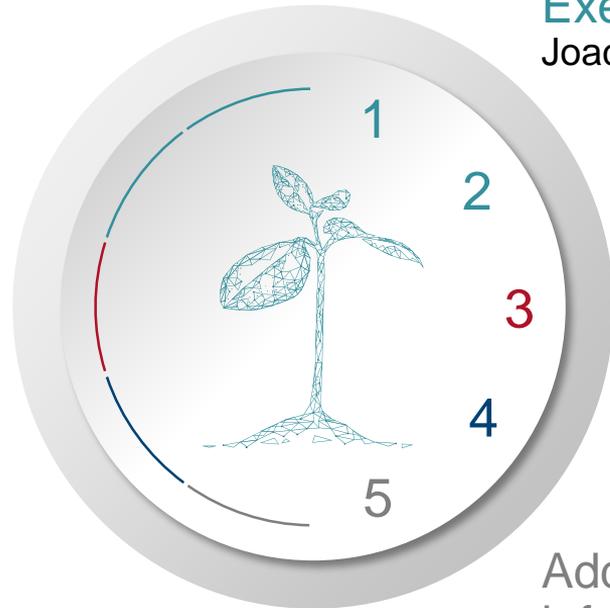


ANALYSTS' AND INVESTORS' CALL 2019

Executing business opportunities – Good start to the 2020 ambition

Munich, 20 March 2019





Executing business opportunities

Joachim Wenning

2

Group finance and risk

Christoph Jurecka

13

ERGO

Markus Rieß

23

Reinsurance

Torsten Jeworrek

30

Additional
information

43

Strategic priorities and rigorous execution pave the way for profitable growth



Reduce complexity – Making the organisation more focused and efficient

REINSURANCE

Cost savings well on track, more efficiency

- Achieve admin. cost savings of ~€200m by 2020¹
- Voluntary programme in Munich very successful – reduction of ~350 FTEs; savings targets in the international organisation well underway
- Leaner operations following automation of global processes (e.g. accounting, claims)

Re-focusing

- Disposal of MSP Underwriting (Lloyds' market) and Ellipse (UK life)
- Integration of Special and Financial Risks division in market segments to benefit from business synergies

Growing business
in a leaner organisation



ERGO

Cost savings well on track, more efficiency

- Cost savings of €174m out of €279m achieved²
- Reduction of ~1,240 FTEs out of ~2,100 FTEs completed^{2, 3}
- Simplification of processes in sales, operations and claims

Re-focusing

- Portfolio optimisation in International almost concluded – 13 entities sold
- Focused life strategy
 - Dedicated management responsibility for fully separated back book
 - Bundling of new life offerings in one risk carrier

Business transformation as
foundation for future competitiveness

¹ Pre-tax. ² in Germany. ³ Not including 292 FTEs that have already signed exit agreement with future exit dates.



Successfully mastering the digital transformation – Good progress in 2018

REINSURANCE

Internet of Things

Build and scale up loss prevention and finance-related products and risk-management-service models for commercial and industrial partners worldwide

Realytix

Cloud-based digital transaction platform for primary insurance companies, brokers and MGAs

SaveUp

Enhance our partners' direct distribution channel for life products via a digital white-label platform

Digital Partners

Offer InsurTech start-ups a platform to gain access to clients, data and insurance functionalities and expertise

Embracing innovation to actively drive the evolution of business models worldwide



ERGO

Actively addressing industry trends

Pilot and introduce new solutions throughout the entire ERGO Group in the areas of AI, robotics and voice

Improving existing business models

Invest in digital front-ends (Portal/CRM/OneWebsite)

Disrupting existing business models

Successful establishment of our purely digital player nexible with 50,000 policies, ready to scale up

Digital culture

We increasingly work in digital factories and support our staff in digital transformation

Progress towards digitally-enabled customer solutions



Progress in interlocking business models between primary insurance and reinsurance



Strategy

- Group-wide solution to ensure business continuity after Brexit
- Collaboration on mobility strategy, e.g. concerning “CASE”¹
- Regional market boards to facilitate joint strategic initiatives, e.g. UK



Innovation

- Common initiatives for collaboration with start-ups, e.g. Ridecell and fair.com
- Integrated global scouting approach leveraging PI and RI scouting networks
- Joint data analytics methodologies



Product development

- Joint life product development, e.g. “ERGO Betriebsrente Index”
- Close cooperation between MEAG and ERGO concerning capital market products, e.g. sales



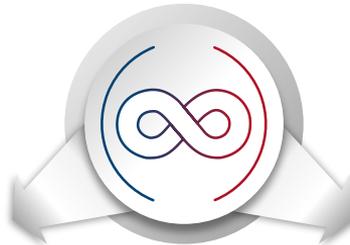
Sales and distribution

- MGA set-up for DAS Canada optimising capital requirements
- Mutual sharing of existing market accesses, e.g. Travel (USA)
- Joint analysis of PI sales support via RI



Underwriting/policy administration

- Leveraging existing underwriting automation, e.g. life
- Scaling existing administration automation, e.g. Health
- Establishing common expert groups per business line, e.g. life and industrial



←----- Interlocking HR and development programmes -----→

International Group trainee programme “EXPLORE”

Management development programme (“Group Management Platform”)

Joint training initiatives to foster common skill sets, e.g. data analytics

¹ “CASE” = Connectivity, Autonomous driving, Shared mobility and Electric mobility.



Delivering on targets – Profitable earnings growth in 2018

REINSURANCE

NET RESULT



Profitable growth in P-C,
technical performance at
L&H above expectations

ERGO

NET RESULT



Strong earnings contribution,
even when adjusted for one-offs

GROUP

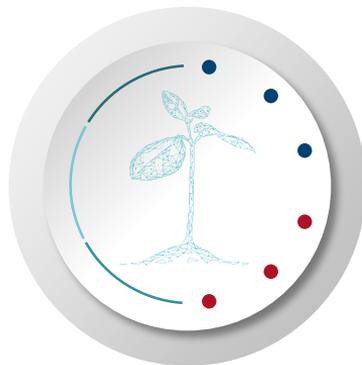
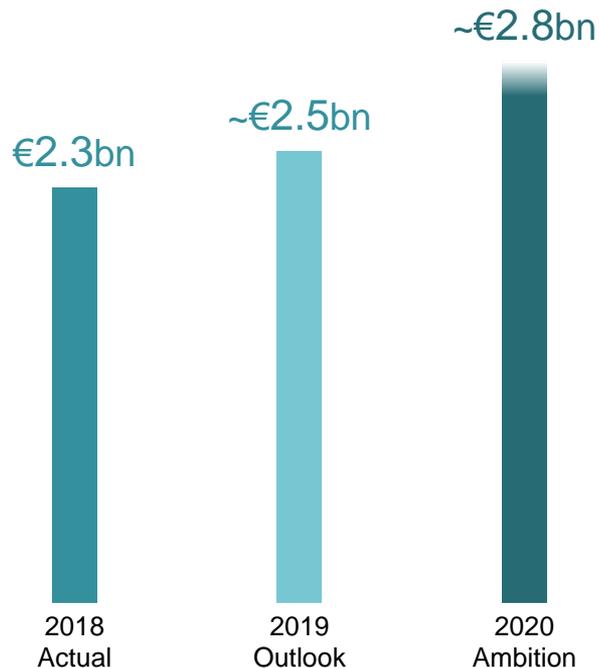
NET RESULT



Return on equity 8.4% –
Good start to the 2020 ambition



ERGO Strategy Programme and growth in reinsurance are the major drivers to deliver on our 2020 ambition



OUTLOOK 2019¹

REINSURANCE

Net result	P-C combined ratio ²	L/H technical result incl. fee income
~€2.1bn	~98%	~€500m

ERGO

Net result	P-C combined ratio	
~€0.4bn	Germany	International
	~93%	~95%

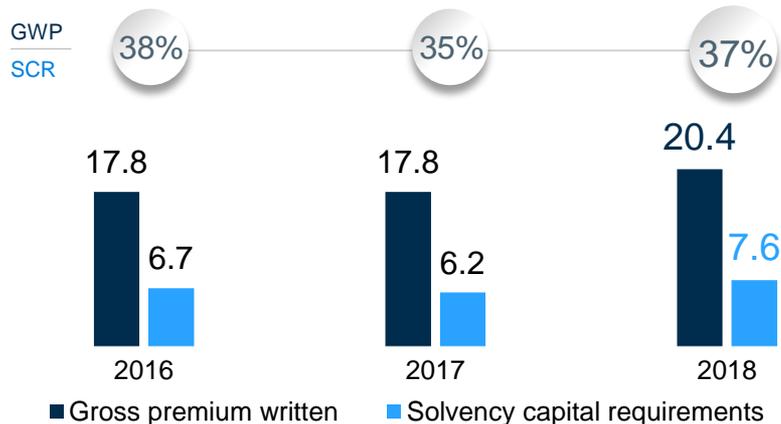
¹ Gross premiums written: ~€49bn Munich Re (Group), ~€31bn Reinsurance, ~€17.5bn ERGO. Munich Re (Group) return on investment: ~-3%, tax ratio ~-25%.
² Expectation of reserve releases (basic losses) in 2019 of at least 4%-pts.



Consistent business and earnings focus – Rigorously using leeway of largely unchanged risk appetite

UNDERWRITING

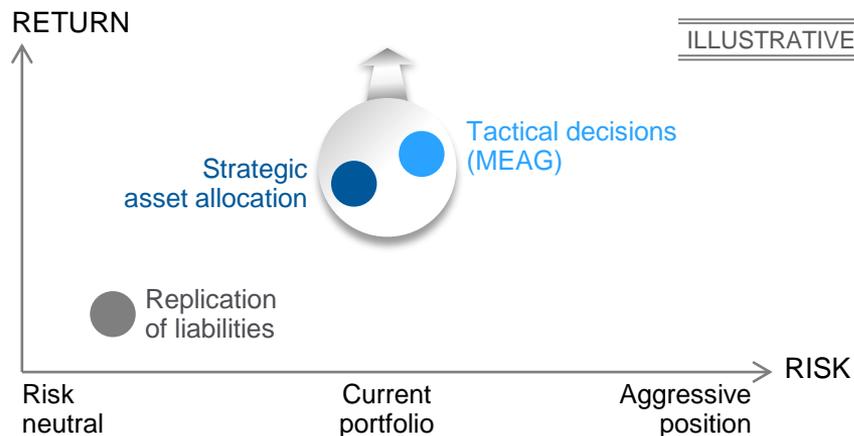
Selective business growth in P-C Reinsurance while not compromising on earning requirements



> Leveraging our underwriting excellence

INVESTMENTS

Generate higher investment result under new CIO responsibility by further optimising the risk-return profile



> Generating alpha



Systematically integrating sustainability criteria when creating value – Key achievements in 2018



Climate strategy

Enabling new technologies for a low-carbon economy

- Innovative insurance solutions for new technologies, e.g. battery storage
- €1.6bn invested in renewable energies, €0.9bn in green bonds

Driving industry standards for climate risk management via UNEP FI PSI¹ Working Group on TCFD² recommendations



ESG in core business

Sustainability criteria deeply entrenched in our underwriting and investment decisions

- Investment process established to fully integrate ESG criteria for all asset classes
- New approach to coal sector – divestment (30% revenue threshold) and strict underwriting exclusions for new coal projects



Governance

New remuneration system for the Board of Management, aligned with long-term shareholders' interests

Responsible employer

- Establishment of Munich Re Digital School to enhance digital qualifications of employees
- Voluntary programme to support reduced complexity and digital transformation

Top positions in major external ratings:
MSCI AA rating, top 10 in DJSI, #1 Union Investment for governance



Strong balance sheet, dividend increase and continuation of €1bn share buy-back in 2019



245%

Well above target capitalisation



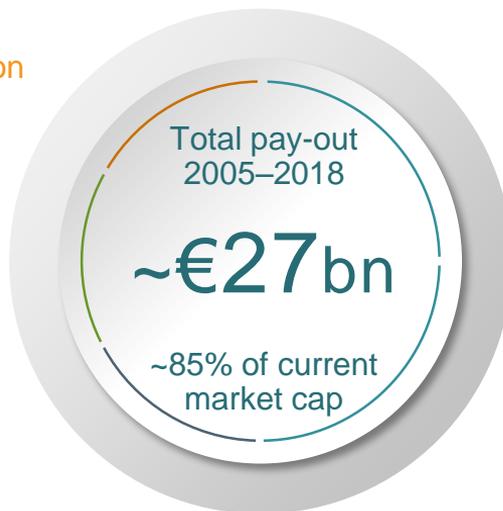
€3.8bn

Safeguards capital repatriation

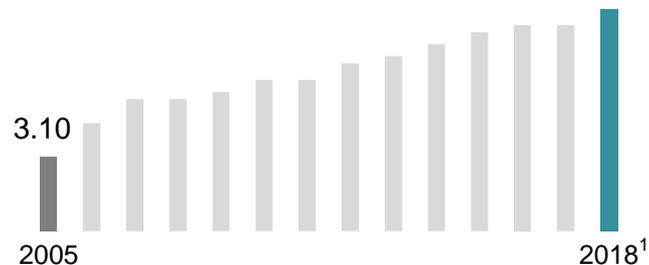


13.2%

Provides financial flexibility



Sustainable dividend-per-share growth
€9.25



Ongoing share buy-backs



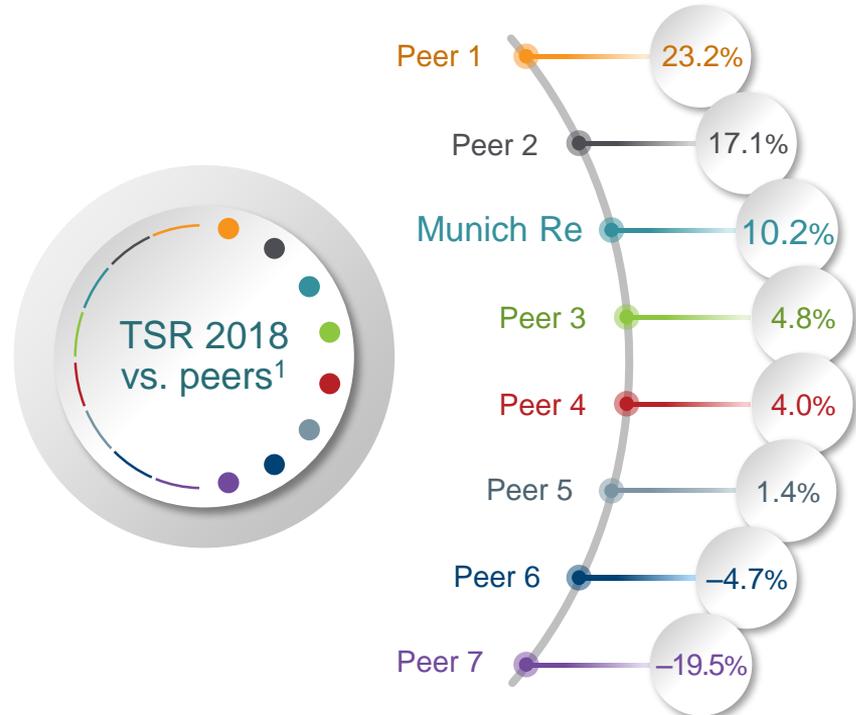
1 Subject to approval of AGM. 2 Preliminary figure as at 31.12.2018; strategic debt (senior, subordinated and other debt) divided by total capital (strategic debt + equity).

Focus on TSR – 70% of the Board of Management’s long-term variable remuneration linked to relative TSR to peers

Committed to leveraging drivers of TSR ...



... to deliver attractive returns to our shareholders



¹ Source: Datastream. Peers: Allianz, Axa, Generali, Hannover Re, Scor, Swiss Re, Zurich.

