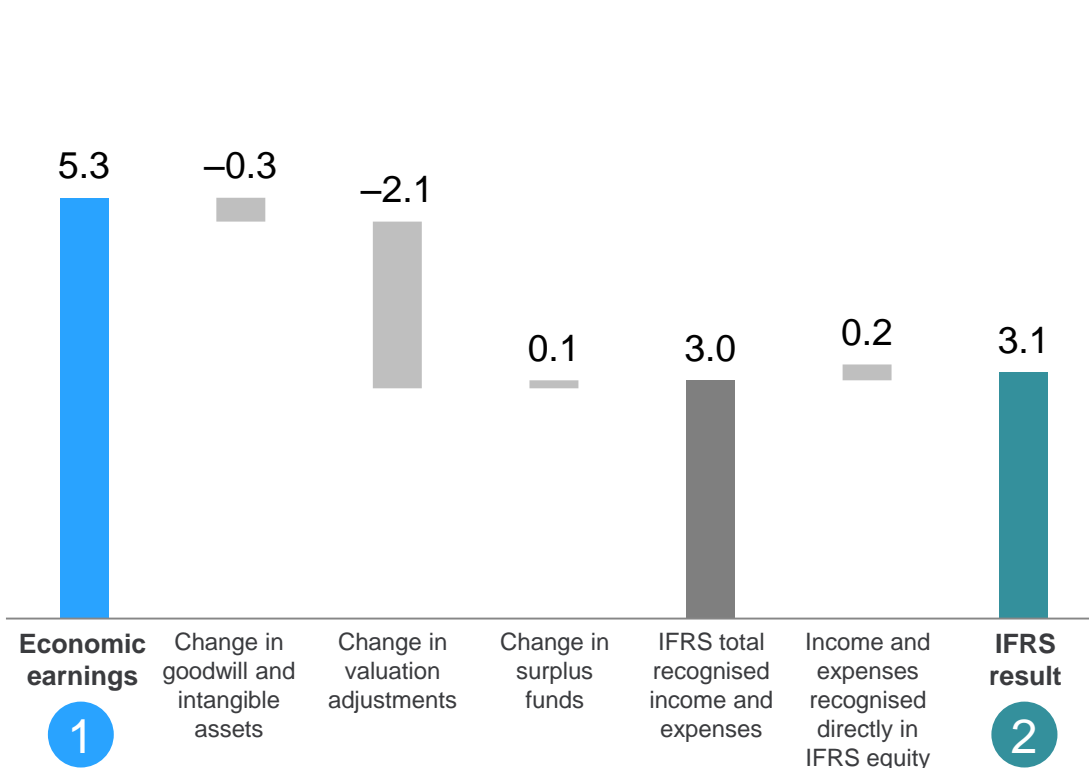
**SII capital generation exceeds capital repatriation**

<sup>1</sup> Changes in other own funds items (–€0.1bn) and changes in consolidation group included in capital measures (–€0.2bn).

## 2 IFRS result exceeds annual guidance

### Reconciliation of economic earnings to IFRS result 2015

€bn



#### Goodwill/intangibles

- Not recognised in Solvency II – IFRS result burdened by ERGO goodwill impairment of €452m, partially offset by currency effects

#### Change in valuation adjustments

- Assets and liabilities not valued at fair value in IFRS, e.g. loans, technical provisions

**Pleasing result allowing for dividend increase to €8.25 per share and continuation of share buy-back of €1bn until AGM 2017**

## 2 IFRS result driven by strong reinsurance contribution

Munich Re (Group)

2015 (Q4 2015)

NET RESULT

**€3,122m** (€731m)

Overall sound operating performance – One-offs in both directions

OPERATING RESULT

**€4,819m** (€1,427m)

Benign major claims and substantial reserve releases in property-casualty reinsurance – Loss at ERGO in Q4

INVESTMENT RESULT

RoI of **3.2%** (2.9%)

Solid return – High disposal gains, derivative losses and write-downs

Reinsurance

NET RESULT

**€3,261m** (€1,371m)

P-C

Combined ratio  
89.7% (78.6%)

Major-loss ratio  
6.2% (4.7%)

LIFE

Technical result of €335m – Slightly below ambition of €400m p.a.

ERGO

NET RESULT

**–€227m** (–€644m)

P-C GERMANY

Combined ratio 97.9% (103.9%)

L/H GERMANY

Goodwill  
impairment

INTERNATIONAL

Combined ratio  
104.7% (115.3%)

Munich Health

NET RESULT

**€88m** (€5m)

REINSURANCE

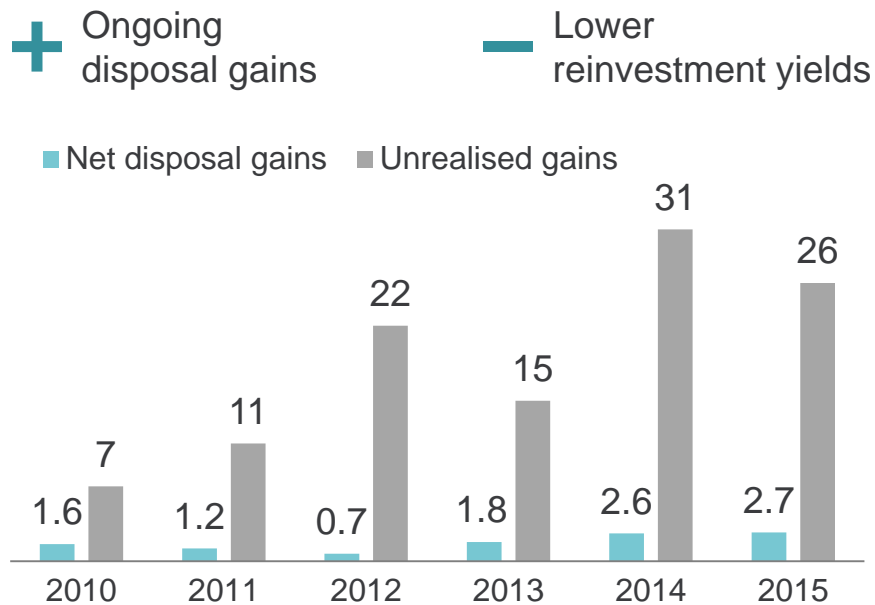
Combined ratio 101.1% (102.2%)

PRIMARY INSURANCE

Combined ratio 93.2% (94.5%)

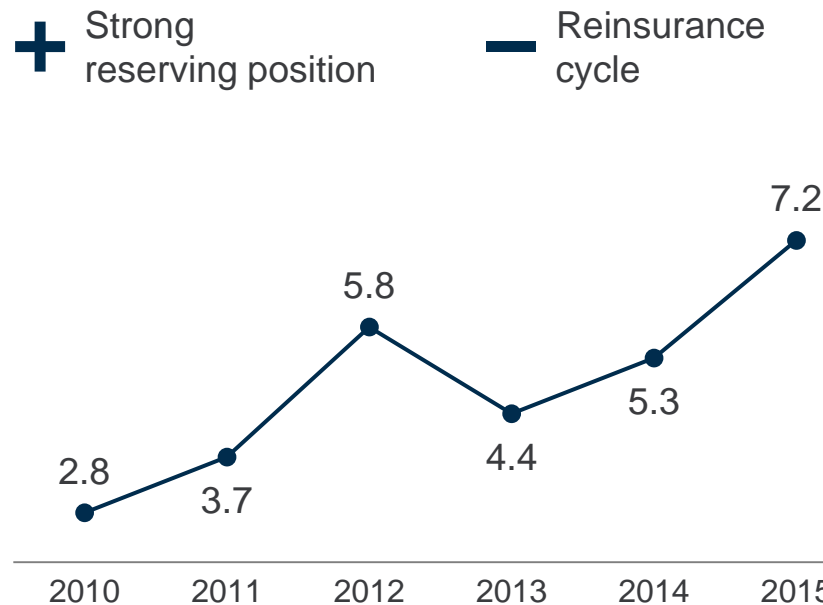
## 2 Short-term earnings pressure mitigated by strong balance sheet

Investment result €bn



Part of the valuation reserves realised as a result of usual portfolio turnover

P-C reinsurance – Release of loss reserves<sup>1</sup> %



Ongoing releases of loss reserves without weakening resilience against future volatility

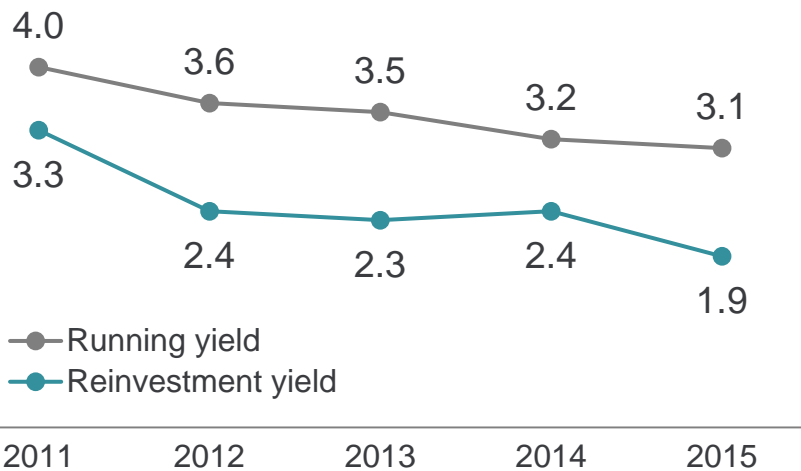
**Conservative accounting translates into earnings as a result of ordinary business activity**

<sup>1</sup> In % of net earned premiums, adjusted for commission effects.

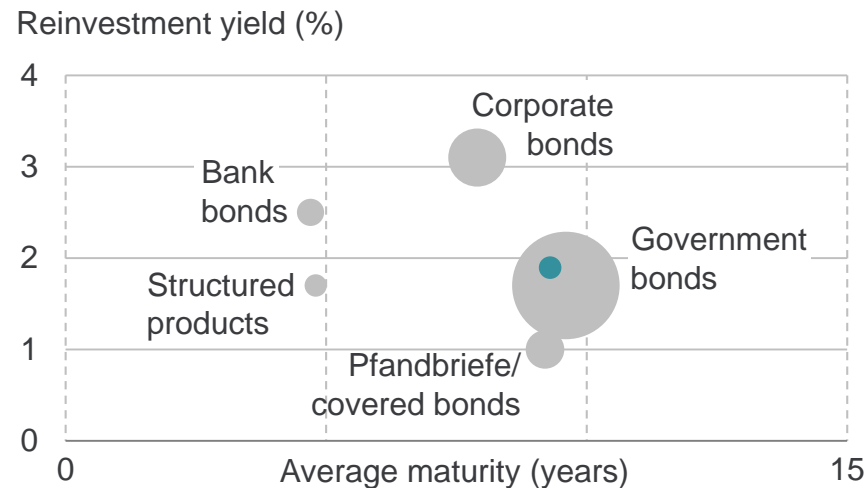


## 2 Long duration stabilises investment returns

Running and reinvestment yield %



Composition of reinvestment yield 2015<sup>1</sup>

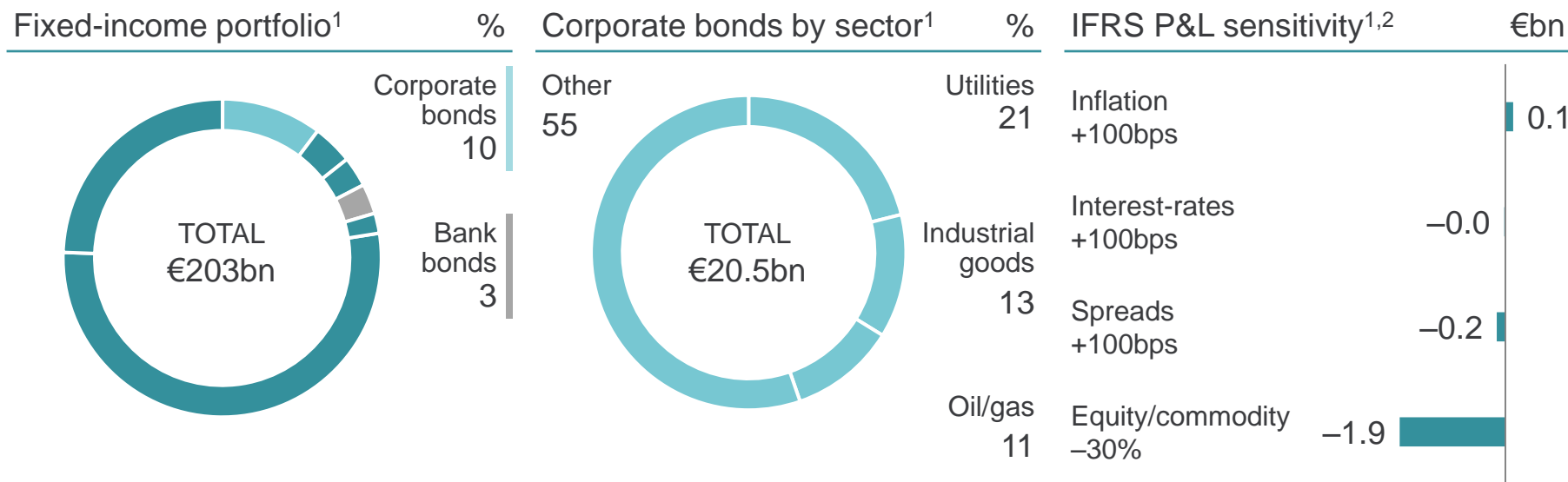


- Solid reinvestment yield without taking high risks
- In addition to long duration, geographic diversification mitigates attrition of running yield
- At current interest-rate levels, expected annual attrition of running yield ~20bps in 2016

**Discipline prevails: No risky hunt for yield to compensate for low interest rates**

<sup>1</sup> Bubble size reflects reinvestment volume.

## 2 Well-balanced investment portfolio provides resilience against volatile capital markets



- Limited exposure to credit risks
- Structured products, corporate and bank bonds only make up 16% of fixed-income portfolio<sup>1</sup>

- Corporate bond portfolio of good quality – 86% investment grade
- Broad diversification across industries – small exposure to oil and gas sector

- Resilient to changes of interest rates, spreads and inflation
- Significant decline of equity/commodity markets may leave its mark (impairments)



### Manageable P&L volatility

<sup>1</sup> As at 31.12.2015. <sup>2</sup> Rough calculation after estimation of policyholder participation and deferred tax.

## 2 Reserving: Global hot spots

| <u>Motor liability</u>  | <u>Industry impact</u>   | <u>Munich Re impact</u>  | <u>Casualty</u>  | <u>Industry impact</u>                                     | <u>Munich Re impact</u>  |
|---|--|--|--|--|--|
| <b>USA</b><br>Distracted driving, higher vehicle miles travelled, increase in truck tonnage | Increasing loss frequency and severity lead to reserve increases for whole US primary market | Limited impact due to very small market share in US motor                                      | <b>USA</b><br>Comparatively high litigation risk, late loss emergence  | High risk of change, leading to volatile loss developments | Specific IBNR for accumulation risk set up to protect portfolio              |
| <b>France</b><br>Under-pricing/ reserving – not adequately reflecting higher cost of care   | Reinsurance phenomenon – high combined ratios and various reserve strengthenings             | Strong reaction to early signs of adverse development in the past, now stable indications      | <b>US workers' compensation</b><br>High losses for reinsurers by business underwritten during soft market (late 90s) | Long-tail development with significant late loss emergence | Stringent execution of exit strategy – overall stable reserving situation    |
| <b>UK</b><br>Shift from lump-sum to periodical payments for bodily injury claims            | Increased tail, uncertainty about mortality and discount rate for claims settlement          | Close monitoring of frequency/severity trends – significant exposure reduction in recent years | <b>Asbestos</b><br>Complex litigation, changes in legal and regulatory environment                                   | Change in projected costs and number of claims             | Reduced exposures by sizeable commutations – stable survival ratio over time |

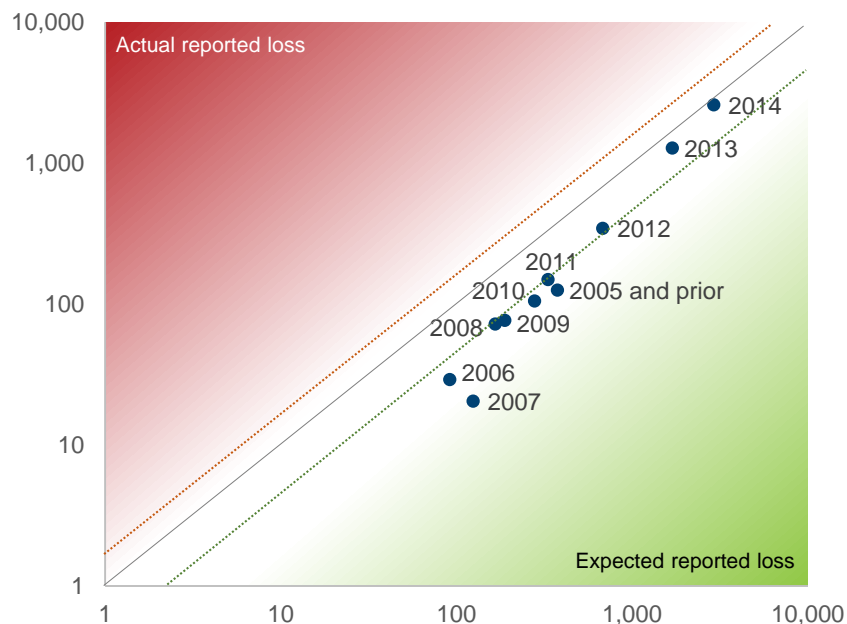
**Reserving hot spots well controlled – Provisions for risk scenarios adequately set**

## 2 Actual versus expected comparison – Loss-monitoring yields consistent picture across years

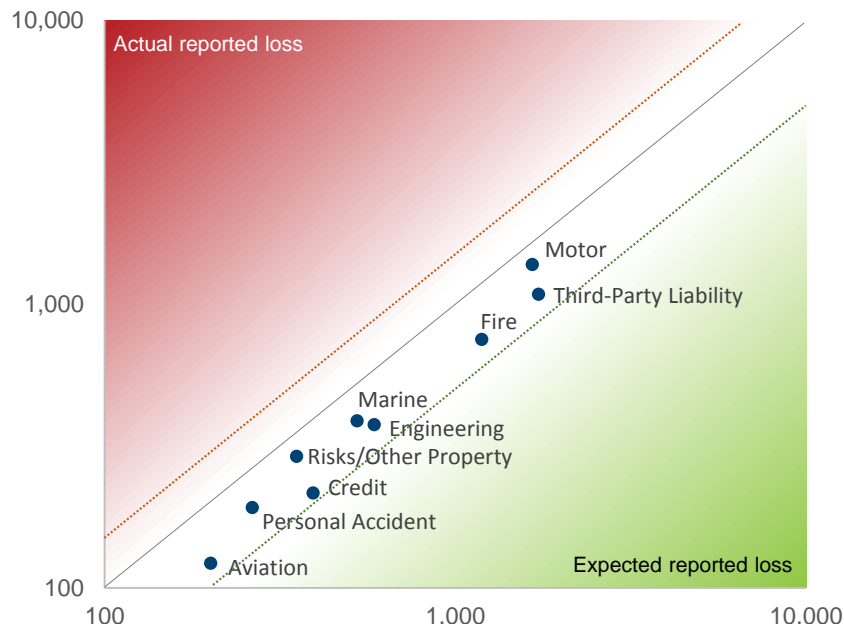
Reinsurance group – Comparison of incremental expected losses with actual reported losses<sup>1</sup>

€m

By exposure year



By line of business



Legend: **Green** Actuals below expectation  
**Red** Actuals above expectation

**Solid line** Actuals equal expectation  
**Dotted line** Actuals are 50% above/below expectations

**Actual losses consistently below actuarial expectations –  
Very strong reserve position**

<sup>1</sup> Reinsurance group losses as at Q4 2015, not including parts of Risk Solutions, special liabilities and major losses (i.e. events of over €10m or US\$ 15m for Munich Re's share).

## 2 Positive run-off result without weakening resilience against future volatility

### Ultimate losses<sup>1</sup> (adjusted to exchange rates as at 31.12.2015) €m

| Date                              | Accident year (AY) |            |            |            |            |            |            |            |            |             |          | Total        |  |
|-----------------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|----------|--------------|--|
|                                   | ≤2005              | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014        | 2015     |              |  |
| 31.12.2005                        | 50,061             |            |            |            |            |            |            |            |            |             |          |              |  |
| 31.12.2006                        | 50,702             | 11,387     |            |            |            |            |            |            |            |             |          |              |  |
| 31.12.2007                        | 50,767             | 11,444     | 12,708     |            |            |            |            |            |            |             |          |              |  |
| 31.12.2008                        | 50,303             | 11,332     | 12,911     | 14,127     |            |            |            |            |            |             |          |              |  |
| 31.12.2009                        | 49,857             | 11,104     | 12,811     | 14,381     | 13,878     |            |            |            |            |             |          |              |  |
| 31.12.2010                        | 49,546             | 10,819     | 12,736     | 14,331     | 13,819     | 14,287     |            |            |            |             |          |              |  |
| 31.12.2011                        | 49,401             | 10,730     | 12,694     | 14,033     | 13,364     | 14,521     | 18,455     |            |            |             |          |              |  |
| 31.12.2012                        | 49,092             | 10,544     | 12,316     | 13,880     | 13,238     | 14,400     | 18,596     | 15,209     |            |             |          |              |  |
| 31.12.2013                        | 48,997             | 10,570     | 12,079     | 13,711     | 13,238     | 14,469     | 18,278     | 15,032     | 15,124     |             |          |              |  |
| 31.12.2014                        | 48,917             | 10,455     | 11,998     | 13,430     | 12,925     | 14,453     | 17,892     | 14,830     | 15,336     | 15,092      |          |              |  |
| 31.12.2015                        | 48,637             | 10,373     | 11,762     | 13,296     | 12,693     | 14,289     | 17,731     | 14,591     | 15,301     | 15,115      | 14,369   |              |  |
| <b>CY 2015 run-off change</b>     | <b>280</b>         | <b>82</b>  | <b>236</b> | <b>133</b> | <b>232</b> | <b>163</b> | <b>160</b> | <b>239</b> | <b>36</b>  | <b>-23</b>  | <b>-</b> | <b>1,538</b> |  |
| <b>CY 2015 run-off change (%)</b> | <b>0.6</b>         | <b>0.8</b> | <b>2.0</b> | <b>1.0</b> | <b>1.8</b> | <b>1.1</b> | <b>0.9</b> | <b>1.6</b> | <b>0.2</b> | <b>-0.2</b> | <b>-</b> | <b>0.9</b>   |  |

### Ultimate reduction

Prior-year releases of €1.5bn driven by reinsurance portfolio

- Favourable actual vs. expected comparison facilitates ultimate reductions for prior years
- Reserve position remains strong
- AY 2015: Prudent initial assessment

|                          |         |
|--------------------------|---------|
| Reinsurance <sup>2</sup> | €1,535m |
| ERGO                     | €3m     |

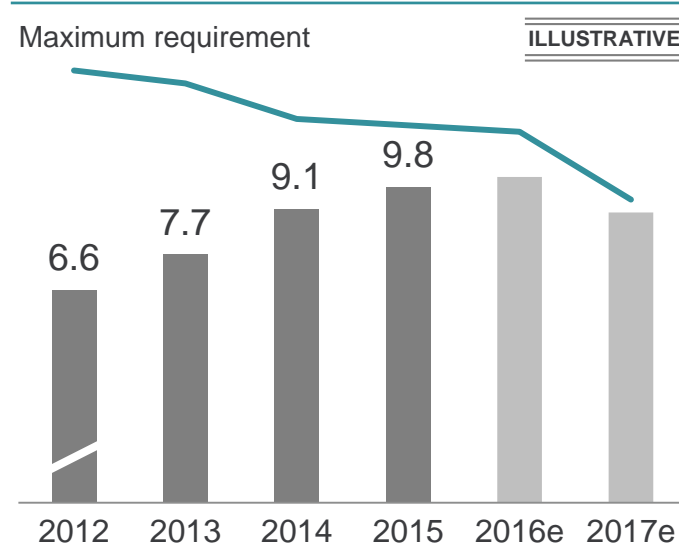
<sup>1</sup> Basic and major losses. <sup>2</sup> Thereof €1,402m basic and €133m major losses.

# 3 Solid German GAAP (HGB) earnings

Reconciliation of IFRS (Group) to HGB result (MR AG) €bn



Equalisation provision €bn

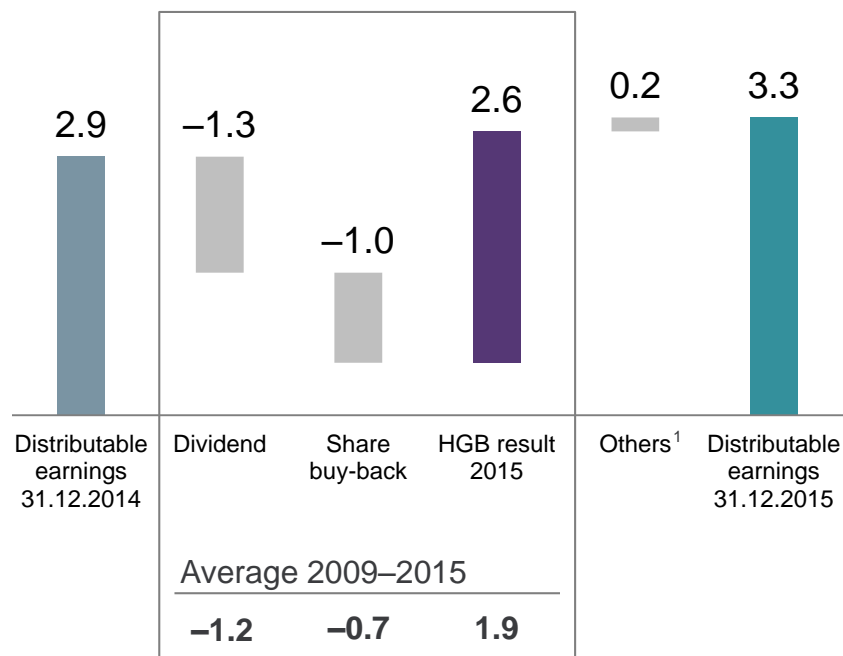


- 2012–2015: Strengthening of reserve – ~85% of max. requirement now achieved
- 2016e: No significant replenishment
- 2017e: Relief due to drop-out of extreme outliers

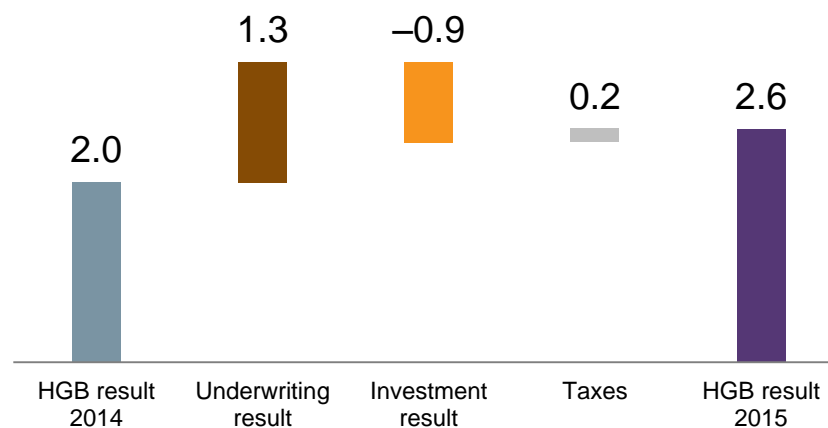
**Underwriting result protected by strong reserves, replenishment largely completed – Distributable earnings sensitive to adverse capital market development**

# 3 Distributable earnings of parent company – Main drivers

HGB result financing capital repatriation €bn



HGB result – Main drivers 2015 vs. 2014 €bn



### Underwriting result

- Benign large losses
- Higher reserve releases
- Reduced allocation to equalisation provision

### Investment result

- Higher regular income (mainly dividends)
- Write-down of ERGO: –€1.1bn

**Strengthened distributable earnings safeguards capital repatriation – Improved underwriting result overcompensates for ERGO write-down**

<sup>1</sup> Changes in restrictions on distribution.

---

Strong track record – and new ideas

Nikolaus von Bomhard

Munich Re (Group)

Jörg Schneider

**Risk management**

Bernhard Kaufmann

ERGO

Markus Rieß

Reinsurance Property-casualty

Torsten Jeworrek

Reinsurance Life

Joachim Wenning

Backup



# Proactive risk management builds up resilience in an unpredictable and unstable environment

## Current environment

Political risks

High volatility



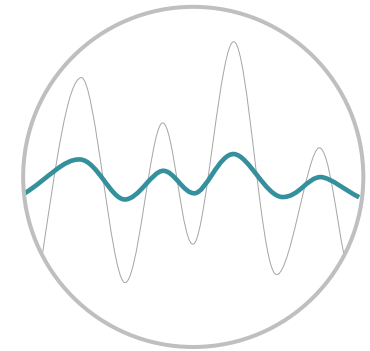
Economic risks

Insurance risks

## Risk management measures stabilise SII ratio

- Diversified investment portfolio
- Group-wide trigger system for ALM risks
- Hedging strategy
- Limits for sovereigns
- High quality of counterparties
- Forward-looking scenario analysis

Dampening of volatility



- Limits and budgets
- Management of accumulations
- Strict underwriting guidelines
- Retrocession for peak nat cat scenarios

**Munich Re well prepared for turbulent market conditions**

# Forward-looking risk management enables change and innovation

## Examples of risk management contributions to Munich Re initiatives

New (re)insurance products

New risk-related services

New clients and demands

New business models

### Innovative products

#### Cyber risks

- Identification and management of accumulation scenarios

#### Satellite whole-life cover, Green Tech Solutions

- Specific risk assessment and guidelines

### Risk services

- Cooperation to develop triggers for pandemic disease
- Risk analytics and risk mitigation for weather risks

### Digitalisation/big data

- Support of big-data applications, esp. in risk analysis, assessment and control (e.g. claims detection, business interruption and contingent business interruption)

### Insurance protection gap

#### US Homeowners Inland Flood Coverage

- Design of flood product includes defined quantitative risk appetite and for rate of product rollout and accumulation of risk
- Risk mitigation of operational risks via business process modelling in internal control system

**Munich Re's approach supports development of insurance solutions globally**

# Breakdown of Solvency Capital Requirement (SCR) by risk category for Munich Re according to internal model<sup>1</sup>

## Solvency capital requirement – Breakdown by risk category and segment

€bn

| Risk category      | Group             |             |             | RI         | ERGO       | MH         | Remarks   |
|--------------------|-------------------|-------------|-------------|------------|------------|------------|---|
|                    | 2014 <sup>2</sup> | 2015        | Delta       | 2015       | 2015       | 2015       |   |
| Prop.-Casualty     | 5.7               | <b>6.3</b>  | 0.6         | 6.2        | 0.4        |            | P-C: Increase driven by reinsurance – FX and growth in special risks                  |
| Life/Health        | 4.8               | <b>4.7</b>  | –0.1        | 3.8        | 1.3        | 0.3        |   |
| Market             | 8.8               | <b>8.7</b>  | –0.1        | 5.8        | 4.3        |            |   |
| Credit             | 4.6               | <b>4.2</b>  | –0.5        | 2.7        | 1.6        |            | Credit: De-risking of investment portfolio and full implementation of SII methodology |
| Operational risk   | 1.0               | <b>1.0</b>  | –           | 0.8        | 0.4        | 0.1        |   |
| Other <sup>3</sup> | 0.2               | <b>0.1</b>  | –0.1        |            |            |            |   |
| <b>Simple sum</b>  | 25.1              | <b>25.1</b> | –           | 19.3       | 8.0        | 0.4        |   |
| Diversification    | –9.1              | <b>–9.3</b> | –0.1        | –7.4       | –2.1       | 0.0        | Diversification benefit: 37%  |
| Tax                | –2.2              | <b>–2.3</b> | –0.2        | –2.0       | –0.7       | –0.1       | Loss-absorbing capacity of deferred taxes   |
| <b>Total SCR</b>   | <b>13.8</b>       | <b>13.5</b> | <b>–0.3</b> | <b>9.9</b> | <b>5.2</b> | <b>0.3</b> |   |

**No major movement in SCR reflects unchanged risk profile of Munich Re (Group)**

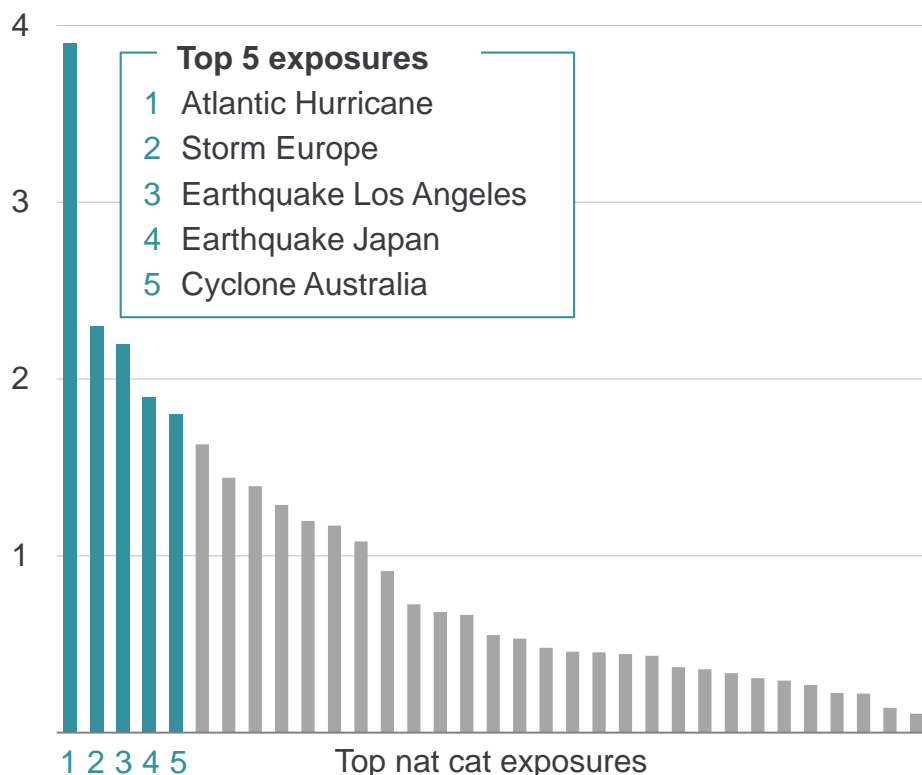
<sup>1</sup> Munich Re uses a full internal model, which was approved by BaFin and core college in 2015.

<sup>2</sup> After reconciliation into SII metric.

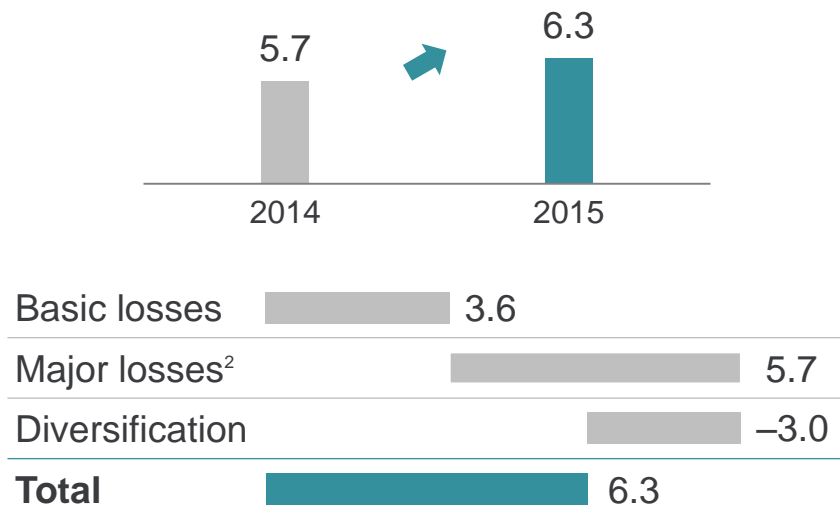
<sup>3</sup> Capital requirements for other financial sectors, e.g. institutions for occupational retirement provisions.

# Risk-bearing capacity allows high exposure for peak scenarios, but only at adequate price levels

Nat cat exposure (net of retrocession) – AggVaR<sup>1</sup> €bn



SCR property-casualty €bn



- Appreciation of major currencies (USD, AUD, GBP) against EUR, impact on basic/major losses
- Exposure increase in special risks (e.g. weather risks) impacts basic losses

**High diversification between natural catastrophe risks, both by region and perils, adequately reflected in internal model**

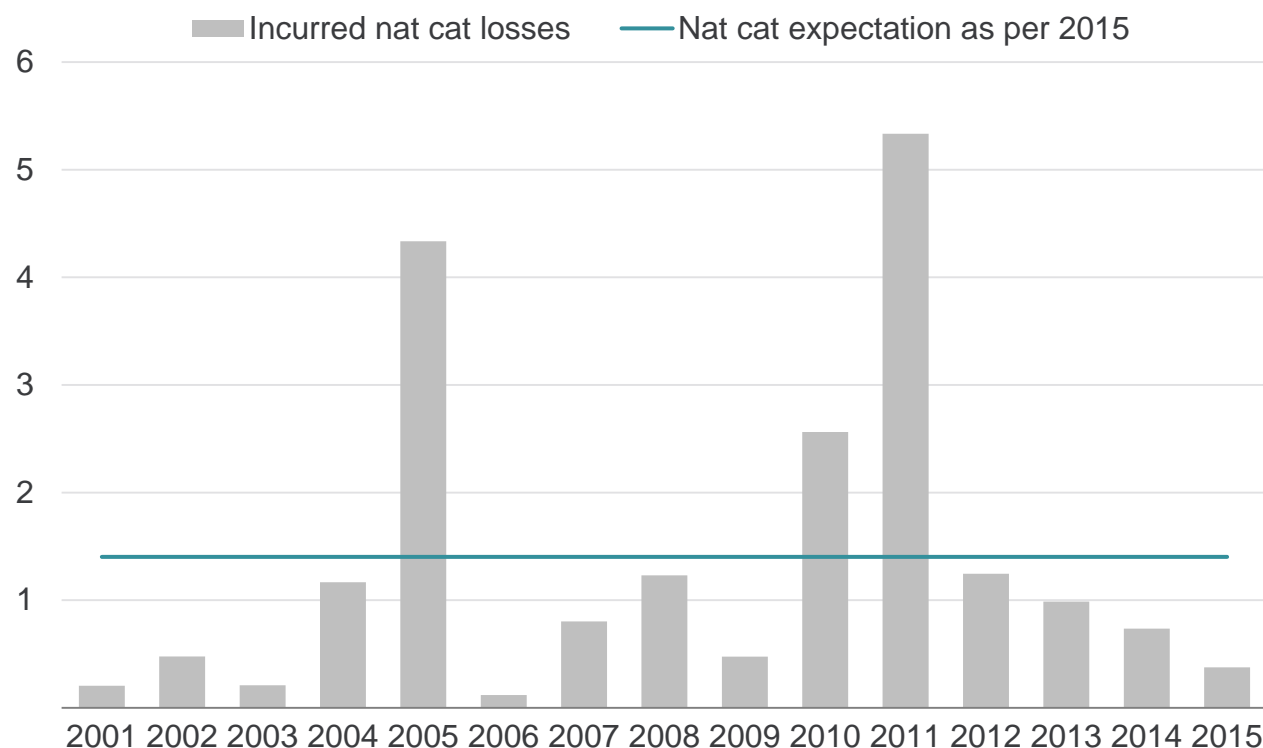
<sup>1</sup> Munich Re (Group). Return period 200 years, pre-tax.