Group finance and risk



Striking the balance – Efficient management of different metrics safeguards payouts to shareholders



Munich Re delivers good underlying results according to all metrics

€2.3bn (€0.4bn)

Meets guidance

IFRS NET INCOME

ECONOMIC EARNINGS

€1.9bn (€2.3bn)

Adverse capital market development absorbed



245% (244%)

Well above target capitalisation

SOLVENCY II RATIO

HGB RESULT

€2.2bn (€2.2bn)

Safeguards capital repatriation

Solid balance sheet limits downside while providing a good basis for earnings growth



PROTECT DOWNSIDE

Resilience to adverse development

Defensive portfolio

Prudent setting of reserves

Low level of goodwill limits risk of write-downs

SUPPORT EARNINGS

Ongoing reserve releases

Usual harvesting of unrealised gains

Some tax releases in recent years

Strong reserving position – Protection against adverse development while contributing to earnings strength

PROTECT DOWNSIDE Global hot spots well managed

MOTOR LIABILITY

UK: Significant reduction of discount rate for claims settlement (“Ogden”) in 2017

USA: Continually increasing loss frequency and severity – reserve increases for whole US primary market

CASUALTY

USA: High litigation risk, increased claims inflation risk

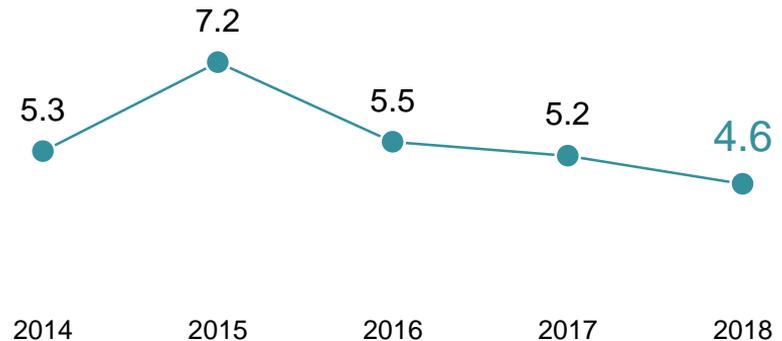
Asbestos: Complex litigation, changes in legal and regulatory environment

US workers’ compensation: High losses for reinsurers in business underwritten during soft market (late 90s)

- Prudent reserving approach ensuring solid reserve position going forward
- Stable reserve situation in 2018 demonstrating resilience to all hot-spot areas

SUPPORT EARNINGS Ongoing reserve releases¹

%

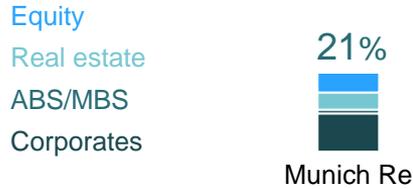


- Positive run-off responds to benign loss emergence while preserving confidence level
- Cautious initial loss picks for new underwriting year expected to unwind over time

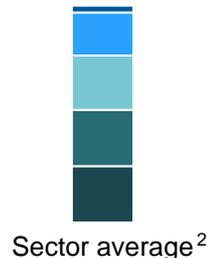
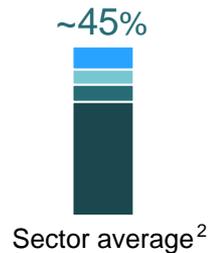
Investment portfolio – Resilience to capital market shocks while providing reliable earnings contribution

PROTECT DOWNSIDE Well-balanced profile

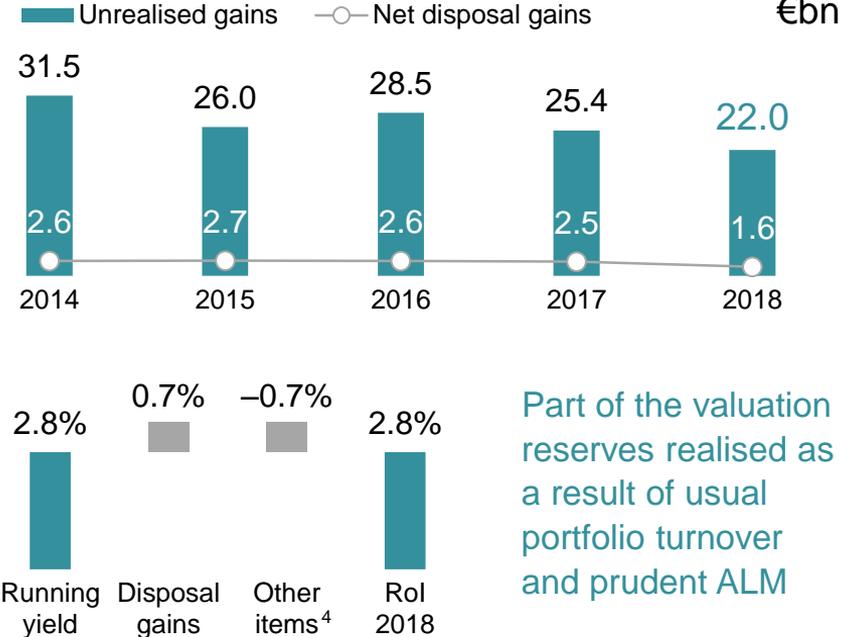
Low exposure to risky assets¹



High rating quality³



SUPPORT EARNINGS Ongoing disposal gains

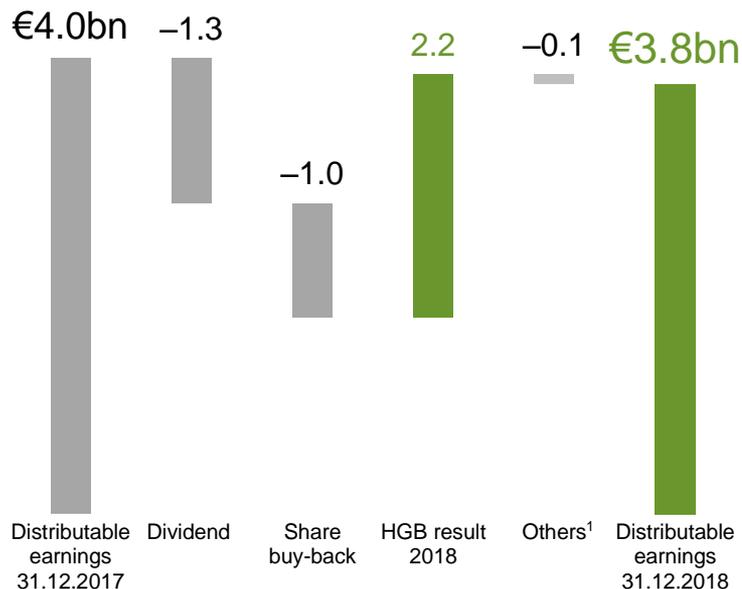


Part of the valuation reserves realised as a result of usual portfolio turnover and prudent ALM

1 In relation to total investments. 2 Sector average based on company data and analysts' research. 3 Fixed-income portfolio. 4 Write-ups/write-downs, derivatives, other income/expenses.

German GAAP (HGB) – Distributable earnings remain largely stable

HGB result is financing capital repatriation



HGB result 2017 €2.2bn

Underwriting result

Good underlying result led to substantial allocation to equalisation provision

-€0.1bn

Investment result

Lower regular income partly offset by disposal gains on real estate

-€0.5bn

Other

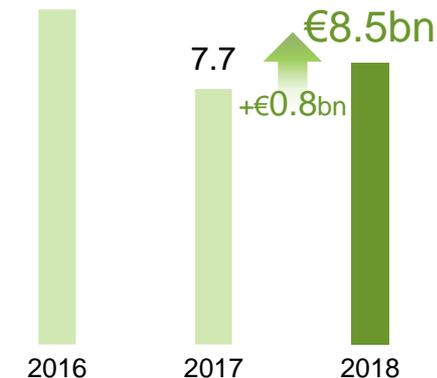
Higher FX result and lower tax expenses

+€0.6bn

HGB result 2018 €2.2bn

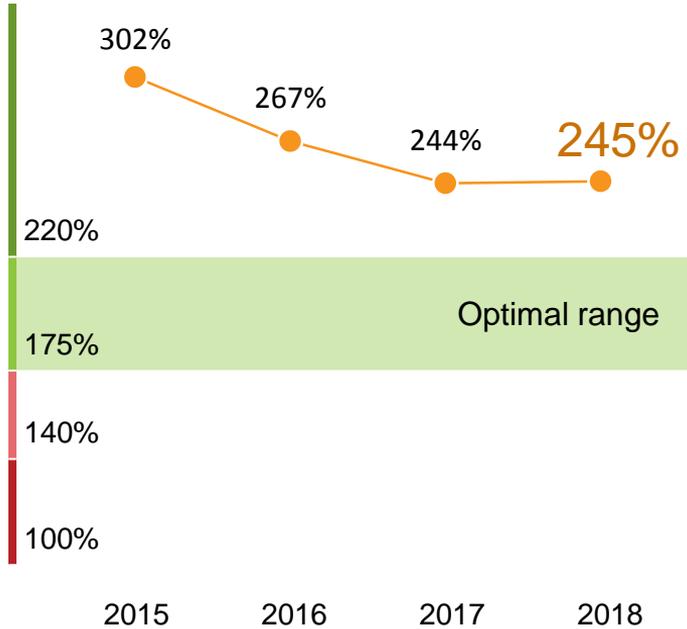
Equalisation provision

10.1

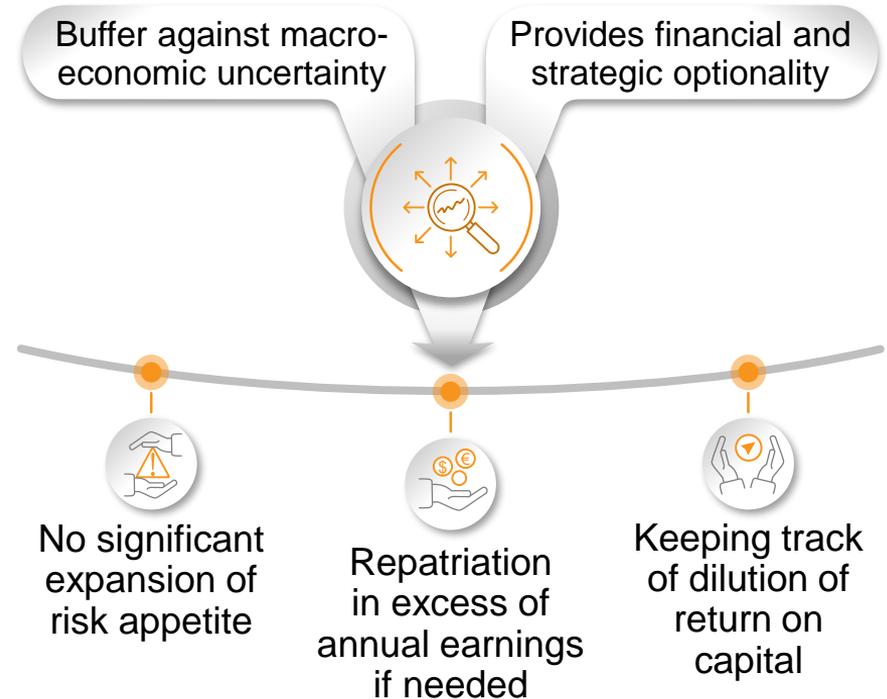


¹ Changes in restrictions on distribution.

Solvency II ratio – Stable capitalisation despite volatile capital markets



Keeping SII ratio above the optimal range



Solvency II ratio – Solid economic earnings offset slight increase in SCR



Economic earnings €1.9bn

EOF	€35.1bn	-0.1	3.2	-0.2	-1.1	0.2	€37.1bn	-1.1	€36.0bn
SCR	€14.4bn	-0.1	0.3	0.3	-0.2	-	€14.7bn	-	€14.7bn
SII capital generation		0.0	2.8	-0.5	-0.9	0.2	€1.7bn	-1.1	€0.6bn

1 Opening adjustments incl. M&A, regulatory model changes and other. 2 Operating impact and market variances pre-tax. 3 Change in non-available own fund items. 4 Foreseeable dividend for 2018 (€1.3bn), foreseeable share buy-back in 2019/20 (€1.0bn) and issuance of subordinated bond in 2018 (€1.25bn).

SCR increase due to business growth – Impact of volatile capital markets well absorbed

Eligible own funds



- Strong operating earnings in Reinsurance and ERGO
 - RI: High NBC² from L&H offset by large losses and initial prudence in P-C – ERGO: positive NBC in all segments
 - Sound expected in-force contribution across all segments
 - Positive variances in P-C RI (favourable run-off result)
- Issuance of hybrid debt slightly increased debt leverage

SCR before diversification

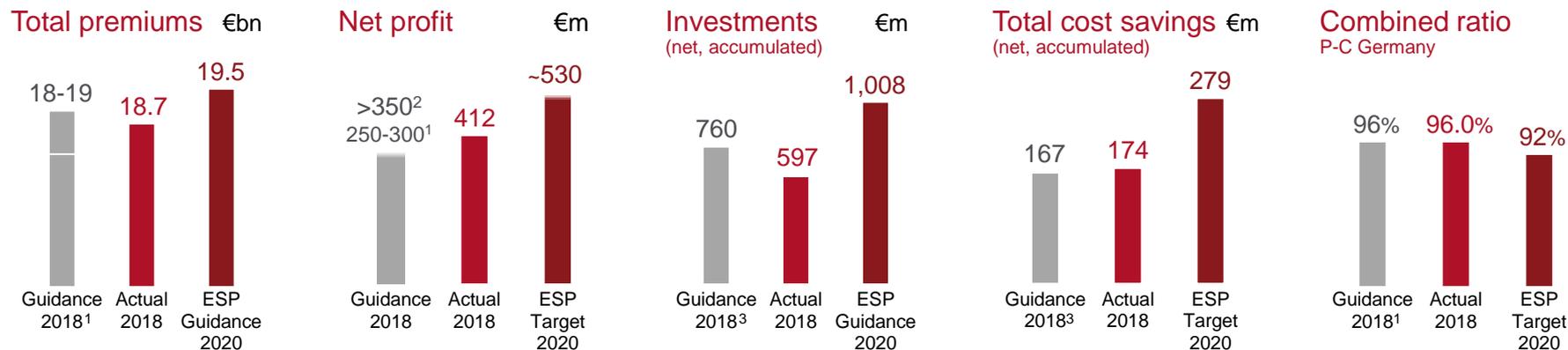
	2018	2017	▲
Property-casualty	7.6	6.3	+1.3
Life and Health	5.3	4.9	+0.4
Market	9.2	9.2	-0.0
Credit	3.2	3.4	-0.3

- Selective exposure growth in L&H and P-C Reinsurance
- Investments: Tight duration matching and some de-risking, e.g. reduction of equity exposure
- More balanced risk profile leads to higher diversification benefit

ERGO



ERGO Strategy Programme (ESP) on track – Consistent financial delivery and consequent strategic execution



ERGO Germany

GROUNDWORK FOR GROWTH

- Tied agent productivity increased by ~20%^{4,5}
- New business increased by ~10%, new business in Life increased by 25%^{4,5} driven by attractive product portfolio
- Overall cost savings (€174m of €279m) and FTE reduction (~1,240 of ~2,100) in plan

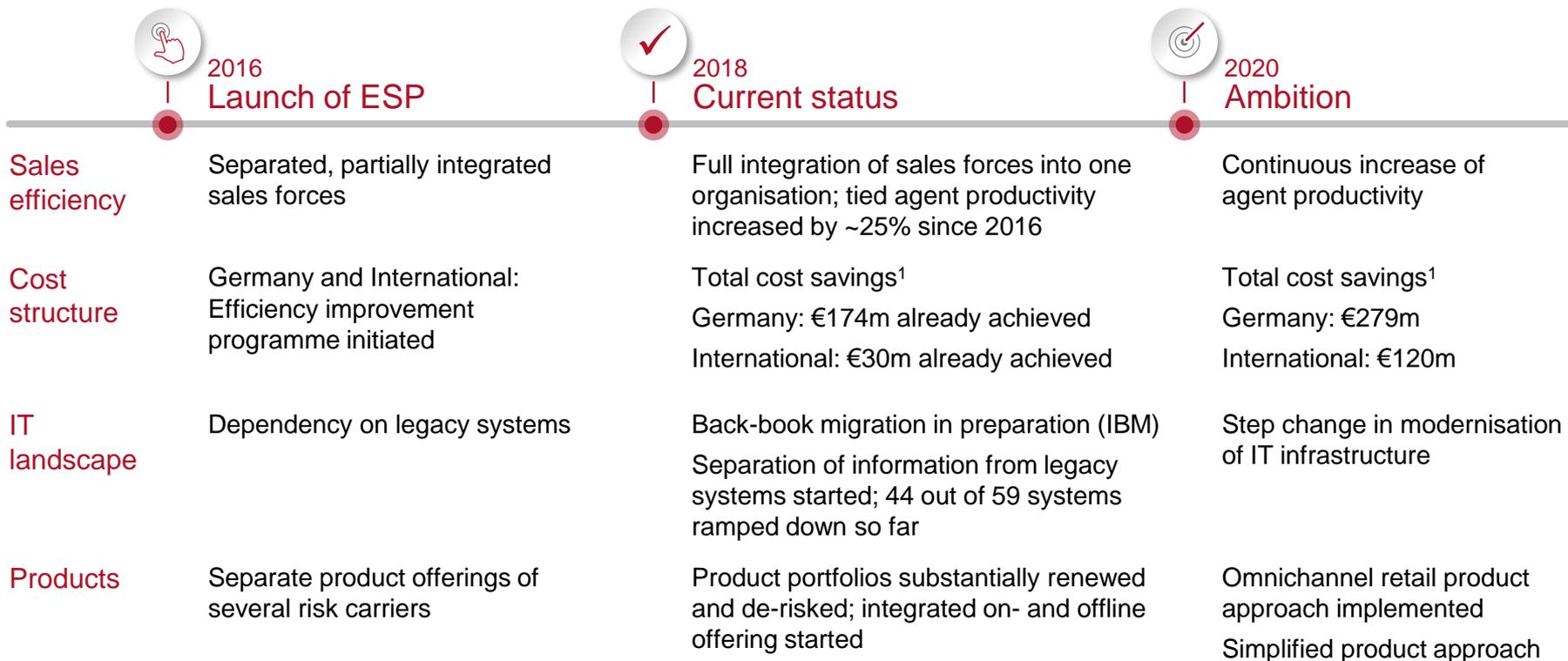
INNOVATION AND DIGITISATION

- nexible more than doubled⁵ number of policies to ~50,000
- Increasing number of use cases for robotics, voice and AI, modernisation of IT infrastructure on its way
- Number of users of ERGO-wide customer self-service portal increased by 31%⁵ to ~900,000

ERGO International

- Portfolio consolidation fully on track
- Increased profits in core markets esp. Poland, Baltics, Spain and Austria
- Strong premium development⁵ in India (+14%) and China (+45%)

ERGO Strategy Programme – Highlights



¹ Net, accumulated.

Framework for digitalisation at ERGO

Enabling technology and innovation

- Voice: Pioneer offering E2E insurance sale for travel insurance via Alexa
- Addressing industry trends
- AI and robotics: Accelerating process automation with first promising results
- Modernise IT infrastructure
- Legacy systems: First results replacing heterogeneous landscape by single IT Management Suite
- ERGO T&SM: Foundation for global IT governance
- Digital IT: Growing hubs in Berlin and Warsaw (~200 experts)

Improving existing business models

- Start of business model for hybrid customer
- Integrated product offering for German risk carriers
- Unified customer database and CRM tool
- Unified customer self-service portal with further increase in users (900k users, +31% y-o-y)
- OneWebsite to be launched in Q2 2019

Disrupting existing business models

- Start of purely digital player with motor product in 2017 (20k policies)
- Policies more than doubled in 2018 (50k policies, +150%)
- Soft market entry in Austria and second product (launch 2019) in preparation

Establishing new business models

ERGO Mobility Solutions as a partner of automotive and mobility industry

- Dedicated infrastructure
 - Highly qualified team
 - Automotive specific IT system
 - Automotive factory concept for operations and claims mgmt.
- Strategic investments in New Mobility ecosystem start-ups fair.com and Ridecell

Creating a digital culture and new way of working

- Digital Factory: Agile working initiated implementing the hybrid customer (25 teams); roll-out started targeting E2E process digitization (4 teams)
- Digital Morning: Regular dialogues to foster cultural transformation on major German ERGO sites (~200 participants/session)
- Transformation@ergo: Supplement to existing training programmes aiming at the requirements of a digital working environment

Life and Health Germany

Status 2018

GROSS PREMIUMS WRITTEN

€9.3bn (€9.2bn)



NET RESULT

€264m (€175m)

ROI

2.9% (3.5%)

Life

New IT platform: Reducing legacy risks, lifting efficiency gains

- Life portfolio management partnership with IBM
- Ramp-up phase successfully completed, migration of first tranche expected for Q1 2020
- Reduction of IT costs (sourcing/partnership) and realisation of efficiency gains

Maintain sustainable profitability

- Strengthen earnings potential of back book over time while maintaining financial stability
- Operational and organisational separation of classic life business completed
- Continued hedging programme via receiver swaptions and new interest-rate reinsurance programme to mitigate interest-rate risk

Health

Strong position in comprehensive insurance

- Stable and attractive earnings contribution
- Offering for online and hybrid customers further developed
- Position as second biggest insurer in German market (GWP: €3.7bn) confirmed

Market leadership in supplementary health

- Further growth in supplementary health business (+12%¹)
- ERGO clear market leader (GWP: €1.6bn) – expansion in long-term care and direct insurance
- Hybrid customer: All relevant supplementary health products available online

Property-casualty Germany

Status 2018

GROSS PREMIUMS WRITTEN

€3.4bn (€3.3bn)



NET RESULT

€45m (€57m)

COMBINED RATIO

96.0% (97.5%)

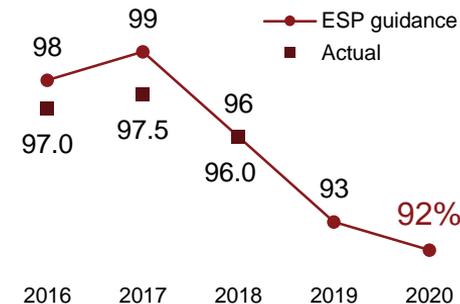
Combined ratio – On track to 92% target

Improvement driven by

- Top-line growth
- Decrease in expense ratio mainly driven by realisation of efficiency gains and decreasing ESP investments
- Decrease in claims ratio influenced by E2E digitalisation of claims processes, e.g. motor, further product lines planned

Products – Achievements in 2018

- Modularisation and simplification of retail product portfolio
- New IT back-end system and pricing engine for motor business implemented, ~7m policies migrated
- New motor tariff with simplified product model launched, further product optimisations planned
- Profitable premium growth in commercial and industrial business



International

Status 2018

GROSS PREMIUMS WRITTEN

P-C **€2.8bn** (€2.8bn)

Life **€0.8bn** (€0.9bn)

Health **€1.4bn** (€1.4bn)

NET RESULT

€103m (€40m)

COMBINED RATIO

94.6% (95.3%)

Strengthen presence in core markets

- **Poland and Baltics:** Significant contribution, continuous high profitability of motor business
- **Greece:** Bancassurance cooperation extended (10 years)
- **Spain Health:** Operational improvement leading to higher profit
- **Belgium Health:** Premium growth² (+7%), product portfolio de-risking started

Execute international optimisation

- Progress in defined portfolio optimisation: Sale of 13 entities¹
- Implementation of cost optimisation programme: Planned savings of ~€80m (gross, run rate) until 2020, efficiency measures on track

Capture opportunities in dedicated growth markets

- Positive development in major growth markets despite adverse currency effects
- **India:** Good premium growth² (+14%)
- **China:** Significant premium increase² (+45%)

Reinsurance



Good 2018 performance

PROPERTY-CASUALTY

NET RESULT

€1,135m (–€476m)

Sound underlying profitability despite higher frequency of smaller and medium-sized losses

COMBINED RATIO

99.4% (114.1%)

Close to original full-year target – underlying combined ratio ~99%

RESERVE RELEASES¹

4.6% (5.2%)

Absolute amount of reserve releases largely unchanged – confidence level preserved



LIFE AND HEALTH

NET RESULT

€729m (€596m)

Improvement in line with technical result and high investment result

TECHNICAL RESULT
INCL. FEE INCOME

€584m (€428m)

Significantly above guidance due to favourable claims experience and pleasing new business development

NEW BUSINESS CONTRIBUTION

€1.1bn (€1.1bn)

Again attractive level – driven by strong traditional business in NA and Asia as well as FinMoRe

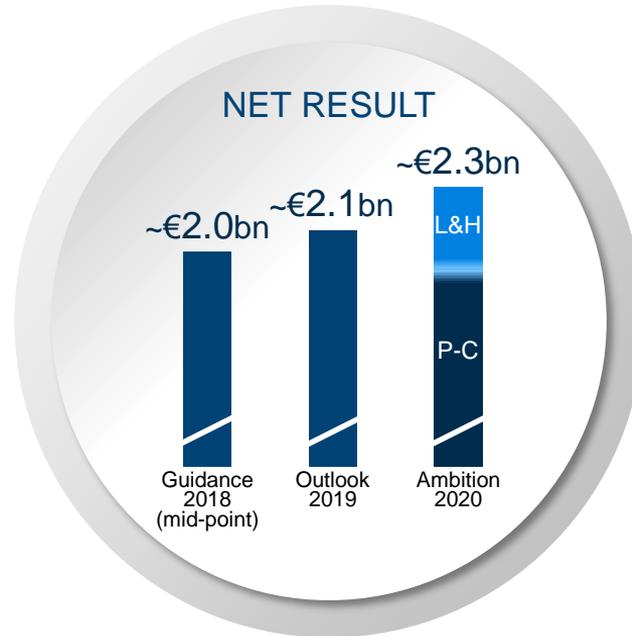
Reinsurance business delivers on 2020 ambition

PROPERTY-CASUALTY

Execution of growth strategy

- Profitable growth strategy gaining traction
- Portfolio mix can affect combined ratio without profitability implications
- Net result not only driven by pure technical result, but also by risk-free interest rates and non-technical income items
- Cost management to support combined ratio in 2019 and 2020

REINSURANCE



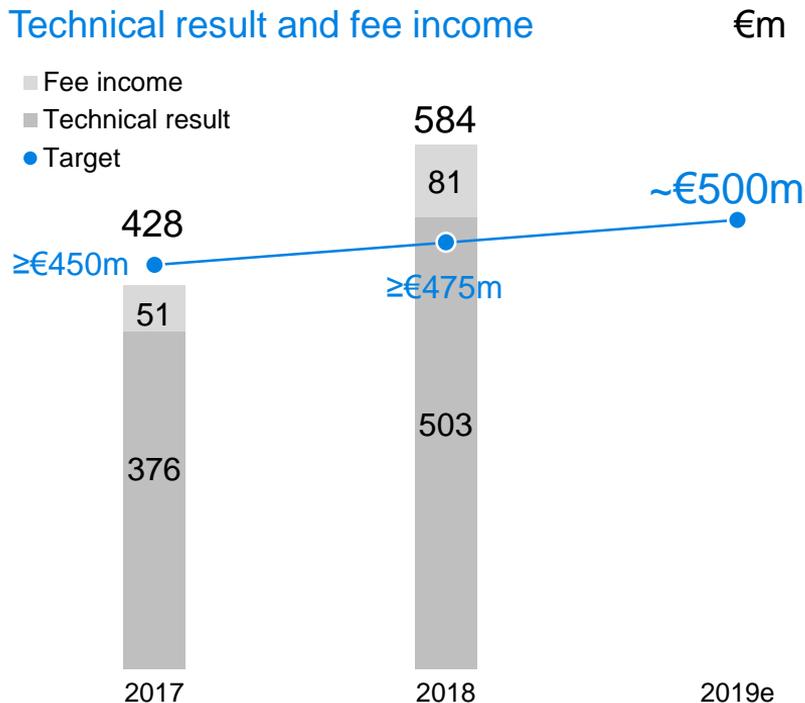
LIFE AND HEALTH

Growing result contributes to Group ambition

- Continuous earnings growth from vital new business proposition
- Active portfolio management may lead to short-term volatility while being accretive to earnings in the longer term

Sustainable new business proposition and active portfolio management foster earnings growth

Technical result and fee income



Steady earnings growth

- Strong footprint in traditional reinsurance as the core of new business generation
- Established initiatives (FinMoRe, Asia, asset protection, longevity) contributing to growth
- New reinsurance products and risk-related services
- Active portfolio management improving earnings stability and reducing strain from underperforming business
- Guidance 2019 assumes claims in the range of expectation and no major one-offs from in-force management

Munich Re is well positioned to profitably grow its core business fields and drive innovation in the industry



1 Sustainable new business proposition and active portfolio management

2 Effectively serving our clients and strengthening the business model

3 Reinforcing underlying profitability and growth

4 Building a diversified profit base – shaping and seizing opportunities in the digital transformation of the (re)insurance industry

1 | Well-diversified portfolio – New business growth opportunities in North America and Asia

Canada (€1.5bn / 14%)

- Attractive margins despite competitive environment
- Maintain leadership position in traditional reinsurance and financially-motivated business
- Develop multi-channel distribution initiative

UK / Ireland (€1.8bn / 16%)

- Successful FinMoRe and longevity proposition
- Unattractive margins in protection business
- Business set-up prepared for Brexit

Continental Europe (€1.1bn / 10%)

- Sound but stagnating traditional business overall
- Demand for tailor-made FinMoRe solutions

USA (€2.8bn / 26%)

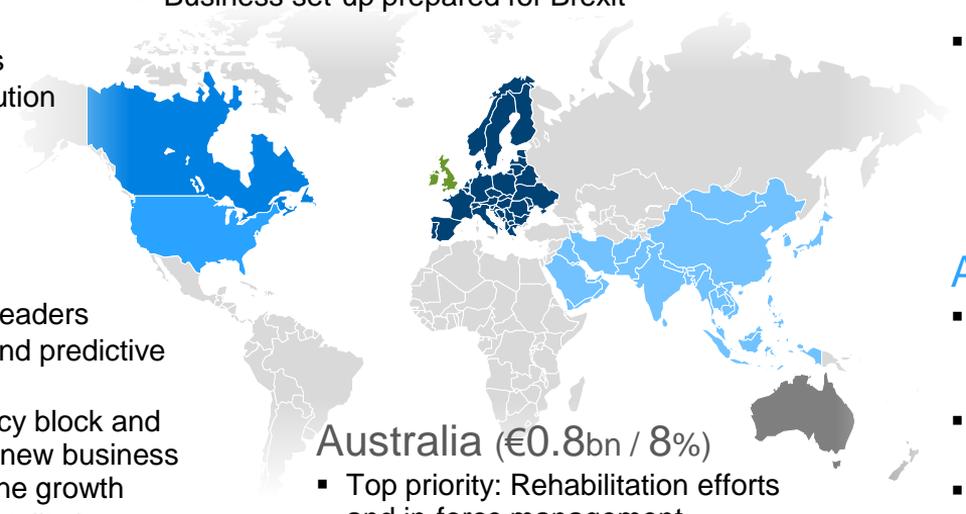
- Solid position among market leaders
- Develop FinMoRe business and predictive analytics to foster growth
- In-force management on legacy block and attractive risk-return profile in new business leads to sustainable bottom-line growth
- In-depth understanding of mortality key long-term success factor

Australia (€0.8bn / 8%)

- Top priority: Rehabilitation efforts and in-force management
- Highly selective new business proposition

Asia (€2.3bn / 22%)

- Pleasing development of new business including vital pipeline of FinMoRe solutions
- Substantial share of health reinsurance
- Product trends to be monitored closely, particularly in critical illness



2 | Strategic initiatives are delivering

BUSINESS GROWTH



Top position in core mature markets

- ✓ Expansion in currently under-represented segments/markets
- ✓ Stronger focus on US regional business
- ✓ Selective expansion of cat XL business

Smart growth in core emerging markets

- ✓ Focus on Asia, Latin America and Africa
- ✓ Expansion of specialty business, e.g. agro, marine, credit/mortgage
- ✓ Public-sector development – closing the protection gap

Capital management solutions

- ✓ Expanding global footprint
- ✓ Diversifying portfolio

BUSINESS EXCELLENCE



Living client centricity

- ✓ Regional centers successfully implemented
- ✓ ADVANCE¹ with strong response

First-class underwriting and risk management

- ✓ Invest in in-house cyber expertise and technology partnerships

Efficient and agile processes

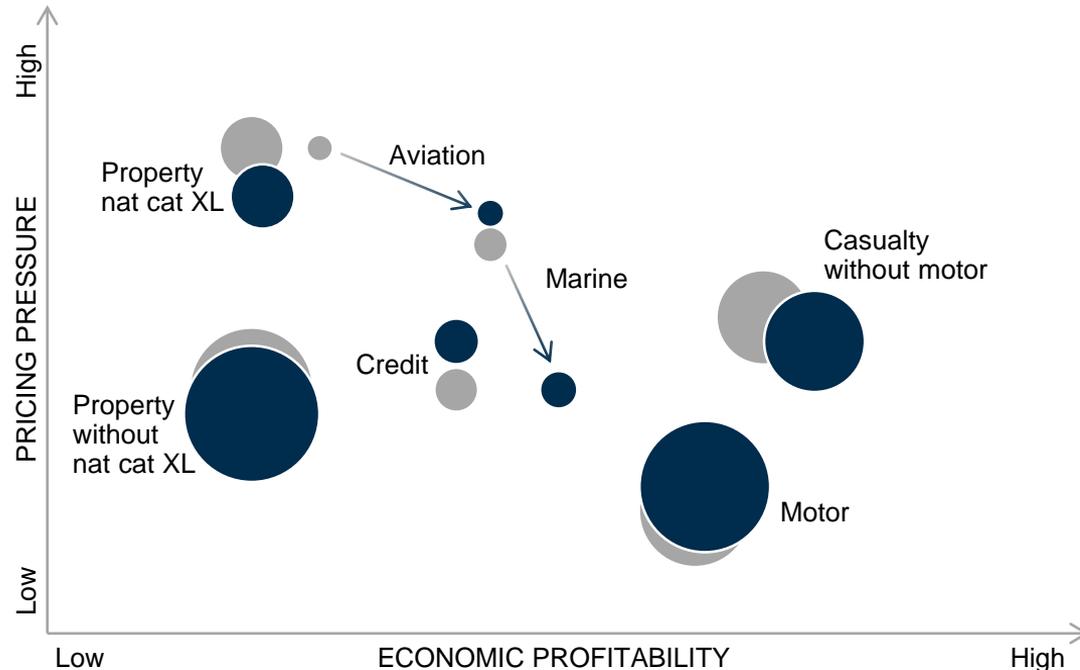
- ✓ Complexity and cost reduction
- ✓ Digitalisation of selective processes and functions
- ✓ Global IT transformation

¹ Renewed top-talent programme for clients.

2 | Consistently managing portfolio quality – Profitability comfortably exceeds cost of capital

Traditional P-C portfolio – Outlook 2019¹

ILLUSTRATIVE

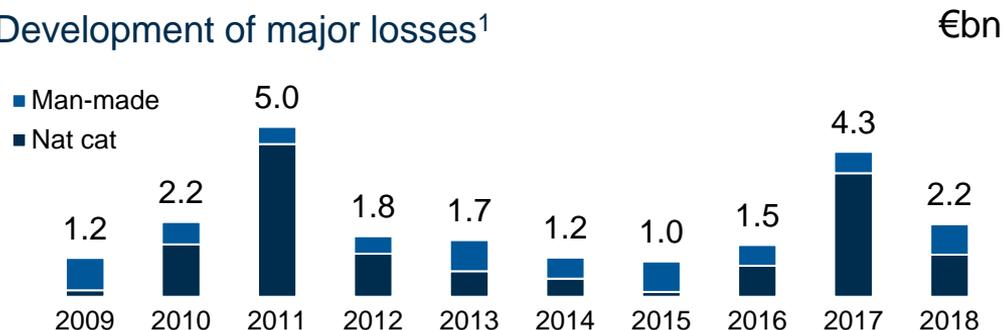


- Quite stable portfolio composition
- Varying pricing trends depending on distinct geographies and lines of business
- Favourable development in some specialty lines
- Upcoming renewals to determine situation on cat XL markets
- Overall economic profitability of portfolio slightly increased, not fully reflected in (normalised) combined ratio

¹ Bubble size reflecting gross premiums written as at 31.12.2018 (grey) – Outlook 2019 (blue).

2 | Large-loss experience in line with expectation overall

Development of major losses¹



Number of major events

■	30	25	28	31	31	33	41	28	28	50
■	9	14	18	13	18	13	13	14	16	18

Munich Re's experience in 2018

Cautious loss picks for prior years' major claims facilitating positive run-off over time, resulting in an 11.6%-point major-loss ratio close to average expectation (~12%)



Consistent underwriting action ...