<sup>2</sup> Natural catastrophes, man-made (including terrorism and casualty accumulation) and major single losses.

# Natural catastrophe losses observed over the past years are in line with our model results

Nat cat losses (gross of retrocession) since 2001 – Property-casualty reinsurance

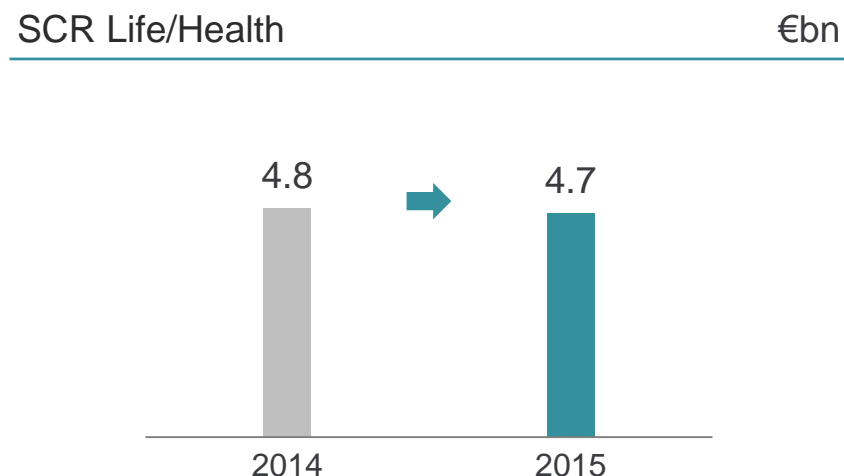
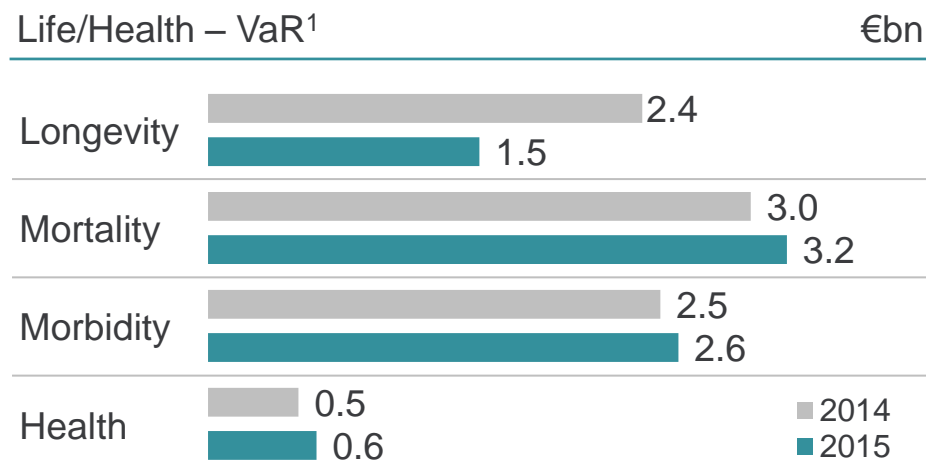
€bn



- Estimate for annual nat cat losses: ~8.5 combined-ratio points (~€1.4bn)
- It is not unusual to stay below this estimate for four years in a row
- It is more likely to see four benign years in a row, rather than to have two consecutive years exceeding expectations

**Observed nat cat experience fully in line with our modelling assumptions, reflecting the inherent volatility of the very nature of events**

# Life and health risk – Stable overall, with considerable risk reduction at ERGO



## Longevity<sup>2</sup>

- Decrease driven by ERGO L/H<sup>3</sup>
- Favourable market developments
- Further refinements in SII model
  - Full implementation of SII risk-free interest rates curve
  - Refined modelling of “ZZR”
  - Investment performance better than expected

## Mortality/Morbidity

- Slight increase driven by Reinsurance Life

## Health

- Slight increase largely driven by business growth of Munich Health in the Middle East

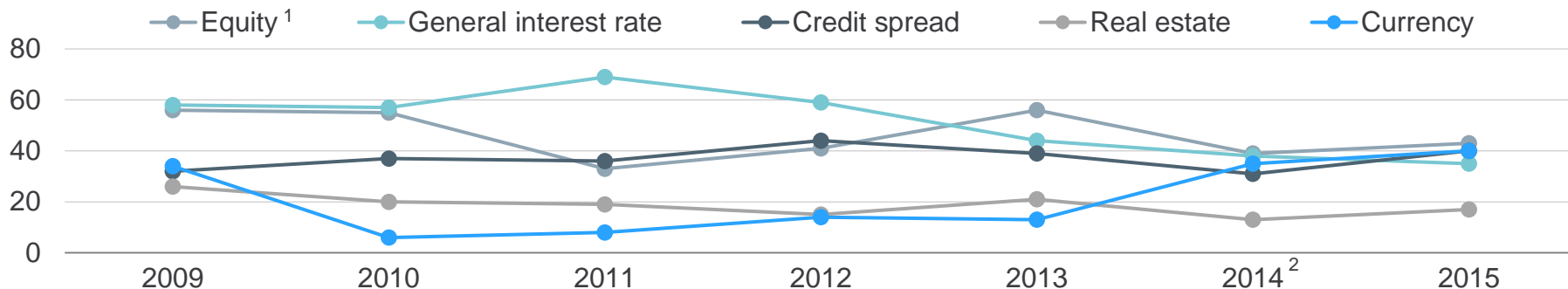
<sup>1</sup> Munich Re (Group). Return period 200 years, pre-tax.

<sup>2</sup> ERGO L/H has a share of ~60% in this risk category.

<sup>3</sup> ~60% of ERGO L/H's longevity SCR is based on behavioural risk, e.g. related to financially rational policyholder behaviour.

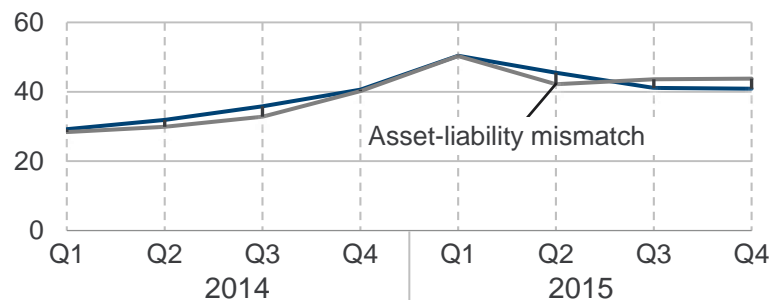
# Market risk – Well-balanced profile

Risk contribution (undiversified) %

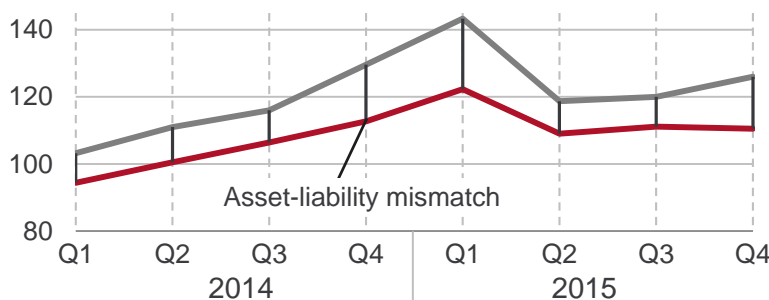


DV01 – Sensitivity to parallel downward shift of yield curve by one basis point reflects portfolio size €m

## Reinsurance



## ERGO



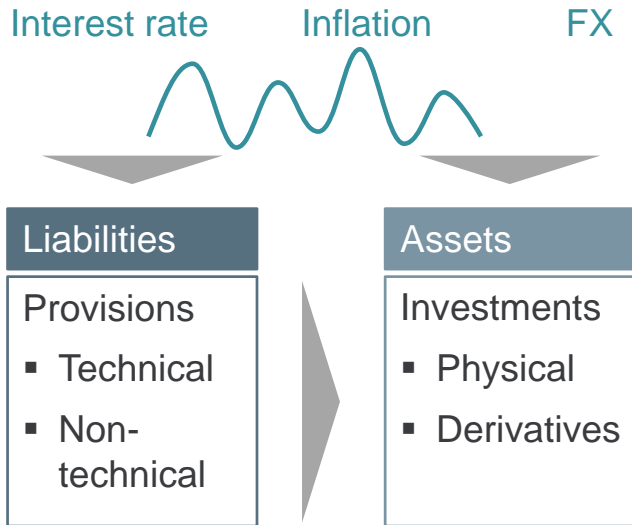
**Despite substantial decrease in interest rates, duration of assets and liabilities remains closely matched**

<sup>1</sup> Equity risk also includes alternative investments, such as investments in infrastructure.

<sup>2</sup> Transition into SII metric.

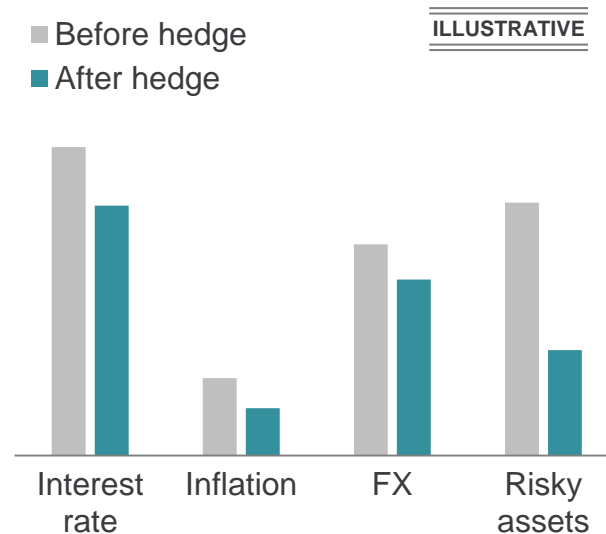
# Liability-driven investment process reduces sensitivity of SII ratio

## Assets matching liabilities



Macroeconomic changes affecting assets and liabilities – hedging (reduction of VaR) usually done in the investment portfolio ...

## VaR before and after hedging



... by using physical assets and derivative instruments, as well as risky assets correlated to these risks, e.g. equities and commodities

## Effects on P&L volatility

**SII ratio** ↓  
 Hedging mitigates the impact of FX, inflation and interest-rate changes on own funds in the economic balance sheet

**IFRS** ↑  
 As derivatives are measured at fair value, market value changes are immediately P&L-effective, while valuation of liabilities remains largely unaffected

**Asset derivatives aligned to liability structure stabilise economic solvency**



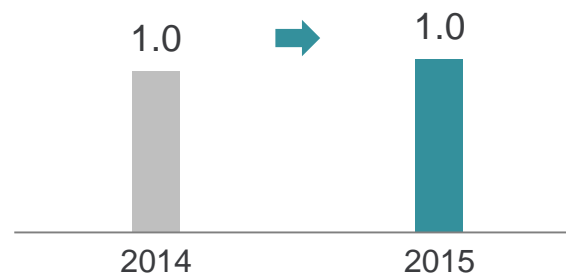
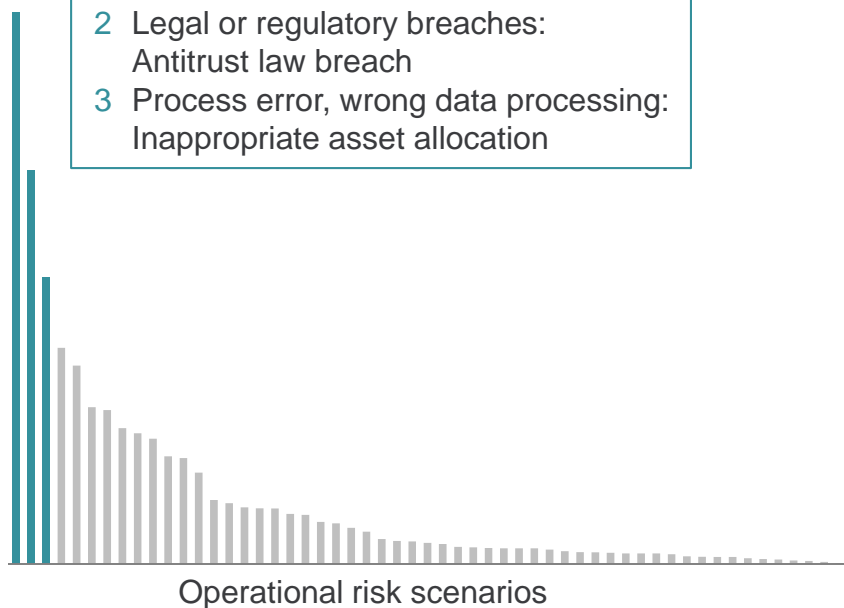
# Operational risk – Slightly increased due to lower diversification and refined loss analyses

Operational risk scenarios – VaR<sup>1</sup> €bn

SCR operational risk €bn

**Top 3 scenarios<sup>2</sup>**

- 1 Inappropriate financial reporting:  
Erroneous tax statement
- 2 Legal or regulatory breaches:  
Antitrust law breach
- 3 Process error, wrong data processing:  
Inappropriate asset allocation



Integral part of the approved full internal model

- Calculation based on approx. 20 scenarios for each field of business
- Scenario categorisation by ORIC standard<sup>2</sup>
- Risk strategy for operational risk: Trigger defined at business-field level
- Internal control system implemented to actively manage operational risks for Munich Re (Group)

**Capital requirement for operational risk validated by internal and external loss databases**

<sup>1</sup> Munich Re (Group). Return period 200 years, pre-tax.

<sup>2</sup> ORIC: Listed are the first-level categories according to the standard of Operational Risk Consortium.

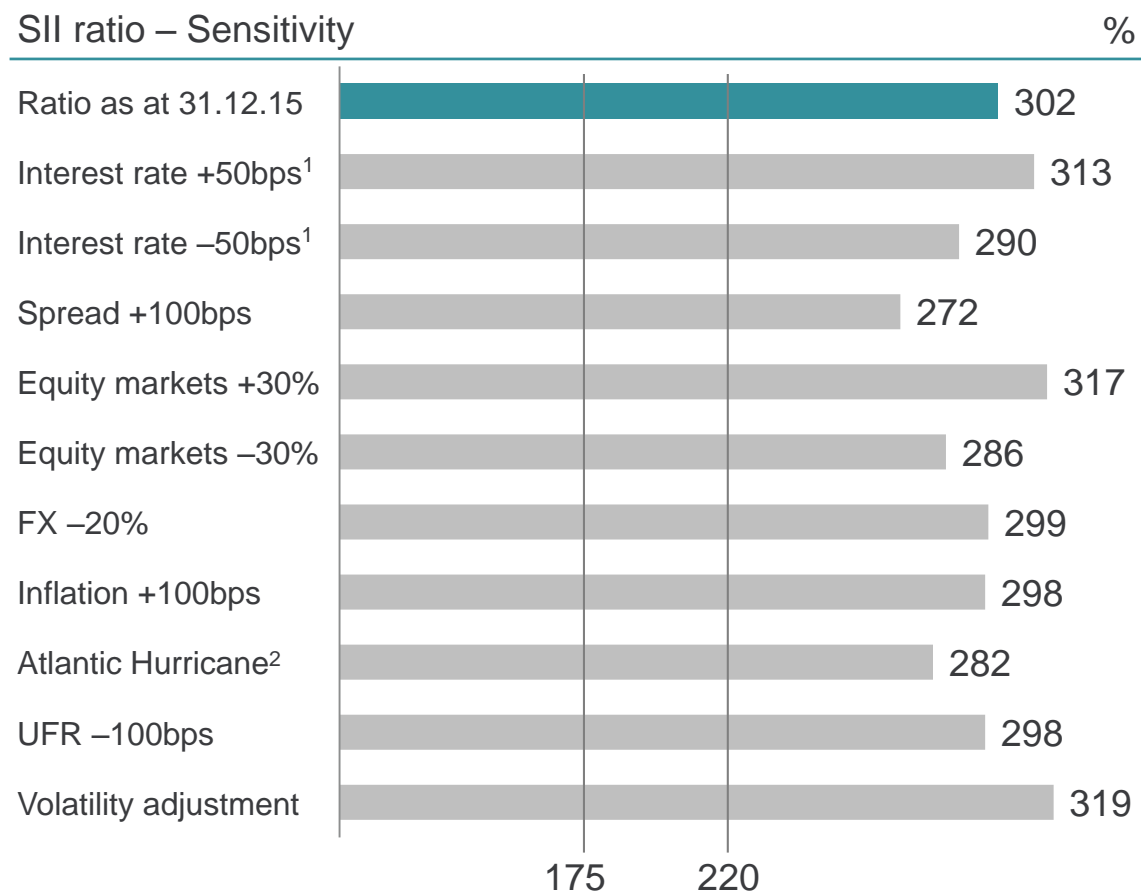
# Further improvement in Munich Re's Solvency II ratio



**Capitalisation in the SII regime remains very comfortable**

<sup>1</sup> Ratio after dividend of ~€1.3bn for 2015 to be paid in April 2016: 292%.

## Sensitivities of SII ratio



## Assumptions

- Use of full consolidated accounts for Munich Re (Group)
- No consideration of optional long-term-guarantee measures, e.g.
  - Transitionals
  - (Dynamic) volatility adjustment
  - Matching adjustment
- Credit risk considered for all fixed-income securities, including government bonds (e.g. in EEA)

**All relevant stress scenarios leave Munich Re's SII ratio in a comfortable range**

<sup>1</sup> Parallel shift until last liquid point, extrapolation to unchanged UFR.

<sup>2</sup> Based on 200-year event.

## Munich Re's sensitivities reflect full economic impact

## Application of optional SII measures – Impact on SII ratio and sensitivities

| Reduction of ...       | Use of dynamic volatility adjustment | No credit risk for EEA government bonds | Application of D&A method for US subsidiaries |
|------------------------|--------------------------------------|---|---|
| ... spread sensitivity | ~1/2                                 | ~1/3                                    | ~1/5  |
| ... equity sensitivity |                                      |   | ~1/3  |
| SII ratio              | ~339%                                | ~329%                                   | ~285%   |

Combined spread sensitivity would go down to ~10% pts. –  
 Spread +100bps: SII ratio 302% → 292% (instead of 272%)

**For comparability of published SII numbers,  
 a detailed view on applied measures is necessary**

---

Strong track record – and new ideas

Nikolaus von Bomhard

Munich Re (Group)

Jörg Schneider

Risk management

Bernhard Kaufmann

**ERGO**

Markus Rieß

Reinsurance Property-casualty

Torsten Jeworrek

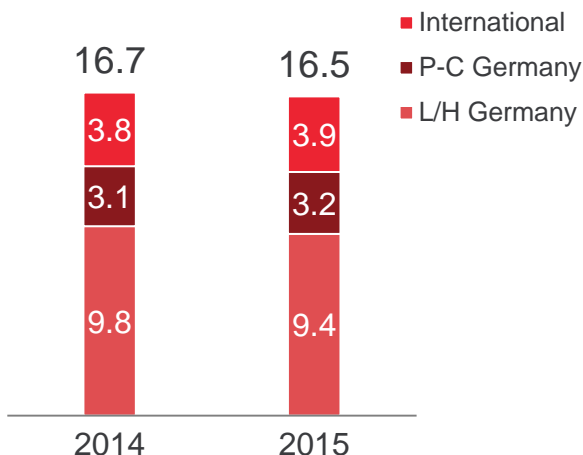
Reinsurance Life

Joachim Wenning

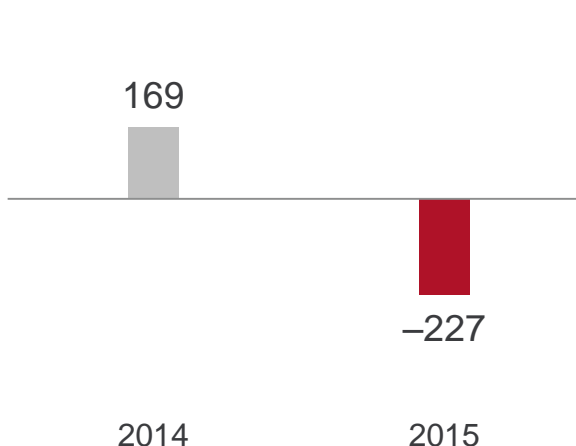
Backup

# ERGO – Key financials

Gross premiums written €bn



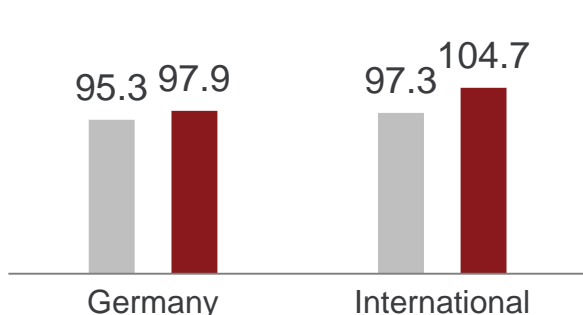
Net result €m



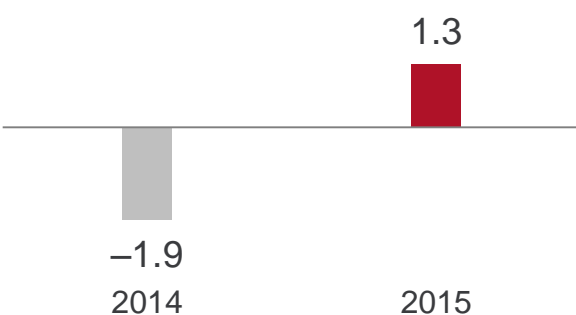
Major result drivers

- GWP: Decline in traditional life offsets growth in P-C Germany and International
- Net income: Negative result primarily driven by goodwill impairment of €429m
- Combined ratio: Deterioration in Germany and International driven by reserve strengthening and nat cat expenses

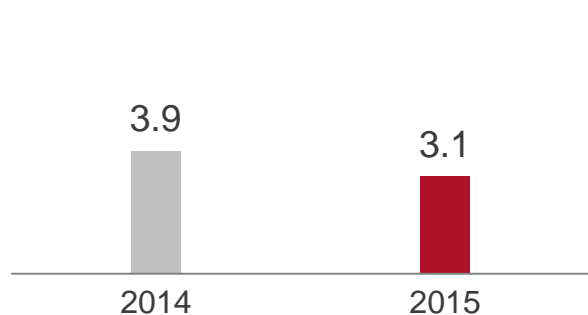
Combined ratio %



Economic earnings €bn

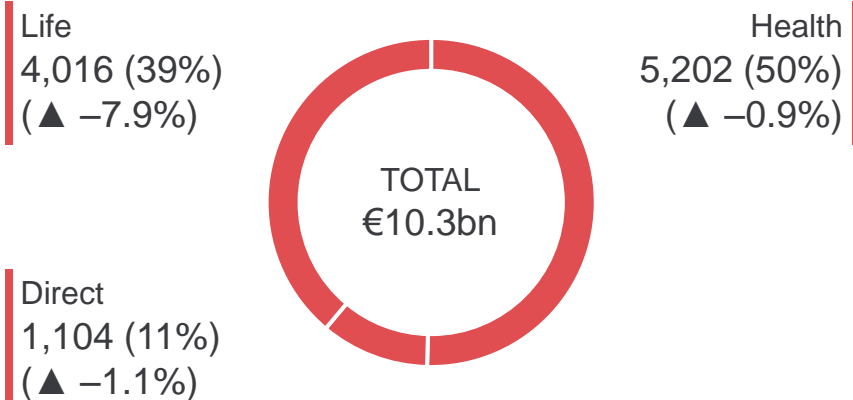


Return on investment %



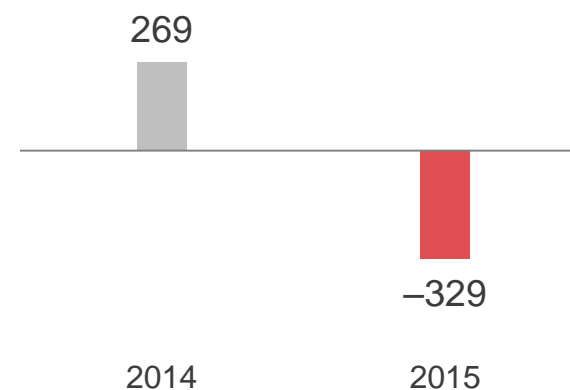
# Low interest rates leave their mark on German life business

## Segmental breakdown – Total premiums €m



- **Life**  
€346m lower premiums due to lower traditional business
- **Health**  
Growth in supplementary insurance, lower premiums in comprehensive insurance
- **Direct**  
Lower single premium capitalisation business in life (-€15m) while dental insurance remains growth driver in Health

## Net result €m

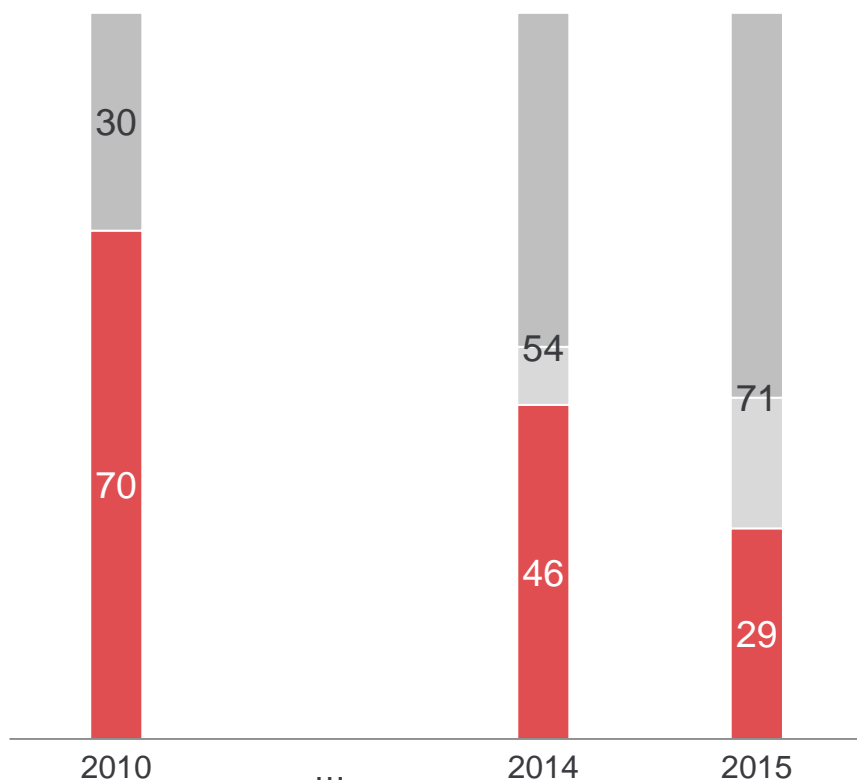


- Significant decrease driven by non-operating result, mainly non-tax deductible goodwill impairment

# New business: Shift to less interest-rate-sensitive products and closing of traditional products

## Target portfolio<sup>1</sup> – New business APE %

- Target portfolio (incl. new life product)
- Thereof new life product
- Traditional portfolio



## Shift new business to target portfolio

### Target portfolio

- Unit-linked insurance (with/without guarantee), term insurance, occupational disability insurance, death benefit, immediate annuities

### New life products

- Share of ~20% in 2015
- Extension to corporate pensions since January 2015

### Traditional portfolio

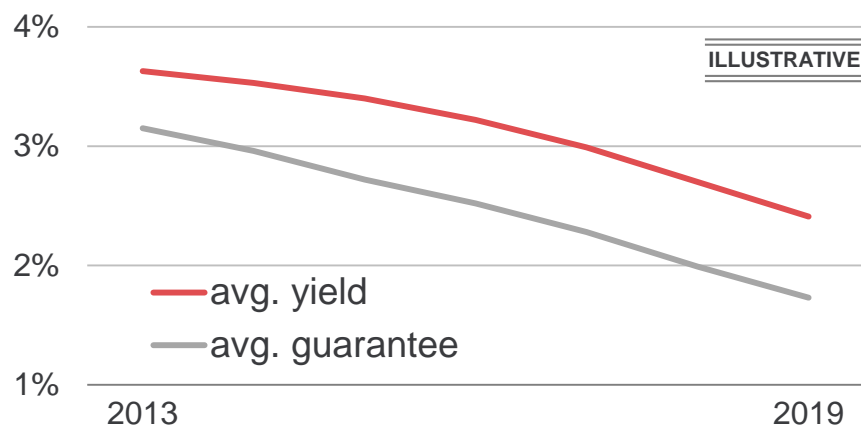
- Most traditional products closed from 1 January 2016
- Riester and Rürup pensions will be offered only in an investment-type version following the introduction of such a product by Vorsorge Life in 2016

<sup>1</sup> Incl. ERGO Direkt Leben.



# Declined reinvestment yield still with low impact on average yield ...

## Average yield vs. average guarantee



## Key figures<sup>1</sup> – Life Germany

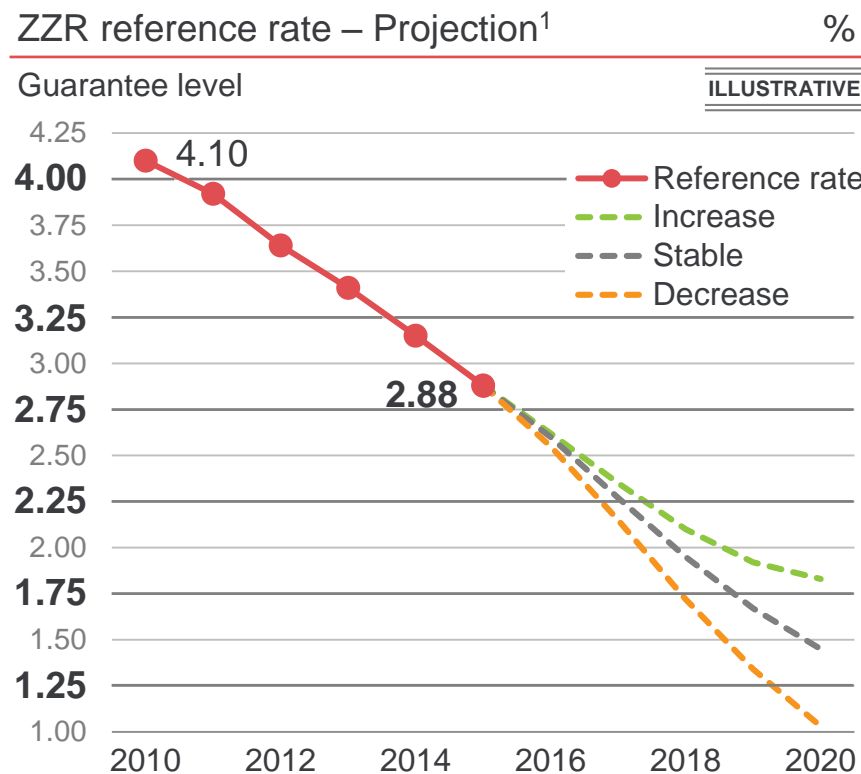
|             | Reinvestment yield | Average yield | Average guarantee | % |
|-------------|--------------------|---------------|-------------------|---|
| <b>2015</b> | <b>~1.8</b>        | <b>~3.4</b>   | <b>~2.7</b>       |   |
| 2014        | ~2.6               | ~3.6          | ~3.0              |   |
| 2013        | ~2.7               | ~3.6          | ~3.2              |   |

## Average yield above average guarantee

- Long duration of fixed-income portfolio keeps average yield at relatively high level
- Asset and liability duration difference far below one year
- Non-interest-bearing ZZR reduces average guarantee 2015 by ~50bp
- Low bonus rates: 2.7% vs. market average 2.85% (3.16% in previous year)

<sup>1</sup> German GAAP figures for ERGO Leben, Victoria Leben and ERGO Direkt Leben.

# ... while measures to support guarantees have financial impact in 2015



## ZZR – Low interest-rate reserve

- Local GAAP reserve against low interest rates
- Expected accumulated ZZR in 2016: ~€3.5bn
- Partly financed through unrealised gains – positive impact on IFRS earnings when realised
- Effect on IFRS net income in 2015: €71m**

## Interest-rate hedging programme

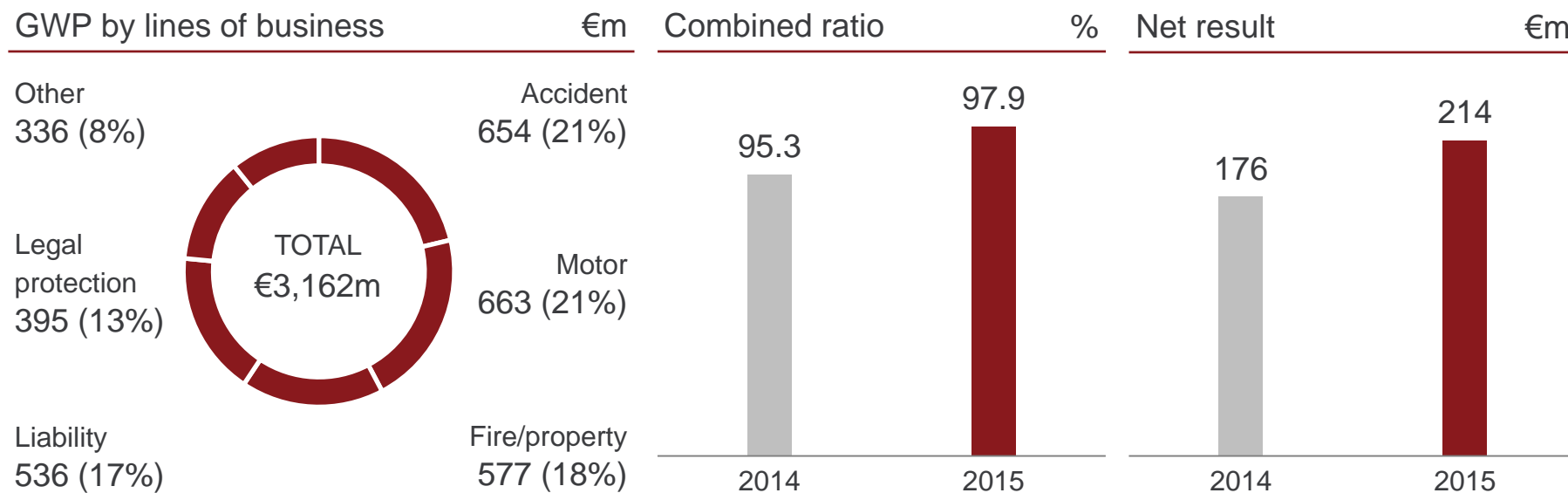
- Started in 2005 – Protection against reinvestment risk via receiver swaptions
- Continuously buys additional slices, depending on capital market and portfolio development
- Effect on IFRS net income in 2015: –€11m**

| Key financials <sup>2</sup> – €bn | Free RfB   | Terminal bonus fund | Unrealised gains | Accumulate ZZR |
|-----------------------------------|------------|---------------------|------------------|----------------|
| <b>2015</b>                       | <b>0.9</b> | <b>1.6</b>          | <b>12.2</b>      | <b>2.5</b>     |
| 2014                              | 0.9        | 1.7                 | 14.6             | 1.5            |
| 2013                              | 0.8        | 2.0                 | 5.9              | 0.8            |

<sup>1</sup> Based on interest-rate scenarios.

<sup>2</sup> German GAAP figures.

# Property-casualty Germany – Operating profitability weaker than previous year due to one-offs



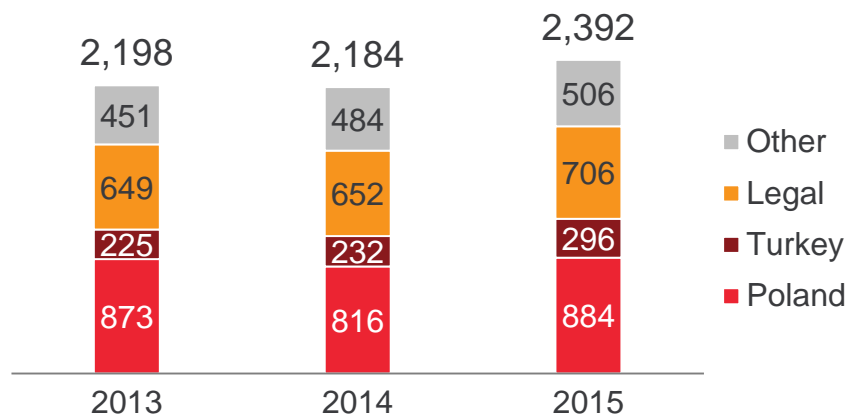
- Balanced portfolio
- Increase by €47m vs. 2014 driven by UK branch – higher level of new business in title insurance and transfer from assumed to direct business

- Large losses 2.4%-pts. above budget
- Reserve adjustments: 1.5%-pts.