- Update models, pricing and underwriting for visible trends and topics
- Develop understanding for new categories of loss relationships or indirect drivers of losses



... and client-centered solutions

- Offer protection where feasible
- Develop new covers for clients' needs, e.g. US flood cover
- Support clients in risk mitigation measures, e.g. building code promotion

¹ Fiscal-year view. Nat cat: Earthquake in 2011, hurricanes and wildfires in 2017, typhoons and wildfires in 2018. Man-made: Continuous number of fire losses – Other categories fluctuate more (e.g. satellite, mining)

3 | Risk Solutions: 2018 marked by nat cat and other large losses – Foundations set to capture profitable growth

GROSS
EARNED
PREMIUMS

€4.3bn (€4.5bn)

Stable portfolio –
reduction solely
driven by FX effects



COMBINED
RATIO

103.4% (106.7%)

Strongly impacted
by large loss events,
normalised ambition
(combined ratio in the
mid-nineties) still intact



Munich Re Specialty Insurance – New growth platform for commercial specialty insurance

- Munich Re's commercial specialty insurance units in North America brought together in one unit under one brand, with a strong growth ambition
- Mutual benefits for clients, distribution partners and Munich Re
 - Center of excellence with underwriting capabilities, capacity, risk insights, advanced technology and claims expertise
 - Broad solution portfolio available out of one hand
- Targeting mid-market segment across P-C and Specialty Lines including excess and surplus lines business

Munich Re Syndicate Ltd. – Focusing growth on leading Lloyd's syndicate

- Growing MRSL from a leading marine and energy Lloyd's syndicate into a diversified Specialty syndicate and leading digital syndicate
- Investments in IT and process automation
- Divestment of MSP Underwriting Ltd.

4 | We focus on tangible business impact – Innovative and more disruptive offerings are gaining traction

MUNICH RE STRATEGIC ADVANTAGES

Domain expertise in underwriting, claims, risk management

Efficient access to new solutions

Global presence

Financial strength

Strong brand and reputation

No IT legacy

Details on next slides

Reshuffling the value chain

- Digital cooperation models (e.g. Digital Partners, SaveUp)
- IoT applications and services (via HSB/relayr)

Expanding the boundaries of insurability

- Cyber (re)insurance: GWP 2018 US\$ 473m, low loss ratios, stringent accumulation control
- Cyber embedded service solutions and growing cooperation network, e.g. DXC Technology
- Insurance of AI technology

Data-driven solutions

- Digitally augmented underwriting/claims solutions for our cedants (e.g. Realytix, Improvex, Non-Life Analytics Platform)

Investments in technology and people

- Cutting-edge AI cooperations (e.g. DFKI¹ membership)
- Global analytics organisation and infrastructure in place
- Data science community >200 FTEs

Strategic investments in partnerships

- >€130m invested² in >20 companies (e.g. Team 8) focusing on InsurTech, IoT, data analytics and AI
- Focus on joint value creation

¹ German Research Centre for Artificial Intelligence (DFKI). ² Excluding acquisitions, e.g. relayr.

4 | Digital Partners – Building digital insurance with partners

DIGITAL DISTRIBUTION

Making insurance like the rest of the internet

Examples

 nextinsurance



DIGITAL ECONOMY

Insuring the sharing and gig economies

Examples

 trōv



DIGITAL DATA

Using new sources of data to price risk better

Examples



VALUE PROPOSITION

Global multi-line capacity

Product design and data

Agile delivery

Venture capital

Flexible technical architecture

ACHIEVEMENTS

- ✓ Growth above expectation
- ✓ Larger partnerships including BMW UK and Google Waymo
- ✓ Pleasing loss development
- ✓ Strong international expansion (US, Europe, Asia)

4 | Internet of Things – Developing insurance, finance and technology solutions

SME

MID to LARGE

LARGE INDUSTRIAL



Insurance and financial solutions

Loss prevention via sensor deployment

End-to-end IoT implementations

Financial asset and risk management

Direct (HSB) or white-labelling for insurers

Direct (HSB/relayr)

Direct/via industry partners

We bring the technology

Partners bring the technology

- Acquisition of **meshify**
- Turnkey IoT solutions in place¹
- Ongoing commercialisation

- Acquisition of relayr.

- Partnerships with leading IoT industrials



¹ Applications monitored include water detection, freeze loss, perishable goods, mould and more.

Additional
information



SII ratios of Munich Re (Group) and solo entities¹

As at 31.12.2018

	€bn	EOF (without LTG)	SCR (without LTG)	S-II ratio (without LTG)	S-II ratio (incl. LTG)
Internal model	Munich Re (Group)	36.0	14.7	245%	295%
	Munich Reinsurance Company	36.3	14.7	247%	299%
	Munich Re of Malta	2.7	0.6	440%	–
	Great Lakes	0.4	0.2	257%	–
	ERGO Versicherung AG	2.3	0.5	448%	–
	DKV Deutschland	3.0	0.9	340%	–
Standard formula	ERGO Leben	2.1 ³	2.0	105%	338%
	Victoria Leben	1.4 ⁴	0.9	154%	399%
	ERGO Vorsorge Leben	0.2	0.1	235%	–
	ERGO Direkt ⁵	1.1	0.4	286%	–
	ERGO Austria	0.5 ⁶	0.3	153%	309%
	ERGO Belgium Life	0.6 ⁷	0.3	232%	278%
	ERGO Poland P-C (PLN bn)	2.5	1.7	148%	–

¹ Entities with internal model and selected companies with standard formula application. ² Pro-forma, deducting impact of LTG measures from ERGO Leben and Victoria Leben.

³ EOF with transitionals = €6.7bn; without volatility adjustment. ⁴ EOF with transitionals = €3.4bn; without volatility adjustment. ⁵ SCR-weighted average of ERGO Direkt companies. ERGO Direkt

Versicherung AG applies an internal model, the life and health companies apply standard formula. ⁶ EOF with transitionals = €0.9bn; without volatility adjustment. ⁷ EOF with volatility adjustment = €0.8bn.

Munich Re (Group) – Economic earnings 2018

Outlook 2019: >€2.5bn

€bn	Actual
Operating impact	3.2
New business contribution	0.1
Expected in-force contribution	2.0
Operating variances in-force business	1.6
Debt costs	-0.2
Other, including holding costs	-0.4
Market variances	-0.2
Other including tax	-1.1
Other, non-operating and non-market changes	-0.5
Tax	-0.6
Economic earnings 2018	1.9

Operating impact

- Positive operating impact from Reinsurance and ERGO
- New business contribution includes major losses above expectation for first development year and prudency margin in P-C Reinsurance
- Expected in-force contribution mainly driven by expected excess return from risk-bearing assets based on “real world” assumptions (€1.7bn) and unwind of risk margin
- Positive operating variances in in-force business mainly from prior year development in P-C Reinsurance, including release of prudency

Market variances

- Variances from “real world” assumptions with high countervailing effects
- Economic gains from revaluation of real estate, foreign currencies and other¹ compensate for economic losses from credit spreads, equities and risk-free interest rates

Other, including tax

- Taxes on economic earnings components as all other line items are disclosed pre-tax

¹ Primarily related to illiquid investments: property, infrastructure, forestry, hedge funds, private equity.

P&L attribution –

Positive operating impact in RI and ERGO

Munich Re (Group) 2018 €bn	Reinsurance L/H	Reinsurance P-C	ERGO L/H Germany	ERGO P-C Germany	ERGO International	Munich Re (Group)
Operating impact	1.3	1.2	0.6	0.2	-0.1	3.2
New business contribution	1.1	-1.5	0.1	0.1	0.3	0.1
Expected in-force contribution	0.6	1.1	0.3	0.1	0.1	2.0
Operating variances in-force business	-0.3	1.8	0.2	0.2	-0.3	1.6
Debt costs	0.0	-0.1	-0.1	0.0	0.0	-0.2
Other, including holding costs	0.0	-0.1	0.0	-0.1	-0.2	-0.4
Market variances	0.3	0.2	-0.5	0.0	-0.2	-0.2
Other, including tax	-0.5	0.0	-0.3	-0.2	0.0	-1.1
Other, non-operating and non-market changes	-0.1	0.0	-0.2	-0.1	-0.1	-0.5
Tax	-0.5	0.0	-0.1	0.0	0.0	-0.6
Economic earnings	1.0	1.4	-0.3	0.1	-0.4	1.9

IFRS capital position

Equity

		€m
Equity 31.12.2017	28,198	
Consolidated result	2,275	238
Changes		
Dividend	-1,286	0
Unrealised gains/losses	-2,129	-595
Exchange rates	345	120
Share buy-backs	-1,014	-397
Other	111	17
Equity 31.12.2018	26,500	-617

Unrealised gains/losses

Fixed-interest securities

2018: -€1,216m Q4: €134m

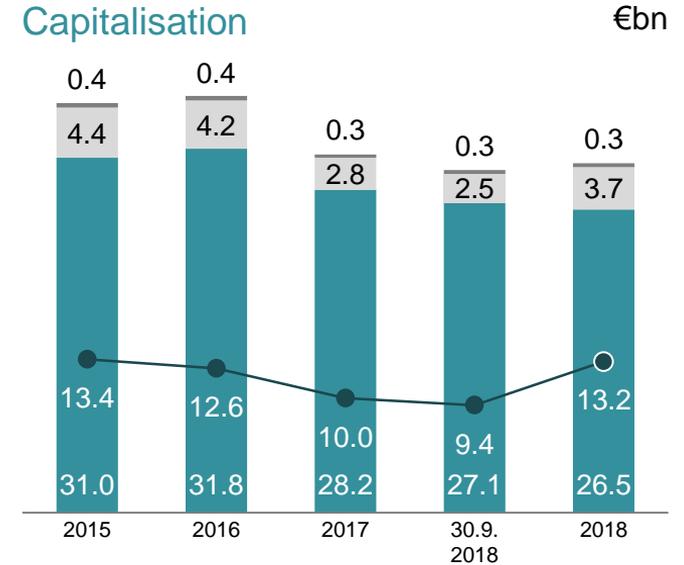
Non-fixed-interest securities

2018: -€896m Q4: -€731m

Exchange rates

FX effect mainly driven by US\$

Capitalisation



- Debt leverage¹ (%)
- Senior and other debt²
- Subordinated debt
- Equity

1 Strategic debt (senior, subordinated and other debt) divided by total capital (strategic debt + equity).
2 Other debt includes Munich Re bank borrowings and other strategic debt.

Premium development

Gross premiums written €m

2017  49,115

Foreign exchange  -1,287

Divestments/
investments 0

Organic change  1,235

2018  49,064

Segmental breakdown €m

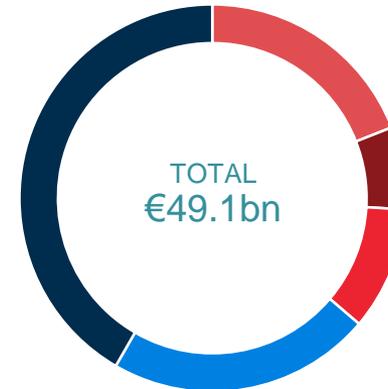
Reinsurance
Property-casualty
20,437 (42%) (▲ 14.5%)

Reinsurance
Life and Health
10,849 (22%) (▲ -21.0%)

ERGO
Life and Health Germany
9,345 (19%) (▲ 1.5%)

ERGO
Property-casualty Germany
3,377 (7%) (▲ 2.5%)

ERGO
International
5,057 (10%) (▲ 0.3%)



Reconciliation of operating result with net result

Reconciliation of operating result with net result

	2018	Q4 2018	€m
Operating result	3,725		404
Other non-operating result	-672		-56
Goodwill impairments	-6		0
Net finance costs	-196		-49
Taxes	-576		-61
Net result	2,275		238

Other non-operating result (€m)

	2018	Q4 2018
Foreign exchange	-39	115
Restructuring expenses	-90	-29
Other	-543	-142

Tax rates (%)

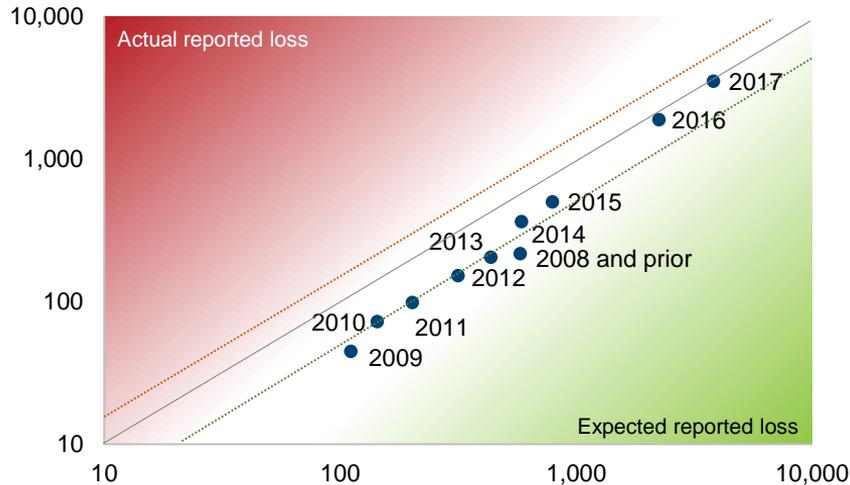
	2018	Q4 2018
Group	20.2	20.5
Reinsurance	19.7	9.9
ERGO	22.4	43.6

Very strong reserve position – Actual losses continue to be consistently below actuarial expectations

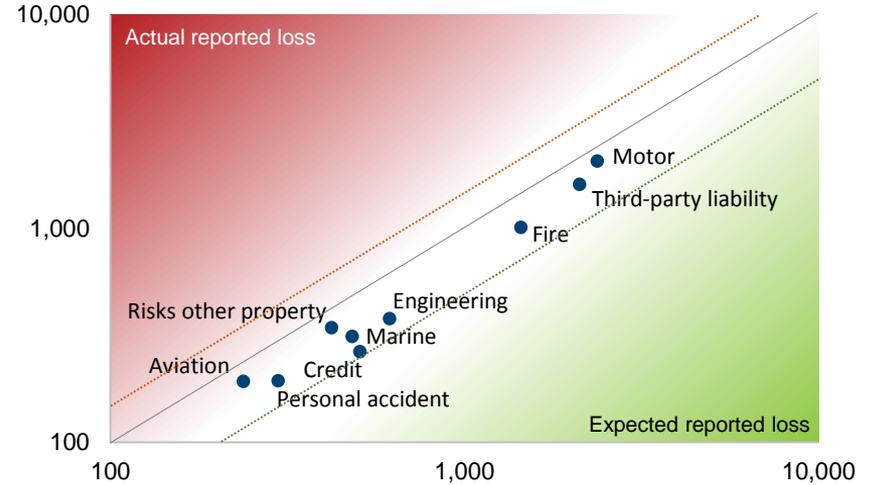
Reinsurance group – Comparison of incremental expected losses with actual reported losses¹

€m

By exposure year



By line of business



Actuals for first run-off year (2017) are around 10% below expectations – consistent with picture in previous years

Very stable actual-versus-expected development per line of business

Legend: **Green** Actuals below expectation **Red** Actuals above expectation **Solid line** Actuals equal expectation **Dotted line** Actuals 50% above/below expectations

¹ Reinsurance group losses as at Q4 2018, not including parts of Risk Solutions, special liabilities and major losses (i.e. events of over €10m for Munich Re's share).

Reserve position remains strong – Positive run-off result without weakening resilience against future volatility

Ultimate losses¹ – Favourable actual-vs.-expected comparison facilitates ultimate reductions for prior years

€m	Accident year												Total
	≤2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018		
31.12.2008	52,184												
31.12.2009	51,699	13,098											
31.12.2010	51,074	13,029	13,394										
31.12.2011	50,556	12,565	13,569	17,385									
31.12.2012	49,563	12,448	13,457	17,479	14,362								
31.12.2013	49,090	12,441	13,543	17,206	14,141	14,219							
31.12.2014	48,489	12,119	13,573	16,807	13,943	14,437	14,124						
31.12.2015	47,826	11,911	13,380	16,683	13,740	14,403	14,169	13,433					
31.12.2016	47,529	11,874	13,160	16,225	13,708	14,113	14,154	13,489	14,308				
31.12.2017	47,385	11,855	13,031	16,197	13,605	14,013	13,942	13,285	14,168	17,425			
31.12.2018	46,885	11,654	12,864	15,910	13,351	13,747	13,682	13,084	14,205	17,450	17,663		
CY 2018 run-off change	499	201	167	286	254	266	260	202	-37	-25	-	2,073	
CY 2018 run-off change (%)	1.1	1.7	1.3	1.8	1.9	1.9	1.9	1.5	-0.3	-0.1	-	-1.2	

Reinsurance² €2,015m
ERGO €58m

¹ Basic and major losses; accident-year split partly based on approximations. Adjusted to exchange rates as at 31.12.2018.
² Basic losses: 1,151m, major losses: €664m.

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

Actual vs. expected

Changes in projection

Business rationale

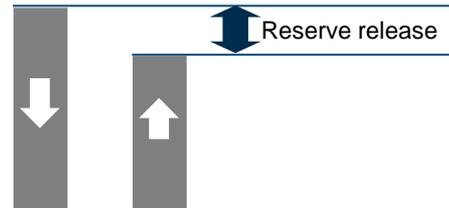
Property



Specialty¹



Casualty



Releases follow favourable indications

- Positive actual-versus-expected indications
- Short-tail lines develop relatively quickly
- Releases spread across various property lines of business

Favourable loss development leads to release

- Favourable indications across all lines
- Reserve release primarily in marine

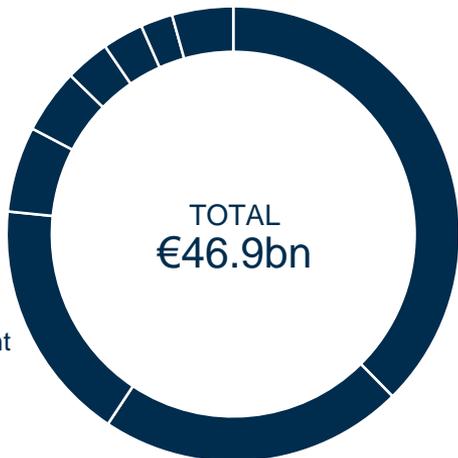
Small releases despite favourable indications

- Deliberately small reserve release, despite favourable overall actual-versus-expected development
- Releases² in personal accident and third-party liability
- Cautious reaction to signs of deterioration in selected casualty portfolios

Property-casualty provision for outstanding claims

By line of business

Other	4 (4)
Aviation	2 (3)
Credit	3 (3)
Marine	3 (4)
Personal accident	5 (5)
Engineering	6 (6)
Fire	17 (18)



%

Third-party liability
38 (37)

By maturity

>15 years	4 (5)
10–15 years	4 (4)
5–10 years	11 (12)
4–5 years	5 (5)
3–4 years	8 (8)
2–3 years	12 (12)



%

0–1 years
36 (35)

1–2 years
20 (20)

Motor
22 (21)

Asbestos and environmental survival ratio 31 December 2018

Munich Re (Group) – Net definitive as at 31 December 2018¹

€m

	Asbestos	Environmental	A&E total
Paid	3,197	971	4,168
Case reserves	449	128	577
IBNR	660	180	840
Total reserves	1,109	308	1,417
3-year average annual paid losses ²	68	22	90
Survival ratio 3-year average ² %	16.3	14.0	15.8

Investment result

Investment result (€m)

	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income	1,659	2.9%	6,586	2.8%	6,438	2.7%
Write-ups/write-downs	-579	-1.0%	-1,054	-0.5%	-241	-0.1%
Disposal gains/losses	670	1.2%	1,582	0.7%	2,494	1.1%
Derivatives ²	118	0.2%	103	0.0%	-470	-0.2%
Other income/expenses	-206	-0.4%	-691	-0.3%	-609	-0.3%
Investment result	1,661	2.9%	6,526	2.8%	7,611	3.2%
Total return		2.2%		1.4%		1.9%

3-month reinvestment yield	Q4 2018		Write-ups/ write-downs	Disposal gains/losses	Derivatives	2018		Write-ups/ write-downs	Disposal gains/losses	Derivatives
Q4 2018	2.1%	Fixed income ³	-19	291	-25	Fixed income ³		-24	744	-120
Q3 2018	2.5%	Equities	-650	305	362	Equities		-964	739	341
Q2 2018	2.3%	Commodities/inflation	26	0	-123	Commodities/inflation		-3	0	-23
Q1 2018	1.9%	Other	64	74	-96	Other		-62	99	-94

1 Annualised return on quarterly weighted investments (market values) in %. Impact from dividends on regular income: Q4 2018 0.2%-pts; 2018 0.3%-pts.

2 Result from derivatives without regular income and other income/expenses. 3 Thereof interest-rate hedging ERGO 2018 Q4: €26m/€3m (gross/net); 2018: €6m/-€4m (gross/net).

Return on investment by asset class and segment

2018

% ¹	Regular income	Write-ups/-downs	Disposal result	Extraord. derivative result	Other inc./exp.	RoI	Market value (€m)
Afs fixed-income	2.3	0.0	0.4		0.0	2.7	124.717
Afs non-fixed-income	3.6	-5.7	4.4		0.0	2.3	16.878
Derivatives	8.2			5.6	0.0	13.4	1.836
Loans	2.9	0.0	0.3		0.0	3.2	64.656
Real estate	5.4	0.5	0.3		0.0	6.3	8.985
Other ²	3.9	-0.8	0.5		0.0	-1.2	14.121
Total	2.8	-0.5	0.7	0.0	-0.3	2.8	231.193
Reinsurance	2.9	-0.7	1.0	0.0	-0.4	2.9	86.496
ERGO	2.8	-0.3	0.5	0.1	-0.3	2.8	144.696

—●— Return on investment — Average 3.1%



Investment portfolio

Investment portfolio

Land and buildings
4.6 (3.4)

Shares, equity funds
and participating
interests²
6.2 (7.3)

Miscellaneous³
7.7 (6.2)



Fixed-interest securities
53.8 (54.9)

%

Loans
27.7 (28.2)

%

Deposits on
reinsurance
41 (40)

Miscellaneous

Other
22 (21)

Derivatives⁴
9 (7)

Investment funds⁵
10 (10)

Bank deposits
18 (22)



Fixed-interest securities¹

Structured products
3 (3)

Corporates
17 (17)

Banks
2 (2)

Pfandbriefe/
Covered bonds
14 (14)



Governments/
Semi-government
64 (64)

%

Cash/Other
0 (0)

Loans¹

Loans to policyholders/
mortgage loans
12 (11)

Corporates
2 (2)

Banks
2 (3)



Governments/
Semi-government
41 (41)

%

Pfandbriefe/
Covered bonds
44 (44)

1 Approximation – not fully comparable with IFRS figures. Fair values as at 31.12.2018 (31.12.2017). 2 Net of hedges: 5.2 (6.7%). 3 Deposits retained on assumed reinsurance, deposits with banks, investment funds (excl. equities), derivatives and investments in renewable energies and gold. 4 Non-fixed derivatives. 5 Non-fixed property funds and non-fixed bond funds

Fixed-income portfolio

Total

Fixed-income portfolio

Bank bonds
2 (2)

Structured products
2 (2)

Loans to policyholders/
Mortgage loans
4 (3)

Cash/Other
5 (4)

Corporates
12 (11)

Pfandbriefe/
Covered bonds
23 (23)



%
Governments/
Semi-government
53 (54)

Fixed-income portfolio

Total

Rating structure



Maturity structure



%

AAA
43 (43)

AA
25 (24)

A
13 (12)

%

0-1 years
10 (8)

1-3 years
13 (13)

3-5 years
13 (13)

5-7 years
13 (12)

Regional breakdown

%

	Without policyholder	With participation	Total 31.12.2018	Total 31.12.2017
Germany	5.3	23.0	28.2	28.3
US	12.9	1.4	14.3	14.5
France	2.4	5.6	8.1	8.0
UK	2.8	2.1	4.9	5.1
Canada	4.0	0.5	4.5	4.4
Netherlands	1.5	3.0	4.5	4.3
Supranationals	0.7	3.0	3.7	3.9
Spain	1.0	1.9	2.8	3.0
Australia	2.4	0.4	2.8	2.7
Austria	0.4	2.1	2.5	2.3
Belgium	0.7	1.6	2.3	2.2
Ireland	0.8	1.4	2.1	2.1
Italy	0.7	1.0	1.7	2.3
Poland	1.2	0.5	1.7	1.5
Sweden	0.2	1.3	1.6	1.5
Other	6.7	7.5	14.2	13.8
Total	43.7	56.3	100.0	100.0

Fixed-income portfolio

Governments/semi-government

Rating structure

<BB
0 (0)

BB
2 (2)

BBB
7 (9)

A
15 (13)



Maturity structure

>10 years
42 (45)

7–10 years
15 (16)



%
AAA
43 (44)

AA
33 (32)

%
0–1 years
10 (8)

1–3 years
13 (12)

3–5 years
10 (9)

5–7 years
10 (10)

Regional breakdown

	Without policyholder	With participation	Total 31.12.2018	Total 31.12.2017	%
Germany	3.8	21.4	25.1	25.6	
US	14.6	1.0	15.6	16.1	
Suprationals	1.3	5.6	6.9	7.3	
Canada	5.7	0.5	6.2	6.0	
France	2.1	2.5	4.6	4.1	
Belgium	1.1	2.8	3.9	3.7	
Spain	1.3	2.4	3.7	4.2	
Australia	3.5	0.0	3.6	3.3	
Austria	0.6	2.8	3.4	3.0	
Poland	2.2	0.9	3.1	2.7	
UK	2.7	0.0	2.7	3.0	
Finland	0.3	1.9	2.2	2.1	
Netherlands	0.8	1.3	2.2	2.0	
Italy	1.0	1.1	2.1	3.0	
Ireland	0.4	1.3	1.7	1.9	
Other	7.5	5.5	13.0	12.0	
Total	48.8	51.2	100.0	100.0	

Fixed-income portfolio

Pfandbriefe/covered bonds

Rating structure

NR
1 (1)

BBB
1 (1)

A
4 (4)

AA
21 (20)



Maturity structure

>10 years
25 (28)



7–10 years
19 (24)

%
AAA
74 (74)

Regional breakdown

Germany
France
UK
Netherlands
Sweden
Norway
Spain
Italy
Ireland
Other

	31.12.2018	31.12.2017
Germany	37.7	37.1
France	19.7	20.0
UK	8.4	8.6
Netherlands	7.8	8.0
Sweden	6.0	6.1
Norway	5.7	5.9
Spain	2.0	2.1
Italy	1.0	1.0
Ireland	0.3	0.3
Other	11.5	11.1

%
0–1 years
7 (4)

Cover pools

Mixed and other
10 (11)

1–3 years
12 (12)

3–5 years
18 (16)

5–7 years
19 (16)

Public
29 (30)

%
Mortgage
61 (59)





Fixed-income portfolio

Corporate bonds (excluding bank bonds)

Rating structure

NR
1 (0)

<BB
2 (1)

BB
12 (12)

BBB
60 (55)



Maturity structure

>10 years
21 (22)

7–10 years
13 (14)

5–7 years
16 (16)



%

AAA
2 (1)

AA
4 (5)

A
20 (25)

%

0–1 years
10 (7)

1–3 years
19 (19)

3–5 years
22 (22)

Regional breakdown

	31.12.2018	31.12.2017
Utilities	16.2	16.5
Industrial goods and services	13.7	13.6
Oil and gas	11.9	11.1
Financial services	9.0	8.0
Telecommunications	7.9	9.1
Healthcare	7.3	7.1
Technology	4.8	5.7
Media	4.1	3.4
Food and beverages	3.7	4.1
Personal and household goods	3.7	3.7
Retail	3.3	3.3
Construction	3.1	2.9
Automobiles	3.0	3.5
Other	8.3	8.1



Fixed-income portfolio

Structured products

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

%

		Rating					Region		Total	Market-to-par	
		AAA	AA	A	BBB	<BBB	NR	USA + RoW			Europe
ABS	Consumer-related ABS ¹	157	92	21	26	0	0	159	137	295	100%
	Corporate-related ABS ²	5	2	283	40	0	0	0	329	329	100%
	Subprime HEL	0	1	0	0	0	0	1	0	1	95%
CDO/ CLN	Subprime-related	0	0	0	0	0	0	0	0	0	0%
	Non-subprime-related	472	1,030	53	17	0	0	434	1,138	1,572	99%
MBS	Agency	995	30	0	0	0	0	1,025	0	1,025	102%
	Non-agency prime	10	49	18	0	0	0	1	75	77	100%
	Non-agency other (not subprime)	94	40	3	0	0	0	33	105	138	99%
	Commercial MBS	484	21	0	5	0	0	455	55	510	100%
Total 31.12.2018		2,217	1,264	378	89	0	0	2,107	1,840	3,947	100%
In %		56%	32%	10%	2%	0%	0%	53%	47%	100%	
Total 31.12.2017		1,915	1,218	422	138	0	15	1,936	1,771	3,708	101%

Fixed-income portfolio

Bank bonds

Rating structure



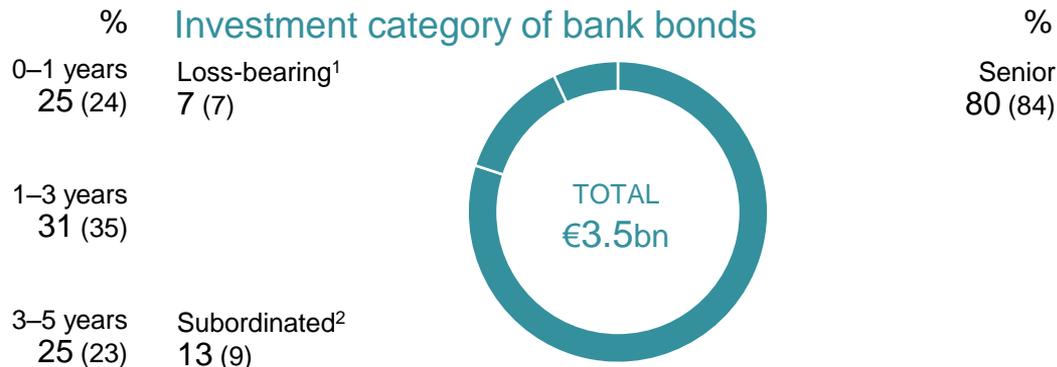
Maturity structure



Regional breakdown

	Senior bonds	Subordinated	Loss-bearing	Total	
				31.12.2018	31.12.2017
US	35.8	6.9	0.6	43.4	39.2
Germany	5.9	1.2	4.6	11.8	20.7
Ireland	8.5	0.2	0.0	8.6	7.7
UK	7.0	0.5	0.4	7.8	7.3
Canada	5.1	0.4	0.0	5.4	3.3
France	2.5	0.9	1.4	4.8	4.7
Guernsey island	2.6	0.0	0.0	2.6	1.1
Belgium	2.1	0.0	0.0	2.1	1.5
Austria	0.6	0.8	0.0	1.5	1.1
Other	9.8	2.0	0.1	12.0	13.3
AA					
12 (7)					
A					
40 (49)					

Investment category of bank bonds



¹ Classified as Tier 1 and upper Tier 2 capital for solvency purposes. ² Classified as lower Tier 2 and Tier 3 capital for solvency purposes. Approximation – not fully comparable with IFRS figures. Fair values as at 31.12.2018 (31.12.2017).

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)	+7.7	+3.8	–7.1	–13.5
Change in on-balance-sheet reserves, net (€bn) ¹	+1.7	+0.9	–1.6	–3.1
Change in off-balance-sheet reserves, net (€bn) ¹	+0.4	+0.2	–0.3	–0.6
P&L impact (€bn) ¹	–0.0	–0.0	+0.0	+0.0
Sensitivity to spreads ² (change in basis points)			+50	+100
Change in gross market value (€bn)			–5.2	–10.0
Change in on-balance-sheet reserves, net (€bn) ¹			–1.1	–2.1
Change in off-balance-sheet reserves, net (€bn) ¹			–0.2	–0.5
P&L impact (€bn) ¹			–0.1	–0.1
Sensitivity to equity and commodity markets ³	–30%	–10%	+10%	+30%
Change in gross market value (€bn)	–4.7	–1.6	+1.6	+4.9
Change in on-balance-sheet reserves, net (€bn) ¹	–0.6	–0.1	+0.8	+2.4
Change in off-balance-sheet reserves, net (€bn) ¹	–0.9	–0.3	+0.3	+0.9
P&L impact (€bn) ¹	–1.8	–0.7	+0.0	+0.1

¹ Rough calculation with limited reliability assuming unchanged portfolio as at 31.12.2018. After rough estimation of policyholder participation and deferred tax; linearity of relations cannot be assumed. Approximation – not fully comparable with IFRS figures. ² Sensitivities to changes of spreads are calculated for every category of fixed-interest securities, except government securities with AAA ratings. ³ 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	31.12.2016	31.12.2017	30.9.2018	31.12.2018	▲ in Q4
Market value of investments	238,490	231,885	231,271	231,876	605
Total reserves	28,496	25,395	22,389	22,002	-388
On-balance-sheet reserves					
Fixed-interest securities	8,649	7,622	4,903	4,953	51
Non-fixed-interest securities	2,924	3,261	2,991	1,817	-1,174
Other on-balance-sheet reserves ¹	186	189	175	207	32
Subtotal	11,759	11,072	8,068	6,977	-1,091
Off-balance-sheet reserves					
Real estate ²	2,413	2,744	4,276	4,769	493
Loans ³	13,591	10,788	9,138	9,453	315
Associates	733	792	907	803	-105
Subtotal	16,738	14,323	14,321	15,024	703
Reserve ratio %	11.9%	11.0%	9.7%	9.5%	

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

2 Excluding reserves from owner-occupied property.

3 Excluding insurance-related loans.

On- and off-balance-sheet reserves

€m	On-balance-sheet reserves	Off-balance-sheet reserves ¹
Total reserves (gross)	6,977	15,024
Provision for deferred premium refunds	–3,287	–8,744
Deferred tax	–756	–1,916
Minority interests	–1	0
Consolidation and currency effects	–202	0
Shareholders' stake	2,731	4,364

¹ Excluding reserves for owner-occupied property and insurance related loans.

Breakdown of SCR – Property-casualty growth partly offset by better diversification at Group level

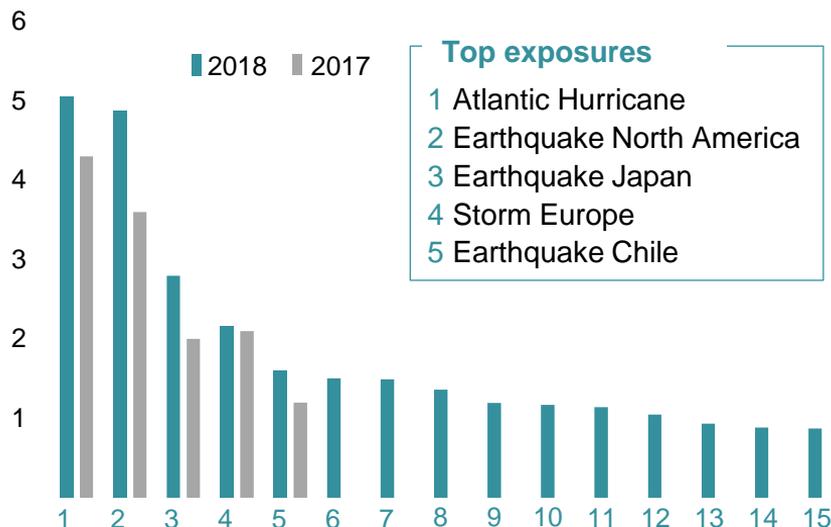
Risk category (€bn)	Group		Delta	RI	ERGO	Div.	Remarks
	2017	2018		2018	2018	2018	
Property-casualty	6.3	7.6	+1.3	7.6	0.4	−0.3	Substantial portfolio growth
Life and Health	4.9	5.3	+0.4	4.5	1.1	−0.4	Exposure growth and capital-market impact
Market	9.2	9.2	−0.0	5.5	5.7	−2.0	
Credit	3.4	3.2	−0.3	2.1	1.2	−0.1	
Operational risk	1.2	1.1	−0.2	0.8	0.5	−0.2	Active risk mitigation
Other ¹	0.7	0.7	+0.0	0.5	0.2		
Simple sum	25.8	27.0	+1.2	20.9	9.2	−3.1	
Diversification	−9.1	−9.9	−0.8	−7.8	−2.0		Diversification benefit at Group level increased due to more balanced risk profile
Tax	−2.3	−2.4	−0.2	−2.3	−0.6		
Total SCR	14.4	14.7	+0.3	10.8	6.6	−2.7	

¹ Capital requirements for associated insurance undertakings and other financial sectors, e.g. institutions for occupational retirement provisions.