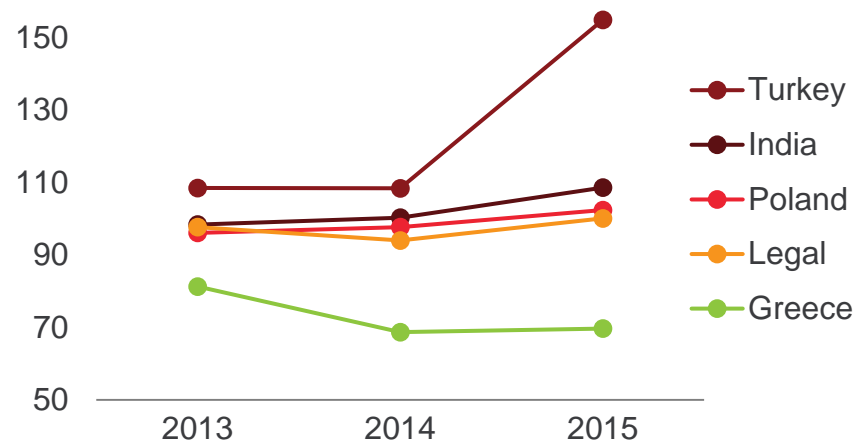
- Positive tax and FX effects overcompensate for weaker underwriting result

# International P-C – Premium growth, profitability affected by local challenges

Gross premiums written €m



Combined ratio %



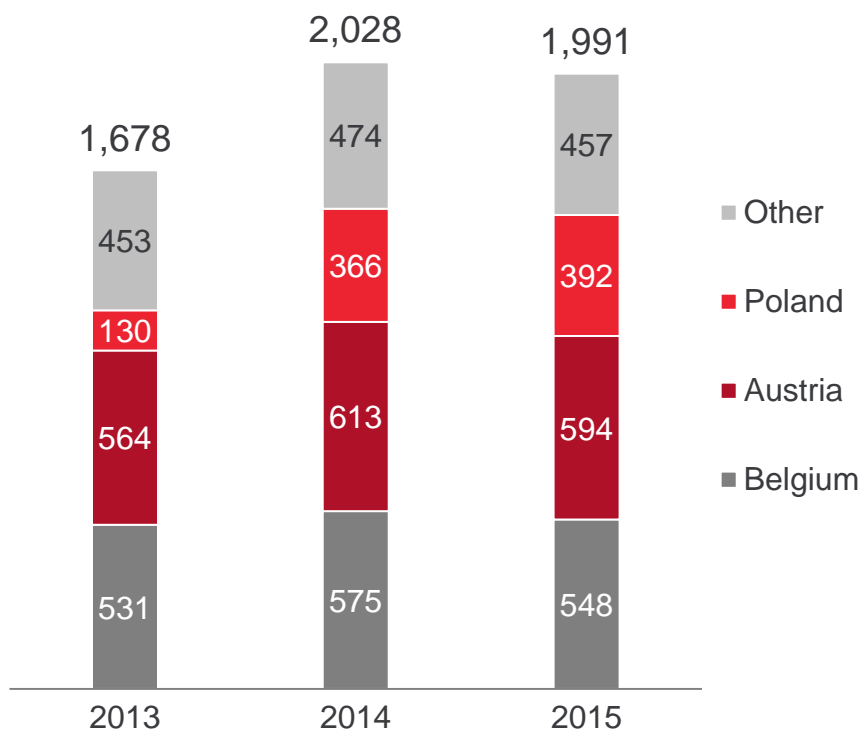
Major developments

- **Poland:** Profitability affected by new KNF guidelines and strong competition in corporate business. Balanced measures taken to stabilise profitability but still allowing for cautious growth
- **Turkey:** Gaining market share despite steep price increases in MTPL and strong customer selection. Market profitability affected by reserve increases, predominantly in old claims cases. ERGO severely affected due to high market share in motor in the past, which has been reduced in recent years
- **Legal protection:** Overall stable top- and bottom-line of DAS International. DAS UK with adverse development due to ongoing restructuring. Premium growth 2015 driven by positive FX effects (GBP)
- **India:** Agreement on share increase to 49% emphasises importance of Indian market and further expansion of non-life business in Asia. Entity with ongoing strong growth (+9% in 2015)

# International life – Focus on new product strategies and in-force management

## Total premiums

€m



## New business – Promoting capital-light products

- Belgium  
New product strategy with focus on capital-light products under development
- Austria  
Introduction of new hybrid product in Q1 2016
- Poland  
Already strong footprint with unit-linked products sold via bancassurance channel

## Back-book – Stringent portfolio management

- Sale of ERGO Italy  
Exposure reduction to traditional life business in non-core region
- In-force management  
Ongoing efforts to reduce risk and enhance shareholder returns

## Green-/brownfields, M&A and joint ventures (JV)

- **China** (50% participation) – Business development in line with plan
- **India** (49% participation) – First step of regulatory approval (R1) of JV granted in Q4 2015

| ERGO 2015<br>€bn                         | L/H<br>Germany | P-C<br>Germany | Inter-<br>national |
|--|----------------|----------------|--------------------|
| <b>Operating economic earnings</b>       | <b>-0.3</b>    | <b>0.1</b>     | <b>0.0</b>         |
| Expected return<br>existing business     | 0.2            | 0.0            | 0.1                |
| New business value                       | 0.3            | 0.3            | 0.0                |
| Operating variances<br>existing business | -0.7           | -0.2           | 0.0                |
| Other operating variances                | -0.0           | 0.0            | 0.0                |
| <b>Economic effects</b>                  | <b>0.8</b>     | <b>0.0</b>     | <b>0.1</b>         |
| <b>Other non-operating earnings</b>      | <b>0.5</b>     | <b>-0.1</b>    | <b>-0.1</b>        |
| <b>Total economic earnings</b>           | <b>1.1</b>     | <b>0.1</b>     | <b>0.1</b>         |

### Main drivers of operating economic earnings

#### New business value

- Health: €0.2bn, in line with expectations
- Life: €0.1bn
- P-C nearly unchanged to last year

#### Operating variances

- Negative from existing business in L/H and in P-C
- Negative experience variances for the financial year and adverse updates in expenses and lapse assumptions at L/H entities

**Overall positive contribution to Munich Re's earnings related to development of capital market parameters – ERGO L/H Germany as main driver**

# Structural basis for ERGO realignment

## ERGO Group AG

- International alignment
- Strategic steering

### ERGO Deutschland AG

### ERGO International AG

### ERGO Digital Ventures AG

#### Traditional business “Run”

- Strengthen sales force
- Improve cost structure
- Modernise systems
- Improve results
- Explore cross-country synergies
- Identify growth areas

#### Digital and direct business “Build and change”

- Create cultural environment for innovation
- Build strong digital pillar – integrate ERGO Direkt
- Enable transformation of traditional business

---

Strong track record – and new ideas

Nikolaus von Bomhard

Munich Re (Group)

Jörg Schneider

Risk management

Bernhard Kaufmann

ERGO

Markus Rieß

**Reinsurance Property-casualty**

Torsten Jeworrek

Reinsurance Life

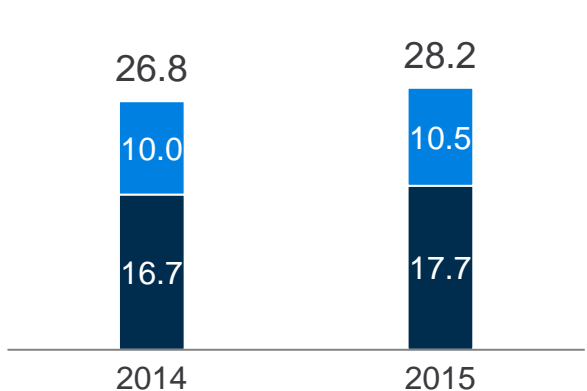
Joachim Wenning

Backup

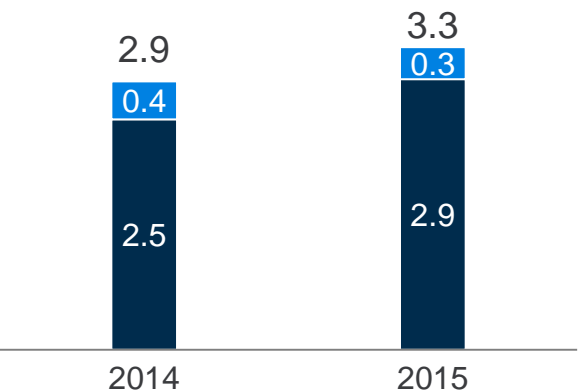


# Reinsurance – Key financials

Gross premiums written €bn



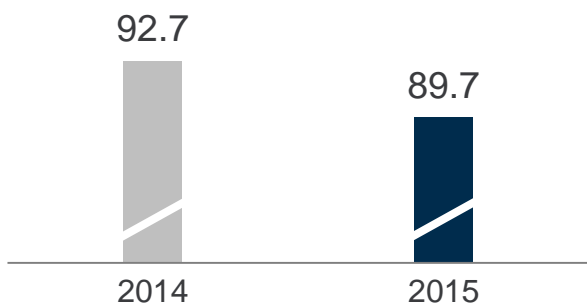
Net result €bn



Major result drivers

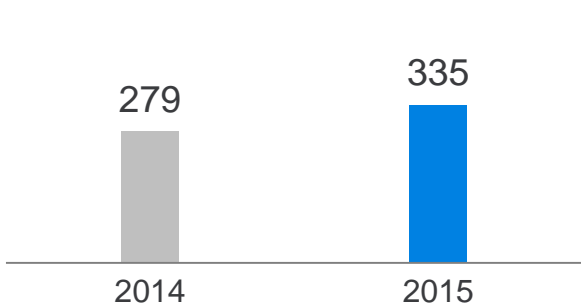
- Life**  
Underlying performance across all regions almost compensates for single large mortality claims
- Property-casualty**  
Benign major claims and substantial reserve releases

P-C: Combined ratio %



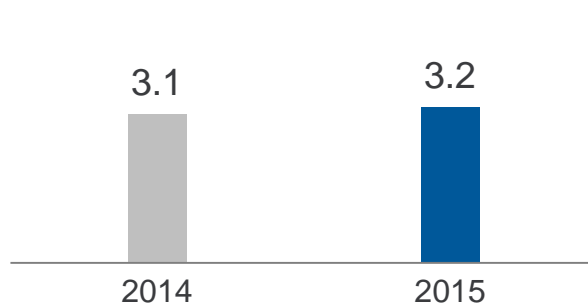
Normalised combined ratio: 98.7% (~98% in 2014)

Life: Technical result €m



Slightly below annual target of ~€400m

Return on investment %



Disposal gains offset derivative losses (hedging) and impairments

| Reinsurance property-casualty – €bn   | 2015        |
|---------------------------------------|-------------|
| <b>Operating economic earnings</b>    | <b>1.7</b>  |
| Expected return existing business     | 0.2         |
| New business value                    | 0.2         |
| Operating variances existing business | 1.3         |
| Other operating variances             | 0.0         |
| <b>Economic effects</b>               | <b>0.7</b>  |
| <b>Other non-operating earnings</b>   | <b>-0.1</b> |
| <b>Total economic earnings</b>        | <b>2.3</b>  |

### Main drivers of operating economic earnings

#### New business value

- Reflecting unchanged reserving discipline – value adjusted for prudency margin: €0.9bn
- Benefit from benign major losses for current development year

#### Operating variances

- Favourable actual vs. expected comparison allows for ultimate reductions for prior years (€1.2bn adjusted for commissions)
- Large losses below expectations also for prior years

**Benign large losses and reserve releases above expectations**

# As a leading Tier-1 reinsurer, Munich Re successfully manages cyclical and structural market changes

## Strong and profitable core business

- Preferential client access**
  - ~50% private placements<sup>1</sup>
  - ~2/3 direct client business
- Leading risk know-how**
  - ~30% tailor-made solutions<sup>1</sup>
  - Comprehensive service offering
- Superior diversification**
  - Well-balanced portfolio in terms of perils, forms of cover, regions, short/long-tail
- Stringent cycle management**
  - Continued strong u/w discipline and conservatism in reserving
  - Deliberate portfolio shifts to less commoditised business

## Growth in specialty niches and innovation

- Strong earnings from Risk Solutions**
  - High profitability
  - Largely detached from cycle
  - €5bn premium volume
- Driving industry innovation**
  - ~€500m premium<sup>2</sup> from innovative insurance products
  - Active development of business opportunities in collaboration with clients and corporate partners
- Strategic use of alternative capital**
  - Renewal of Eden Re II sidecar at increased capacity and regional coverage
  - Combining peak-risk competence with institutional investors' interest in reinsurance risk

**Munich Re in excellent position to achieve good results and to seize opportunities for profitable growth**

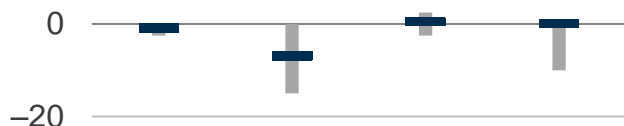
<sup>1</sup> Related to premium volume in January 2016 renewals.

<sup>2</sup> Munich Re (Group).

# Munich Re well-positioned and relatively resilient to pressure on rates

## Rate changes January renewals %

### Europe/Latin America



### Asia-Pacific



### US/Global accounts



Market range<sup>1</sup>
 Munich Re

## Current market developments

- Reinsurance capital remained abundant for most segments, but
  - Slowdown of growth of alternative capital
  - Slowing pace of rate decrease in key segments, e.g. US property cat
- Continued tiering of reinsurers
  - Preference for major, best-rated reinsurers providing scale, security, diversification
  - Increasing demand for complex programmes<sup>2</sup>
- Hardly any pressure on wordings and largely stable retentions

## Implications for Munich Re

- Globally well-positioned to counterbalance regional rate differences and flexibly shape the portfolio
- Scale and financial strength providing competitive advantage through the cycle
- Value proposition as strategic partner strongly valued by clients
- Capabilities designed to offer tailor-made solutions meeting clients' demand for large and complex reinsurance

<sup>1</sup> Range of market rate changes in January 2016 renewals published by brokers, media and observed by own experts.

<sup>2</sup> e.g. in M&A cases, multi-line covers, multi-year covers, whole-account solutions.

# Portfolio profitability remains sound, with strong client relationships enabling attractive business opportunities

## Munich Re portfolio – Premium change in major business lines

| Business line<br>Premium split <sup>1</sup> | Total   | Property     |           | Casualty     |          | Specialty lines |              |                |
|---|---------|--------------|-----------|--------------|----------|-----------------|--------------|----------------|
|   | €9.1bn  | Prop.<br>28% | XL<br>10% | Prop.<br>41% | XL<br>4% | Marine<br>9%    | Credit<br>5% | Aviation<br>3% |
| Price change                                |         |              |           | +0.0%        |          |                 |              |                |
|   | ~ -1.0% | -1.0%        | -5.4%     |              | -0.6%    | -3.0%           | -0.5%        | -3.5%          |
| Volume change                               | +0.7%   | +2.3%        |           | +6.0%        | +3.1%    |                 |              |                |
|   |         |              | -5.3%     |              |          | -16.0%          | -2.8%        | -12.2%         |

Price change

- Property XL: sustained pressure on rates, but less negative than one year ago
- Proportional: almost stable, benefiting from rather flat primary rates overall

**Profitability supported by active portfolio management, preferential business access and underwriting discipline**

<sup>1</sup> Relative premium share in relation to total renewable business in January.

# Active portfolio management

## Growth

|                                     |   |        |
|-------------------------------------|---|--------|
| Preferential business access        | <ul style="list-style-type: none"> <li>▪ Structured solutions, CRT and “straightforward” traditional covers, e.g. short-term capital need after M&amp;A</li> <li>▪ Business lines: casualty and property</li> <li>▪ Regional focus: USA, Lloyd’s market, Europe, Latin America</li> </ul> | ~€500m |
| Original growth/<br>higher cessions | <ul style="list-style-type: none"> <li>▪ Growth in underlying primary business (e.g. UK motor),</li> <li>▪ Higher share of business with existing clients (US casualty and Lloyd’s market; emerging markets)</li> </ul>   | ~€300m |

## Reduction

|                                   |   |        |
|-----------------------------------|---|--------|
| Demand-driven reductions          | <ul style="list-style-type: none"> <li>▪ Higher retentions on the client side</li> <li>▪ Regional focus: USA, Lloyd’s market, world wide</li> </ul> | ~€200m |
| Price effect/<br>cycle management | <ul style="list-style-type: none"> <li>▪ Property, marine (offshore energy), aviation</li> <li>▪ Regional focus: world wide</li> </ul>              | ~€500m |

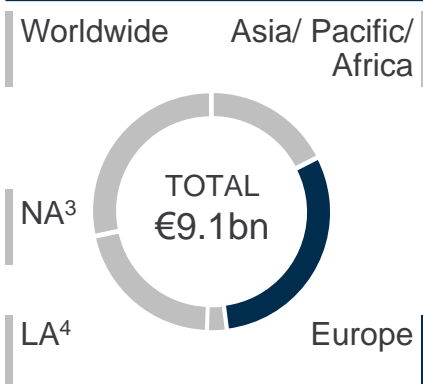
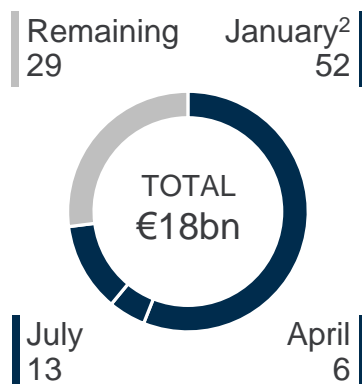
**Growth from attractive business opportunities compensating for cycle-driven reductions**

# Continuously challenging conditions for upcoming renewals, as market dynamics are unchanged

## Total P-C book<sup>1</sup>

## Treaty business

### January



Focus: **Europe**

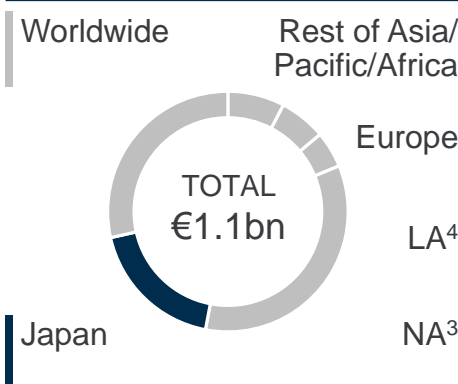
Nat cat share: 11%

Slightly negative price change of ~-1.0%

Nat cat share: 14%

More than half of the total P-C book renewed in January

### April

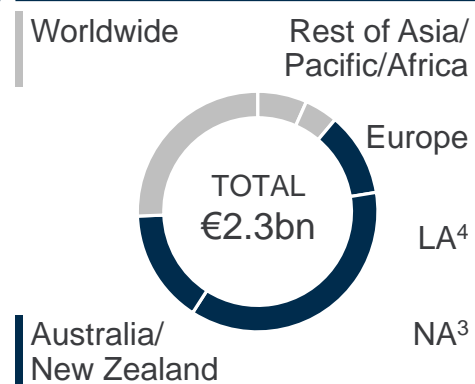


Focus: **Japan**

Nat cat share: 35%

- Capacity and competition expected to remain high
- Given higher nat cat shares, overall pricing trend will largely depend on development of nat cat prices

### July



Focus: **USA, LA, Australia**

Nat cat share: 20%

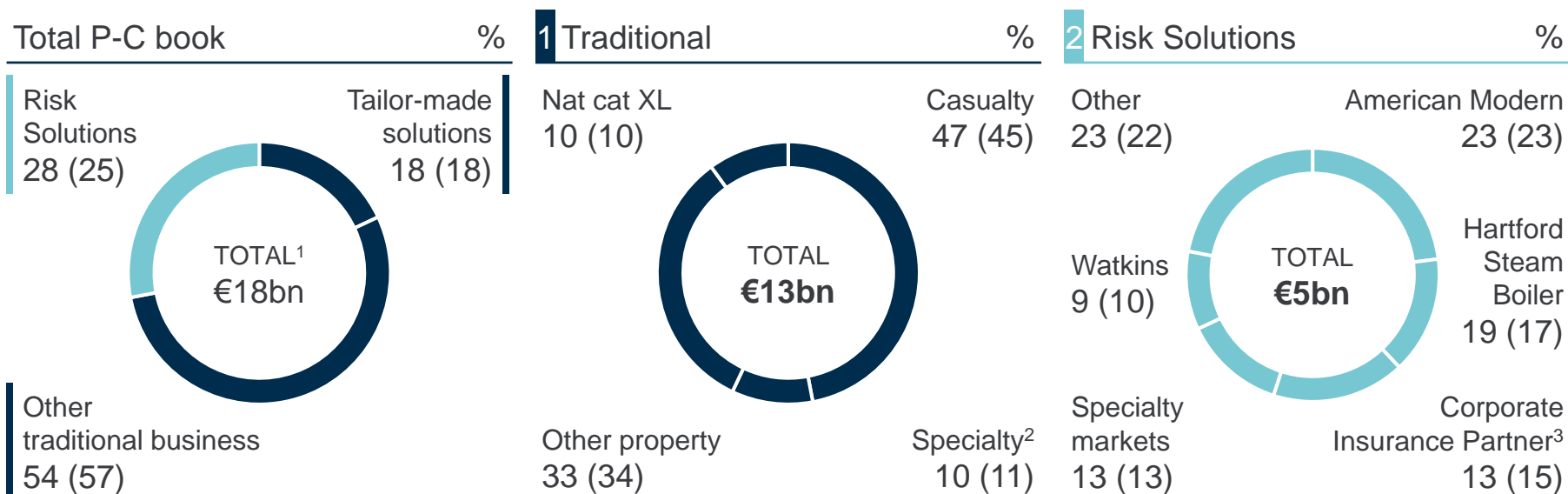
**Underwriting discipline ensures sound portfolio quality**

<sup>1</sup> Approximation – not fully comparable with IFRS figures.

<sup>2</sup> Includes Risk Solutions business (16% of January business and 8% of total P-C book).

<sup>3</sup> NA = North America. <sup>4</sup> LA = Latin America.

# Sustainable earnings level supported by broad set-up



- Well-diversified portfolio
- Stabilising impact from Risk Solutions and tailor-made transactions
- Cycle management reduces traditional business

- Shift from property and specialty to casualty
- Cycle management mitigates price pressure

- Continued (slight) growth of US specialty primary business
- Deliberate reductions at more cycle-exposed units, e.g. CIP, Watkins

**Superior diversification provides flexibility in managing the portfolio**

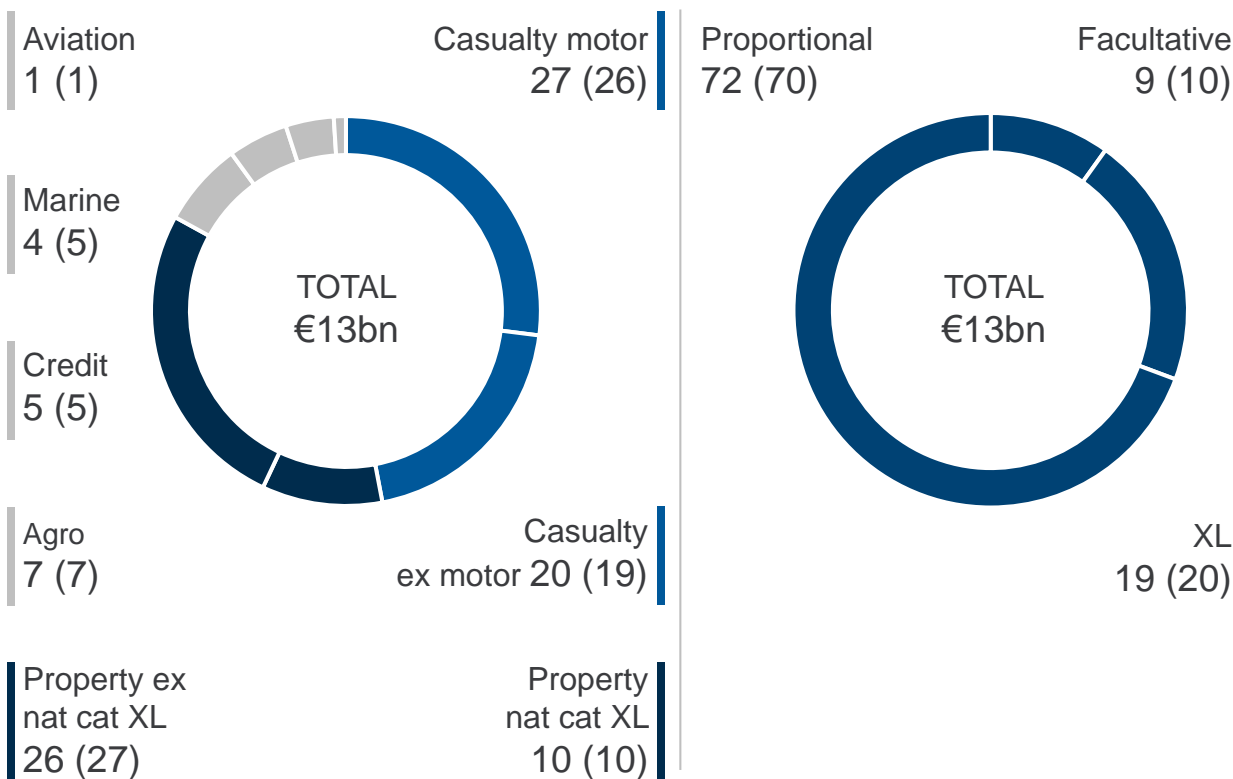
<sup>1</sup> Gross premiums written property-casualty reinsurance as at 31.12.2015 (31.12.2014).

<sup>2</sup> Aviation, marine and credit. <sup>3</sup> Part of Special and Financial Risks providing solutions for large corporate clients.





# 1 Portfolio profitability protected by disciplined underwriting and consistent cycle management

Traditional P-C portfolio 2015 (2014) – Gross premiums written<sup>1</sup> %



## Portfolio shifts

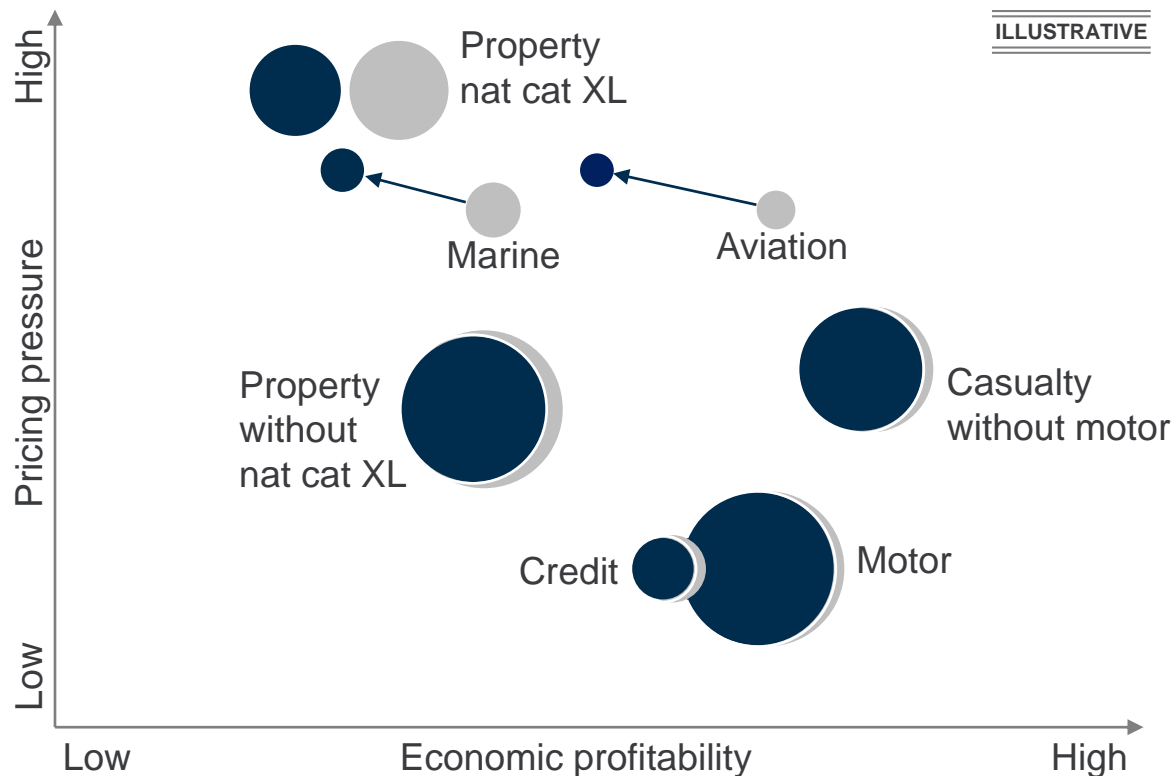
- Share increases** 
- Profitable casualty lines (motor and non-motor)
  - Less volatile proportional book (with rates broadly flat to slightly increasing)
- Share reductions** 
- Deliberate cancellations and reductions in property and marine (offshore energy)
  - More volatile XL book slightly reduced

**Traditional portfolio is well diversified – Earnings resilience sustained by higher share of proportional casualty**

<sup>1</sup> Traditional reinsurance, incl. tailor-made solutions. Allocation based on management view, not comparable with IFRS reporting.

# 1 Active portfolio management to counterbalance the challenging market environment

Traditional P-C portfolio – Outlook 2016<sup>1</sup>



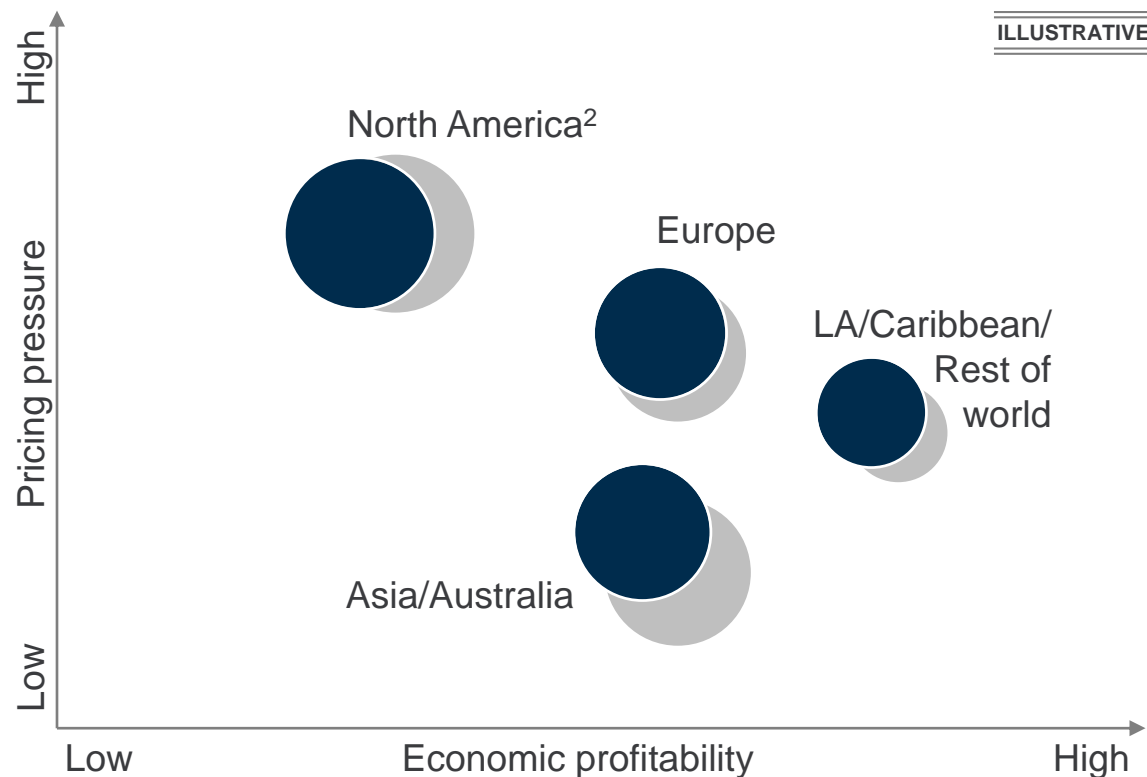
- Expected profitability remains highest in casualty lines due to high share of
  - proportional business
  - customised solutions/highly complex risks
- Pricing pressure remains highest in property nat cat XL, but profitability is still above cost of capital overall
  - Pricing pressure has increased for marine and aviation
- Some sublines are below cost of capital (e.g. offshore energy), but carefully written considering client relationship/potential

**Total portfolio profitability still comfortably exceeds cost of capital**

<sup>1</sup> Bubble size reflects gross premiums written as at 31.12.2015 (grey) – Outlook 2016 (blue).

# 1 Market dynamics are largely consistent with last year

## Traditional P-C portfolio – Property nat cat XL – Outlook 2016<sup>1</sup>



- Nat cat rates continue to decline on a world-wide basis
- Deceleration of price declines only observable for US/global cat business
- US business continues to be most exposed to pricing pressure – profitability expected to remain around cost of capital
- All other regions somewhat less affected, but with increased pricing pressure – profitability still (clearly) above cost of capital
- Portfolio shift towards growing and highly profitable Latin America

**Nat cat portfolio is actively managed and exceeds cost of capital**

<sup>1</sup> Bubble size reflects gross premiums written as at 31.12.2015 (grey) – Outlook 2016 (blue).

<sup>2</sup> Incl. worldwide business.

# 1 Mature markets: Rising exposure and healthy demand for tailored solutions create dynamics

## (Re)insurance growth drivers in mature markets

High level of poorly insured/non-insured traditional risks

- Value concentration in cat-exposed regions (e.g. coast lines)
- Higher exposures from global supply chains

New products and national pool solutions

- Cyber protection gaps
- Government-sponsored pools

Growing need for capital optimisation

- Capitalisation (e.g. SII)
- M&A protection
- Rating requirements

Rising demand for complex programmes and tailored solutions

- Bundled reinsurance purchase
- One-off effects from M&A activity in insurance sector

## Opportunities/deals for Munich Re

- Strong tailwind for additional, profitable nat cat business to be expected

- Rising demand for cyber covers
- UK flood cover (Flood Re)
- UK terrorism cover (Pool Re)

- Bespoke solutions for capital optimisation and/or special situations

- Post-merger, large entities strongly rely on Tier-1 reinsurers
- Multinational, tailored solutions

**Low levels of insurance and increasing need for individual reinsurance solutions are the main growth drivers in mature markets**

# 1 Emerging markets: Munich Re's global expertise and proximity to risks fit in well with clients' buying motivation

## (Re)insurance growth drivers in emerging markets

Economic growth and demographic development

Regional expansion and product development

Introduction of risk-based supervisory regimes

Demand for cat risk covers (e.g. Worldbank)

### Latin America

- Strong regional footprint
- Strategic partnership
- Support for cedants in regional expansion and product development

### Africa/Middle East

- Leading reinsurer in South Africa
- Well-positioned to tap long-term potential of Sub-Saharan region
- New nat cat schemes to fight climate change impact

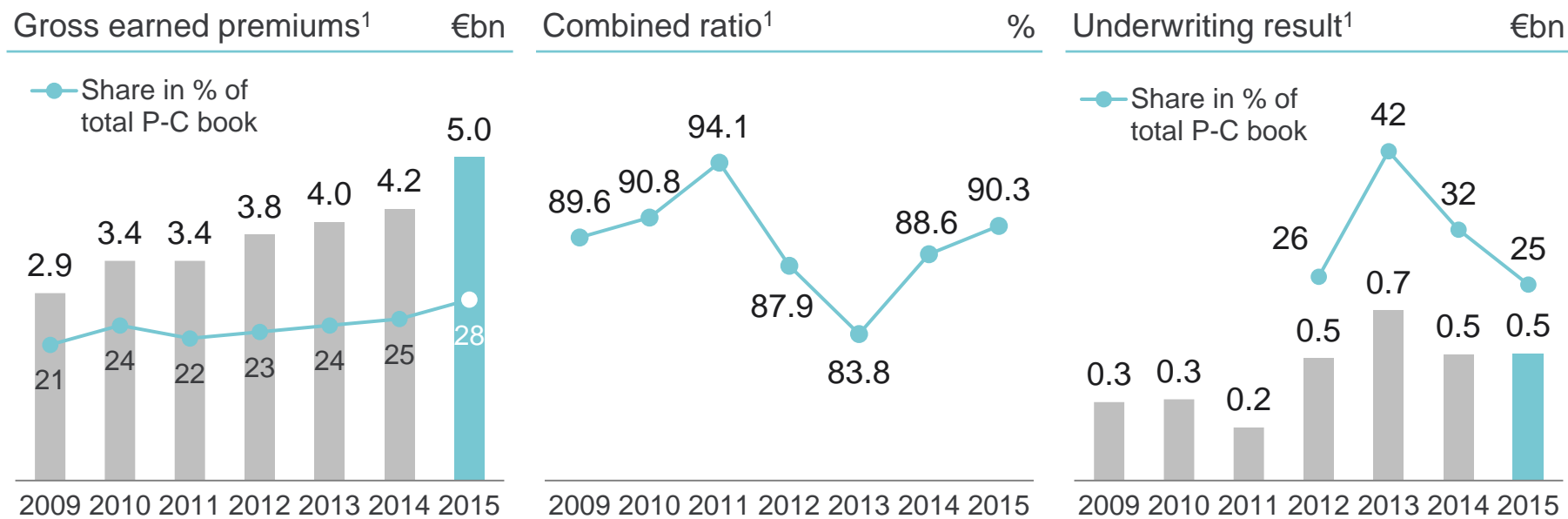
### Asia

- C-ROSS shifting demand from traditional to more volatile lines of business (China) – competitive advantage for onshore reinsurers with consultative business model
- Government-sponsored nat cat schemes – only 4% of losses covered by (re)insurance (China)<sup>1</sup>
- Insurance reforms, branch underway (India)

**Local presence, consultancy services and capital relief are differentiating pillars of Munich Re's partnering approach with clients in emerging markets**

<sup>1</sup> Source: Artemis as of 14.01.2016 based on Chinese Ministry of Civil Affairs (\$41bn of economic losses in 2015)/AON Benfield (insured losses from natural disasters in China in 2015 in the range of \$1.5–2.0bn)

## 2 Risk Solutions – Track record of solid result delivery is confirmed



### Drivers in 2015

- Top-line driven by FX and organic growth of US specialty entities
- Strong bottom-line supported by low major losses and reserve releases
- Highest result contribution from Hartford Steam Boiler

Continuous development of capabilities in specialty and niche areas

**Highly valuable business segment with strong top- and bottom-line contribution – Detaches Munich Re from the cycle in reinsurance**

<sup>1</sup> Management view, not comparable with IFRS reporting.

## 2 Risk Solutions – Growth initiatives

| Business unit                              | Initiative   | Rationale  |
|--|--|--|
| Hartford<br>Steam<br>Boiler<br>(HSB)       | <ul style="list-style-type: none"> <li>International expansion of equipment breakdown insurance in Asia and Europe</li> <li>Continued white-labelling, collaborating with American Modern Insurance Group (AMIG)</li> </ul>                                      | Organic growth in expertise-driven specialty and niche business  |
| Specialty<br>markets                       | <ul style="list-style-type: none"> <li>Organic growth with key clients: MGAs/PAs, banks/brokers and alternative markets</li> <li>Expansion into new market segments (e.g. single commercial risks)</li> <li>New product development (e.g. cyber)</li> </ul>      | Intensified collaboration and joint innovation between Risk Solutions business providers   |
| Corporate<br>Insurance<br>Partner<br>(CIP) | <ul style="list-style-type: none"> <li>Strengthened client focus through international network and comprehensive lines of business in industrial insurance</li> <li>Green Tech Solutions: Performance guarantees for broader spectrum of technologies</li> </ul> | Focused multi-year investment programme (systems and processes) in business and service providers to further improve client centricity |

**Leveraging strengths within Risk Solutions while keeping a “fleet of speedboats” for specialty and niche business**

# Munich Re utilising all ART channels as instrument for risk management and an expanded product range

## Munich Re channels to tap alternative capacity sources

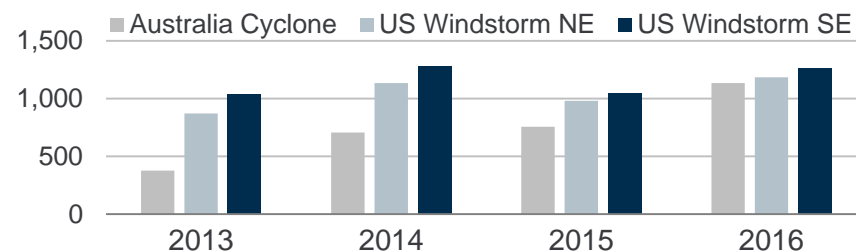
### Eden Re programme<sup>1</sup>

- Sidecar was increased by US\$ 70m to US\$ 360m cat XL capacity in 2015
- Broader regional coverage, including Australia cat XL book

### Queen Street programme

- Additional cat bonds of US\$ 200m issued (Queen Street X and XI)
- Broadened investor base for fully collateralised cover of Munich Re peak-zone risk

### Retrocession – Protection per nat cat scenario<sup>2</sup> €m



Retrocession use reflects favourable market terms and strong Munich Re capital base

## Enhanced risk management and client offerings on basis of ART channels

- Combining Munich Re’s peak-risk competence and client access with institutional investors’ interest in reinsurance risk
- Taking advantage of new sources of capital for clients and Munich Re’s own book
- Munich Re ILS service for third parties completes offer as customised stand-alone service or integrated into traditional solutions

**Broadened distribution channels to ART markets to increase flexibility of Munich Re balance sheet – relationship-based approach allows for scaling-up**

<sup>1</sup> Munich Re structured and arranged transactions.