Property-casualty risk – Increase mainly driven by business growth in P-C Reinsurance

Top scenario exposures
(net of retrocession) – AggVaR¹

€bn

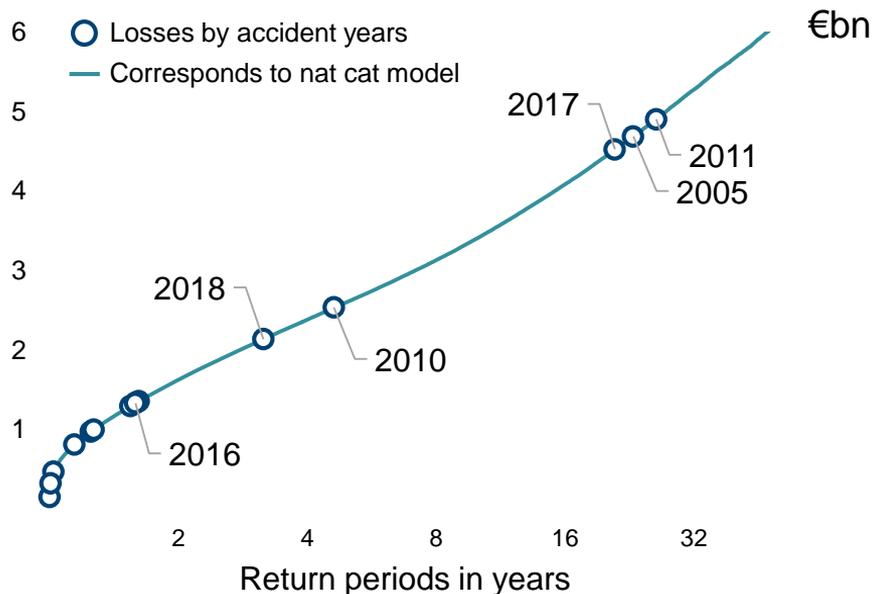


	2018	2017
Basic losses	4.0	3.4
Major losses ²	7.1	5.7
Diversification	-3.5	-2.8
Total	7.6	6.3

- **Basic losses**
Portfolio growth and material model update
- **Major losses**
Despite selective exposure growth, expectation of major nat cat losses in combined ratio remains unchanged – overall share of nat cat premiums is largely stable, also due to growth in proportional and personal lines business
- **IT Virus**
Explicit reflection in the Group Internal Risk Model in 2018

Nat cat claims in 2018 overall in line with expectations

Annual nat cat losses of the last 15 years –
Many (consecutive) years far below average, single years far above average



- **Munich Re's capital model**

Uses 30 nat cat scenarios, representing the bulk of overall nat cat claims expenses

- **Nat cat experience**

In line with risk model, considering the average of the last 15 years and the actual loss experience in 2018

- **Windstorm**

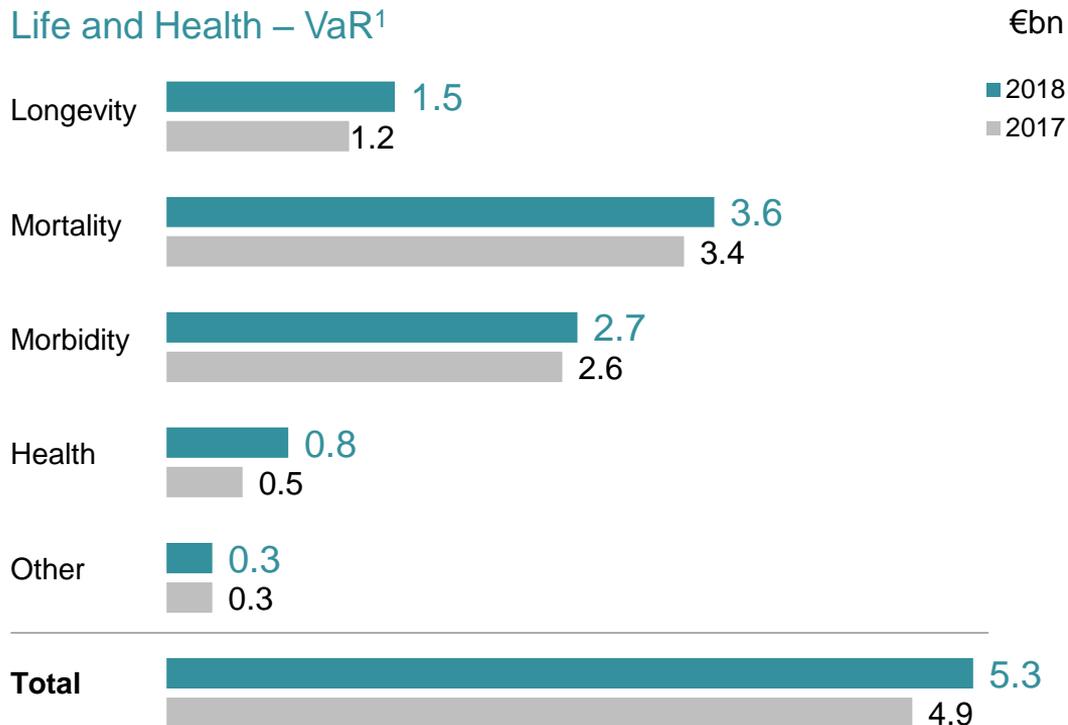
Higher frequency of smaller and medium-sized losses observed; risk modelling of tail events unaffected

- **Wildfires**

Higher-than-expected losses between 2016 and 2018; even though captured in our risk model, further refinements underway

Life and Health risk

Life and Health – VaR¹



Overall increase driven by

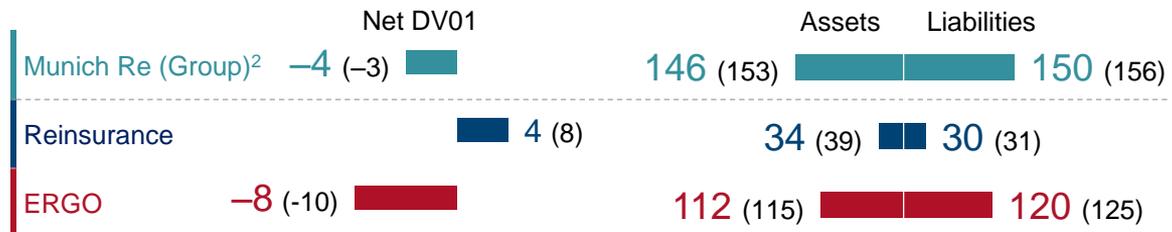
- Reinsurance
Increase in exposure, esp. UK longevity business
- ERGO
Slight decrease of Euro interest rates and model changes at DKV Germany

Market risk – Solvency capital requirement

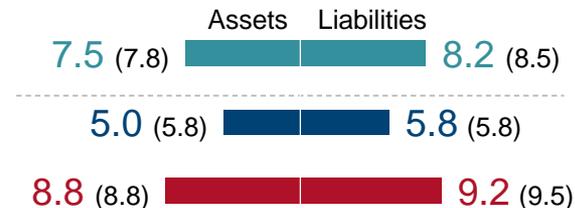
Risk category €bn	Group		RI	ERGO	Div.	Remarks
	2017	2018	2018	2018	2018	
Equity	4.3	3.6	2.4	1.2	–0.1	Decrease in equity exposure
General interest rate	3.4	3.7	1.2	3.4	–0.9	Slight decrease of Euro interest rates
Credit spread	3.9	3.2	1.4	2.5	–0.7	Model improvements
Real estate	1.5	2.1	1.4	0.8	–0.1	Re-evaluation of real-estate market values
Currency	3.9	3.8	3.6	0.2	–0.1	Total FX mismatch position nearly unchanged
Simple sum	17.0	16.3	10.0	8.1	–1.8	
Diversification	–7.8	–7.1	–4.6	–2.3	–	
Total market risk SCR	9.2	9.2	5.5	5.7	–2.0	

Market risk – Interest-rate sensitivity

DV01¹

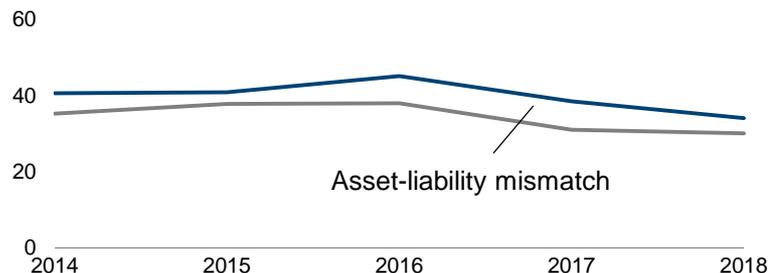


Portfolio duration

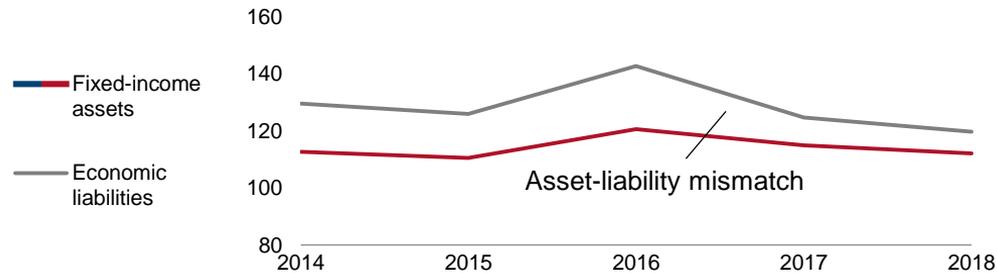


DV01 development

Reinsurance



ERGO



¹ Fair values as at 31.12.2018 (31.12.2017): Market value change due to a parallel downward shift 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. ² Liabilities comprise technical provisions according to Solvency II. Last year's figures contained the entire liability side of the economic balance sheet, including economic surplus. Historic values shown on this slide are adjusted.

Operational risk

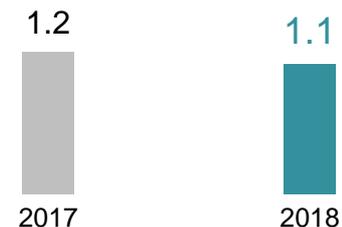
Operational risk scenarios¹ – VaR



€m

Group SCR operational risk

€bn

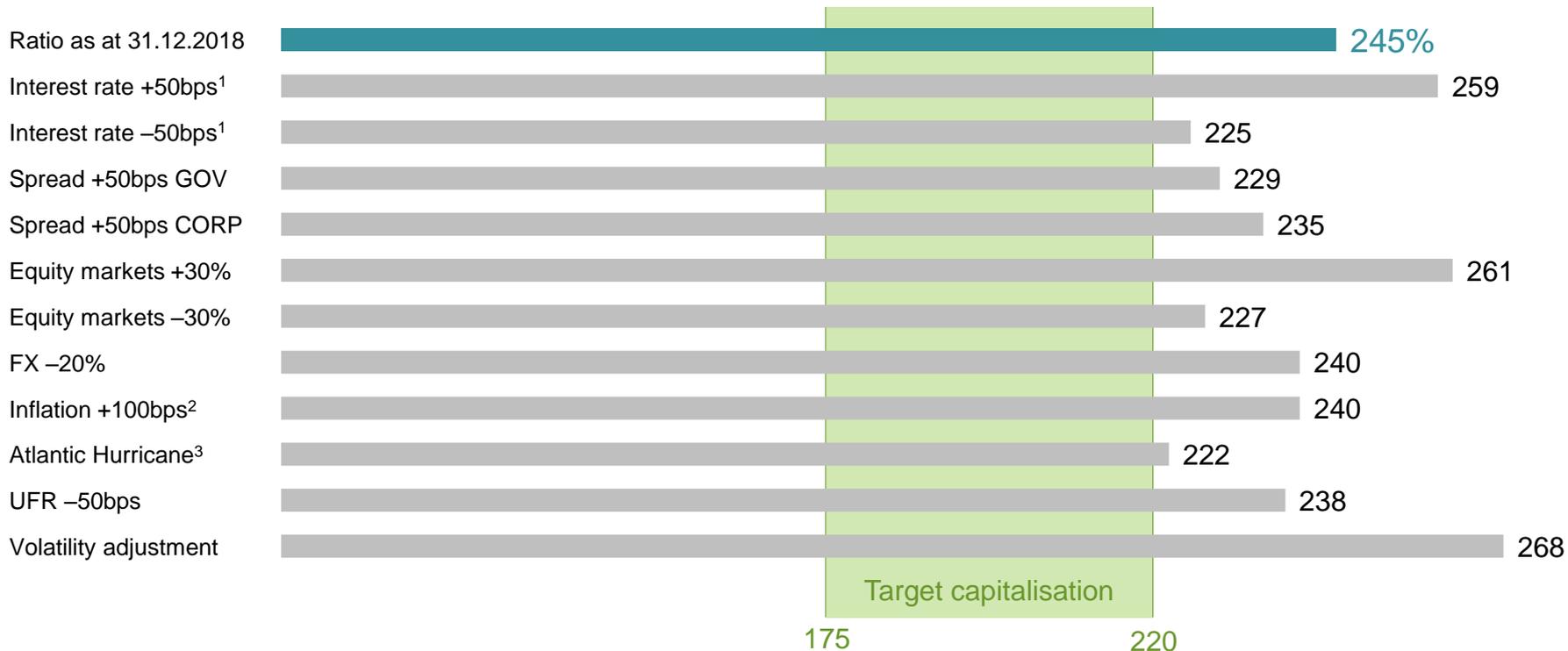


Integral part of the internal model

- Internal control system implemented to actively manage operational risks for Munich Re (Group)
- Reduction mainly driven by active risk mitigation, e.g. regarding cyber risks

¹ Scenarios at field-of-business level, before diversification. ² Listed are the first-level categories according to the standard of Operational Risk Consortium.

Sensitivities of SII ratio



1 Parallel shift until last liquid point, extrapolation to unchanged UFR. 2 Based on CPI inflation. 3 Based on 200-year event.

ERGO Life and Health Germany – IFRS result

Gross premiums written		€m	Major result drivers						€m
				Q4 2018	Q4 2017	▲	2018	2017	▲
2017		9,210	Technical result	103	184	-82	633	435	198
Foreign exchange		-8	Non-technical result	110	58	52	158	270	-112
Divestments/investments	■	64	thereof investment result	1,008	1,066	-58	3,502	4,196	-694
Organic change		79	Other	-147	-176	30	-527	-529	2
2018		9,345	Net result	66	66	0	264	175	88

Investment result (€m)	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income	840	2.8%	3,489	2.9%	3,487	2.9%
Write-ups/write-downs	-223	-0.7%	-387	-0.3%	-118	-0.1%
Disposal gains/losses	283	0.9%	650	0.5%	1,539	1.3%
Derivatives ^{2,3}	206	0.7%	83	0.1%	-435	-0.4%
Other income/expenses	-98	-0.3%	-333	-0.3%	-278	-0.2%
Investment result	1,008	3.4%	3,502	2.9%	4,196	3.5%
Average market value			119,544		120,251	120,823

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

³ Thereof interest-rate hedging ERGO 2018 Q4: €26m/€3m (gross/net); 2018: €6m/-€4m (gross/net).