<sup>2</sup> Including indemnity retrocession, ILW/derivatives, risk swaps, cat bonds and the sidecars Eden Re I+II. Selection of main scenarios.



# Munich Re drives innovation in four key areas – Launches 2015 (selection)

New clients and demands

- **Capital optimisation**  
“Capital Partners” combines structuring and technical expertise for integrated risk, financial and capital management
- **Public-sector climate-risk insurance**  
Successful renewal of “African Risk Capacity” cat insurance pool

- **Primary insurance consulting**  
Dedicated consulting unit
- **Predictive/preventive services**  
Early loss and claims fraud detection leverages data analytics
- **Claims service/assessment**  
Worldwide drones service

New risk-related services

- **Cyber solutions for broad range of risks**  
Cooperations with multiple cyber security companies, enhancements of accumulation models/products<sup>1</sup>

New (re) insurance products

- **Non-damage business interruption**  
“NDBI Pharma IQ” insurance for R&D of life-science companies
- **Business-enabling for start-ups**  
Insurance for cash-in of pre-IPO firms’ employee shares

- **Automation/digitalisation of processes**  
Data-analytics applications<sup>2</sup> in underwriting and claims
- **White-labelling solutions**  
“US Homeowners Inland Flood Coverage” leverages synergies between HSB, AMIG and Munich Re US reinsurance division

New business models

**Innovation-related business steadily growing – currently generating a premium volume<sup>3</sup> of ~€500m**

<sup>1</sup> e.g. Digit@all, CyberOne. <sup>2</sup> e.g. Fuzzy matching, text mining, natural language processing.

<sup>3</sup> Munich Re (Group).

# Cyber (re)insurance – Securing profitable growth through diversification, innovation and accumulation control

## Reinsurance (RI)

First-mover and global market leader

- Dynamic growth through joint projects with cedants (including white label products) in developing markets
- Steady increase of profitable cyber portfolios in the US
- Continuous update of our accumulation models (e.g. virus, cloud, critical infrastructure)

### Munich Re well positioned

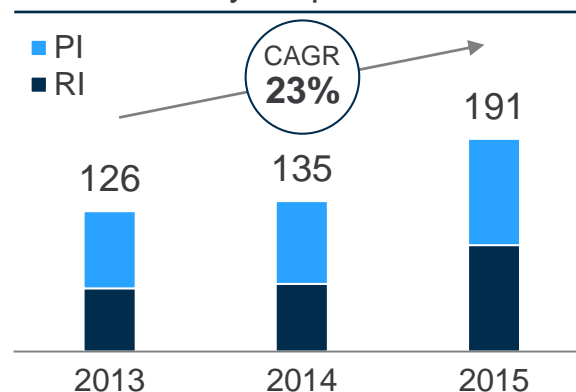
- Bundling of cyber expertise in dedicated cyber unit
- Market differentiation through talent acquisition
- Systematic build-up of cyber exposure, loss and threat database

## Primary insurance (PI)

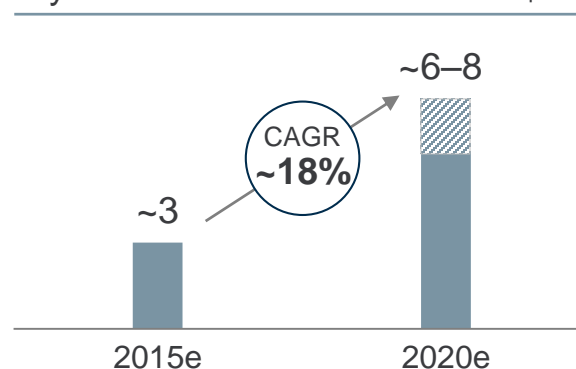
Specialised single-risk taker for a broad range of cyber risks

- **Hartford Steam Boiler**  
Established US market for cyber liability/privacy covers for SMEs and individuals. Introducing HSB Total Cyber for mid-size companies
- **Corporate Insurance Partner**  
Traditional and non-traditional cyber solutions for large corporate clients. Cooperation with IT providers for holistic cyber protection

Munich Re cyber portfolio<sup>1</sup> US\$m



Cyber insurance market<sup>2</sup> US\$bn



**Munich Re with leading-edge expertise and strong global market presence to profitably exploit innovative cyber-insurance segments**

<sup>1</sup> Premium development.

<sup>2</sup> Estimates based on different external sources (Marsh & McLennan, Barbican Insurance, Allianz).

# Innovation: Infrastructure for innovation activities is fully in place and anchored in organisation

|                              | Achievements   | Outlook  |
|------------------------------|--|--|
| Scouting and partnering      | <ul style="list-style-type: none"> <li>▪ First reinsurer to establish permanent presence in Silicon Valley</li> <li>▪ Innovation scouts networking in relevant, global innovation centers</li> </ul> | <ul style="list-style-type: none"> <li>▪ Understand the relevant start-up eco system</li> <li>▪ Establish corporate partnerships</li> <li>▪ Strategically evolve Munich Re business model</li> </ul>   |
| Innovation labs <sup>1</sup> | <ul style="list-style-type: none"> <li>▪ Successful lab pilot with TechFounders<sup>2</sup></li> <li>▪ Munich Re-owned labs in Munich, Beijing and New York</li> </ul>                               | <ul style="list-style-type: none"> <li>▪ Environment to develop and test ideas together with clients</li> <li>▪ Drastically reduce time-to-market through learning effects</li> </ul>  |
| Data analytics               | <ul style="list-style-type: none"> <li>▪ Building central and decentral analytical capabilities</li> <li>▪ Investments in IT big data infrastructure</li> </ul>                                      | <ul style="list-style-type: none"> <li>▪ Speed up and improve loss experience</li> <li>▪ Create new data insights</li> <li>▪ Create added value for cedants and Munich Re (new products, new covers, new insights)</li> <li>▪ Prepare for data-driven business models</li> </ul> |

**Munich Re is shaping the dynamic change of the industry – Broad and decentral up-skilling of the organisation**

<sup>1</sup> Only reinsurance, some activities are joint with ERGO.

<sup>2</sup> Munich-based accelerator for tech start-ups.

---

Strong track record – and new ideas

Nikolaus von Bomhard

Munich Re (Group)

Jörg Schneider

Risk management

Bernhard Kaufmann

ERGO

Markus Rieß

Reinsurance Property-casualty

Torsten Jeworrek

**Reinsurance Life**

Joachim Wenning

Backup

# Pleasing operating economic performance

| Reinsurance Life – €bn                  | 2015       |
|---|------------|
| <b>Operating economic earnings</b>      | <b>1.5</b> |
| Expected return existing business       | 0.2        |
| New business value                      | 0.9        |
| Operating variances existing business   | 0.2        |
| Other operating variances               | 0.1        |
| <b>Economic effects</b>                 | <b>0.3</b> |
| <b>Other non-operating earning comp</b> | <b>0.1</b> |
| <b>Total economic earnings</b>          | <b>1.8</b> |

## Main drivers of operating economic earnings

### New business value

- Exceeding expectations, strong contribution from North America and Asia
- Financially-motivated reinsurance: again a successful year
- Traditional reinsurance: resilient to mounting pressure on volumes and margins

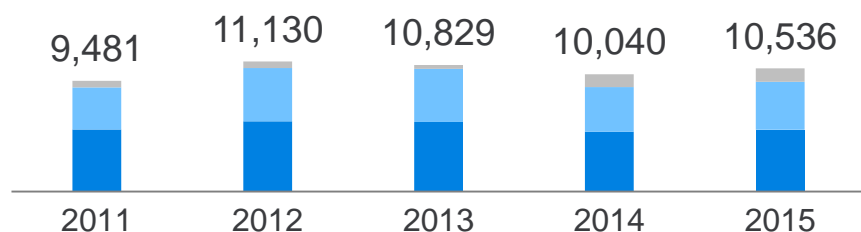
### Operating variances

- Positive development of in-force in the aggregate and in all major markets
- Robust results in USA and Australia – confidence that US old-issue-age mortality and Australian disability have been fixed

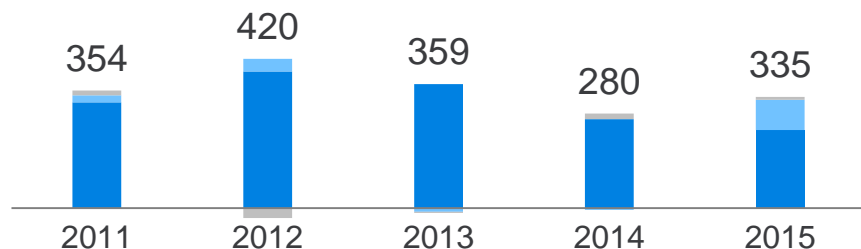
**High new business value generation and positive development of in-force**

# Solid IFRS performance notwithstanding random large claims

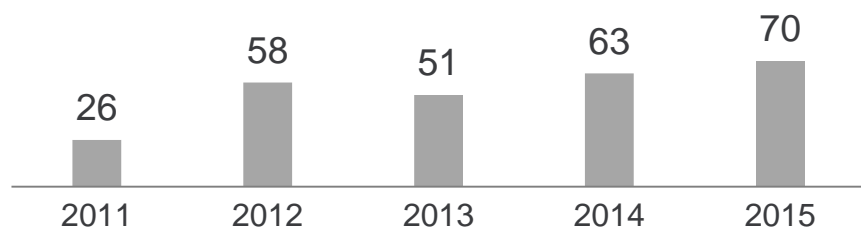
## Gross premiums written €m



## Technical result €m



## Fee income €m



■ Mortality ■ Morbidity ■ Other

## Main effects 2015

- Positive currency effects
- Largely flat development of traditional business
- Adjusted for two single large outlier claims in North America, ...
- ... performance in line with or slightly better than expectations
- Parts of financially-motivated reinsurance recognised outside the technical result
- Performance fully in line with expectations

# Benefit from growth opportunities and closing open issues

## Canada

- Pressure on volumes and margins increased significantly in 2015 – new business generation has dropped
- IFRS profits continue to be strong

## UK

- Continued pressure on volumes/margins in protection business
- Successful proposition for financially motivated reinsurance and longevity
- Results from in-force portfolio continue to be healthy

## Asia

- Very satisfactory development of new business and in-force portfolio
- Product drift trend to become challenging

## USA

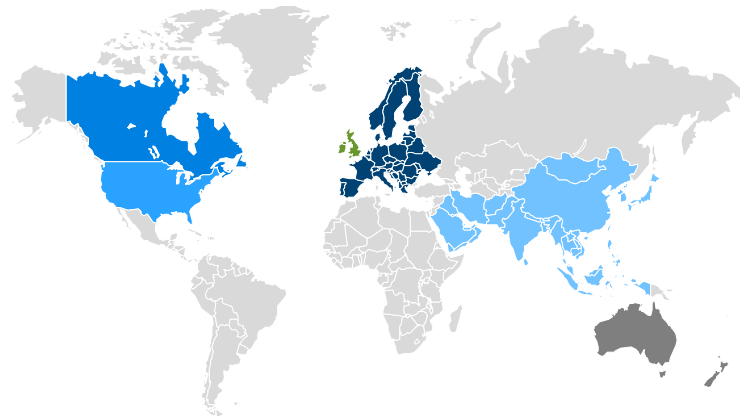
- High new business value with attractive risk-return profile
- Legacy block will continue to affect IFRS profits

## Continental Europe

- Challenging market environment limits value generation
- Pleasing IFRS profit from healthy portfolio

## Australia

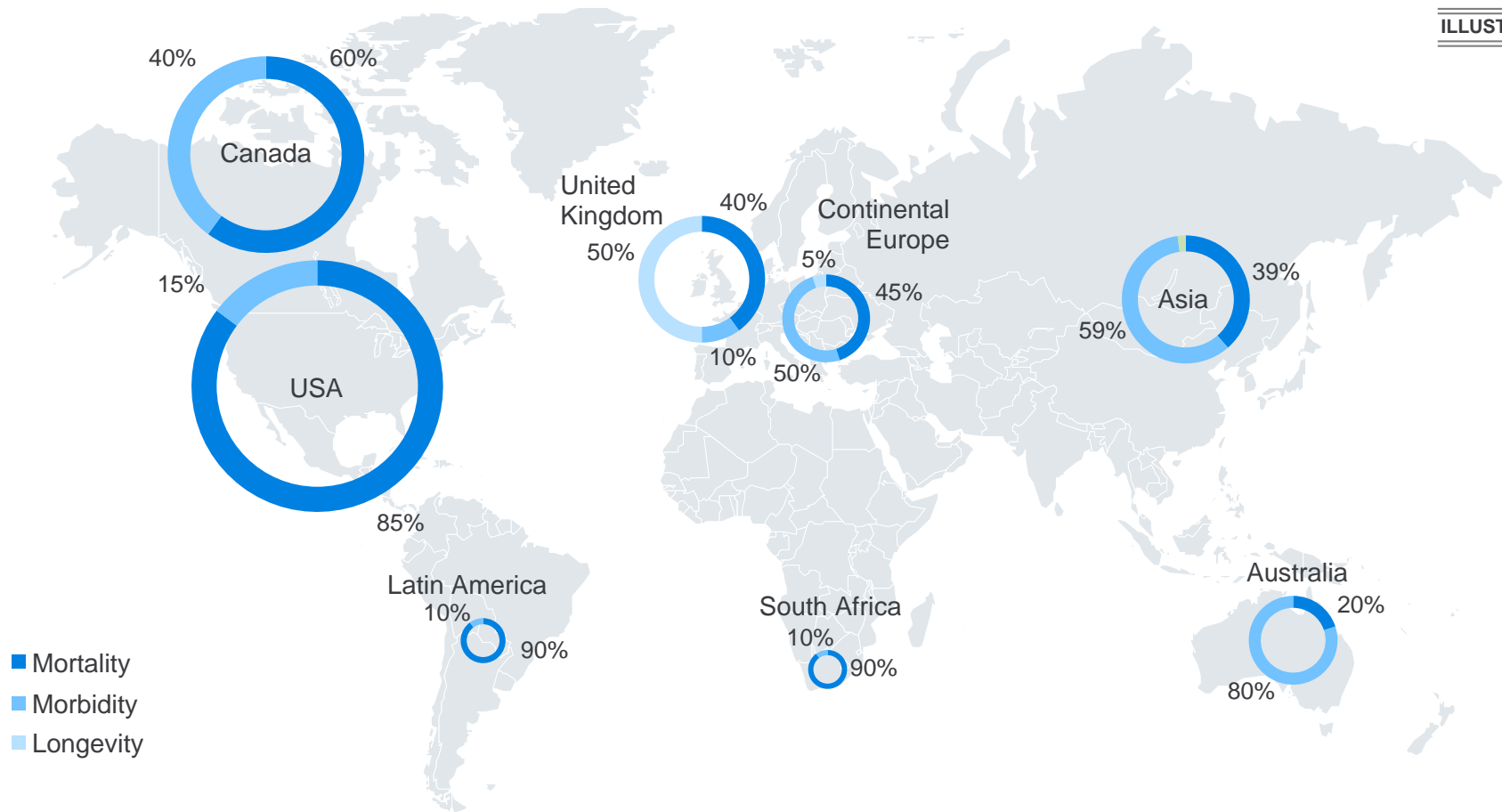
- Disability business performing in line with expectations
- Transfer into new business proposition underway



**Strong new business generation against pressure from competition and challenging economic environment**

# Well-diversified global portfolio

ILLUSTRATIVE

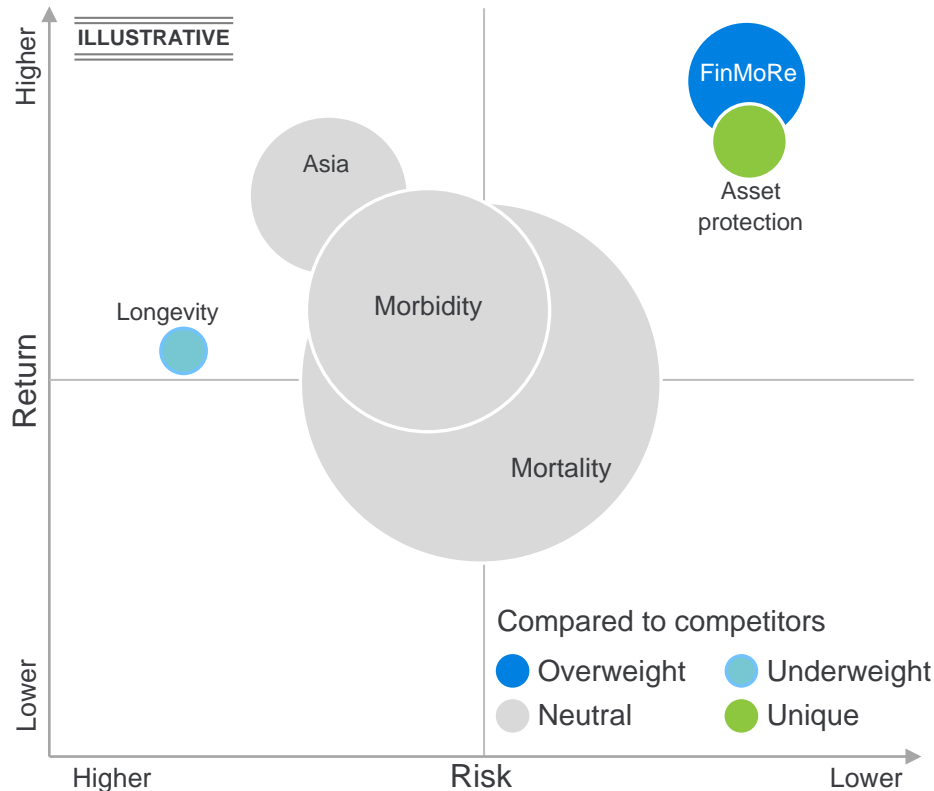


**Weighting of North America still high – Strategic focus reflected in growth in Asia**



# Core business supplemented by well-established initiatives

## Risk-return profile



### Traditional business model

- Portfolio dominated by mortality risk – focus on improving risk-assessment process for insurer and reinsurer
- Growing exposure to morbidity risk – need to secure alignment of interest of policyholders, insurers and reinsurers
- Confidence that US old-issue-age mortality and Australian disability are fixed

### Initiative portfolio

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1 FinMoRe</li> <li>3 Longevity</li> </ol> | <ol style="list-style-type: none"> <li>2 Asia</li> <li>4 Asset protection</li> </ol> |
|--|--|

**Mortality risk dominates, while contribution from initiatives is increasing**

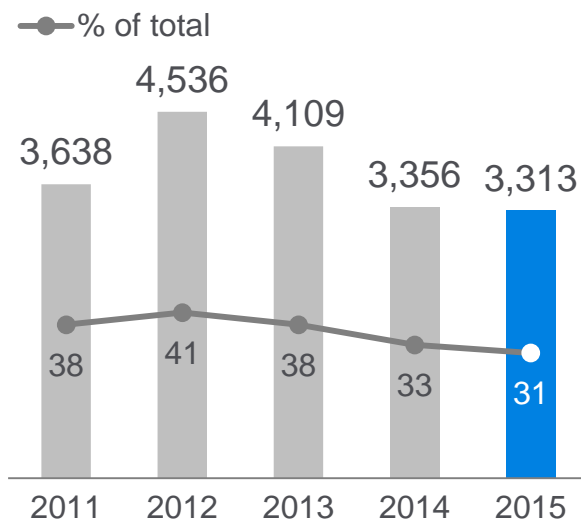
# 1 Financially Motivated Reinsurance

Well-established value proposition – strong demand prevails

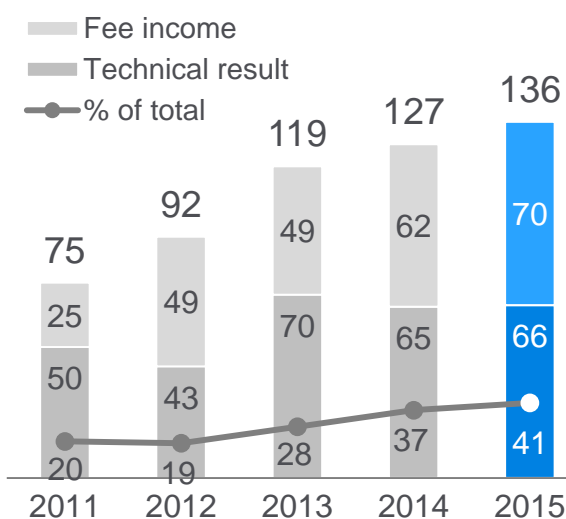
## Financially Motivated Reinsurance

€m

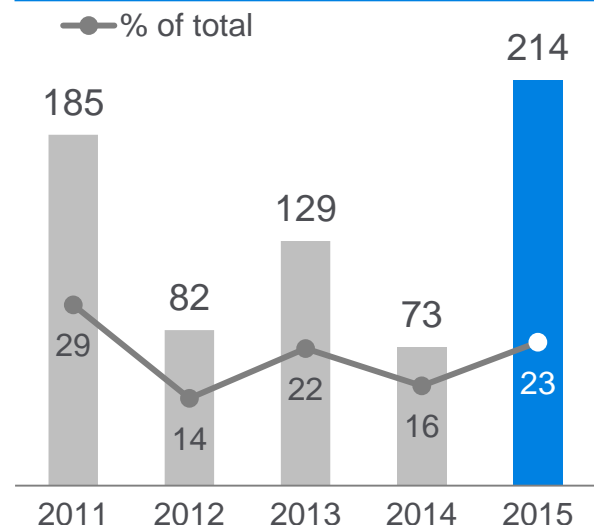
### Gross premiums written



### Technical result and fee income



### VNB<sup>1</sup>



### Portfolio development

- Increasing result contribution an indicator of overall success
- Geographically well-diversified
- 2015 new business, particularly from Asia and Europe
- First Solvency II solutions executed

### Expectations going forward

- Demand will remain high
- Number, size and type of transactions are difficult to predict and will vary on an annual basis

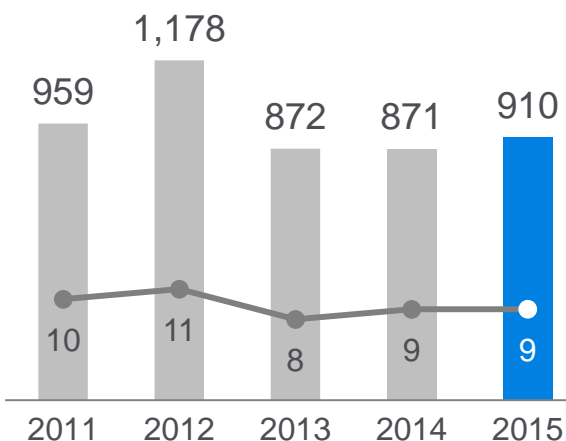
<sup>1</sup> 2011–14 MCEV, 2015 Solvency II.

# High new business value underpins business potential

Asia €m

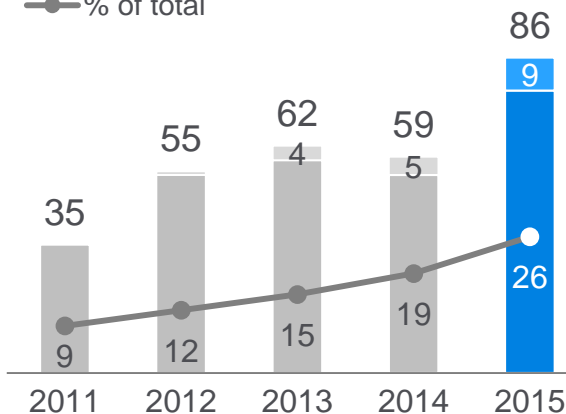
## Gross premiums written

● % of total



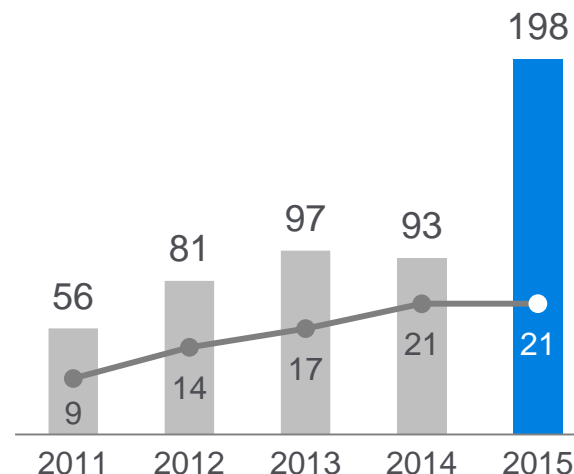
## Technical result and fee income

■ Fee income  
■ Technical result  
● % of total



## VNB<sup>1</sup>

● % of total



## Portfolio development

- Sustained growth path
- Premium volatility from financially-motivated deals
- Tailor-made market and client strategies
- Growth supported by broad range of services
- 2015 exceptional year in terms of IFRS profit and new business generation

## Expectations going forward

- Insurance and reinsurance markets will continue their growth path – flattening growth rates to be expected
- Demand for solvency relief and financing solutions remains high
- Increase in competition and pressure on prices, but underwriting discipline remains high

<sup>1</sup> 2011–14 MCEV, 2015 Solvency II.

### 3 Longevity

## Book developed carefully in line with risk appetite

### Longevity

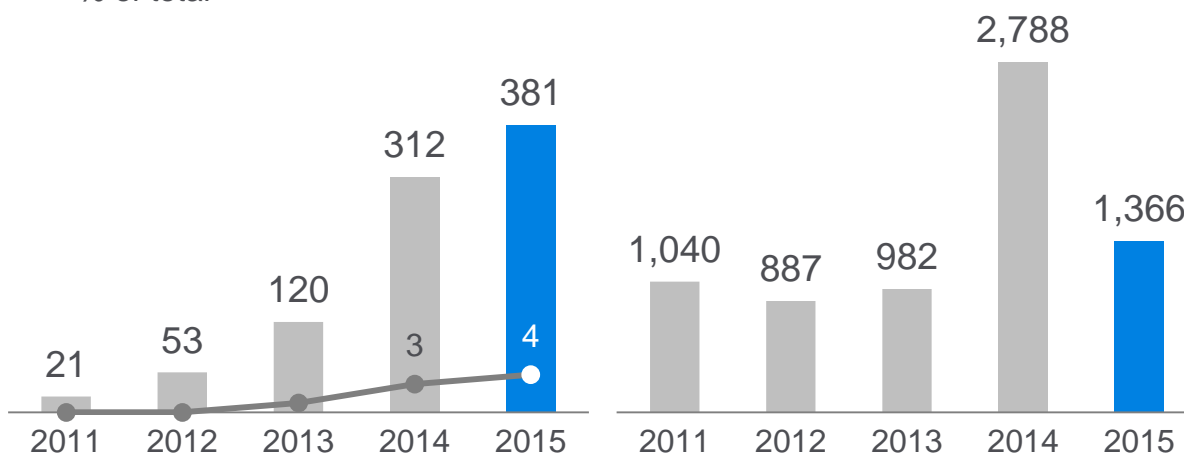
€m

#### Gross premiums written

#### Liabilities by deals

#### Strategic proposition

● % of total



- Longevity considered to be primarily a risk management tool to balance mortality portfolio and to stabilise earnings
- Uncertainty around future mortality trend requires prudent approach in pricing and valuation

#### Portfolio development

#### Expectations going forward

- Portfolio comprises longevity swaps in UK
- No significant VNB expectation
- 2014: Participation in the large AVIVA scheme
- 2015: One further transaction concluded with a leading specialist life insurer

- Evolutionary development of portfolio within clearly defined risk tolerance
- Careful investigation of expansion into other markets
- High market potential but also significant pressure on prices
- Continuation of highly selective approach in choosing transactions on which to quote

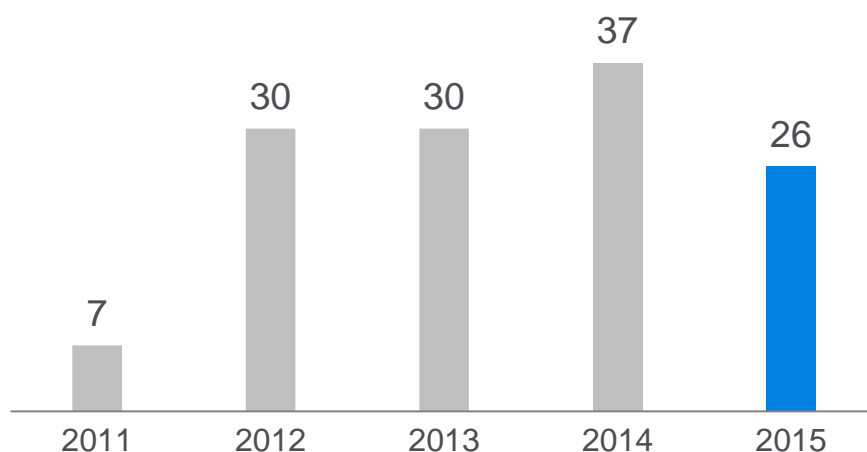
## 4 Asset protection

## Comprehensive solutions to complex financial risks

## Asset protection

IFRS contribution margin<sup>1</sup>

€m



## Strategic proposition

- Legal, regulatory and structuring expertise
- Fully functional hedging platform

## Product portfolio

- Solutions to Basel III and Solvency II needs
- Resolution of accounting asymmetry
- ALM solutions for smaller players
- Development of modern savings products

## Portfolio development

- Portfolio continues to gain significance
- Growing contribution to new business value
- Previous years positively affected by terminations in the portfolio that caused an earlier-than-expected margin release

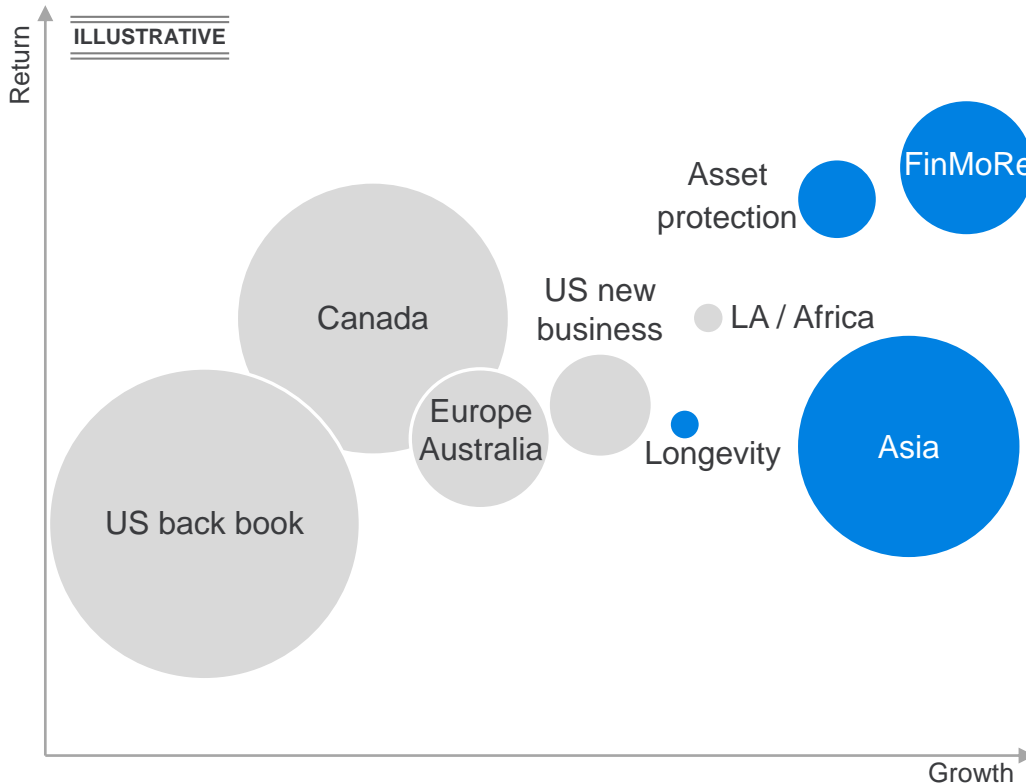
## Regional focus

- Existing book dominated by Asia/Japan
- Current opportunities mainly in Europe and Asia/Japan
- Exploration of business potential in North America

<sup>1</sup> Part of non-technical-result, incl. insurance-related investment result.

# Flat development of traditional reinsurance expected

## Expected development of business relative to today



### Traditional business model

- Attractive new business potential in the USA – weight and earnings impact of back-book will decrease over time
- Relative and absolute size of Canadian book difficult to maintain
- Growth potential in Latin America and Africa, but overall size is small

### Initiative portfolio

- FinMoRe, Asia and asset protection: Growth path to continue
- Longevity: Selective strategy to be pursued

**Strategic initiatives continue to show attractive growth/return perspective**

# Innovation has a top priority – all strategic pillars for innovation addressed by concrete projects

## Life innovation activities along key strategic pillars for innovation (selection)

### New clients and demands

- Financially Motivated Reinsurance
- Solvency II solutions (incl. market risks)

### Efficient and digital business processes

- Automation services (low- and high-end solutions for underwriting and claims)
- Predictive underwriting
- Broker platform with underwriting rulebook included for point-of-sale underwriting (Vers.diagnose)

### New risk-related services

### Digital customer and sales experience

- Co-creation projects with clients

### New (re) insurance products

- Fully re-insurable variable annuities
- Extension of insurability<sup>1</sup>

### New business models

- Ellipse<sup>2</sup>
- Various white labelling projects

<sup>1</sup> e.g. Cover for inclusion of diabetes.

<sup>2</sup> UK-based digital group risk insurer. Life, income protection and critical illness cover.

# Automated risk assessment platforms are an important part of digitalisation in the (re)insurance industry

## New business models Munich Re Automation Solution

### Benefits for Munich Re clients

- Automated risk assessment for life insurance proposals for every point of sale (multi-channel)
- Unrivalled risk selection and pricing
- Reduced administration costs
- Practical, flexible and easy-to-use tool

### Munich Re's achievements and outlook

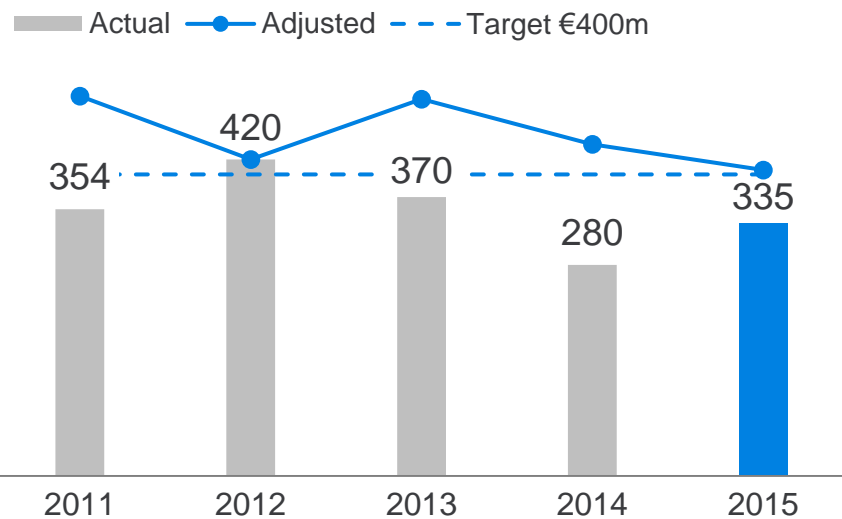
- Core component in the value chain of life insurers in a digital world
- To be enhanced in the future with big data and new analytics
- Feasibility study on transferring automated underwriting services to property business

## New broker platform in Germany vers.diagnose

- Automated point-of sale underwriting platform for life insurance and occupational disability
- Open architecture for insurance companies and sales partners (multi-channel-capable)
- Easy-to-use, with greater transparency for brokers and insureds
- Automated risk assessment with Munich Re underwriting rules generating consistent results
- Greater market penetration through cooperation with additional life insurers and additional life covers



## IFRS technical result

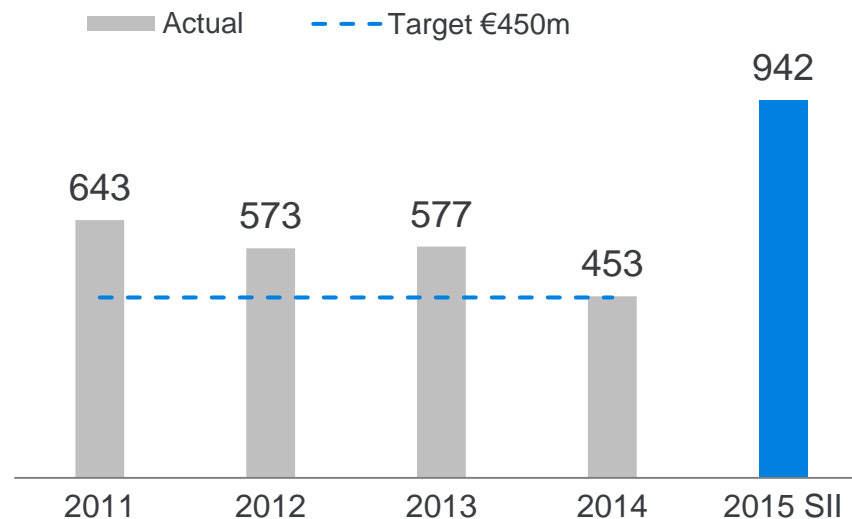


### Adjustments

- 2011/13/14: Australian disability
- 2014: US recapture settlement
- 2015: Outlier claims in North America

## VNB<sup>1</sup>

€m



### Adjustments

- Peaks in value generation from FinMoRe
- 2015: First-time application of SII methodology<sup>1</sup>; extraordinarily high VNB in the US



**Confirm IFRS run-rate of around €400m per annum**

<sup>1</sup> 2011–14 MCEV, 2015 Solvency II.