ERGO Life Germany – Key figures and ZZR

	2021	...	2018	2017	% 2016
Key figures¹					
Reinvestment yield	n.a.		1.6	1.5	1.3
Average yield	~2.7		2.9	3.0	3.3
Average guarantee ²	~1.2		2.0	2.1	2.4

			2018	2017	€bn 2016
Key financials¹					
Free RfB			1.3	1.4	1.2
Terminal bonus fund			0.9	0.9	1.1
Unrealised gains			9.4	10.4	13.7
Accumulated ZZR			5.4	5.0	3.6

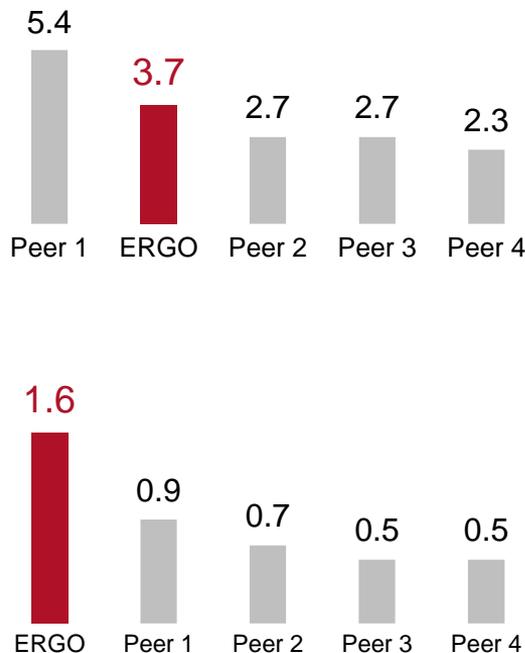
Health Germany – Stabilise comprehensive insurance, strengthen supplementary insurance

Comprehensive insurance

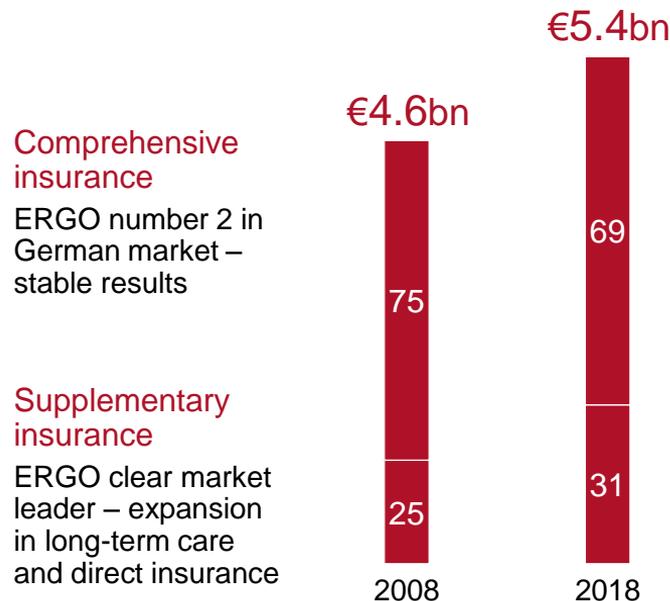


Supplementary insurance

Market view (GWP)¹ €bn



ERGO business mix (GWP) %



Comprehensive insurance
ERGO number 2 in German market – stable results

Supplementary insurance
ERGO clear market leader – expansion in long-term care and direct insurance

¹ Gross premiums written as at 31.12.2017. Source: PKV Verband.

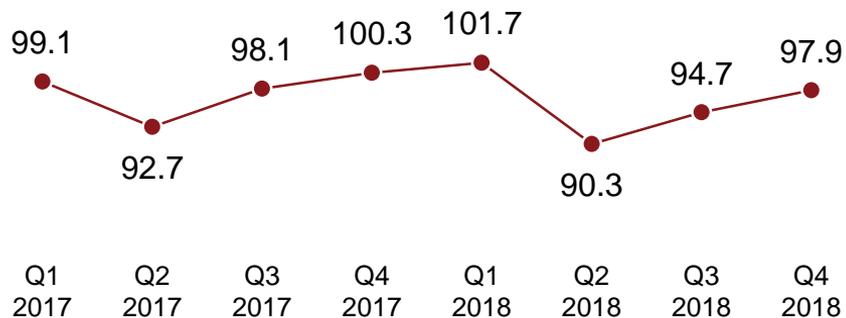
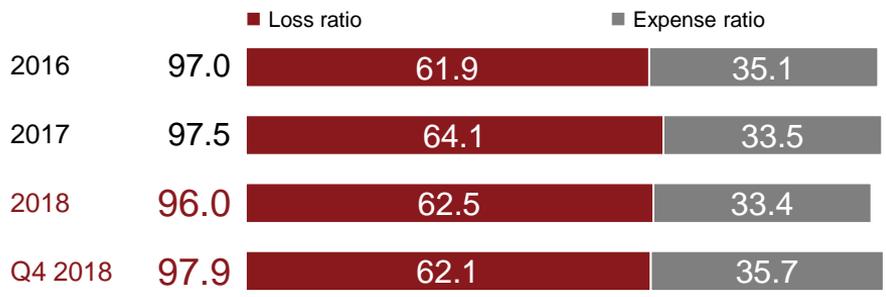
ERGO Property-casualty Germany (1) – IFRS result

Gross premiums written	€m	Major result drivers	€m					
			Q4 2018	Q4 2017	▲	2018	2017	▲
2017	3,293	Technical result	37	16	21	166	138	27
Foreign exchange	0	Non-technical result	18	32	-14	62	105	-43
Divestments/investments	0	thereof investment result	35	48	-13	133	185	-52
Organic change	84	Other	-49	-55	5	-183	-187	3
2018	3,377	Net result	5	-7	12	45	57	-12

Investment result (€m)	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income	35	2.0%	148	2.1%	157	2.3%
Write-ups/write-downs	-21	-1.2%	-40	-0.6%	-8	-0.1%
Disposal gains/losses	6	0.3%	30	0.4%	69	1.0%
Derivatives ²	19	1.0%	13	0.2%	-19	-0.3%
Other income/expenses	-4	-0.2%	-19	-0.3%	-14	-0.2%
Investment result	35	2.0%	133	1.9%	185	2.7%
Average market value			7,122		7,085	6,877

ERGO Property-casualty Germany (2) – IFRS result

Combined ratio %



Gross premiums written 2018 (2017)

Other
263 (247) €m
 Motor
665 (670)

Transport/Marine
228 (200)

Legal protection
411 (410)

Liability
556 (546)



Personal accident
619 (630)

Fire/Property
635 (591)

ERGO International – IFRS result

Gross premiums written		€m	Major result drivers						€m
			Q4 2018	Q4 2017	▲	2018	2017	▲	
2017		5,043	7	-100	107	228	20	207	
Foreign exchange		-71	15	151	-137	14	199	-185	
Divestments/investments		-63	107	206	-98	348	470	-122	
Organic change		149	-40	-62	23	-139	-179	40	
2018		5,057	-18	-11	-7	103	40	63	

Investment result (€m)	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income	114	2.6%	406	2.3%	409	2.4%
Write-ups/write-downs	-38	-0.9%	-55	-0.3%	-12	-0.1%
Disposal gains/losses	7	0.2%	3	0.0%	163	0.9%
Derivatives ²	32	0.7%	22	0.1%	-62	-0.4%
Other income/expenses	-7	-0.2%	-27	-0.2%	-29	-0.2%
Investment result	107	2.5%	348	2.0%	470	2.7%
Average market value			17,349		17,361	

ERGO International – IFRS result

€m	Gross written premiums		Net earned premiums		Combined ratio (%)	
	2018	2017	2018	2017	2018	2017
Life	843	855	805	821		
thereof:						
Austria	376	393	365	381		
Belgium	185	200	176	190		
Health	1,374	1,405	1,374	1,396	91.8%	94.7%
thereof:						
Spain	792	772	790	768	91.8%	93.8%
Belgium	580	544	577	540		
Property-casualty	2,840	2,783	2,517	2,404	95.5%	95.5%
thereof:						
Poland	1,404	1,263	1,198	1,002	92.1%	94.5%
Legal protection	642	672	639	677	96.0%	95.1%
Greece	239	246	200	215	101.1%	86.2%
Turkey	139	187	100	147	121.3%	114.5%
Baltics	184	167	170	147	91.8%	93.6%
Total	5,057	5,043	4,696	4,622	94.6%	95.3%

ERGO – Economic earnings

€bn	L/H Germany	P-C Germany	Inter- national
Operating impact	0.6	0.2	-0.1
New business contribution	0.1	0.1	0.3
Expected in-force contribution	0.3	0.1	0.1
Operating variances in-force business	0.2	0.2	-0.3
Debt costs	-0.1	0.0	0.0
Other, including holding costs	0.0	-0.1	-0.2
Market variances	-0.5	0.0	-0.2
Other, including tax	-0.3	-0.2	0.0
Other, non-operating and non-market changes	-0.2	-0.1	-0.1
Tax	-0.1	0.0	0.0
Economic earnings	-0.3	0.1	-0.4

Operating impact

- Overall favourable development compared with 2017

New business contribution

- Profitable new business in international P-C
- Increased new business contribution in Health Germany

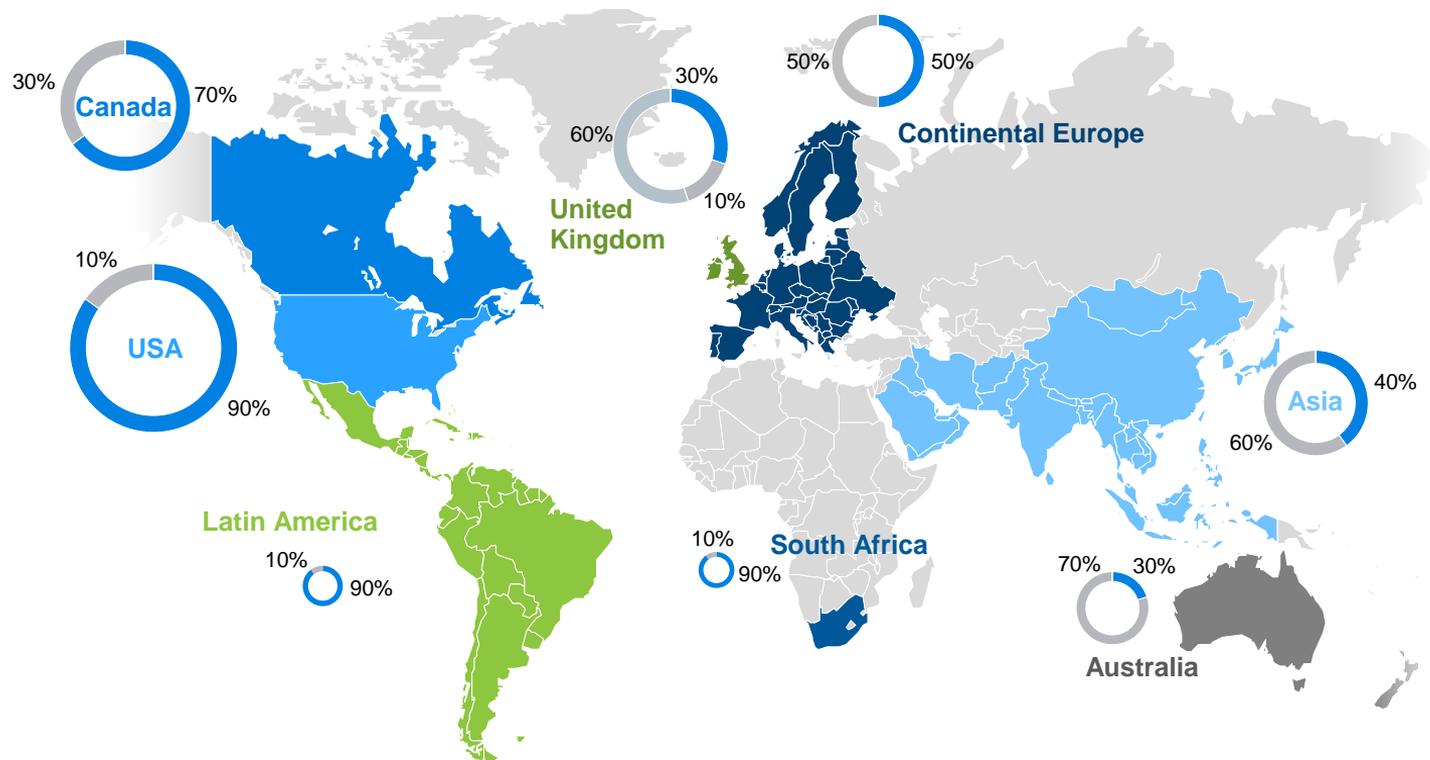
Operating variances inforce business

- Technical improvement in P-C Germany
- Changed assumptions in International Health

Market variances

- Negative market variances resulting from a decrease in risk-free interest rates and wider spreads

Well-diversified portfolio: Overweight in North America, and traditional mortality risk



- Mortality ~60%
- Morbidity ~30%
- Longevity ~10%

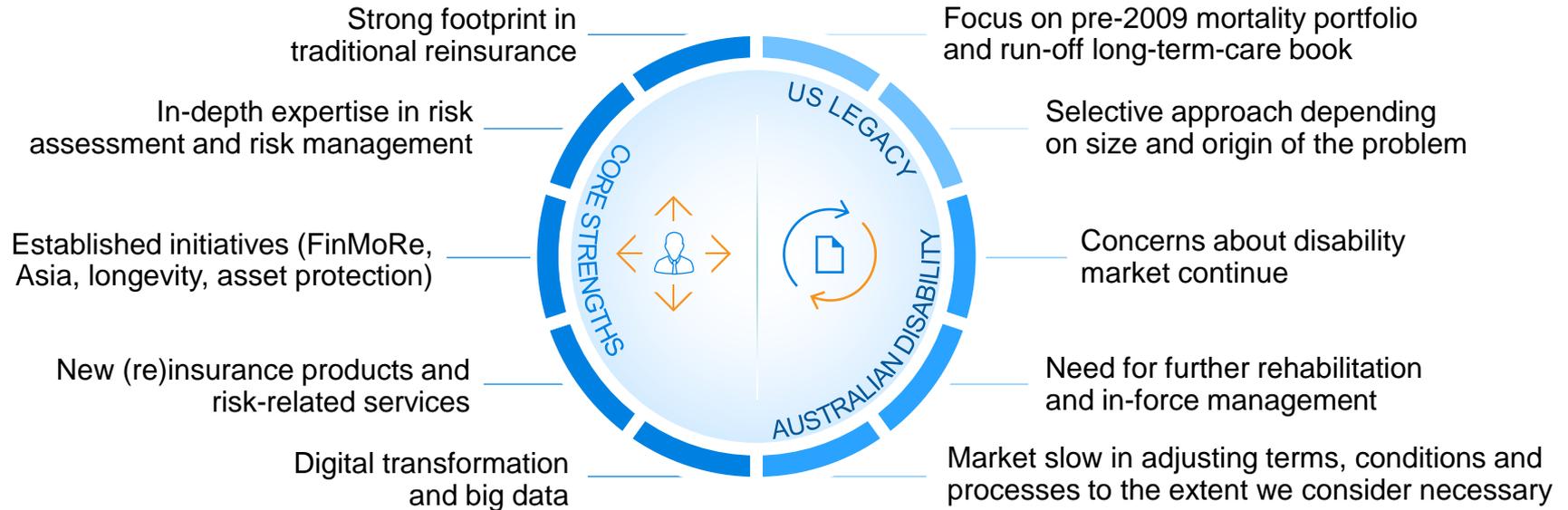
- NA ~55%
- Europe ~30%
- Asia ~10%
- Australia ~5%
- Africa/LA <5%

Size of bubbles indicative of present value of future claims.

Successful new business proposition and portfolio management foster earnings growth

SUSTAINABLE NEW BUSINESS PROPOSITION

PORTFOLIO MANAGEMENT FIXES LEGACY ISSUES



Reinsurance Life and Health – IFRS result

Gross premiums written		€m	Major result drivers					€m	
			Q4 2018	Q4 2017	▲	2018	2017		▲
2017		13,726	Technical result	141	144	–3	503	376	127
Foreign exchange		–406	Non-technical result	40	94	–53	427	331	95
Divestments/investments		0	thereof investment result	261	204	57	988	865	123
Organic change		–2,472	Other	–56	61	–117	–201	–112	–90
2018		10,849	Net result	126	299	–174	729	596	133

Investment result		€m	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income			246	3.8%	806	3.1%	762	2.9%
Write-ups/write-downs			–67	–1.0%	–108	–0.4%	–21	–0.1%
Disposal gains/losses			128	2.0%	358	1.4%	175	0.7%
Derivatives ²			–26	–0.4%	–2	0.0%	12	0.0%
Other income/expenses			–20	–0.3%	–65	–0.3%	–63	–0.2%
Investment result			261	4.0%	988	3.8%	865	3.3%
Average market value					25,983		25,812	
								26,407

Strong result driven particularly by US and Europe

€m	2018	2017
Gross premiums written	10,849	13,726
Mortality	51%	40%
Morbidity	41%	55%
Other	8%	5%
Technical result	503	376
Mortality	50%	89%
Morbidity	34%	8%
Other	16%	3%
Fee income	81	51

Gross premiums written

- Drop due to scheduled termination and restructuring of two particularly premium-intensive transactions
- Top-line growth in Europe, Asia and the US

Technical result

- Remarkably good year characterised by positive claims experience and strong contribution from new business
- Very strong result from US and Europe
- Australia continues to be an area of concern
- Aggregate positive impact from reserve review partly offset by depreciation of acquisition expenses in Australia (in anticipation of currently pending regulatory changes)

Fee income

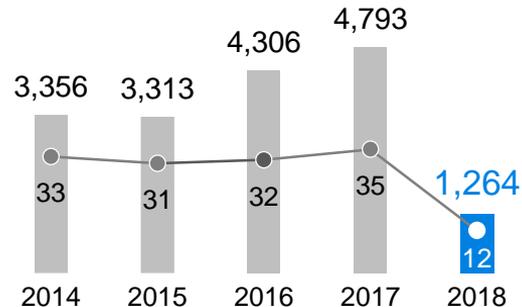
- Generated from business with little or no risk transfer
- Growing business with stable and predictable result contribution