---

Strong track record – and new ideas

Nikolaus von Bomhard

Munich Re (Group)

Jörg Schneider

Risk management

Bernhard Kaufmann

ERGO

Markus Rieß

Reinsurance Property-casualty

Torsten Jeworrek

Reinsurance Life

Joachim Wenning

Backup

# Premium development

## Gross premiums written

€m

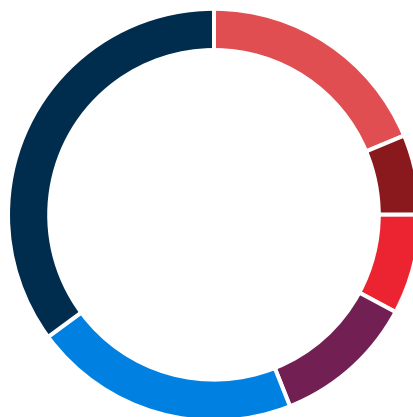


## Segmental breakdown

€m

Reinsurance Property-casualty  
17,680 (35%) (▲ 5.7%)

Reinsurance Life  
10,536 (21%) (▲ 4.9%)



ERGO Life/Health Germany  
9,426 (19%) (▲ -3.9%)

ERGO Property-casualty Germany  
3,162 (6%) (▲ 1.5%)

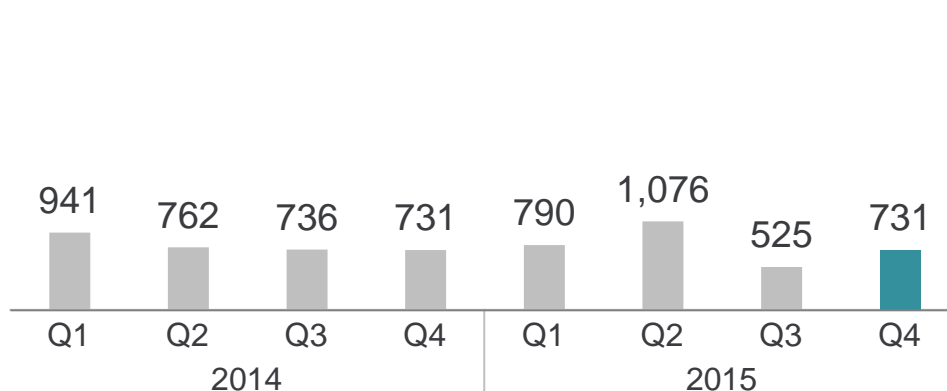
ERGO International  
3,947 (8%) (▲ 3.6%)

Munich Health  
5,623 (11%) (▲ 5.3%)

# Net result

## Net result

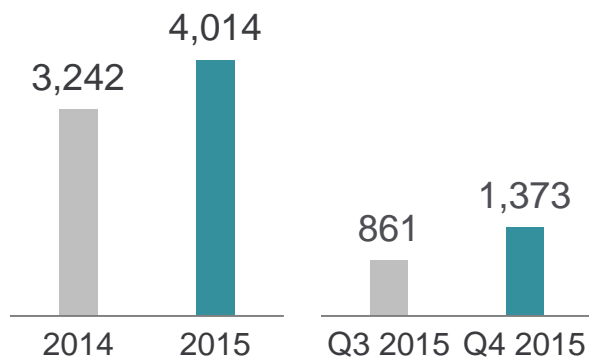
€m



|               | 2015  | 2014  |
|---------------|-------|-------|
| Total         | 3,122 | 3,170 |
| Reinsurance   | 3,261 | 2,892 |
| ERGO          | -227  | 169   |
| Munich Health | 88    | 109   |

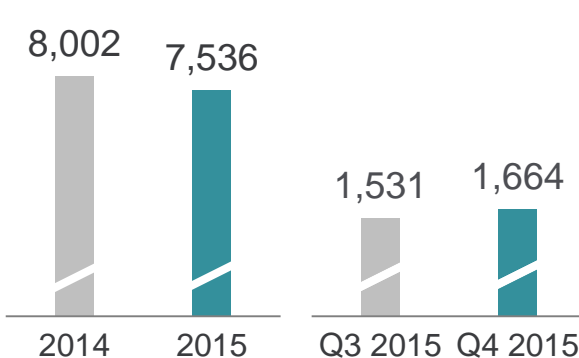
## Technical result

€m



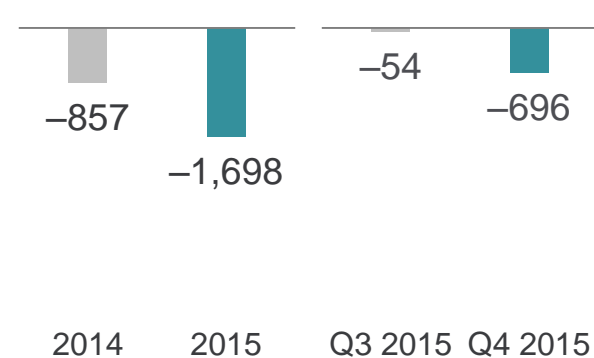
## Investment result

€m



## Other<sup>1</sup>

€m



<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# Reconciliation of operating result with net result

| Reconciliation of operating result with net result |       | €m    |
|--|-------|-------|
|  | 2015  | Q4    |
| Operating result                                   | 4,819 | 1,427 |
| Other non-operating result                         | -532  | -8    |
| Goodwill impairments                               | -452  | -452  |
| Net finance costs                                  | -238  | -60   |
| Taxes  | -476  | -175  |
| Net result   | 3,122 | 731   |

| Other non-operating result | €m   |      |
|----------------------------|------|------|
|                            | 2015 | Q4   |
| Foreign exchange           | -213 | 101  |
| Restructuring charges      | -18  | -4   |
| Other                      | -301 | -105 |

| Tax rates     | %     |       |
|---------------|-------|-------|
|               | 2015  | Q4    |
| Group         | 13.2  | 19.3  |
| Reinsurance   | 12.9  | 13.6  |
| ERGO          | -0.6  | 4.6   |
| Munich Health | -11.9 | 176.4 |

# IFRS capital position

| Equity                  | €m     |  | €m        |
|-------------------------|--------|--|-----------|
| Equity 31.12.2014       | 30,289 |  | Change Q4 |
| Consolidated result     | 3,122  |  | 731       |
| <b>Changes</b>          |        |  |           |
| Dividend                | -1,293 |  | 0         |
| Unrealised gains/losses | -1,821 |  | 62        |
| Exchange rates          | 1,420  |  | 393       |
| Share buy-backs         | -1,005 |  | -316      |
| Other                   | 254    |  | 51        |
| Equity 31.12.2015       | 30,966 |  | 921       |

## UNREALISED GAINS/LOSSES

### Fixed-interest securities

Q1–4: –€1,726m

Q4: –€498m

### Non-fixed-interest securities

Q1–4: –€10m

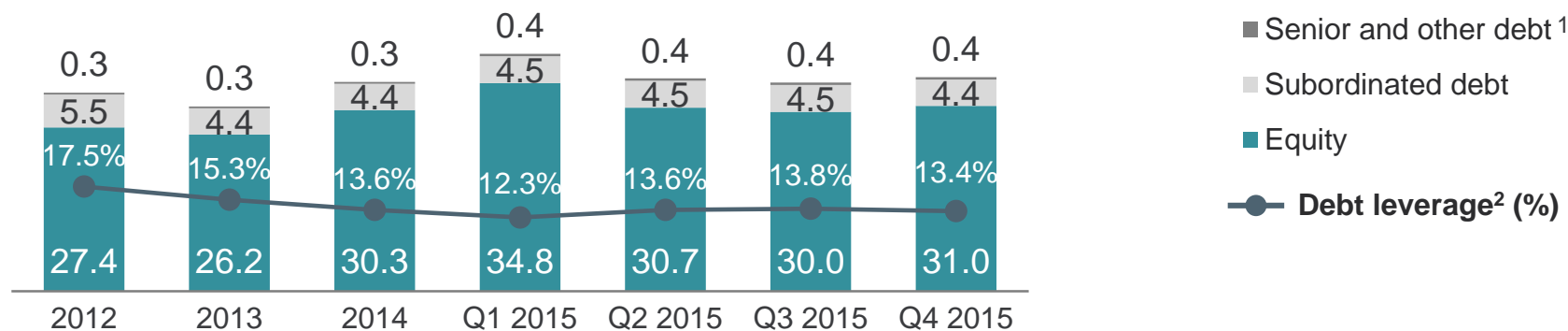
Q4: +€585m

## EXCHANGE RATES

FX contribution mainly driven by US\$

## Capitalisation

€bn



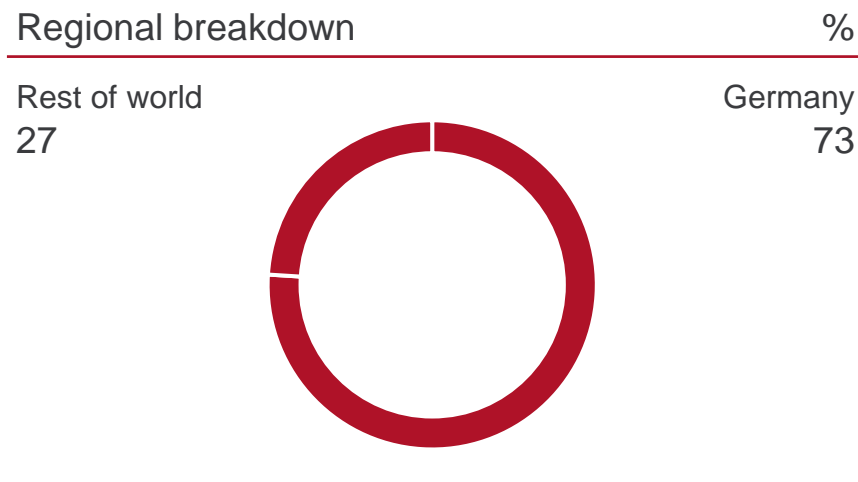
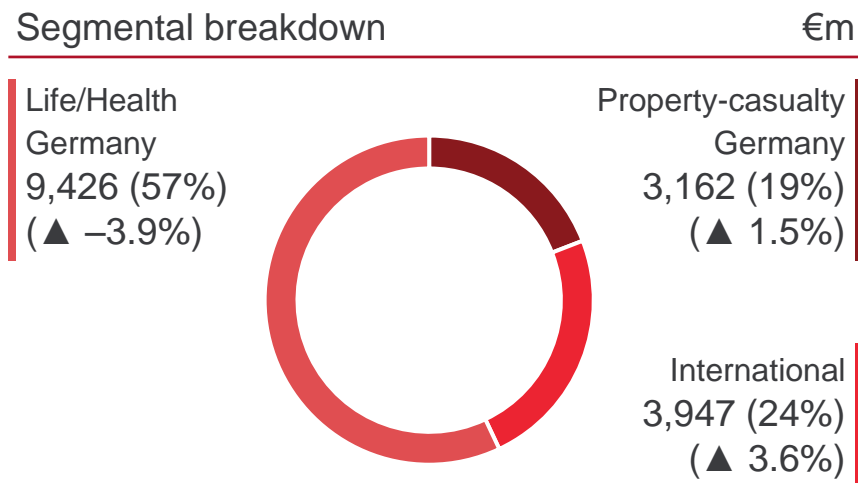
<sup>1</sup> Other debt includes bank borrowings of Munich Re and other strategic debt.

<sup>2</sup> Strategic debt (senior, subordinated and other debt) divided by total capital (strategic debt + equity).

# ERGO – Premium development

| Gross premiums written   |        | €m |
|--------------------------|--------|----|
| 2014                     | 16,736 |    |
| Foreign-exchange effects | -24    |    |
| Divestments/investments  | 20     |    |
| Organic change           | -197   |    |
| 2015                     | 16,535 |    |

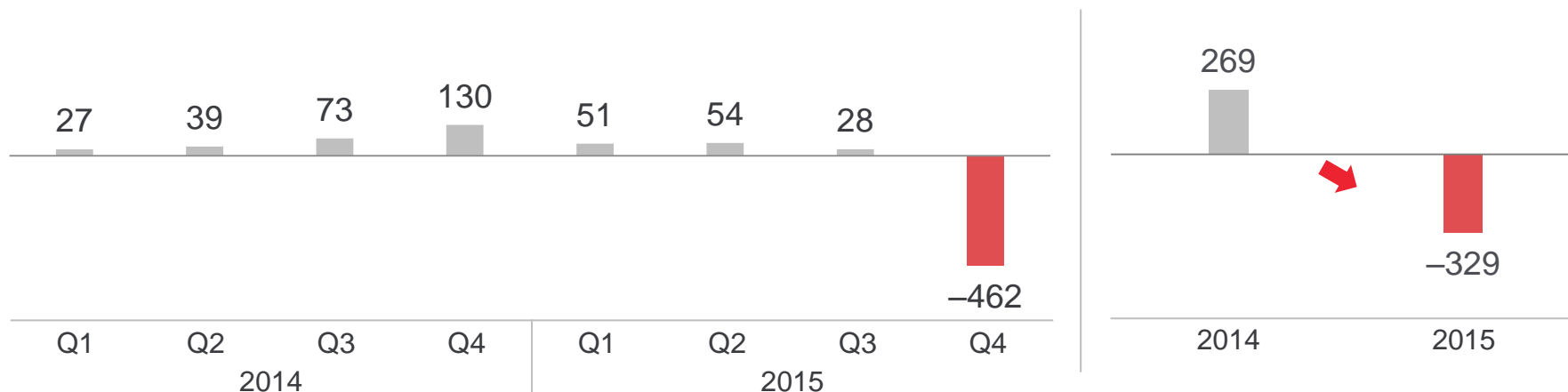
| Gross premiums written    |        | €m |
|---------------------------|--------|----|
| 2014                      | 16,736 |    |
| Life/Health Germany       | -386   |    |
| Property-casualty Germany | 47     |    |
| International             | 138    |    |
| 2015                      | 16,535 |    |



# ERGO Life/Health Germany – Key figures

## Net result

€m



## Technical result

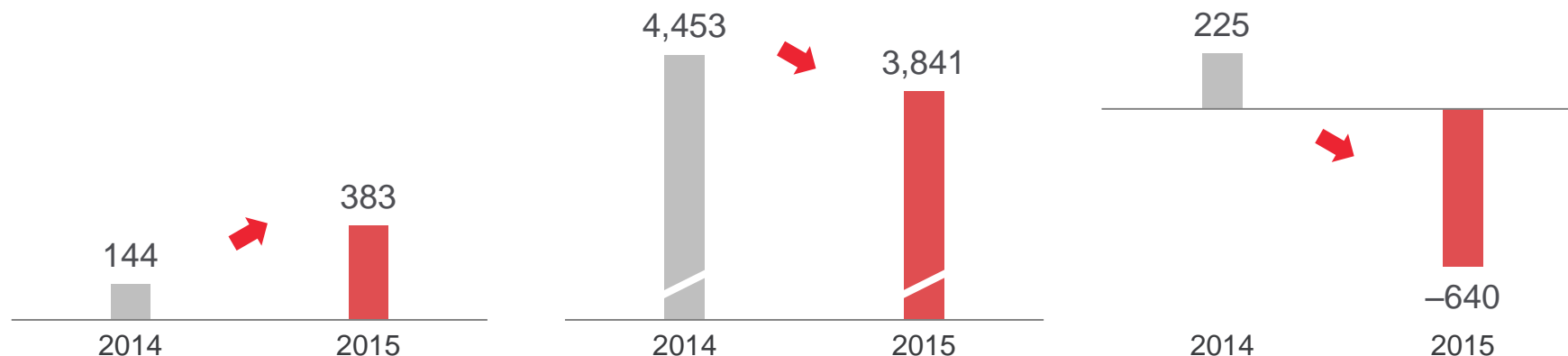
€m

## Investment result

€m

## Other<sup>1</sup>

€m



<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.



# Germany: Total premiums and new business incl. direct business (statutory premiums)

| Total premiums<br>€m   | 2015  | 2014  | Δ<br>abs. | Δ<br>% |
|------------------------|-------|-------|-----------|--------|
| Gross premiums written | 3,628 | 4,005 | –377      | –9.4   |
| Statutory premiums     | 896   | 918   | –22       | –2.4   |
| Total premiums         | 4,524 | 4,923 | –399      | –8.1   |

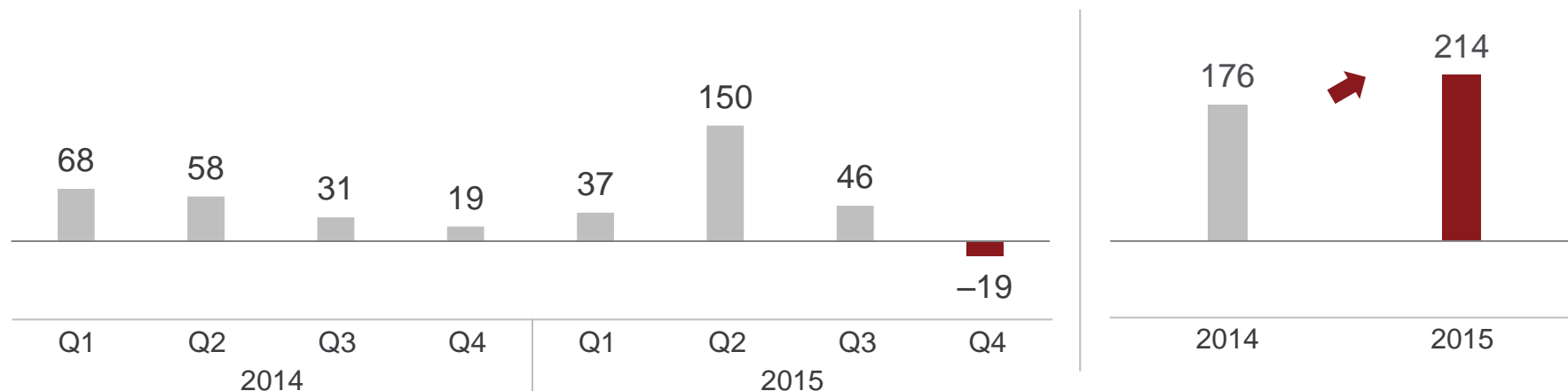
| New business<br>€m                           | 2015 | 2014  | Δ<br>abs. | Δ<br>% |
|--|------|-------|-----------|--------|
| Total new business                           | 986  | 1,215 | –229      | –18.9  |
| Regular premiums                             | 218  | 236   | –18       | –7.6   |
| Single premiums                              | 768  | 979   | –211      | –21.6  |
| Annual premium equivalent (APE) <sup>1</sup> | 295  | 334   | –39       | –11.8  |

<sup>1</sup> Regular premiums +10% single premiums.

# ERGO Property-casualty Germany – Key figures

## Net result

€m



## Technical result

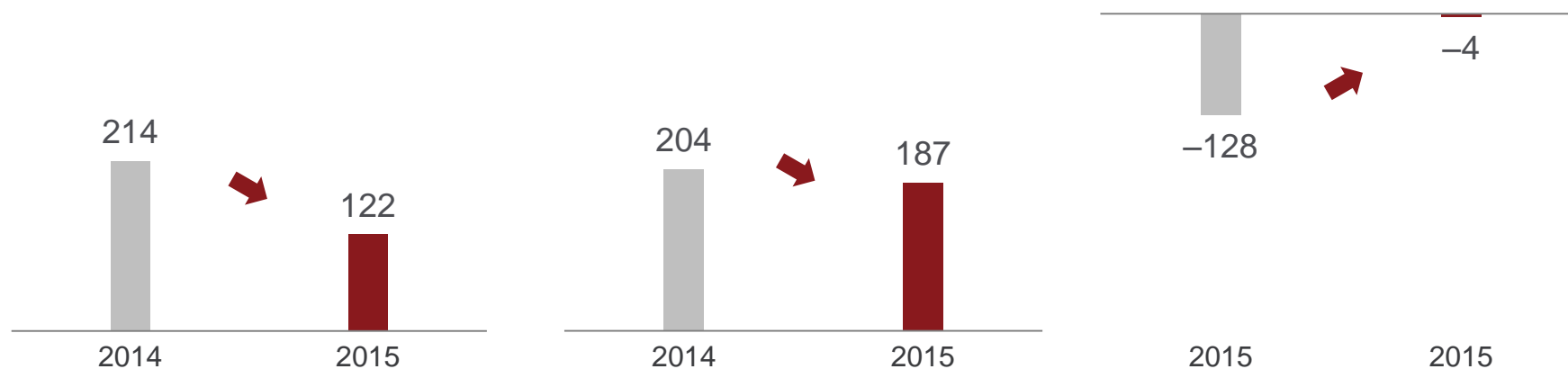
€m

## Investment result

€m

## Other<sup>1</sup>

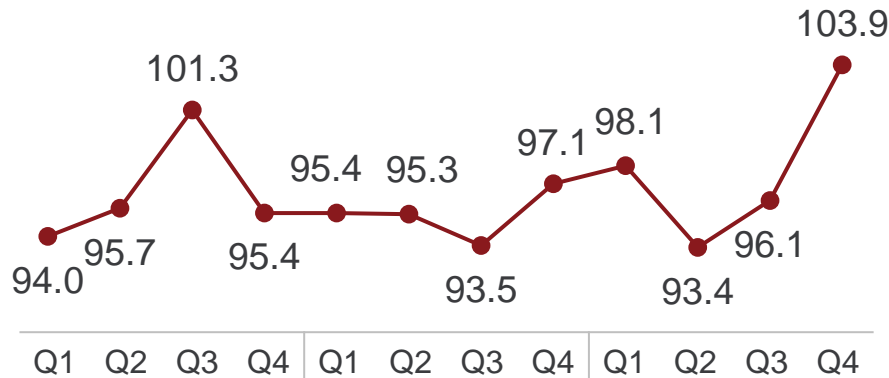
€m



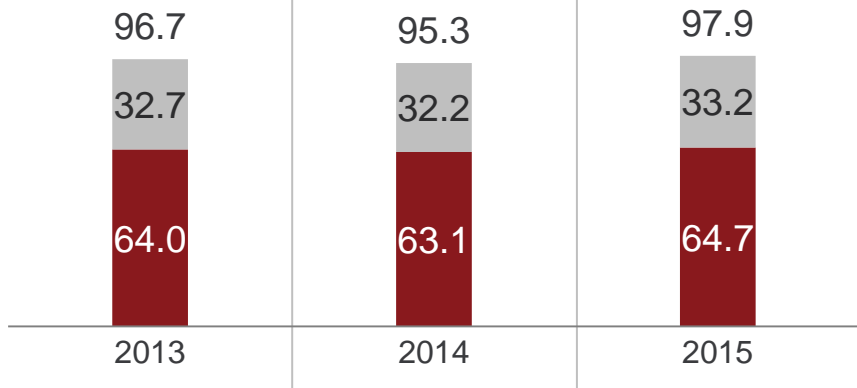
<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# ERGO Property-casualty Germany

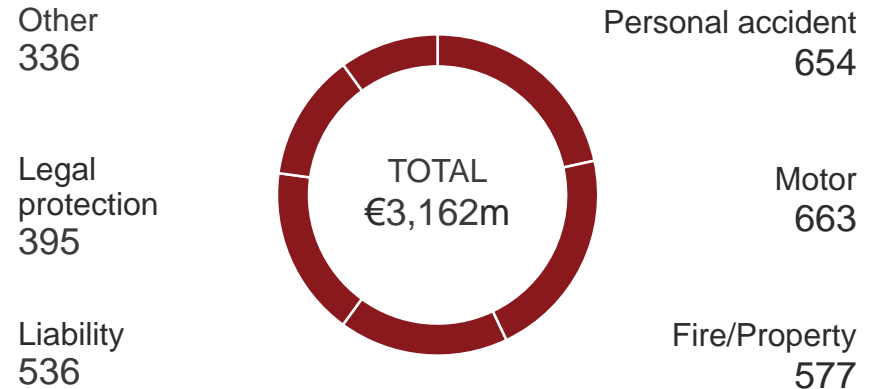
Combined ratio %



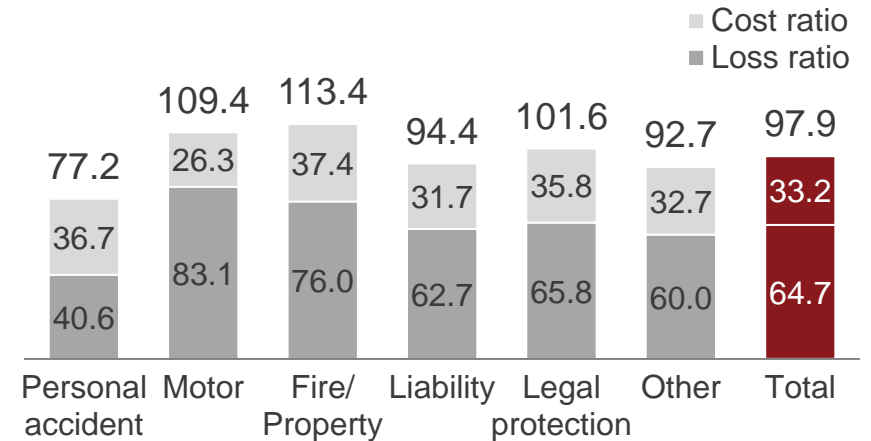
Expense ratio  
Loss ratio



Gross premiums written €m

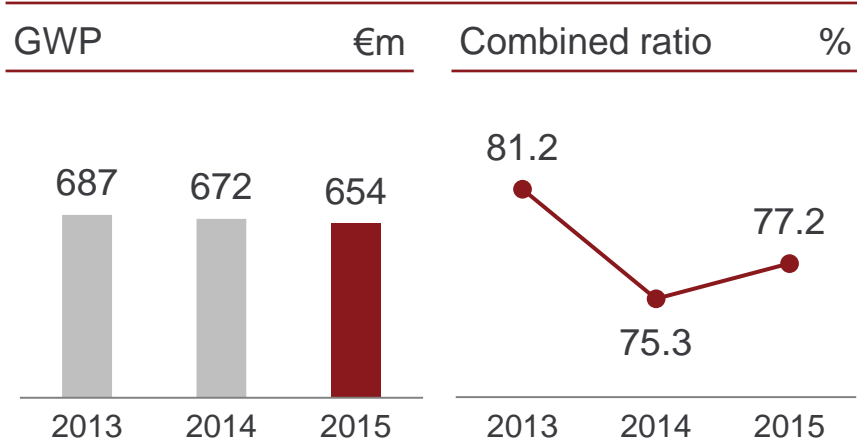


Combined ratio %

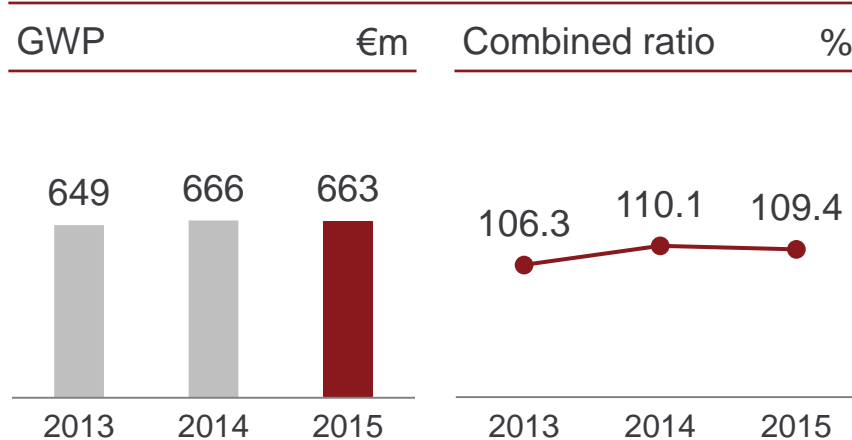


# ERGO Property-casualty Germany

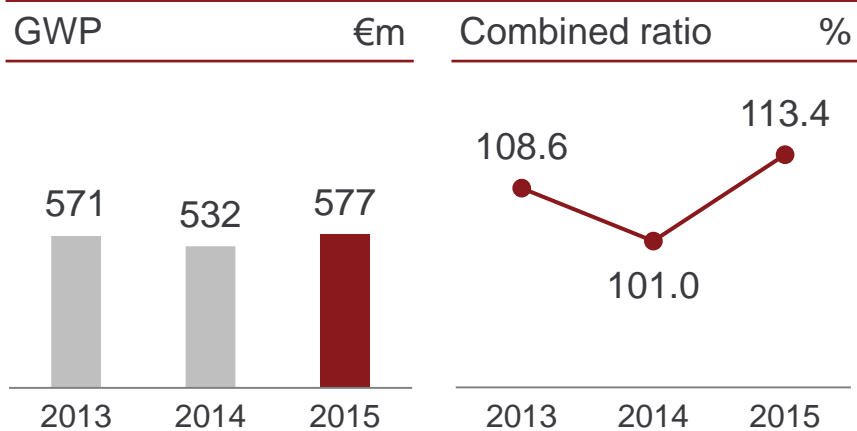
## Personal accident



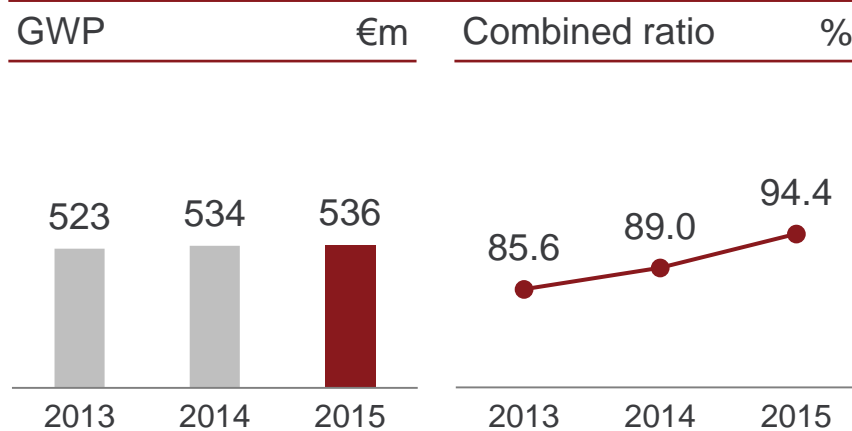
## Motor



## Fire/Property



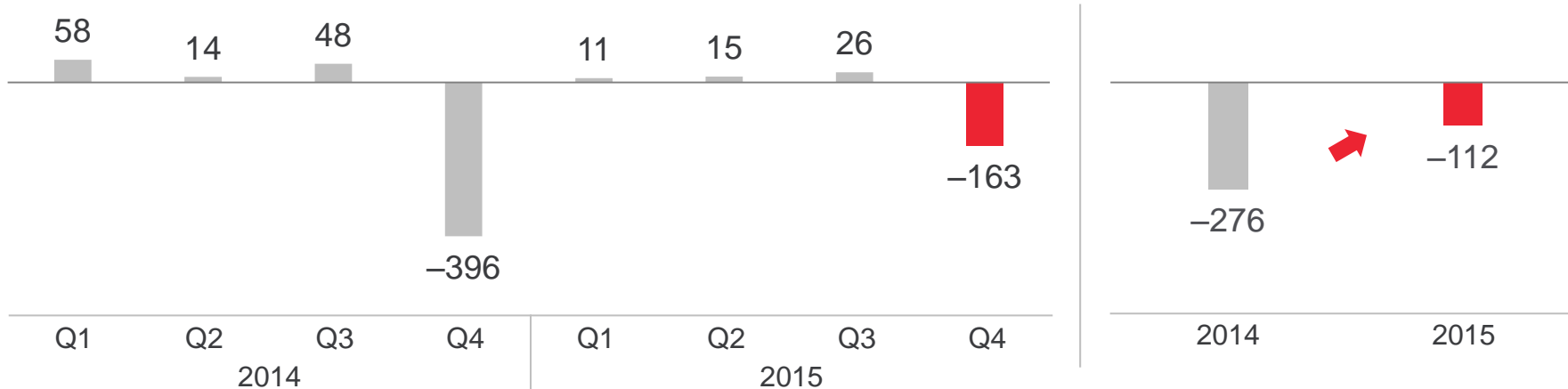
## Liability



# ERGO International – Key figures

## Net result

€m



## Technical result

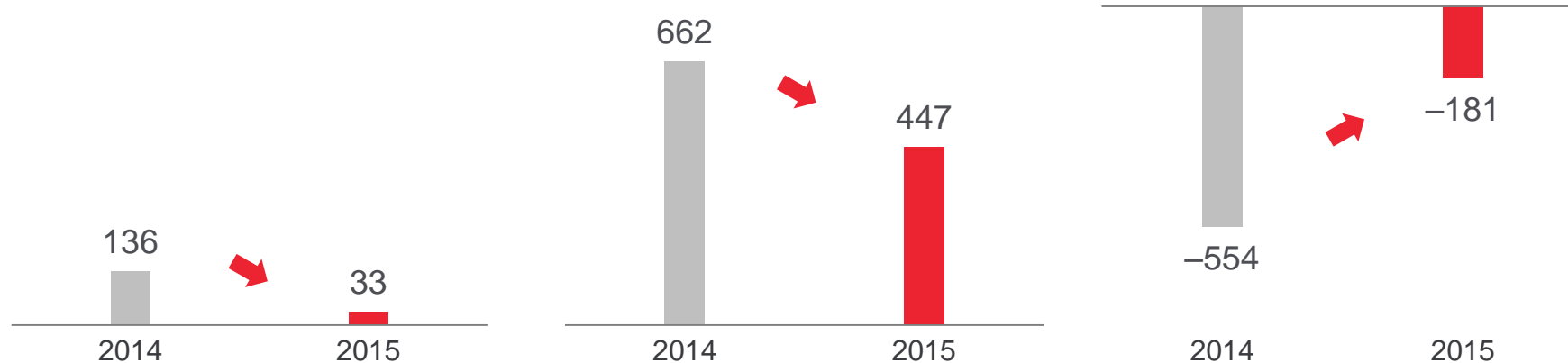
€m

## Investment result

€m

## Other<sup>1</sup>

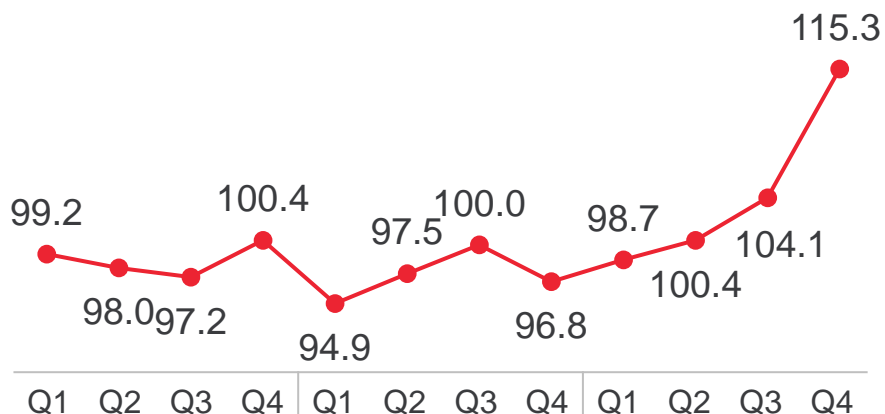
€m



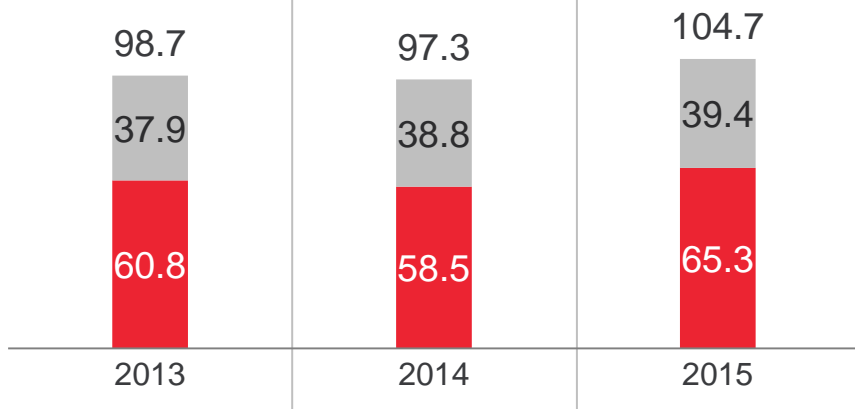
<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# ERGO International property-casualty

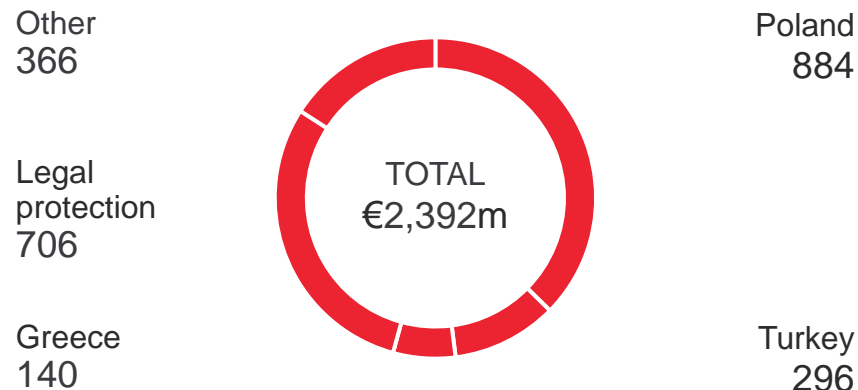
Combined ratio %



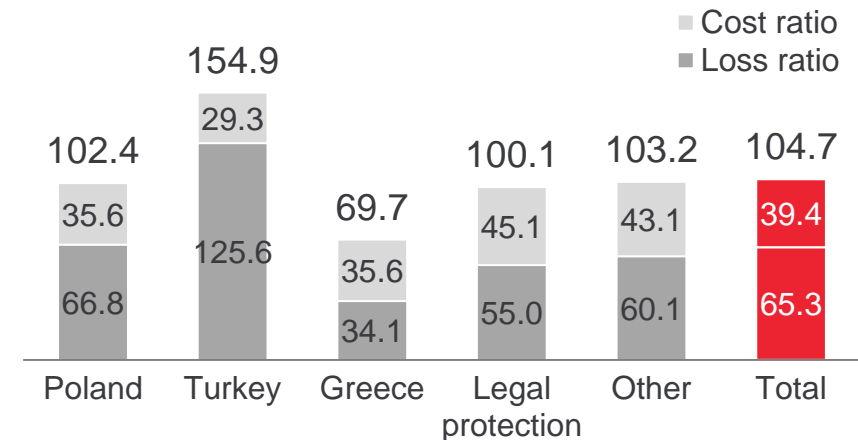
■ Expense ratio  
■ Loss ratio



Gross premiums written €m

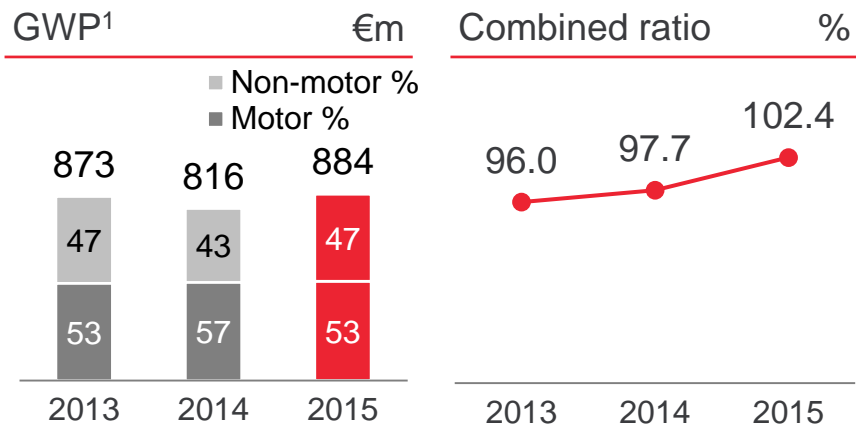


Combined ratio %

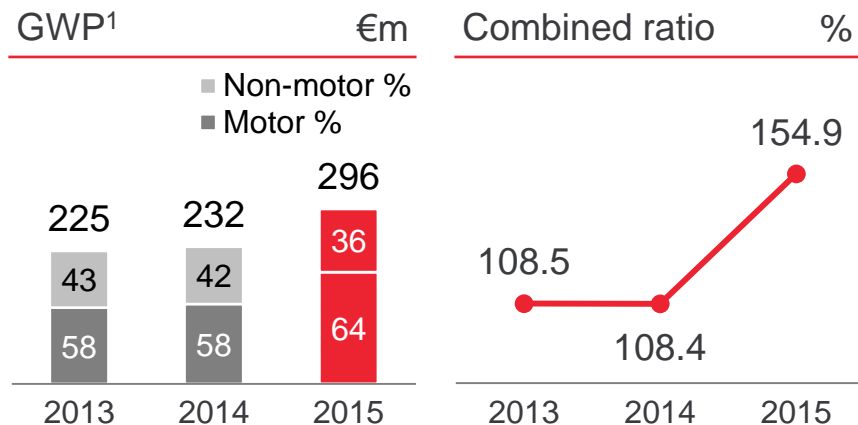


# ERGO International property-casualty

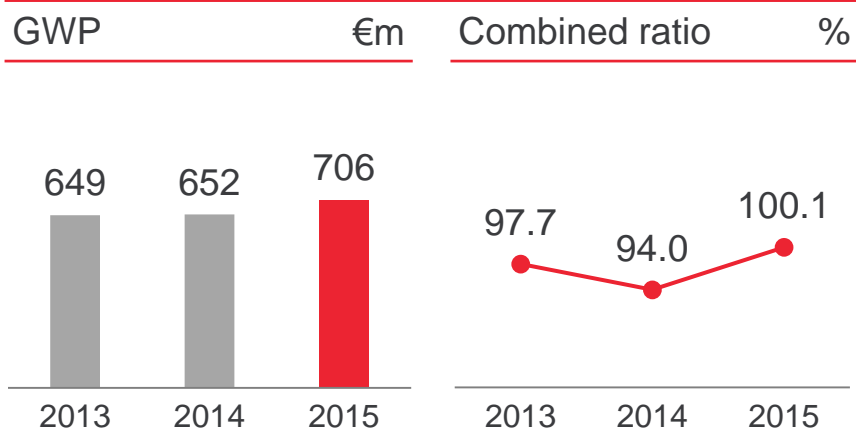
## Poland



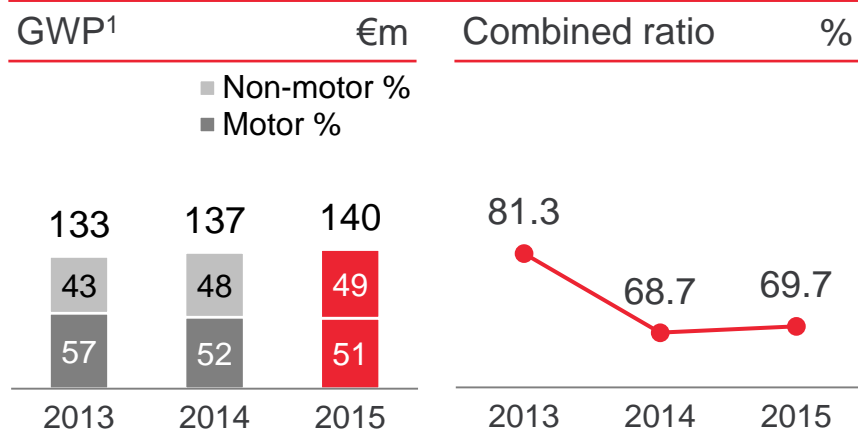
## Turkey



## Legal protection



## Greece



<sup>1</sup> Excl. legal protection.

# International life: Total premiums and new business (statutory premiums)

| Total premiums<br>€m   | 2015  | 2014  | Δ<br>abs. | Δ<br>% |
|------------------------|-------|-------|-----------|--------|
| Gross premiums written | 1,555 | 1,624 | –69       | –4.2   |
| Statutory premiums     | 436   | 405   | 31        | 7.6    |
| Total premiums         | 1,991 | 2,029 | –38       | –1.9   |

| New business<br>€m                           | 2015  | 2014  | Δ<br>abs. | Δ<br>% |
|--|-------|-------|-----------|--------|
| Total new business                           | 1,001 | 1,051 | –50       | –4.7   |
| Regular premiums                             | 146   | 194   | –48       | –25.0  |
| Single premiums                              | 856   | 857   | –1        | –0.2   |
| Annual premium equivalent (APE) <sup>1</sup> | 231   | 280   | –49       | –17.5  |

<sup>1</sup> Regular premiums +10% single premiums.

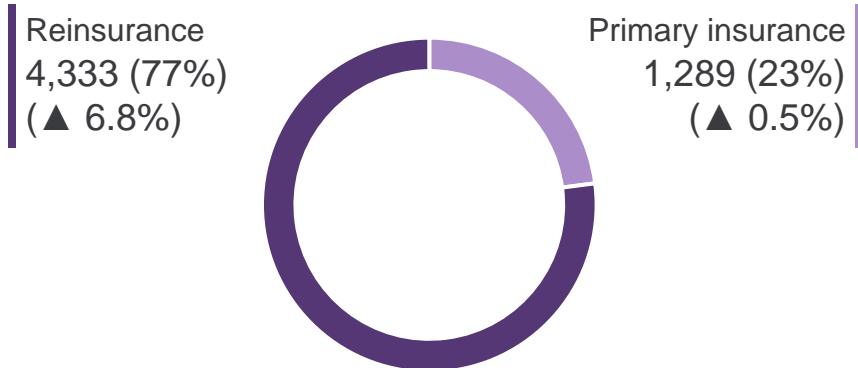


# Munich Health – Premium development

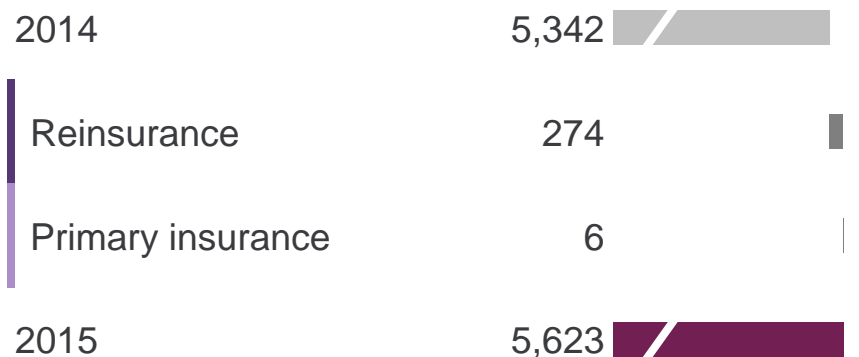
## Gross premiums written €m



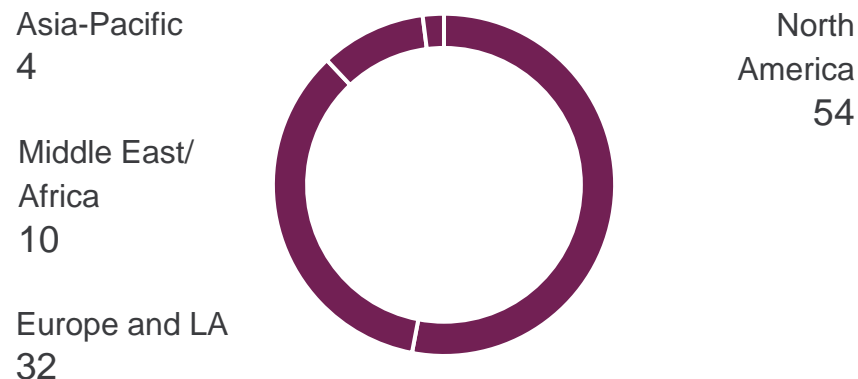
## Segmental breakdown €m



## Gross premiums written €m



## Regional breakdown %

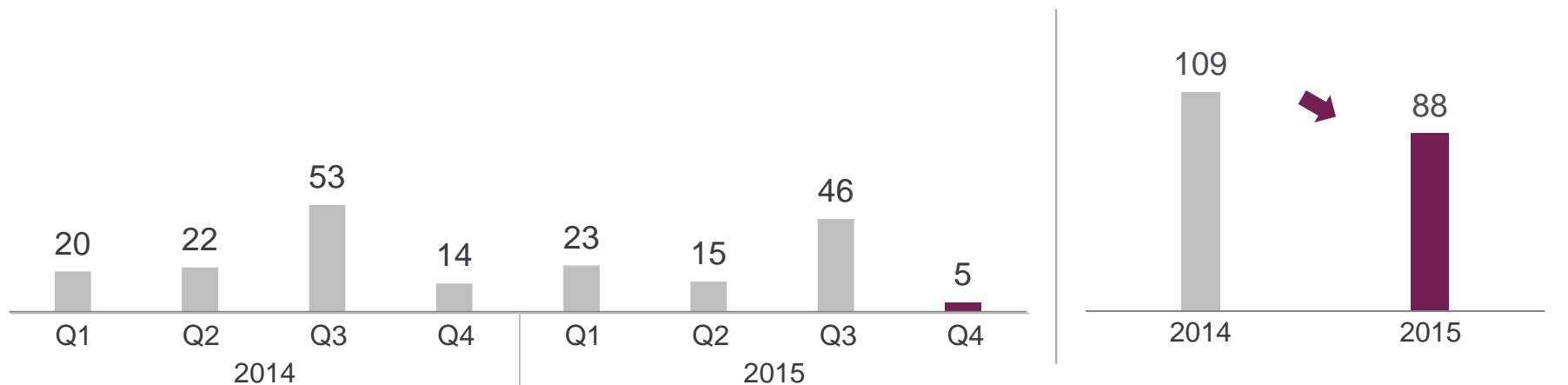


<sup>1</sup> DKV Luxembourg.

# Munich Health – Key figures

## Net result

€m



## Technical result

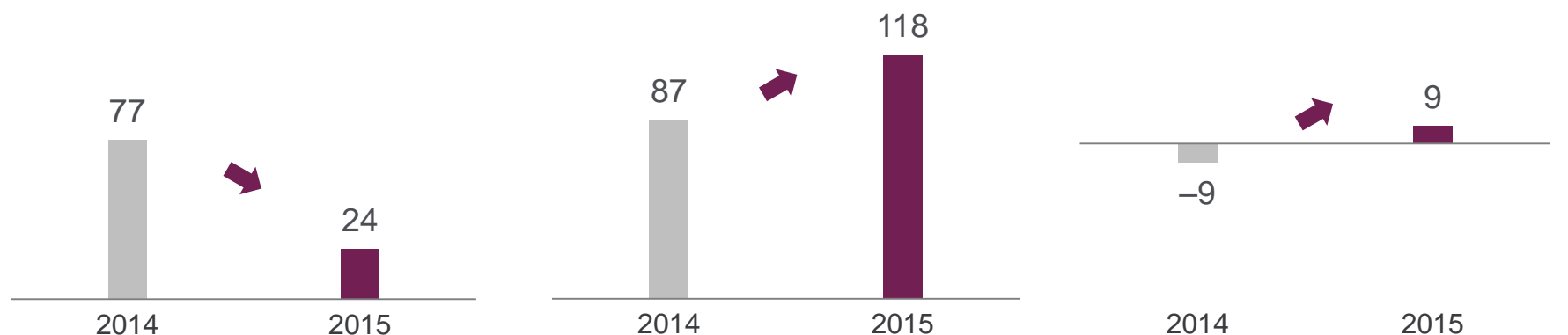
€m

## Investment result

€m

## Other<sup>1</sup>

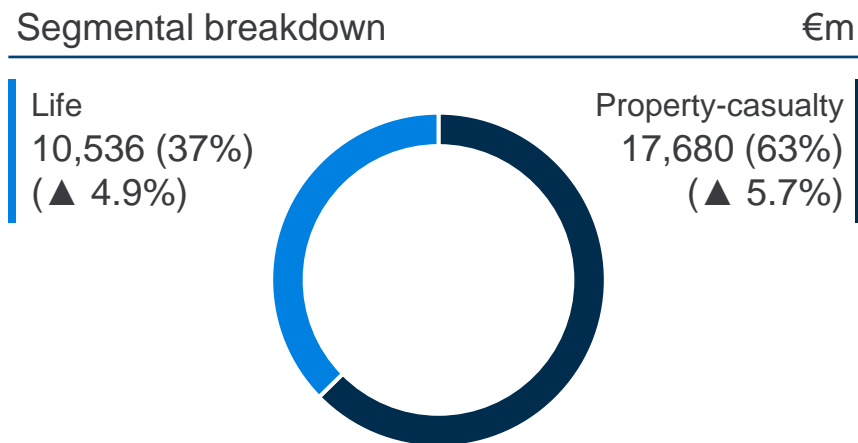
€m



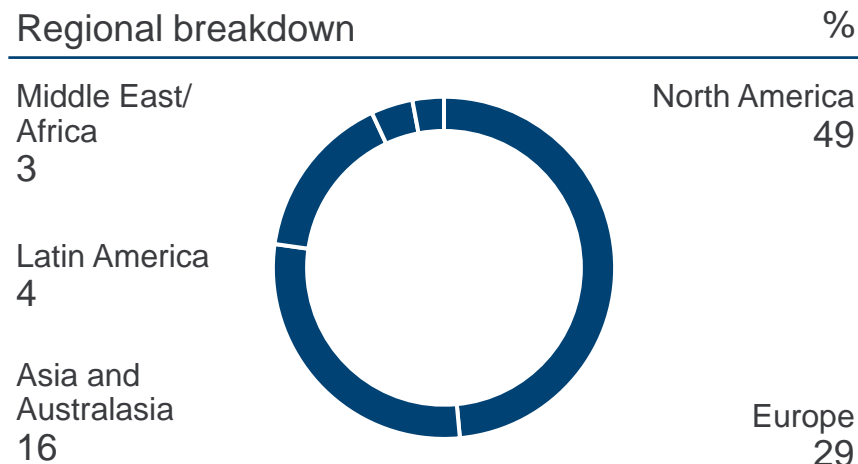
<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# Reinsurance – Premium development

| Gross premiums written   |        | €m |
|--------------------------|--------|----|
| 2014                     | 26,770 |    |
| Foreign-exchange effects | 2,656  |    |
| Divestments/investments  | 39     |    |
| Organic change           | -1,249 |    |
| 2015                     | 28,216 |    |



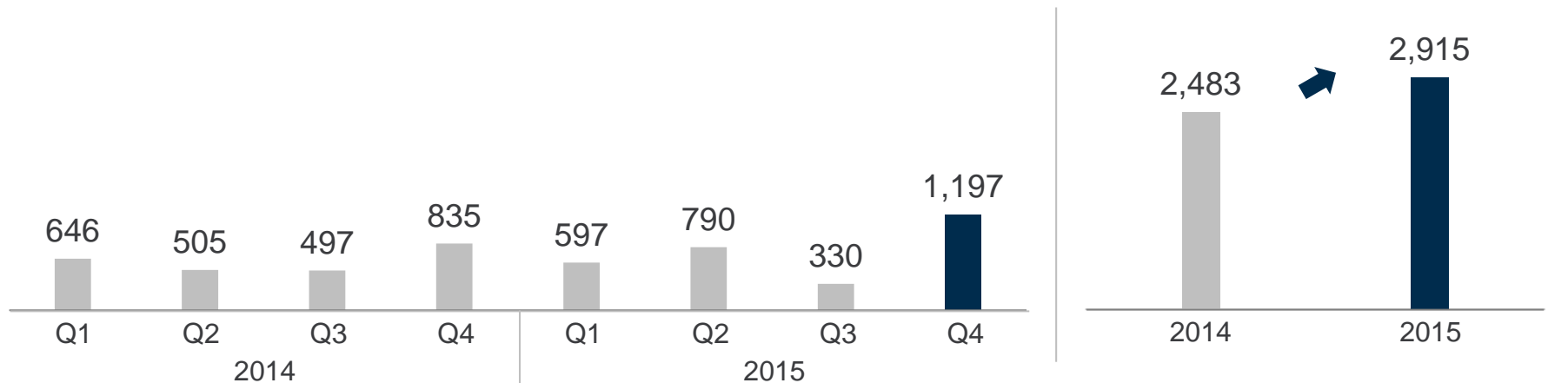
| Gross premiums written |        | €m |
|------------------------|--------|----|
| 2014                   | 26,770 |    |
| Life                   | 496    |    |
| Property-casualty      | 950    |    |
| 2015                   | 28,216 |    |



# Reinsurance Property-casualty – Key figures

## Net result

€m



## Technical result

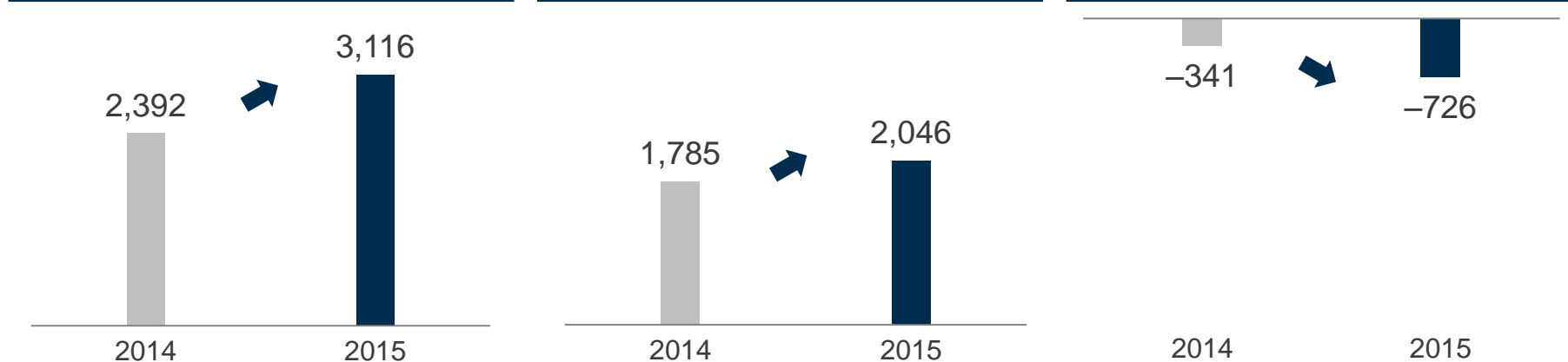
€m

## Investment result

€m

## Other<sup>1</sup>

€m



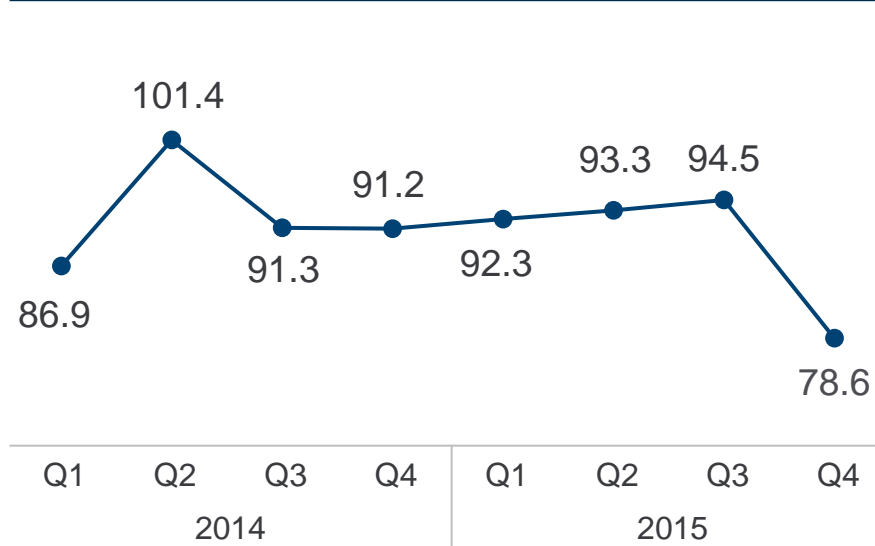
<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# Combined ratio

## Combined ratio

|         |      | ■ Basic losses | ■ Major losses | ■ Expense ratio | Normalised |
|---------|------|----------------|----------------|-----------------|------------|
| 2013    | 92.1 | 51.3           | 10.4           | 30.4            |            |
| 2014    | 92.7 | 53.0           | 7.2            | 32.5            |            |
| 2015    | 89.7 | 50.8           | 6.2            | 32.6            | ~98.7      |
| Q4 2015 | 78.6 | 36.8           | 4.7            | 37.1            | ~98.4      |

## Combined ratio



## Major losses

|                      | Total | Nat cat | Man-made |
|----------------------|-------|---------|----------|
| 2015                 | 6.2   | 0.9     | 5.3      |
| Q4 2015              | 4.7   | 0.0     | 4.7      |
| Ø Annual expectation | ~12.0 | ~8.5    | ~3.5     |

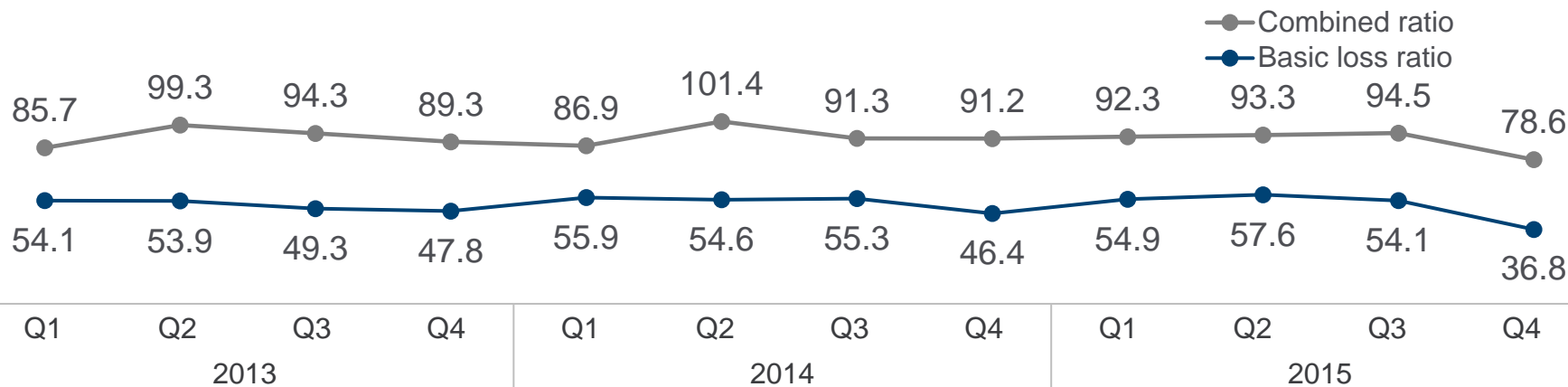
|                               | €m    | %-points |
|-------------------------------|-------|----------|
| Reserve releases <sup>1</sup> |       |          |
| 2015                          | 1,390 | 8.2      |
| Q4 2015                       | 889   | 20.9     |

<sup>1</sup> Basic losses: releases in nearly all lines of business, mainly in fire and liability; adjusted for commission effects: 2015: ~€1,200m / 7.2%; Q4 2015: ~€700m / 16.5 %

# Development of combined ratio

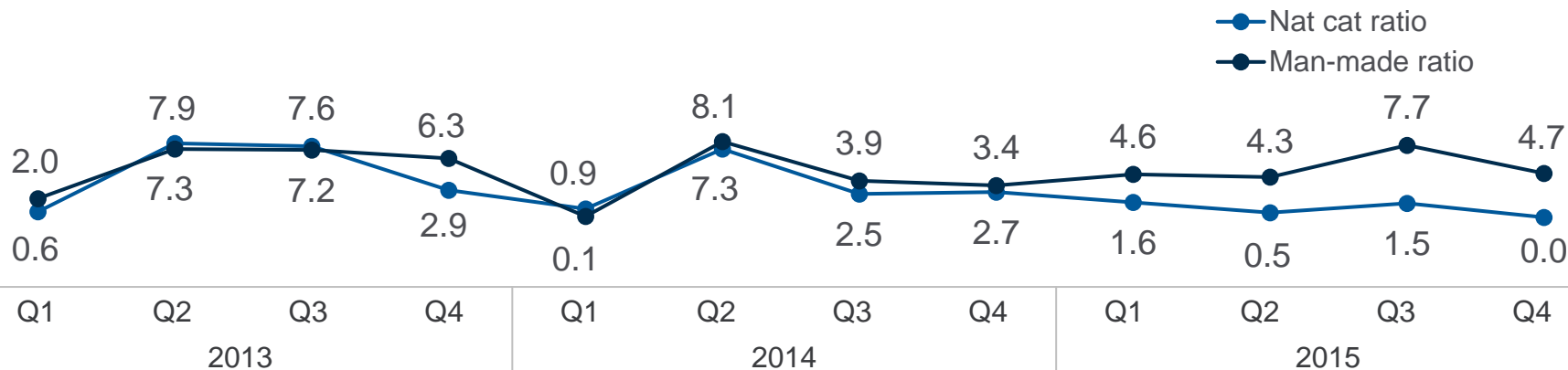
Combined ratio vs. basic losses

%



Nat cat vs. man-made

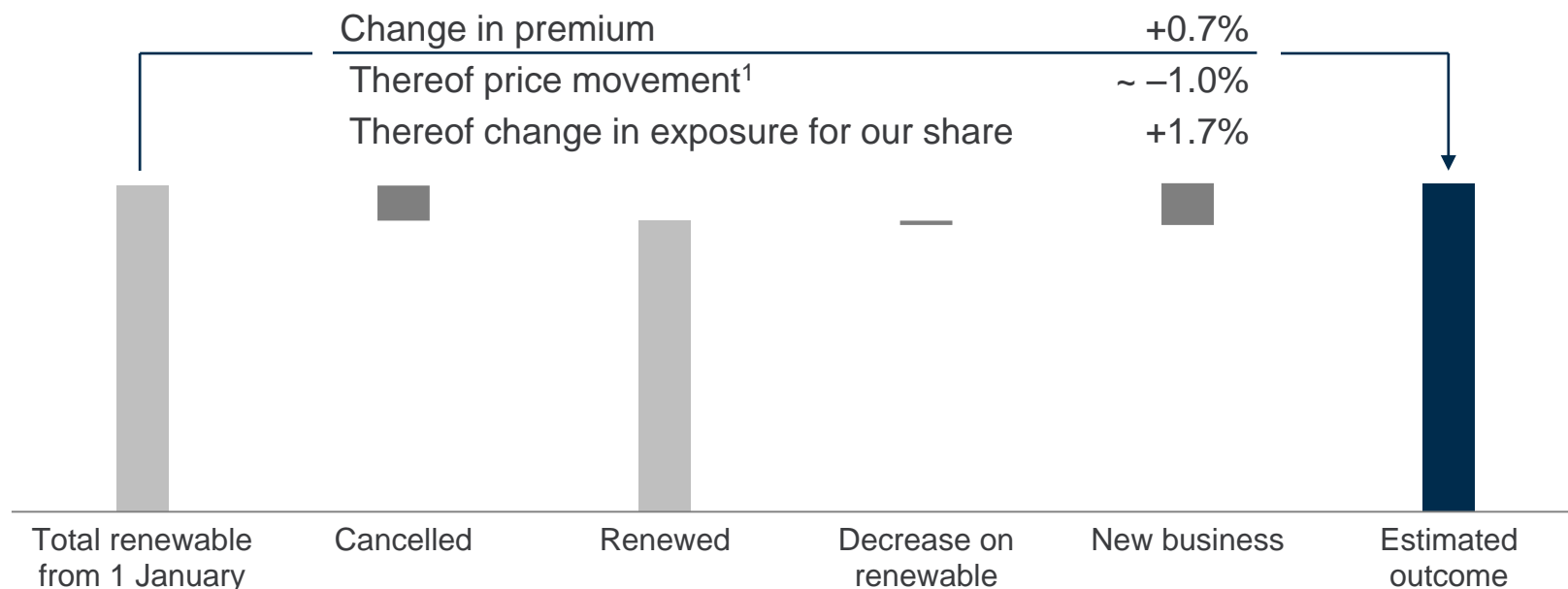
%



# Attractive business opportunities overcompensate for premium decline due to consistent cycle management

## January renewals 2016

|    |       |       |       |      |       |       |
|----|-------|-------|-------|------|-------|-------|
| %  | 100   | -10.8 | 89.2  | -1.3 | 12.8  | 100.7 |
| €m | 9,138 | -982  | 8,156 | -123 | 1,171 | 9,204 |



**Ongoing strict bottom-line focus to maintain portfolio quality in a very competitive market environment**

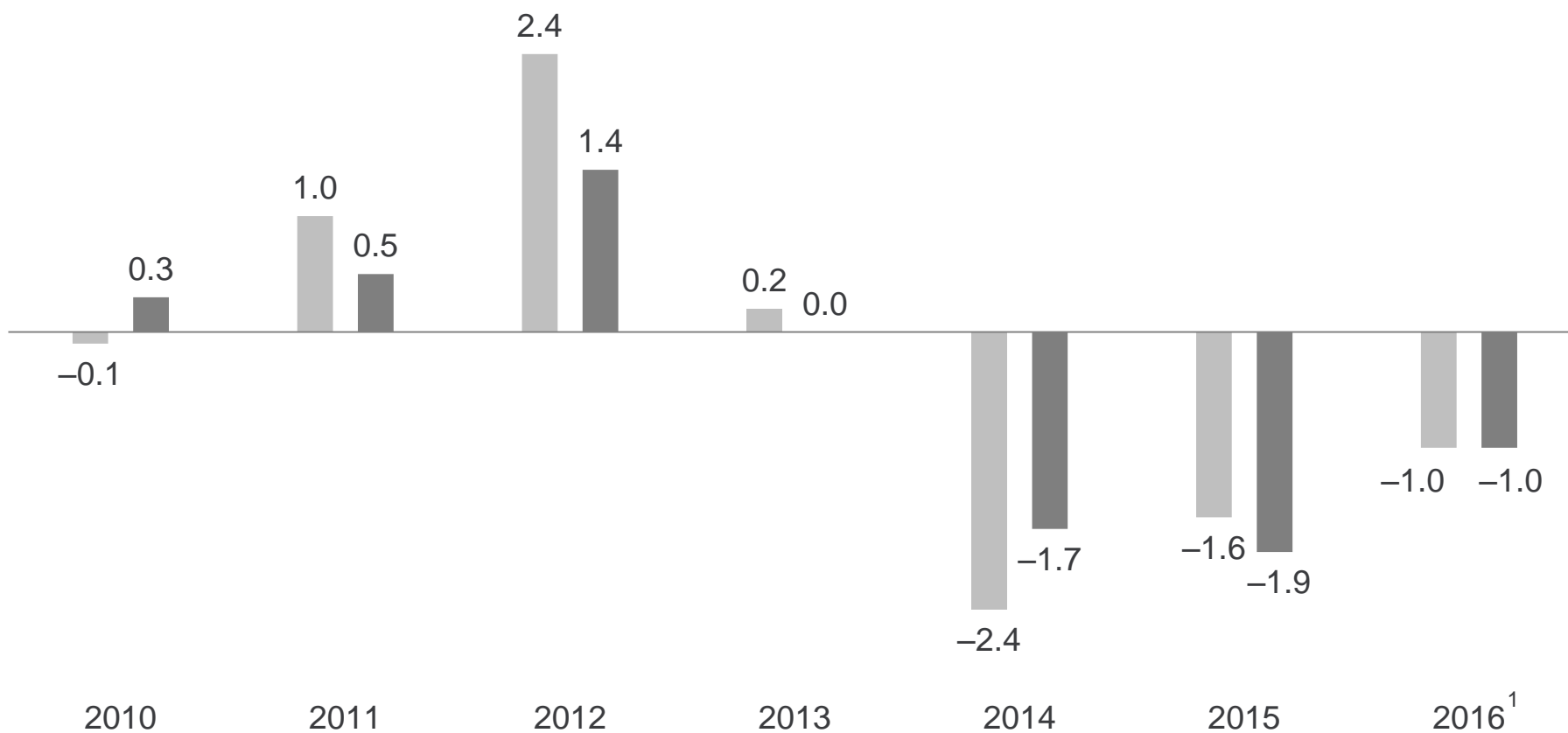
<sup>1</sup> Price movement is risk-adjusted, i.e. includes claims inflation/loss trend and is adjusted for portfolio mix effects. Furthermore, price movement is calculated on a wing-to-wing basis (incl. cancelled and new business).

# Renewal results

Year-to-date price change 2010–2016

%

■ Nominal ■ Adjusted for interest-rate changes

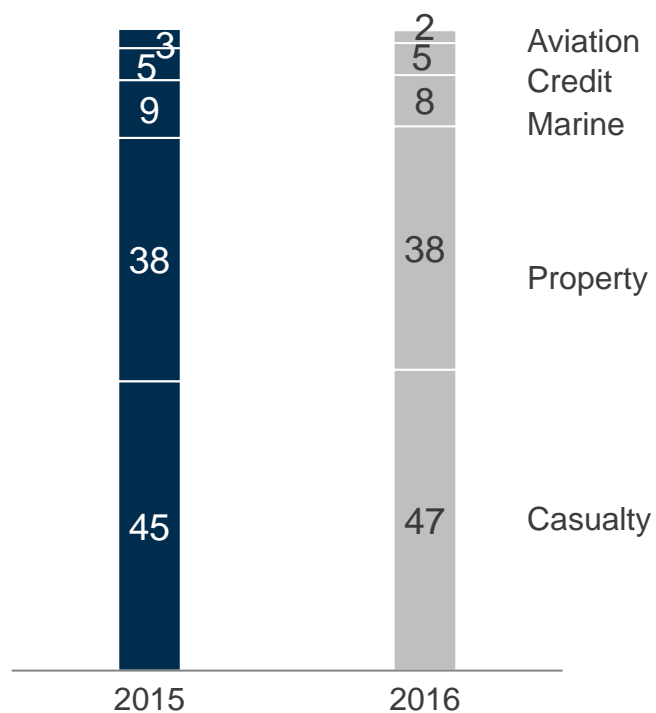


<sup>1</sup> January renewals.

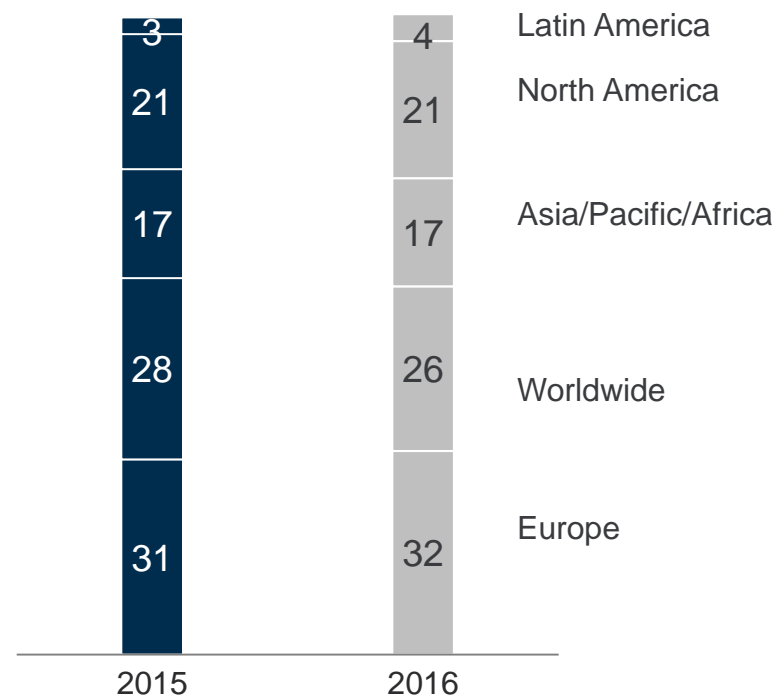


# January renewals 2016 – Split by line of business and region

Split by line of business %






Split by region %



**Further slight increase in share of casualty business,  
while regional allocation remains relatively stable overall**

# Response to benign emergence of basic losses in line with considered judgement

| Actual vs. expected  | Changes in projection | Business rationale  |
|--|-----------------------|---|
| <p>Property</p>               |                       | <p><b>Favourable actual vs. expected judged as credible</b></p> <ul style="list-style-type: none"> <li>▪ Positive actual vs. expected indications</li> <li>▪ Relatively quick development of short-tail lines</li> <li>▪ Releases in fire, engineering and other property as loss development was benign across all portfolios</li> </ul> |
| <p>Specialty<sup>1</sup></p>  |                       | <p><b>Favourable actual vs. expected led to reserve releases</b></p> <ul style="list-style-type: none"> <li>▪ Favourable indications across all lines</li> <li>▪ Reserve releases primarily in marine and credit, following benign loss emergence</li> </ul>  |
| <p>Casualty</p>             |                       | <p><b>Relatively small reserve release</b></p> <ul style="list-style-type: none"> <li>▪ Favourable indications across all lines</li> <li>▪ Releases<sup>2</sup> mainly in third-party liability</li> </ul>  |

<sup>1</sup> Aviation, credit and marine.

<sup>2</sup> Reserve releases shown are adjusted for commission effects (sliding scales in motor).

# Asbestos and environmental survival ratio 31 December 2015

## Munich Re (Group) – Net definitive as at 31 December 2015

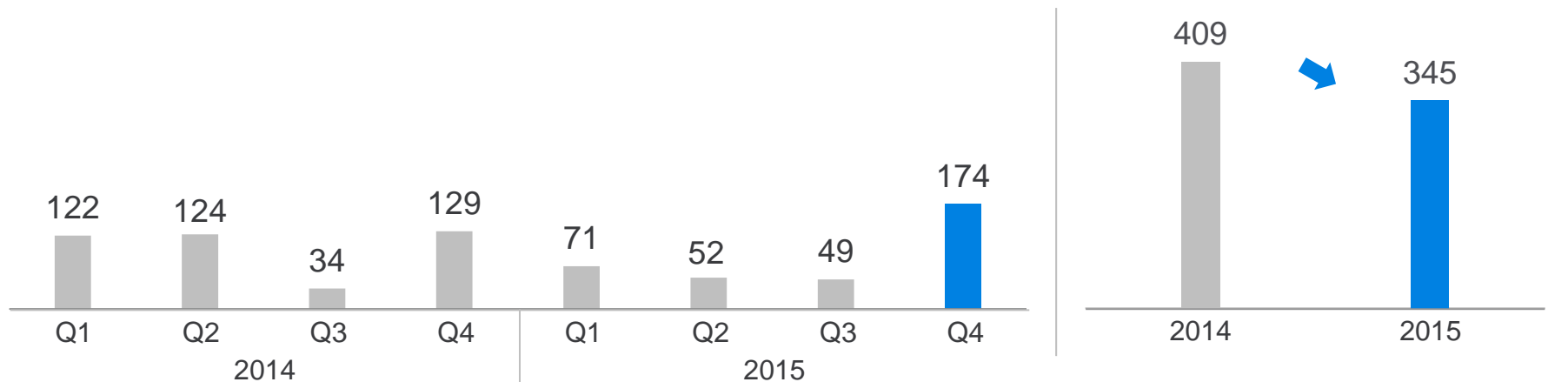
€m

|                                   | Asbestos | Environmental | A&E total |
|-----------------------------------|----------|---------------|-----------|
| Paid                              | 2,835    | 953           | 3,788     |
| Case reserves                     | 713      | 115           | 828       |
| IBNR                              | 987      | 232           | 1,219     |
| Total reserves                    | 1,700    | 347           | 2,047     |
| 3-year average annual paid losses | 129      | 20            | 149       |
| Survival ratio 3-year average     | 13.1     | 17.7          | 13.7      |

# Reinsurance Life – Key figures

## Net result

€m



## Technical result

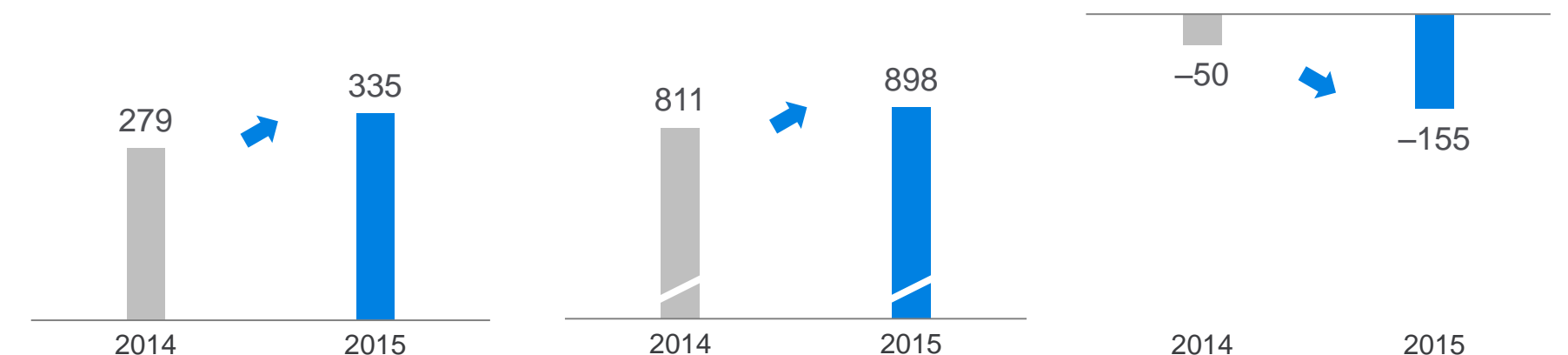
€m

## Investment result

€m

## Other<sup>1</sup>

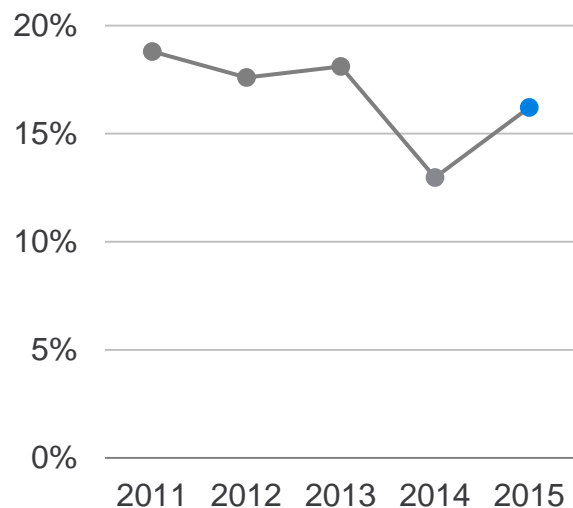
€m



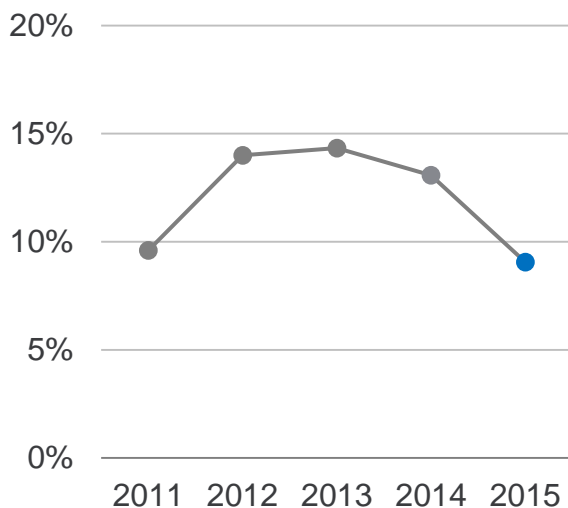
<sup>1</sup> Other non-operating result, goodwill impairments, net finance costs, taxes.

# Global Life – New business profitability

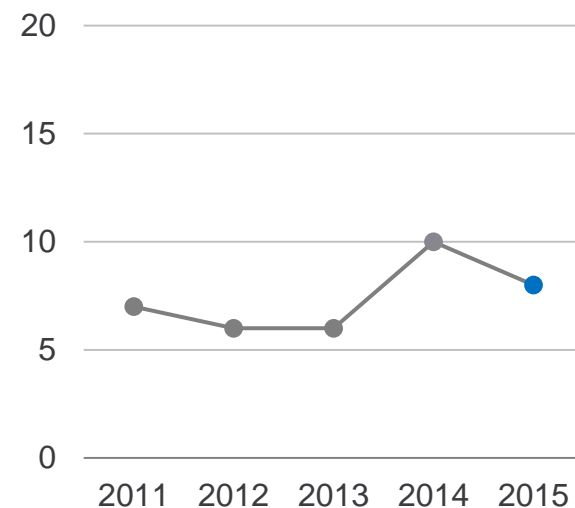
RoRaC spread<sup>1</sup> %



IRR spread<sup>1</sup> %



Payback period<sup>2</sup> years



- Very good new business profitability relative to economic risk capital (RoRaC spread)
- Relatively higher profitability drives the increased RoRaC spread (level of economic risk capital comparable to 2014)

- New business profitability relative to total investment in new business (IRR spread) influenced by increased level of supervisory capital (impact of Solvency II) and tailor-made re-insurance solutions (FinMoRe)

- Increased share of FinMoRe business (usually of shorter duration) decreases payback period of 2015 new business

<sup>1</sup> Spread in addition to reference rate (weighted-average swap yield curves), after tax. <sup>2</sup> Number of years it takes to amortise the total investment in new business through future (undiscounted) earnings distributable to shareholders.

# Investment portfolio

## Investment portfolio<sup>1</sup>

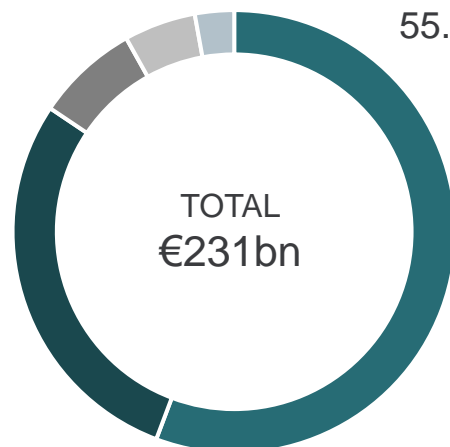
Land and buildings  
2.9 (2.4)

Shares, equity funds and participating interests<sup>2</sup>  
5.2 (5.2)

Miscellaneous<sup>3</sup>  
7.5 (7.7)

Loans  
28.7 (29.2)

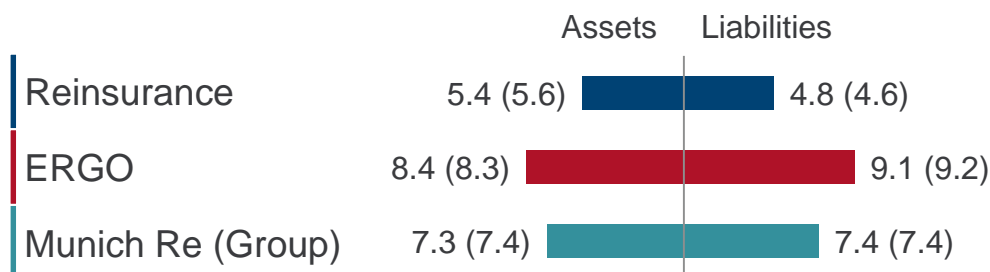
Fixed-interest securities  
55.7 (55.5)



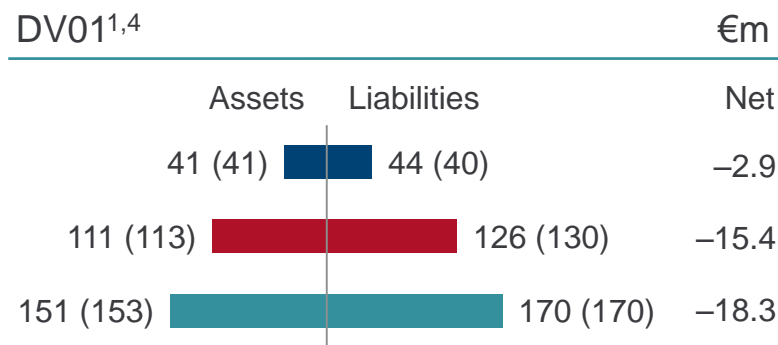
## Portfolio management in Q4

- Purchase of government bonds in the US, Spain and emerging markets
- Sale of French and Spanish covered bonds
- Reduction of corporate bonds and structured products
- Increase of equity exposure net of hedges

## Duration<sup>1</sup>



## DV01<sup>1,4</sup>

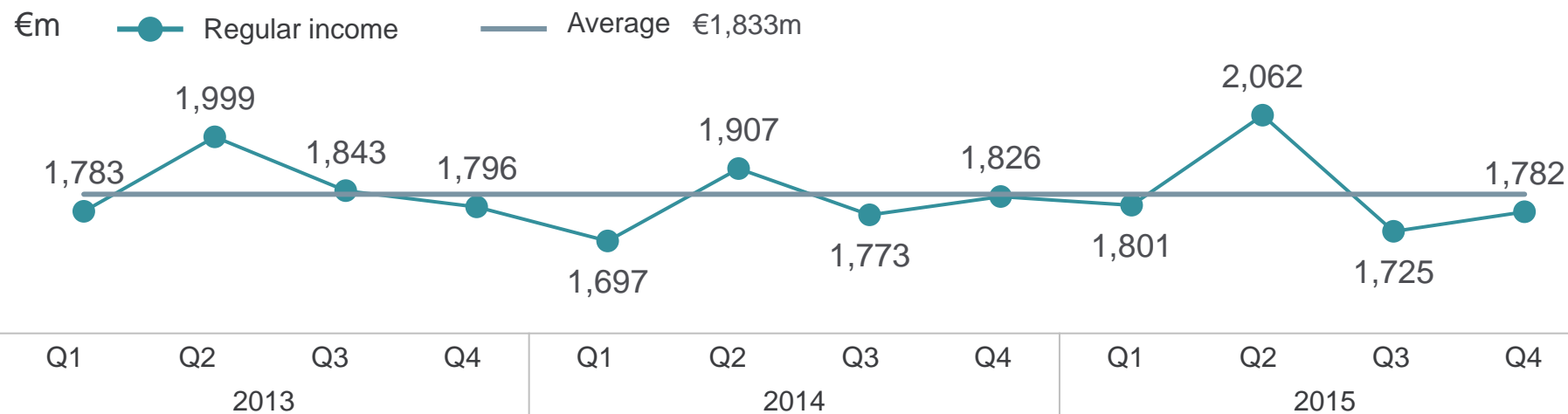


<sup>1</sup>Fair values as at 31.12.2015 (31.12.2014). <sup>2</sup>Net of hedges: 4.8% (4.3%). <sup>3</sup>Deposits retained on assumed reinsurance, deposits with banks, investment funds (excl. equities), derivatives and investments in renewable energies and gold. <sup>4</sup>Market value change due to a parallel downwardshift in yield curve by one basis point considering the portfolio size of assets and liabilities (pre-tax). Negative net DV01 means rising interest rates are beneficial.

# Breakdown of regular income

## Actual 2015

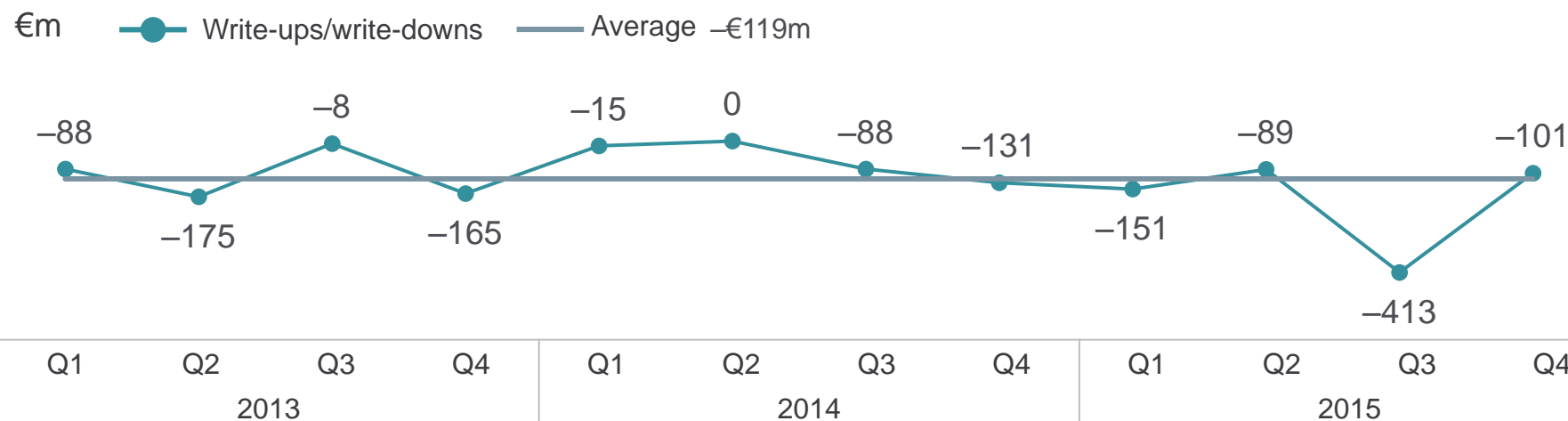
| Investment result –<br>Regular income (€m) | Q3           |              | Q4           |              | Change     |
|--|--------------|--------------|--------------|--------------|------------|
|  | 2015         | 2015         | 2015         | 2014         |            |
| Afs fixed-interest                         | 856          | 867          | 3,528        | 3,596        | –68        |
| Afs non-fixed-interest                     | 104          | 101          | 618          | 471          | 146        |
| Derivatives                                | 32           | 34           | 137          | 68           | 69         |
| Loans                                      | 522          | 524          | 2,098        | 2,190        | –92        |
| Real estate                                | 91           | 125          | 393          | 349          | 44         |
| Other investments                          | 120          | 131          | 597          | 529          | 68         |
| <b>Total</b>                               | <b>1,725</b> | <b>1,782</b> | <b>7,370</b> | <b>7,203</b> | <b>167</b> |



## Breakdown of write-ups/write-downs

## Actual 2015

| Investment result –<br>Write-ups/write-downs (€m) | Q3          |             | Q4          |             | Change      |
|---|-------------|-------------|-------------|-------------|-------------|
|   | 2015        | 2015        | 2015        | 2014        |             |
| Afs fixed-interest                                | -27         | 5           | -51         | -12         | -39         |
| Afs non-fixed-interest                            | -343        | -70         | -488        | -145        | -343        |
| Loans   | 0           | 20          | -45         | 2           | -47         |
| Real estate                                       | -21         | -7          | -65         | -54         | -10         |
| Other investments                                 | -22         | -50         | -106        | -25         | -81         |
| <b>Total</b>                                      | <b>-413</b> | <b>-101</b> | <b>-754</b> | <b>-234</b> | <b>-520</b> |

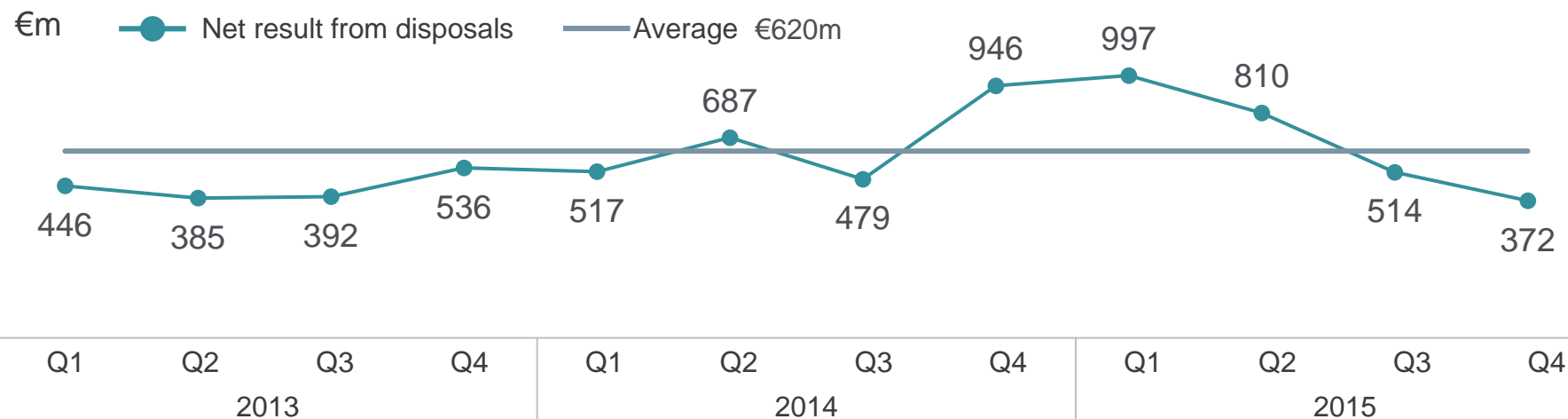




## Breakdown of net result from disposals

## Actual 2015

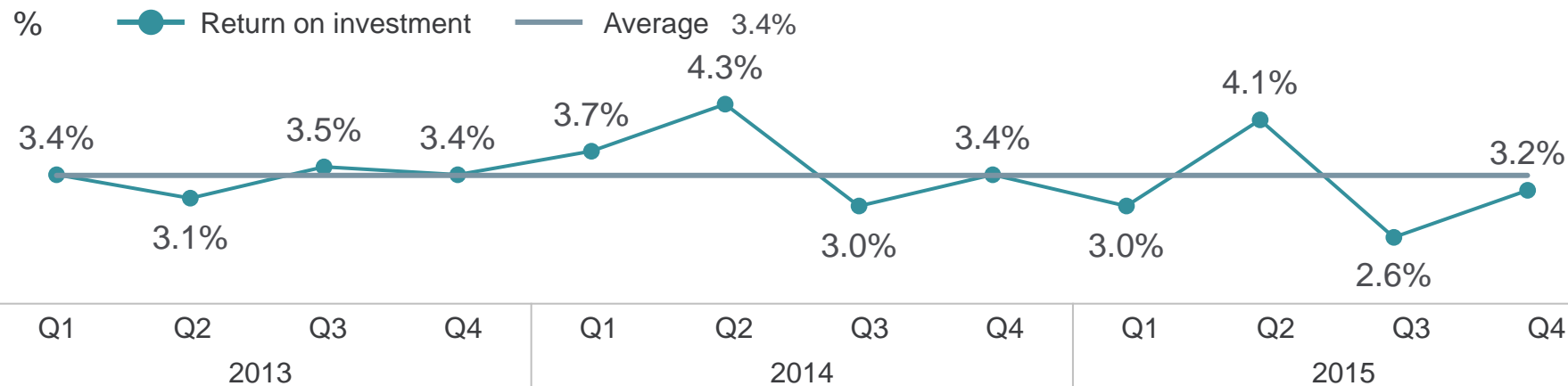
| Investment result –<br>Net result from disposal of investments (€m) | Q3<br>2015 | Q4<br>2015 | 2015         | 2014         | Change    |
|---|------------|------------|--------------|--------------|-----------|
| Afs fixed-interest  | 251        | 205        | 1,413        | 1,186        | 226       |
| Afs non-fixed-interest  | 20         | 228        | 1,018        | 1,178        | –160      |
| Loans   | 23         | 10         | 103          | 213          | –110      |
| Real estate   | 0          | 0          | 5            | 20           | –14       |
| Other investments   | 220        | –71        | 155          | 32           | 123       |
| <b>Total</b>  | <b>514</b> | <b>372</b> | <b>2,693</b> | <b>2,628</b> | <b>65</b> |



## Return on investment by asset class and segment

## Actual 2015

| %                    | Regular income | Write-ups/<br>-downs | Disposal result | Extraord.<br>derivative result | Other inc./exp. | Rol        | Market value (€m) |
|----------------------|----------------|----------------------|-----------------|--------------------------------|-----------------|------------|-------------------|
| Afs fixed-income     | 2.7            | 0.0                  | 1.1             | 0.0                            | 0.0             | 3.7        | 131,920           |
| Afs non-fixed-income | 4.2            | -3.3                 | 6.9             | 0.0                            | 0.0             | 7.8        | 14,676            |
| Derivatives          | 6.6            | 0.0                  | 0.0             | -58.5                          | -0.4            | -52.4      | 2,094             |
| Loans                | 3.1            | -0.1                 | 0.2             | 0.0                            | 0.0             | 3.2        | 68,028            |
| Real estate          | 6.5            | -1.1                 | 0.1             | 0.0                            | 0.0             | 5.5        | 6,031             |
| Other <sup>1</sup>   | 4.0            | -0.7                 | 1.0             | 0.0                            | -3.6            | 0.7        | 15,101            |
| <b>Total</b>         | <b>3.1</b>     | <b>-0.3</b>          | <b>1.1</b>      | <b>-0.5</b>                    | <b>-0.2</b>     | <b>3.2</b> | <b>237,851</b>    |
| Reinsurance          | 3.0            | -0.4                 | 1.8             | -0.9                           | -0.3            | 3.2        | 91,052            |
| ERGO                 | 3.2            | -0.3                 | 0.7             | -0.3                           | -0.2            | 3.1        | 142,728           |
| Munich Health        | 2.2            | -0.1                 | 0.9             | 0.0                            | -0.1            | 2.9        | 4,071             |

<sup>1</sup> Including management expenses.

## Investment result

| Investment result        |  | €m     |                     |        |                     |         |                     |         |                     |
|--------------------------|--|--------|---------------------|--------|---------------------|---------|---------------------|---------|---------------------|
|                          |  | 2015   | Return <sup>1</sup> | 2014   | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
| Regular income           |  | 7,370  | 3.1%                | 7,203  | 3.2%                | 1,782   | 3.1%                | 1,725   | 2.9%                |
| Write-ups/write-downs    |  | -754   | -0.3%               | -234   | -0.1%               | -101    | -0.2%               | -413    | -0.7%               |
| Disposal gains/losses    |  | 2,693  | 1.1%                | 2,629  | 1.2%                | 372     | 0.6%                | 514     | 0.9%                |
| Derivatives <sup>2</sup> |  | -1,226 | -0.5%               | -1,068 | -0.5%               | -227    | -0.4%               | -160    | -0.3%               |
| Other income/expenses    |  | -548   | -0.2%               | -528   | -0.2%               | -162    | -0.3%               | -135    | -0.2%               |
| Investment result        |  | 7,536  | 3.2%                | 8,002  | 3.6%                | 1,664   | 2.9%                | 1,531   | 2.6%                |
| Total return             |  |        | 0.9%                |        | 10.9%               |         | 1.4%                |         | 2.9%                |

| 3-month<br>reinvestment yield | Write-ups/<br>write-downs | 2015            | Q4<br>2015 | Disposal<br>gains/losses | 2015         | Q4<br>2015 | Derivatives | 2015                      | Q4<br>2015 |      |
|-------------------------------|---------------------------|-----------------|------------|--------------------------|--------------|------------|-------------|---------------------------|------------|------|
| Q4 2015                       | 1.8%                      | Fixed<br>income | -96        | 25                       | Fixed income | 1,515      | 215         | Fixed income <sup>3</sup> | -249       | -26  |
| Q3 2015                       | 1.9%                      | Equities        | -488       | -70                      | Equities     | 1,018      | 228         | Equities                  | -555       | -172 |
|                               |                           | Real estate     | -65        | -7                       |              |            |             | Commodities               | -302       | -74  |
| Q2 2015                       | 2.1%                      | Other           | -105       | -49                      | Other        | 160        | -71         | Inflation                 | -114       | 34   |
|                               |                           |                 |            |                          |              |            |             | Other                     | -6         | 12   |

<sup>1</sup> Annualised return on quarterly weighted investments (market values) in %. <sup>2</sup> Result from derivatives without regular income and other income/expenses. <sup>3</sup> Thereof interest-rate hedging ERGO Q1-4: -€128m/-€18m (gross/net).

## Investment result by segment

## Investment result – Reinsurance – Life

€m

|                          | 2015   | Return <sup>1</sup> | 2014   | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|--------|---------------------|--------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 898    | 3.4%                | 805    | 3.4%                | 233     | 3.6%                | 213     | 3.2%                |
| Write-ups/write-downs    | -68    | -0.3%               | -19    | -0.1%               | -10     | -0.2%               | -42     | -0.6%               |
| Disposal gains/losses    | 265    | 1.0%                | 310    | 1.3%                | 52      | 0.8%                | 22      | 0.3%                |
| Derivatives <sup>2</sup> | -145   | -0.6%               | -237   | -1.0%               | 9       | 0.1%                | -76     | -1.1%               |
| Other income/expenses    | -53    | -0.2%               | -48    | -0.2%               | -15     | -0.2%               | -13     | -0.2%               |
| Investment result        | 898    | 3.4%                | 811    | 3.4%                | 270     | 4.2%                | 104     | 1.6%                |
| Average market value     | 26,094 |                     | 23,859 |                     | 25,796  |                     | 26,306  |                     |

## Investment result – Reinsurance – Property-casualty

€m

|                          | 2015   | Return <sup>1</sup> | 2014   | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|--------|---------------------|--------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 1,827  | 2.8%                | 1,710  | 2.8%                | 427     | 2.7%                | 410     | 2.6%                |
| Write-ups/write-downs    | -312   | -0.5%               | -134   | -0.2%               | -59     | -0.4%               | -187    | -1.2%               |
| Disposal gains/losses    | 1,373  | 2.1%                | 1,532  | 2.6%                | 246     | 1.5%                | 291     | 1.8%                |
| Derivatives <sup>2</sup> | -636   | -1.0%               | -1,140 | -1.9%               | 48      | 0.3%                | -344    | -2.2%               |
| Other income/expenses    | -207   | -0.3%               | -183   | -0.3%               | -66     | -0.4%               | -50     | -0.3%               |
| Investment result        | 2,046  | 3.1%                | 1,785  | 3.0%                | 595     | 3.7%                | 120     | 0.7%                |
| Average market value     | 64,957 |                     | 59,668 |                     | 63,767  |                     | 64,023  |                     |

<sup>1</sup> Return on quarterly weighted investments (market values) in % p.a.<sup>2</sup> Result from derivatives without regular income and other income/expenses.

## Investment result by segment

## Investment result – ERGO Life/Health Germany

€m

|                          | 2015    | Return <sup>1</sup> | 2014    | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 3,853   | 3.3%                | 3,880   | 3.5%                | 930     | 3.2%                | 906     | 3.1%                |
| Write-ups/write-downs    | -196    | -0.2%               | -56     | -0.1%               | -24     | -0.1%               | -93     | -0.3%               |
| Disposal gains/losses    | 753     | 0.6%                | 555     | 0.5%                | 72      | 0.2%                | 183     | 0.6%                |
| Derivatives <sup>2</sup> | -330    | -0.3%               | 318     | 0.3%                | -211    | -0.7%               | 228     | 0.8%                |
| Other income/expenses    | -239    | -0.2%               | -244    | -0.2%               | -68     | -0.2%               | -62     | -0.2%               |
| Investment result        | 3,841   | 3.2%                | 4,453   | 4.0%                | 699     | 2.4%                | 1,162   | 4.0%                |
| Average market value     | 118,427 |                     | 110,968 |                     | 116,928 |                     | 116,437 |                     |

## Investment result – ERGO Property-casualty Germany

€m

|                          | 2015  | Return <sup>1</sup> | 2014  | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|-------|---------------------|-------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 195   | 2.7%                | 198   | 2.8%                | 44      | 2.4%                | 48      | 2.6%                |
| Write-ups/write-downs    | -107  | -1.5%               | -14   | -0.2%               | 1       | 0.1%                | -74     | -4.1%               |
| Disposal gains/losses    | 174   | 2.4%                | 115   | 1.6%                | 12      | 0.7%                | -1      | -0.1%               |
| Derivatives <sup>2</sup> | -58   | -0.8%               | -76   | -1.1%               | -36     | -2.0%               | 1       | 0.1%                |
| Other income/expenses    | -17   | -0.2%               | -19   | -0.2%               | -5      | -0.3%               | -4      | -0.2%               |
| Investment result        | 187   | 2.6%                | 204   | 2.9%                | 16      | 0.9%                | -30     | -1.7%               |
| Average market value     | 7,305 |                     | 7,108 |                     | 7,153   |                     | 7,260   |                     |

<sup>1</sup> Return on quarterly weighted investments (market values) in % p.a.<sup>2</sup> Result from derivatives without regular income and other income/expenses.

## Investment result by segment

## Investment result – ERGO International

€m

|                          | 2015 | Return <sup>1</sup> | 2014 | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|------|---------------------|------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 506  | 3.0%                | 528  | 3.1%                | 124     | 3.3%                | 125     | 2.8%                |
| Write-ups/write-downs    | -69  | -0.4%               | 4    | 0.0%                | -8      | -0.2%               | -17     | -0.4%               |
| Disposal gains/losses    | 92   | 0.5%                | 91   | 0.5%                | -16     | -0.4%               | 16      | 0.4%                |
| Derivatives <sup>2</sup> | -57  | -0.3%               | 67   | 0.4%                | -37     | -1.0%               | 31      | 0.7%                |
| Other income/expenses    | -26  | -0.2%               | -28  | -0.1%               | -6      | -0.2%               | -5      | -0.1%               |
| Investment result        | 447  | 2.6%                | 662  | 3.9%                | 57      | 1.5%                | 150     | 3.4%                |
| Average market value     |      | 16,996              |      | 17,164              |         | 15,199              |         | 17,678              |

## Investment result – Munich Health

€m

|                          | 2015 | Return <sup>1</sup> | 2014 | Return <sup>1</sup> | Q4 2015 | Return <sup>1</sup> | Q3 2015 | Return <sup>1</sup> |
|--------------------------|------|---------------------|------|---------------------|---------|---------------------|---------|---------------------|
| Regular income           | 90   | 2.2%                | 82   | 2.2%                | 24      | 2.4%                | 23      | 2.2%                |
| Write-ups/write-downs    | -2   | -0.1%               | -15  | -0.4%               | -1      | -0.1%               | 0       | 0.0%                |
| Disposal gains/losses    | 36   | 0.9%                | 26   | 0.7%                | 5       | 0.5%                | 3       | 0.3%                |
| Derivatives <sup>2</sup> | 0    | 0.0%                | 0    | 0.0%                | 0       | 0.0%                | 0       | 0.0%                |
| Other income/expenses    | -5   | -0.1%               | -6   | -0.2%               | -2      | -0.1%               | -1      | -0.1%               |
| Investment result        | 118  | 2.9%                | 87   | 2.3%                | 27      | 2.6%                | 25      | 2.4%                |
| Average market value     |      | 4,071               |      | 3,759               |         | 4,106               |         | 4,092               |

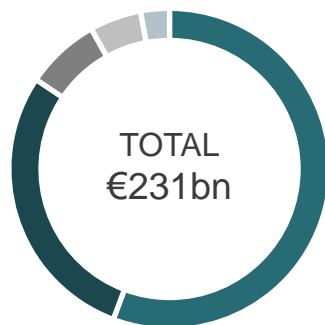
<sup>1</sup> Return on quarterly weighted investments (market values) in % p.a.<sup>2</sup> Result from derivatives without regular income and other income/expenses.

# Investment portfolio

## Fixed-interest securities and miscellaneous

### Investment portfolio %

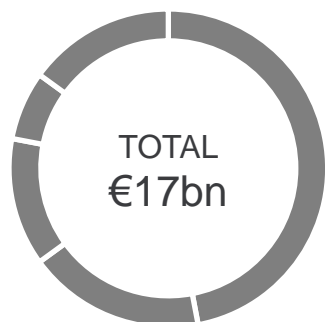
Miscellaneous 7.5 (7.7) Fixed-interest securities 55.7 (55.5)



Loans 28.7 (29.2)

### Miscellaneous %

Other 16 (14) Deposits on reinsurance 42 (49)



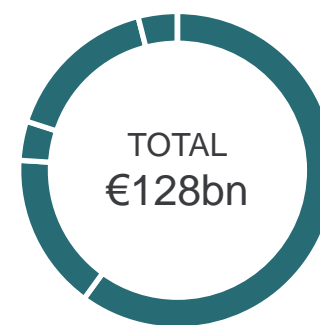
Derivatives 9 (6)

Investment funds 11 (12)

Bank deposits 22 (19)

### Fixed-interest securities<sup>1</sup> %

Structured products 4 (5) Governments/semi-government 62 (59)



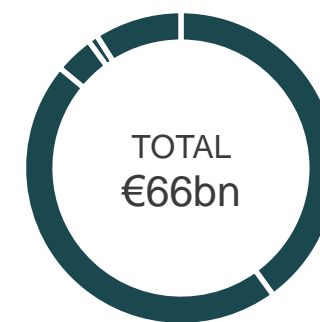
Corporates 16 (15)

Banks 3 (3)

Pfandbriefe/covered bonds 15 (18)

### Loans<sup>1</sup> %

Loans to policyholders/mortgage loans 10 (9) Governments/semi-government 39 (39)



Corporates 1 (1)

Banks 4 (4)

Pfandbriefe/covered bonds 46 (47)

<sup>1</sup> Approximation – Not fully comparable with IFRS figures. Fair values as at 31.12.2015 (31.12.2014).

# Fixed-income portfolio Total

## Fixed-income portfolio

%

Loans to policyholders/  
mortgage loans  
3 (3)

Governments/  
semi-government  
52 (50)

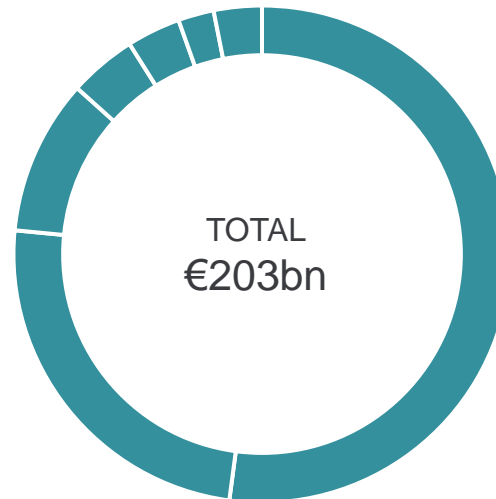
Structured products  
2 (3)

Bank bonds  
3 (3)

Cash/other  
4 (4)

Corporate bonds  
10 (10)

Pfandbriefe/  
covered bonds  
24 (27)

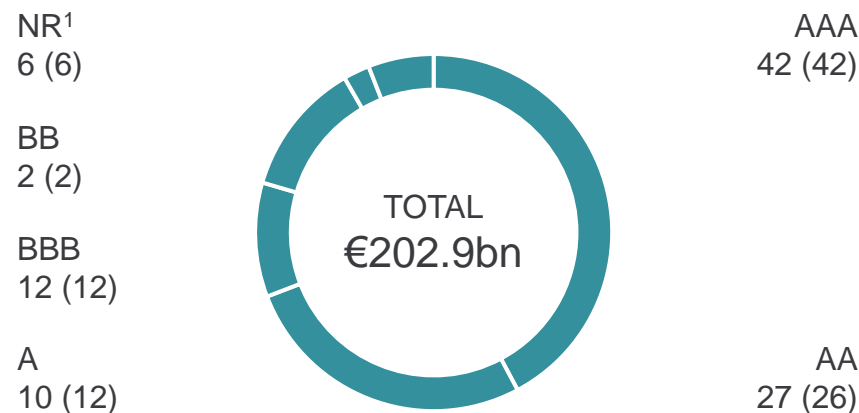




# Fixed-income portfolio

## Total

### Rating structure



### Maturity structure



### Regional breakdown

|                 | Without policyholder participation |             | Total        |              |
|-----------------|------------------------------------|-------------|--------------|--------------|
|                 | 31.12. 2015                        | 31.12. 2014 | 31.12. 2015  | 31.12. 2014  |
| Germany         | 4.6                                | 24.6        | 29.2         | 30.3         |
| US              | 14.9                               | 1.5         | 16.4         | 14.0         |
| France          | 2.1                                | 5.2         | 7.3          | 7.6          |
| UK              | 3.5                                | 2.6         | 6.1          | 6.1          |
| Netherlands     | 1.0                                | 2.9         | 4.0          | 4.4          |
| Canada          | 3.5                                | 0.3         | 3.8          | 3.6          |
| Supra-nationals | 0.6                                | 2.8         | 3.4          | 3.7          |
| Spain           | 1.6                                | 1.8         | 3.3          | 3.5          |
| Ireland         | 0.6                                | 1.9         | 2.5          | 2.4          |
| Australia       | 1.9                                | 0.6         | 2.5          | 2.2          |
| Italy           | 1.1                                | 1.3         | 2.4          | 3.3          |
| Austria         | 0.3                                | 1.7         | 2.1          | 2.5          |
| Belgium         | 0.5                                | 1.3         | 1.8          | 1.6          |
| Sweden          | 0.2                                | 1.4         | 1.6          | 1.8          |
| Norway          | 0.3                                | 1.2         | 1.6          | 1.7          |
| Other           | 7.5                                | 4.4         | 11.9         | 11.3         |
| <b>Total</b>    | <b>44.5</b>                        | <b>55.5</b> | <b>100.0</b> | <b>100.0</b> |

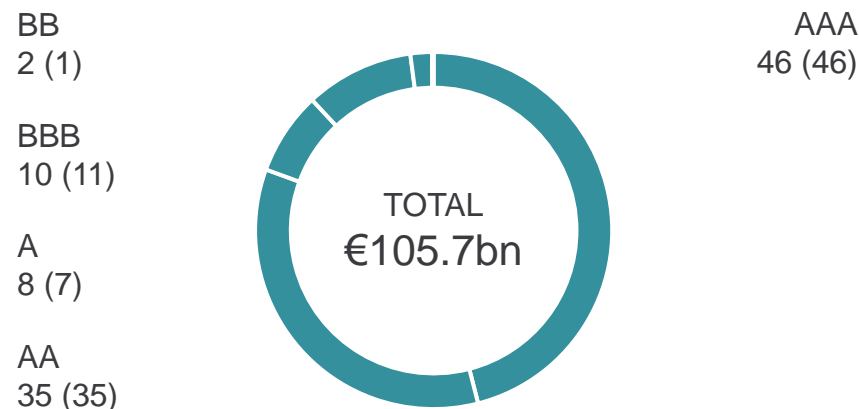
Approximation – Not fully comparable with IFRS figures. Fair values as at 31.12.2015 (31.12.2014).

<sup>1</sup> Mainly loans to policyholders, mortgage loans and bank deposits.

# Fixed-income portfolio

## Governments/semi-government

### Rating structure

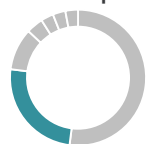


### Maturity structure



### Regional breakdown

|                 | Without policyholder participation |             | Total        |              |
|-----------------|------------------------------------|-------------|--------------|--------------|
|                 | 31.12. 2015                        | 31.12. 2014 | 31.12. 2015  | 31.12. 2014  |
| Germany         | 4.2                                | 23.2        | 27.4         | 29.6         |
| US              | 17.9                               | 1.0         | 18.9         | 15.6         |
| Supra-nationals | 1.2                                | 5.4         | 6.6          | 7.3          |
| Canada          | 5.1                                | 0.2         | 5.2          | 5.5          |
| UK              | 4.8                                | 0.2         | 4.9          | 4.7          |
| Spain           | 1.5                                | 2.0         | 3.5          | 3.2          |
| France          | 1.8                                | 1.7         | 3.5          | 3.2          |
| Italy           | 1.4                                | 1.7         | 3.1          | 4.3          |
| Belgium         | 0.8                                | 2.2         | 3.1          | 2.9          |
| Australia       | 2.8                                | 0.0         | 2.9          | 3.0          |
| Austria         | 0.4                                | 2.2         | 2.6          | 3.3          |
| Poland          | 1.4                                | 0.5         | 1.9          | 1.6          |
| Ireland         | 0.4                                | 1.5         | 1.9          | 1.7          |
| Netherlands     | 0.6                                | 1.1         | 1.7          | 2.0          |
| Portugal        | 0.4                                | 0.0         | 0.4          | 0.1          |
| Other           | 7.9                                | 4.4         | 12.3         | 12.0         |
| <b>Total</b>    | <b>52.6</b>                        | <b>47.4</b> | <b>100.0</b> | <b>100.0</b> |



# Fixed-income portfolio

## Pfandbriefe/covered bonds

### Rating structure %



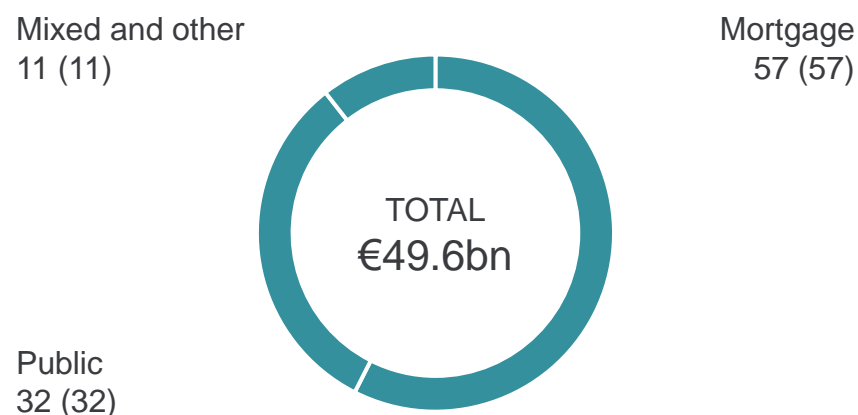
### Regional breakdown %

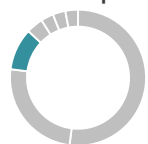
|             | 31.12.2015 | 31.12.2014 |
|-------------|------------|------------|
| Germany     | 34.2       | 34.7       |
| France      | 18.5       | 18.6       |
| UK          | 8.5        | 8.4        |
| Netherlands | 7.1        | 6.8        |
| Sweden      | 5.9        | 5.9        |
| Norway      | 5.7        | 5.5        |
| Spain       | 4.8        | 6.2        |
| Ireland     | 2.9        | 3.1        |
| Italy       | 1.2        | 1.3        |
| Other       | 11.1       | 9.5        |

### Maturity structure %



### Cover pools %



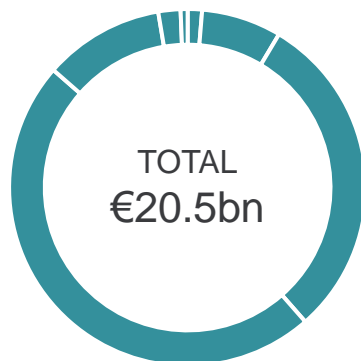


# Fixed-income portfolio

## Corporate bonds (excluding bank bonds)

### Rating structure

|                | %            |
|----------------|--------------|
| <NR<br>1 (0)   | AAA<br>1 (1) |
| <BB<br>2 (2)   | AA<br>7 (6)  |
| BB<br>11 (11)  | A<br>30 (34) |
| BBB<br>48 (46) |              |



### Maturity structure

|                       | %                    |
|-----------------------|----------------------|
| >10 years<br>16 (16)  | 0–1 years<br>6 (6)   |
| 7–10 years<br>15 (18) | 1–3 years<br>23 (19) |
| 5–7 years<br>18 (19)  | 3–5 years<br>22 (22) |



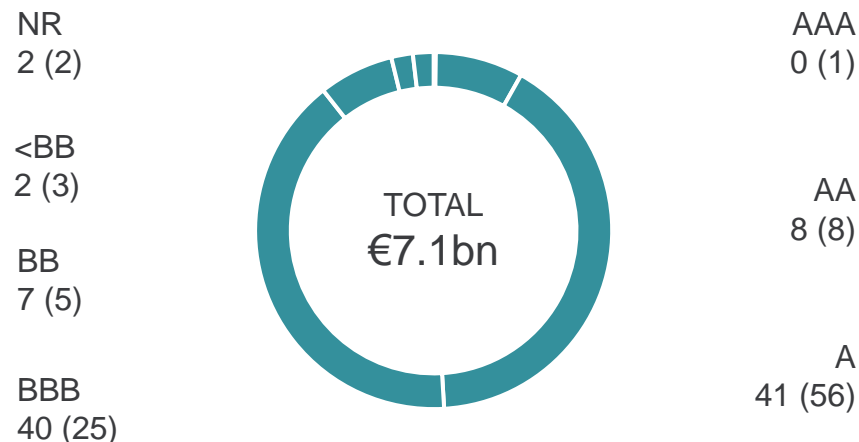
### Sector breakdown

|                               | 31.12.2015 | 31.12.2014 |
|-------------------------------|------------|------------|
| Utilities                     | 21.1       | 22.3       |
| Industrial goods and services | 12.7       | 12.1       |
| Oil and gas                   | 10.9       | 12.2       |
| Telecommunications            | 8.5        | 9.5        |
| Financial services            | 7.9        | 5.4        |
| Healthcare                    | 6.7        | 5.9        |
| Media                         | 4.5        | 4.4        |
| Food and beverages            | 4.1        | 4.7        |
| Retail                        | 3.9        | 3.7        |
| Technology                    | 3.5        | 3.6        |
| Basic resources               | 3.5        | 3.6        |
| Automobiles                   | 2.8        | 2.7        |
| Personal and household goods  | 2.7        | 2.5        |
| Other                         | 7.2        | 7.4        |

# Fixed-income portfolio

## Bank bonds

### Rating structure %



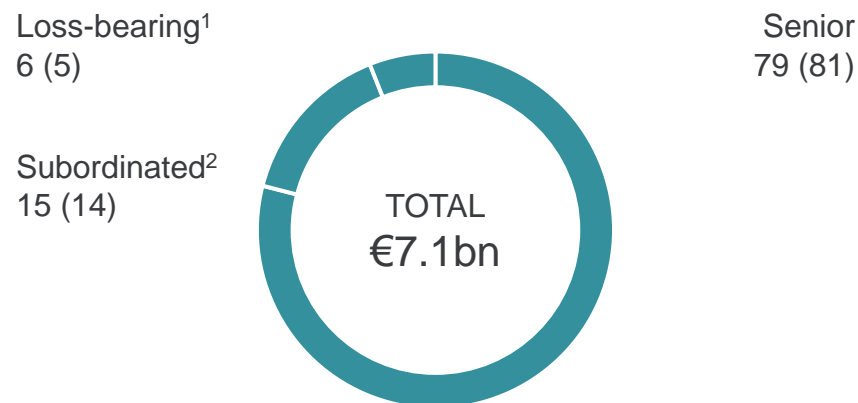
### Maturity structure %



### Regional breakdown %

|           | Senior bonds | Sub-ordinated | Loss-bearing | Total       |             |
|-----------|--------------|---------------|--------------|-------------|-------------|
|           |              |               |              | 31.12. 2015 | 31.12. 2014 |
| US        | 29.3         | 7.2           | 0.3          | 36.7        | 29.0        |
| Germany   | 18.7         | 2.5           | 3.2          | 24.3        | 29.2        |
| UK        | 6.4          | 2.0           | 0.3          | 8.7         | 12.0        |
| Ireland   | 5.9          | 0.1           | 0.0          | 6.0         | 5.0         |
| France    | 1.8          | 1.0           | 1.2          | 3.9         | 2.8         |
| Australia | 2.8          | 0.0           | 0.0          | 2.8         | 3.1         |
| Canada    | 1.9          | 0.7           | 0.0          | 2.6         | 3.0         |
| Jersey    | 1.7          | 0.0           | 0.0          | 1.7         | 2.0         |
| Austria   | 1.0          | 0.6           | 0.0          | 1.6         | 1.7         |
| Other     | 9.5          | 1.4           | 0.7          | 11.6        | 12.2        |

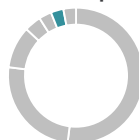
### Investment category of bank bonds %



<sup>1</sup> Classified as Tier-1 and upper Tier-2 capital for solvency purposes.

<sup>2</sup> Classified as lower Tier-2 and Tier-3 capital for solvency purposes.

Approximation – Not fully comparable with IFRS figures. Fair values as at 31.12.2015 (31.12.2014).



# Fixed-income portfolio

## Structured products

## Structured products portfolio (at market values): Breakdown by rating and region

€m

|                  |                                    | Rating |       |     |     |      |    | Region    |        | Total | Market-to-par |
|------------------|------------------------------------|--------|-------|-----|-----|------|----|-----------|--------|-------|---------------|
|                  |                                    | AAA    | AA    | A   | BBB | <BBB | NR | USA + RoW | Europe |       |               |
| ABS              | Consumer-related ABS <sup>1</sup>  | 343    | 270   | 53  | 5   | 0    | 0  | 329       | 343    | 672   | 101%          |
|                  | Corporate-related ABS <sup>2</sup> | 4      | 119   | 93  | 35  | 2    | 0  | 0         | 253    | 253   | 100%          |
|                  | Subprime HEL                       | 0      | 0     | 1   | 0   | 0    | 0  | 1         | 0      | 1     | 98%           |
| CDO/<br>CLN      | Subprime-related                   | 0      | 0     | 0   | 0   | 0    | 0  | 0         | 0      | 0     | 0%            |
|                  | Non-subprime-related               | 455    | 684   | 95  | 2   | 0    | 51 | 194       | 1,093  | 1,287 | 98%           |
| MBS              | Agency                             | 1,116  | 68    | 0   | 0   | 0    | 0  | 1,184     | 0      | 1,184 | 104%          |
|                  | Non-agency prime                   | 225    | 174   | 45  | 22  | 0    | 0  | 20        | 446    | 466   | 100%          |
|                  | Non-agency other<br>(not subprime) | 133    | 95    | 35  | 20  | 1    | 0  | 11        | 273    | 284   | 99%           |
|                  | Commercial MBS                     | 392    | 38    | 107 | 34  | 9    | 0  | 359       | 221    | 580   | 101%          |
| Total 31.12.2015 |                                    | 2,668  | 1,450 | 430 | 116 | 12   | 51 | 2,099     | 2,628  | 4,727 | 100%          |
| In %             |                                    | 56%    | 31%   | 9%  | 2%  | 0%   | 1% | 44%       | 56%    | 100%  |               |
| Total 31.12.2014 |                                    | 3,374  | 1,313 | 974 | 255 | 29   | 47 | 2,710     | 3,282  | 5,992 | 101%          |

<sup>1</sup> Consumer loans, auto, credit cards, student loans.

<sup>2</sup> Asset-backed CPs, business and corporate loans, commercial equipment.

Approximation – Not fully comparable with IFRS figures. Fair values as at 31.12.2015.

# Sensitivities to interest rates, spreads and equity markets

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| Sensitivity to risk-free interest rates – Basis points       | –50   | –25   | +50   | +100  |
| Change in gross market value (€bn)                           | +8.2  | +4.0  | –7.9  | –15.4 |
| Change in on-balance-sheet reserves, net (€bn) <sup>1</sup>  | +1.9  | +0.9  | –1.8  | –3.4  |
| Change in off-balance-sheet reserves, net (€bn) <sup>1</sup> | +0.4  | +0.2  | –0.4  | –0.9  |
| P&L impact (€bn) <sup>1</sup>                                | –0.0  | –0.0  | –0.0  | –0.0  |
| Sensitivity to spreads <sup>2</sup> (change in basis points) |       |       | +50   | +100  |
| Change in gross market value (€bn)                           |       |       | –5.7  | –11.1 |
| Change in on-balance-sheet reserves, net (€bn) <sup>1</sup>  |       |       | –1.1  | –2.1  |
| Change in off-balance-sheet reserves, net (€bn) <sup>1</sup> |       |       | –0.3  | –0.6  |
| P&L impact (€bn) <sup>1</sup>                                |       |       | –0.1  | –0.2  |
| Sensitivity to equity and commodity markets <sup>3</sup>     | –30%  | –10%  | +10%  | +30%  |
| EURO STOXX 50 (3,268 as at 31.12.2015)                       | 2,288 | 2,941 | 3,595 | 4,248 |
| Change in gross market value (€bn)                           | –4.5  | –1.5  | +1.5  | +4.7  |
| Change in on-balance-sheet reserves, net (€bn) <sup>1</sup>  | –1.0  | –0.4  | +0.8  | +2.5  |
| Change in off-balance-sheet reserves, net (€bn) <sup>1</sup> | –0.7  | –0.2  | +0.2  | +0.7  |
| P&L impact (€bn) <sup>1</sup>                                | –1.9  | –0.6  | +0.1  | +0.4  |

<sup>1</sup> Rough calculation with limited reliability assuming unchanged portfolio as at 31.12.2015. After rough estimation of policyholder participation and deferred tax; linearity of relations cannot be assumed. Approximation – Not fully comparable with IFRS figures.

<sup>2</sup> Sensitivities to changes of spreads are calculated for every category of fixed-interest securities, except government securities with AAA ratings.

<sup>3</sup> Worst-case scenario assumed including commodities: Impairment as soon as market value is below acquisition cost. Approximation – Not fully comparable with IFRS figures.

## On- and off-balance-sheet reserves (gross)

| €m   | 31.12.<br>2012 | 31.12.<br>2013 | 31.12.<br>2014 | 30.9.<br>2015 | 31.12.<br>2015 |
|--|----------------|----------------|----------------|---------------|----------------|
| Market value of investments                  | 218,047        | 210,431        | 235,849        | 235,372       | 230,529        |
| Total reserves                               | 22,478         | 15,192         | 31,470         | 26,839        | 25,969         |
| On-balance-sheet reserves                    |                |                |                |               |                |
| Fixed-interest securities                    | 9,980          | 4,661          | 11,967         | 9,286         | 7,886          |
| Non-fixed-interest securities                | 1,503          | 1,975          | 2,270          | 1,603         | 2,446          |
| Other on-balance-sheet reserves <sup>1</sup> | 291            | 292            | 311            | 228           | 201            |
| Subtotal                                     | 11,774         | 6,928          | 14,548         | 11,117        | 10,533         |
| Off-balance-sheet reserves                   |                |                |                |               |                |
| Real estate <sup>2</sup>                     | 1,519          | 1,763          | 2,006          | 2,068         | 2,273          |
| Loans and investments (held to maturity)     | 8,831          | 6,071          | 14,400         | 13,232        | 12,610         |
| Associates                                   | 354            | 430            | 516            | 422           | 553            |
| Subtotal                                     | 10,704         | 8,264          | 16,922         | 15,722        | 15,436         |
| Reserve ratio                                | 10.3%          | 7.2%           | 13.3%          | 11.4%         | 11.3%          |

<sup>1</sup> Unrealised gains/losses from unconsolidated affiliated companies, valuation at equity and cash-flow hedging.

<sup>2</sup> Excluding reserves from owner-occupied property.



# On-balance-sheet reserves

| On-balance-sheet reserves                | 31.12.<br>2015 | Change<br>Q4 |
|--|----------------|--------------|
| Investments afs                          | 10,332         | –557         |
| Valuation at equity                      | 91             | –2           |
| Unconsolidated affiliated enterprises    | 81             | –23          |
| Cash-flow hedging                        | 29             | –2           |
| Total on-balance-sheet reserves (gross)  | 10,533         | –584         |
| Provision for deferred premium refunds   | –4,900         | 330          |
| Deferred tax                             | –1,409         | 156          |
| Minority interests                       | –19            | 1            |
| Consolidation, currency effects & IFRS 5 | –22            | 155          |
| Shareholders' stake                      | 4,183          | 58           |

## Off-balance-sheet reserves

| Off-balance-sheet reserves               | 31.12.<br>2015 | Change<br>Q4 | €m |
|--|----------------|--------------|----|
| Real estate <sup>1</sup>                 | 2,273          | 205          |    |
| Loans and investments (held to maturity) | 12,610         | –622         |    |
| Associates                               | 553            | 131          |    |
| Total off-balance-sheet reserves (gross) | 15,436         | –286         |    |
| as if                                    |                |              |    |
| Provision for deferred premium refunds   | –11,121        | 498          |    |
| Deferred tax                             | –1,314         | –69          |    |
| Minority interests                       | –1             | 0            |    |
| Shareholders' stake                      | 3,001          | 144          |    |

<sup>1</sup> Excluding reserves for owner-occupied property.

# Stable market risk as a consequence of a balanced investment portfolio

| Risk category         | Group |      | RI/MH | ERGO | Div. | Explanation  |
|-----------------------|-------|------|-------|------|------|--|
| Year-end 2015 €bn     | 2014  | 2015 | 2015  | 2015 | 2015 |  |
| Equity                | 3.4   | 3.7  | 3.0   | 0.7  | 0.0  | Increase of net equity exposure  |
| General interest rate | 3.8   | 3.1  | 1.9   | 2.2  | -1.0 | Reduction in general interest-rate risk mainly at ERGO due to favourable investment performance. |
| Credit spread         | 3.1   | 3.5  | 1.6   | 2.8  | -0.9 | Full implementation of the SII methodology.  |
| Real estate           | 1.3   | 1.5  | 0.9   | 0.6  | 0.0  | Positive performance of real estate portfolio  |
| Currency              | 3.5   | 3.5  | 3.3   | 0.2  | 0.0  | No significant change in overall FX position   |
| Simple sum            | 15.1  | 15.3 | 10.7  | 6.5  | -1.9 |  |
| Diversification       | -6.3  | -6.6 | -4.9  | -2.2 | -    | Slightly improved diversification due to more balanced investment portfolio                      |
| Total SCR             | 8.8   | 8.7  | 5.8   | 4.3  | -1.4 |  |

**Slightly higher equity and real-estate risk offset by reduced overall interest-rate risk**

# Further improvement of Solvency II capitalisation ratio

## Munich Re actions

>220%

Above target capitalisation

- Capital repatriation
- Increased risk-taking
- Holding excess capital to meet external constraints

175% – 220%

Target capitalisation

- Optimum level of capitalisation

140% – 175%

Below target capitalisation

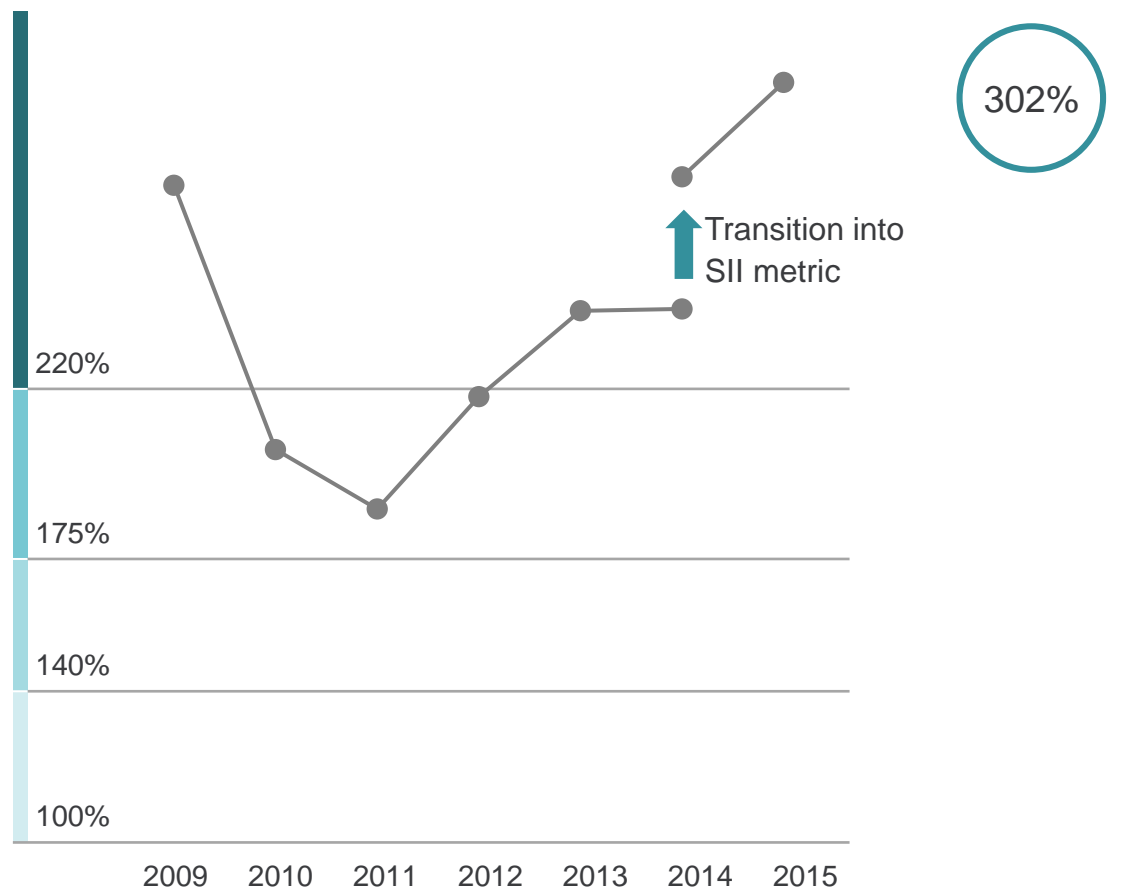
- Tolerate (management decision) or
- If necessary, take management action (e.g. risk transfer, scaling-down of activities; raising of hybrid capital)

<140%: Sub-optimum capitalisation

- Take risk-management action (e.g. risk transfer, scaling-down of activities; raising of hybrid capital) or
- in exceptional cases, tolerate situation (management decision)

## SII ratio

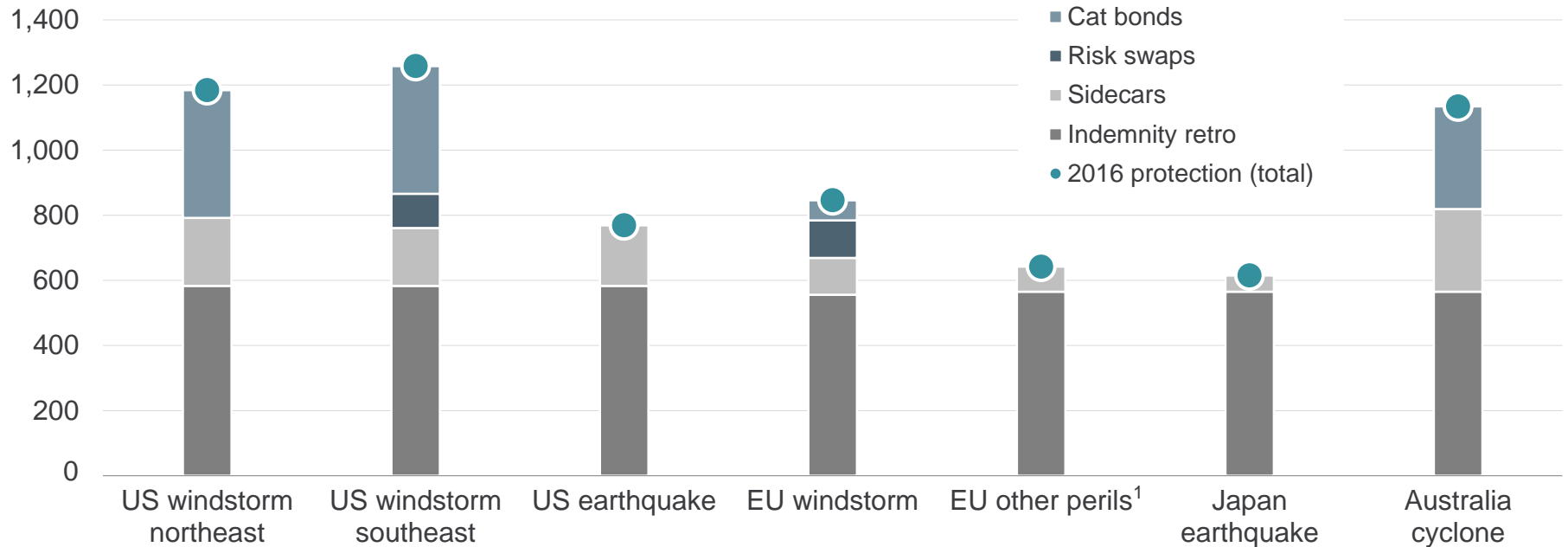
%



# Munich Re's maximum in-force nat cat protection

Munich Re's maximum in-force nat cat protection as at January 2016

€m



Utilisation of opportunities in alternative-capital retro markets

Expansion of nat cat protection via indemnity retro, cat bonds and sidecar

## Retrocession use reflects favourable market terms

As at January 2016. Protection before reinstatement premiums.

<sup>1</sup> Earthquake Europe, including Turkey.

# Profit and loss attribution provides consistent reporting of economic performance across business units






| Munich Re (Group) 2015<br>€bn         | RI<br>Life | RI<br>P-C | ERGO<br>Life/Health<br>Germany | ERGO<br>P-C<br>Germany | ERGO<br>Intl. | Munich<br>Health | Munich Re<br>(Group) |
|---------------------------------------|------------|-----------|--------------------------------|------------------------|---------------|------------------|----------------------|
| Operating economic earnings           | 1.5        | 1.7       | -0.3                           | 0.1                    | 0.0           | 0.0              | 3.0                  |
| Expected return existing business     | 0.2        | 0.2       | 0.2                            | 0.0                    | 0.1           | 0.0              | 0.7                  |
| New business value                    | 0.9        | 0.2       | 0.3                            | 0.3                    | 0.0           | 0.0              | 1.7                  |
| Operating variances existing business | 0.2        | 1.3       | -0.7                           | -0.2                   | 0.0           | 0.0              | 0.6                  |
| Other operating variances             | 0.1        | 0.0       | 0.0                            | 0.0                    | 0.0           | 0.0              | 0.0                  |
| Economic effects                      | 0.3        | 0.7       | 0.8                            | 0.0                    | 0.1           | 0.0              | 2.0                  |
| Other non-operating earnings          | 0.1        | -0.1      | 0.5                            | -0.1                   | -0.1          | 0.0              | 0.3                  |
| Total economic earnings               | 1.8        | 2.3       | 1.1                            | 0.1                    | 0.1           | 0.0              | 5.3                  |
| Capital measures                      |            |           |                                |                        |               |                  | -2.5                 |
| Changes in other own funds items      |            |           |                                |                        |               |                  | -0.1                 |
| Change in SII EOF                     |            |           |                                |                        |               |                  | 2.7                  |

**Positive economic earnings contribution from all business units –  
But with differing underlying drivers**

# Change in eligible own funds

## Change in SII eligible own funds

€bn

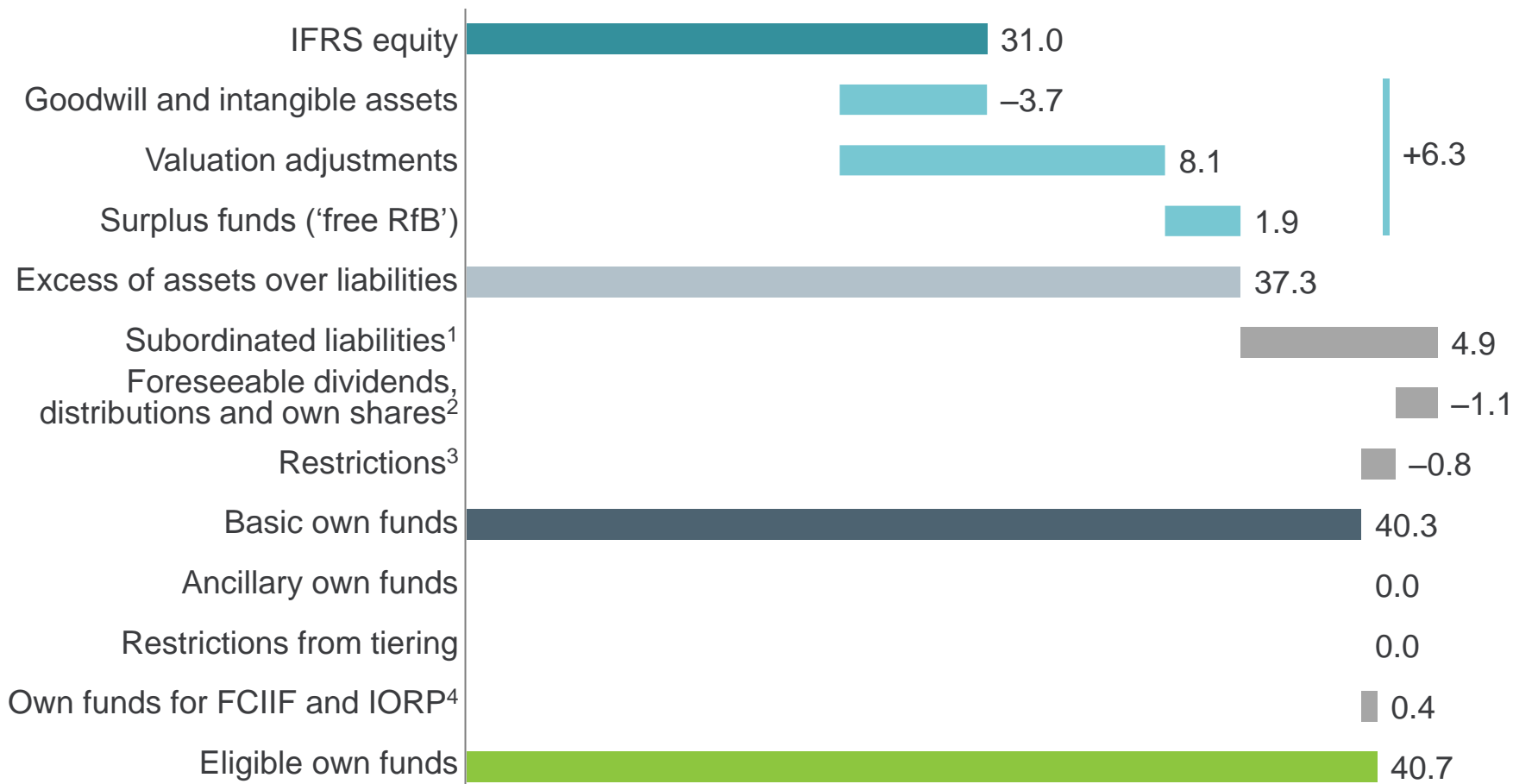
|                                    |   |      |  |
|------------------------------------|---|------|--|
| EOF<br>31.12.2014                  |    | 38.2 |  |
| Opening<br>adjustments             |   | -0.3 | Retrospective adjustments of own funds not qualifying as changes of reporting period       |
| EOF<br>01.01.2015                  |    | 38.0 | Opening balance for determination of overall change in reporting period                    |
| Economic<br>earnings               |    | 5.3  | Economic performance of the period resulting in OF change                                  |
| Capital<br>measures                |   | -2.5 | Dividend: €1.3bn<br>Share buy-back: €1.0bn and other <sup>1</sup>                          |
| Change in other<br>own funds items |   | -0.1 | Development of non-available own funds items and own funds for FCIIF and IORP <sup>2</sup> |
| EOF<br>31.12.2015                  |  | 40.7 | Closing balance subject to SII Day-1 reporting   |

<sup>1</sup> Changes in consolidation group. <sup>2</sup> Own funds for other financial sectors (financial, credit institutions and investment firms and institutions for occupational retirement provision).

# Reconciliation of IFRS equity to eligible own funds

Reconciliation of IFRS equity to eligible own funds as at 31 December 2015

€bn



<sup>1</sup> Excluding accrued interest. <sup>2</sup> Foreseeable distributions from share buy-backs (-€0.3bn) and own shares (-€0.7bn).

<sup>3</sup> Deduction of non-available own funds items of -€0.5bn (e.g. non-available surplus funds) and deduction of own funds from participations in other financial sectors. <sup>4</sup> Own funds for other financial sectors (financial, credit institutions and investment firms and institutions for occupational retirement provision).



# From IFRS to Solvency II excess of assets over liabilities 31.12.2015

| €bn  | SII    | IFRS <sup>1</sup> | ▲    | Comments  |      |
|--|--------|-------------------|------|---|------|
| Goodwill and intangible assets                           | 0.0    | 3.7               | -3.7 | No recognition of goodwill and intangible assets in SII   | -3.7 |
| Surplus funds  | 0.0    | -1.9              | 1.9  | Surplus funds ('free RfB') are own funds in SII and are therefore not classified as liabilities   | 1.9  |
| Investments including loans, deposits with cedants, cash | 243.5  | 233.5             | 10.1 | Full fair values in SII lead to higher balances   | 8.1  |
| Subordinated liabilities                                 | -5.1   | -4.4              | -0.6 |   |      |
| Net deferred tax assets/liabilities                      | -3.5   | -2.1              | -1.4 | Different valuation methods produce difference in deferred taxes  |      |
| Other assets and other liabilities                       | -6.3   | -6.1              | -0.2 | e.g. different valuation of financial liabilities   |      |
| Technical accounts without surplus funds                 | -191.4 | -191.6            | 0.3  | SII: Risk margin and additional policyholder participation due to higher fair values of assets are partly offset by reserve discounting |      |
| SII EAoL versus IFRS equity                              | 37.3   | 31.0              | 6.3  |   | +6.3 |

**Fair values, risk margin and surplus funds are the main differences**

<sup>1</sup> IFRS balances reflect reclassifications in order to facilitate comparison with IFRS equity / Eligible own funds reconciliation.

---

## 2016

---

|            |   |
|------------|---|
| 27 April   | Annual General Meeting 2016, ICM – International Congress Centre Munich |
| 10 May     | Quarterly statement as at 31 March 2016 <sup>1</sup>                    |
| 9 August   | Half-year financial report as at 30 June 2016                           |
| 9 November | Quarterly statement as at 30 September 2016 <sup>1</sup>                |

<sup>1</sup> Munich Re is adjusting its financial reporting format following an amendment to the regulations of the Frankfurt stock exchange. The half-year financial reports and annual reports will remain unchanged. However, instead of issuing quarterly reports for the first and third quarters, we will release reports in the new form of quarterly statements from 2016 onwards. We will continue to present and explain the figures for each quarter in telephone conferences for analysts and journalists, and in press releases.

## Investor Relations Team

### Christian Becker-Hussong

Head of Investor & Rating Agency Relations  
Tel.: +49 (89) 3891-3910  
E-mail: cbecker-hussong@munichre.com

### Thorsten Dzuba

Tel.: +49 (89) 3891-8030  
E-mail: tdzuba@munichre.com

### Christine Franziszi

Tel.: +49 (89) 3891-3875  
E-mail: cfranziszi@munichre.com

### Britta Hamberger

Tel.: +49 (89) 3891-3504  
E-mail: bhamberger@munichre.com

### Ralf Kleinschroth

Tel.: +49 (89) 3891-4559  
E-mail: rkleinschroth@munichre.com

### Andreas Silberhorn

Tel.: +49 (89) 3891-3366  
E-mail: asilberhorn@munichre.com

### Angelika Rings

Tel.: +49 (211) 4937-7483  
E-mail: angelika.rings@ergo.de

### Andreas Hoffmann

Tel.: +49 (211) 4937-1573  
E-mail: andreas.hoffmann@ergo.de

### Ingrid Grunwald

Tel.: +49 (89) 3891-3517  
E-mail: igrunwald@munichre.com

Münchener Rückversicherungs-Gesellschaft | Investor & Rating Agency Relations | Königinstraße 107 | 80802 München, Germany  
Fax: +49 (89) 3891-9888 | E-mail: IR@munichre.com | Internet: www.munichre.com

---

This presentation contains forward-looking statements that are based on current assumptions and forecasts of the management of Munich Re. Known and unknown risks, uncertainties and other factors could lead to material differences between the forward-looking statements given here and the actual development, in particular the results, financial situation and performance of our Company. The Company assumes no liability to update these forward-looking statements or to make them conform to future events or developments.