Financially Motivated Reinsurance – Strong demand prevails

Gross premiums written¹

€m

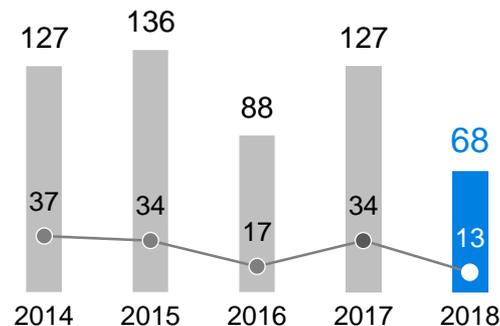
—●— % of total



Technical result¹

€m

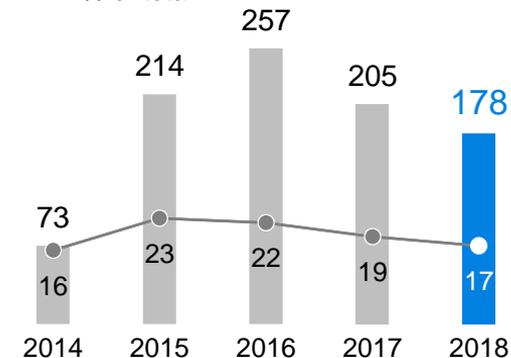
—●— % of total



New business contribution²

€m

—●— % of total



Portfolio development

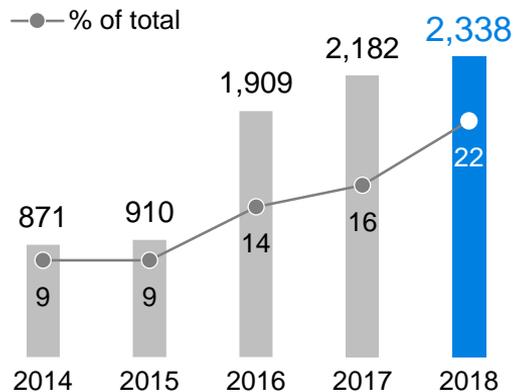
- Geographically well-diversified portfolio
- Drop in top line due to scheduled termination and restructuring of two particularly premium-intensive transactions
- 2018 result affected by depreciation of acquisition expenses in Australia

Expectations going forward

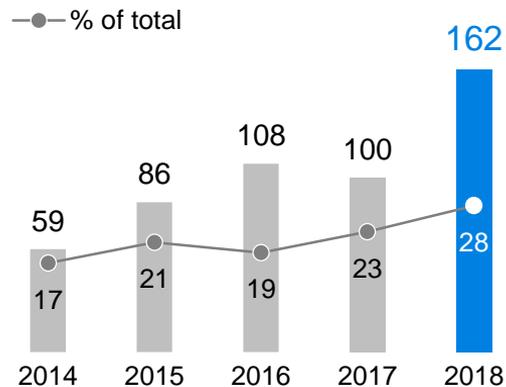
- Demand expected to remain high
- Transaction types tailored to client needs
- Number and size of transactions will vary on an annual basis

Asia – Growth potential confirmed

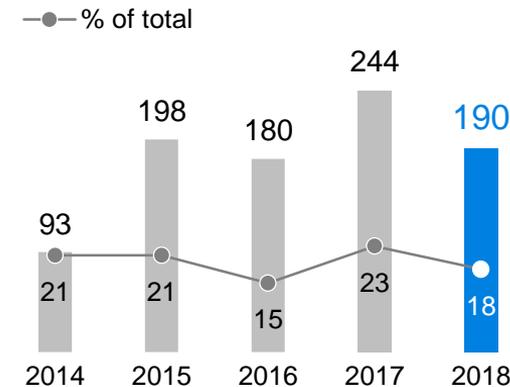
Gross premiums written¹ €m



Technical result¹ €m



New business contribution² €m



Portfolio development

- Sustained growth path
- Focus on Greater China and FinMoRe
- Tailor-made market and client strategies

Expectations going forward

- Growth path in the region prevails
- High demand for solvency relief and financing solutions
- Competition expected to increase
- Closely watch product trends, particularly in critical illness

Longevity – Book developed carefully in line with risk appetite

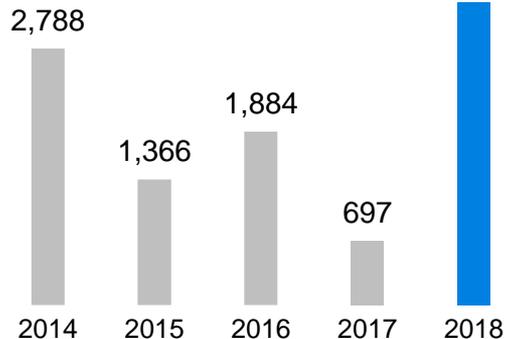
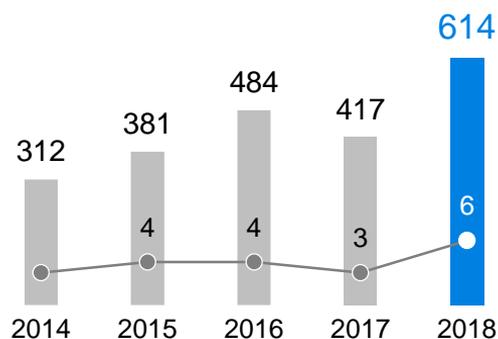
Gross premiums written

€m

Liability p.a.

€m

—●— % of total



Strategic proposition

- Longevity primarily written as a risk-management tool
- Prudent approach in pricing and valuation

Portfolio development

- Portfolio comprises longevity transactions in the UK
- Market entry in 2011 after in-depth research
- Claims emerge better than expected in pricing
- Positive contribution to IFRS and SII earnings
- 2018 extraordinarily strong year in terms of new business

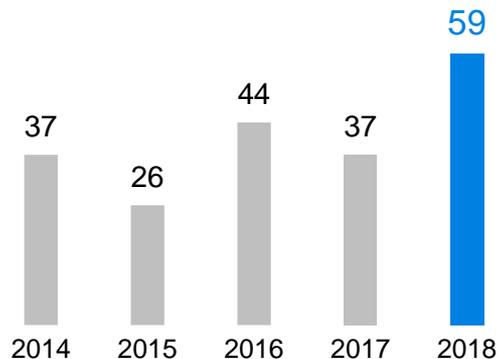
Expectations going forward

- Develop portfolio within clearly defined risk tolerance
- Careful investigation of expansion beyond UK

Asset protection – Comprehensive market-risk solutions gained greater significance with accelerated growth in the future



IFRS earnings contribution¹ €m



Portfolio development

- Initial focus on Europe and Asia (mainly Japan)
- More recently expansion across the US and Asia
- Portfolio has gained stand-alone significance
- Growing contribution to IFRS earnings and new business contribution

Strategic proposition

- Offer comprehensive solutions to clients globally to manage their market risks and returns
- Innovate new business, optimise in-force business, and boost asset returns of (life) insurers, pension providers and other institutional investors
- Capitalise on growth opportunities for the global savings, retirement and investment industry
- Leverage capital market, structuring, accounting, legal, and regulatory expertise on the basis of strong technical and quantitative capabilities
- State-of-the-art hedging platform to transfer financial risks to markets

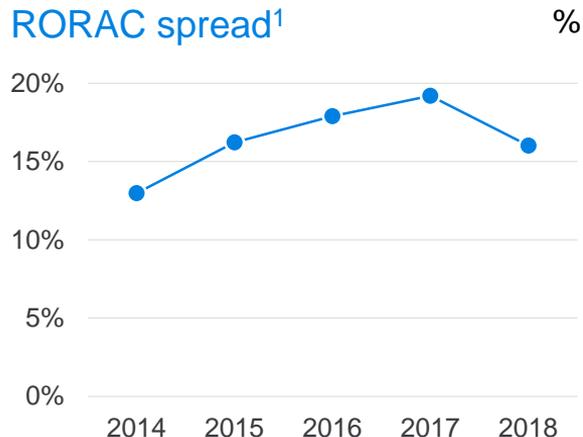
Expectations going forward

- Intensify coverage of existing markets and expand to new markets and regions
- Accelerate growth by scaling up the organisation globally and increasing visibility
- Further broaden the offering in the area of savings, retirement and investment products

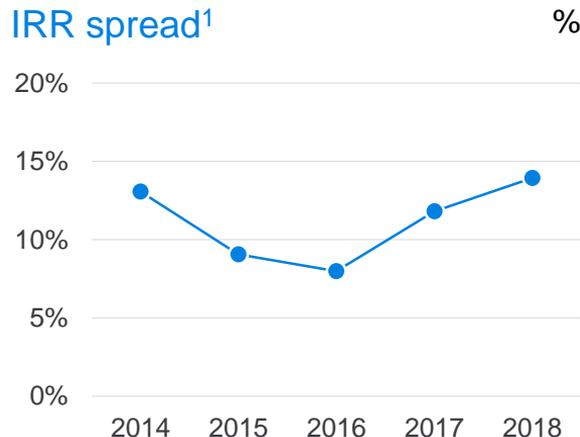
¹ Recognised in non-technical result.

New-business profitability continues to be strong

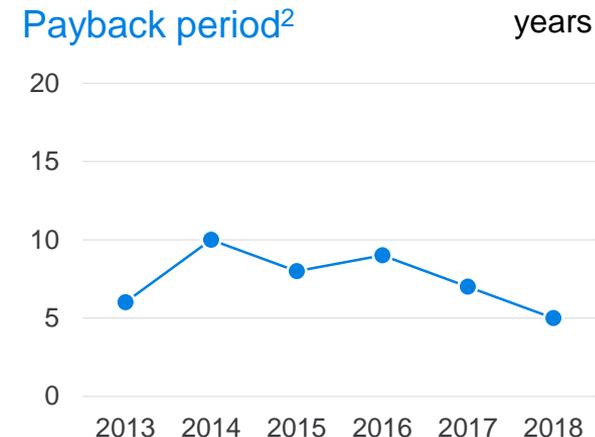
RORAC spread¹



IRR spread¹



Payback period²



- Very good new-business profitability relative to economic risk capital and total investment
- Composition of new business portfolio main driver of changes over the years

- Payback period particularly influenced by share of financing business

Reinsurance Life and Health – Economic earnings

€bn	2018	2017
Operating impact	1.3	1.9
New business contribution	1.1	1.1
Expected in-force contribution	0.6	0.6
Operating variances in-force business	-0.3	0.3
Debt costs	0.0	0.0
Other, including holding costs	0.0	0.0
Market variances	0.3	-0.2
Other, including tax	-0.5	-0.7
Other, non-operating and non-market changes	-0.1	-0.2
Tax	-0.5	-0.6
Economic earnings	1.0	1.0

Operating impact

- Strong new business contribution and expected in-force contribution on previous year's level
- Operating variances in-force business negative

New business contribution

- Expectations exceeded, as strong as last year
- Very strong contribution from North America and Asia
- Again pleasing share from FinMoRe
- Positive one-off from disposal of Ellipse in the UK

Operating variances inforce business

- On aggregate positive experience variances driven by US, Asia and Europe, partly offset by Canada and Australia
- Overall negative impact from review of models and assumptions

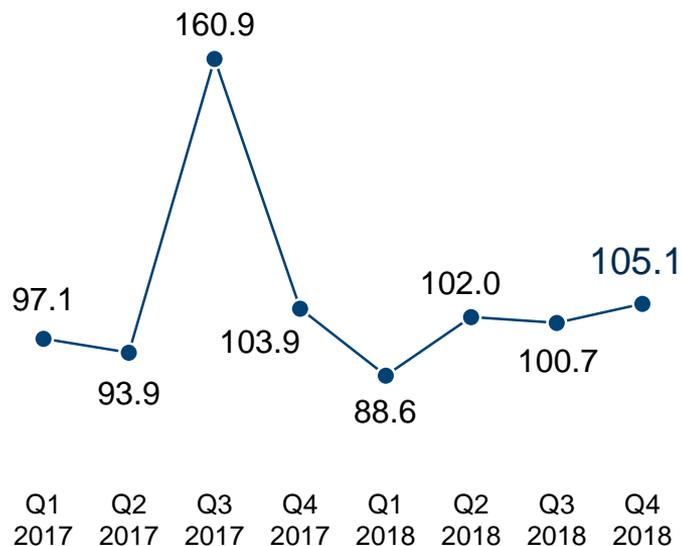
Reinsurance Property-casualty – IFRS result

Gross premiums written	€m	Major result drivers	€m					
			Q4 2018	Q4 2017	▲	2018	2017	▲
2017	17,843	Technical result	56	120	-63	1,250	-1,261	2,511
Foreign exchange	-802	Non-technical result	-122	165	-286	284	627	-342
Divestments/investments	0	thereof investment result	249	459	-210	1,555	1,895	-340
Organic change	3,396	Other	124	-94	218	-399	158	-558
2018	20,437	Net result	59	191	-132	1,135	-476	1,611

Investment result (€m)

	Q4 2018	Return ¹	2018	Return ¹	2017	Return ¹
Regular income	422	2.7%	1,736	2.9%	1,622	2.6%
Write-ups/write-downs	-230	-1.5%	-463	-0.8%	-83	-0.1%
Disposal gains/losses	246	1.6%	540	0.9%	548	0.9%
Derivatives ²	-111	-0.7%	-12	0.0%	34	0.1%
Other income/expenses	-78	-0.5%	-246	-0.4%	-225	-0.4%
Investment result	249	1.6%	1,555	2.6%	1,895	3.0%
Average market value			61,575		60,684	62,950

Reinsurance Property-casualty – Combined ratio



		Basic losses	Major losses	Expenses
2016	95.7	54.2	9.1	32.4
2017	114.1	54.8	25.8	33.5
2018	99.4	53.6	11.6	34.2
Q4 2018	105.1	50.4	17.9	36.8

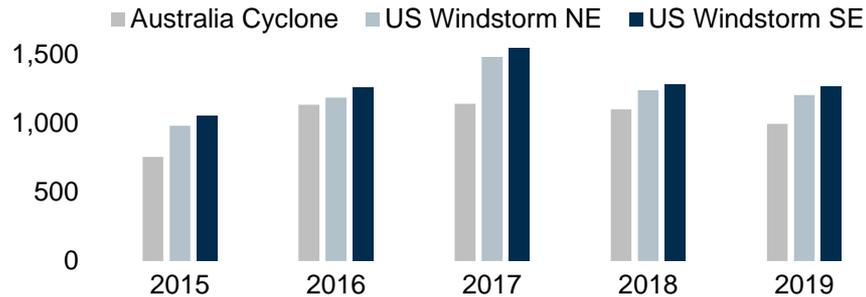
	Major losses	Nat cat	Man-made	Reserve releases ¹
2018	11.6	6.7	4.8	-4.6
Q4 2018	17.9	14.1	3.8	-5.8
∅ Annual expectation	~12.0	~8.0	~4.0	~-4.0

¹ Basic losses prior years, already adjusted for directly corresponding sliding-scale and profit commission effects. ² Based on 4%-pts. reserve releases.

Retrocession – Munich Re is utilising multiple instruments, consistent market approach/placements well received

Retrocession – Maximum in-force protection per nat cat scenario¹

€m



- Protection against peak risks via multiple instruments – mainly traditional retrocession (CXL) and sidecars
- Well-balanced buying strategy reflecting
 - strong Munich Re capital base and risk-bearing capacity,
 - expected IFRS result stabilisation,
 - market terms

Munich Re key channels to tap alternative capacity sources

Traditional retrocession

- One of the largest retrocession programmes globally
- Munich Re’s retro placements well received – capacity constraints in the market only with limited effect

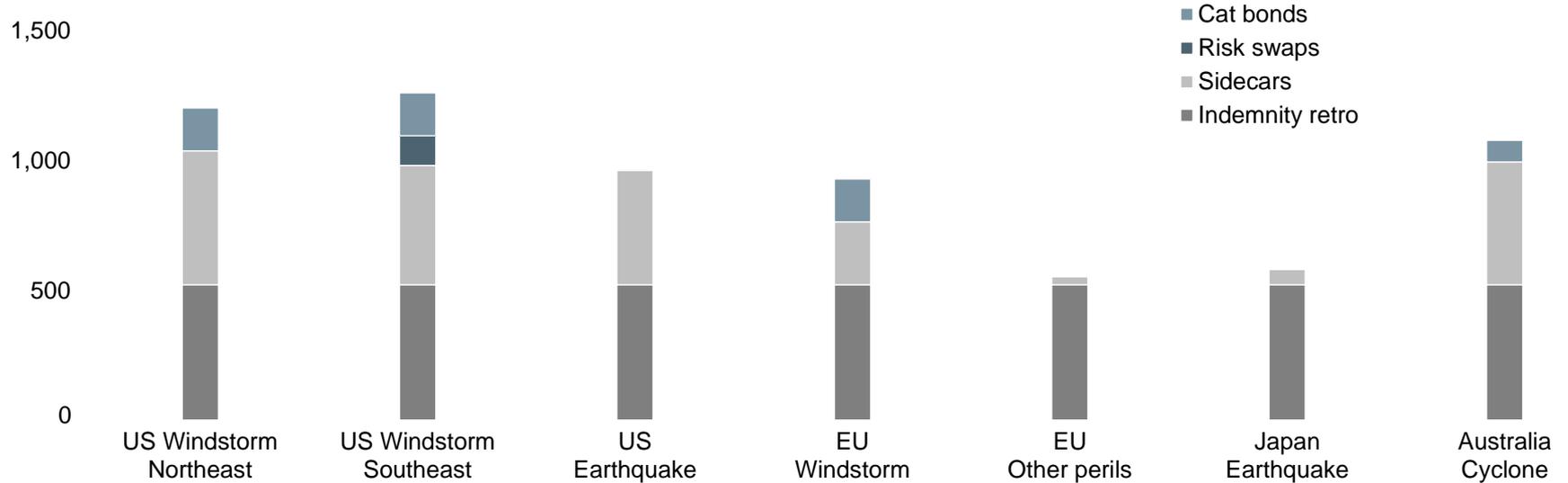
Sidecar programme²

- One of the largest sidecar programmes in the market (US\$ 700m); QS cessions of certain lines of business
- Placed with a broad range of investors and targeting long-term partnerships with large institutional accounts
- Two products: (1) placed with broad investor group, (2) bilateral (single counterparty)

Munich Re's maximum in-force nat cat protection

Nat cat protection before reinstatement premiums, as at January 2019

€m



January renewals 2019 – Overall flat pricing achieved despite challenging market environment

MARKET DEVELOPMENTS

- Following positive price development in 2018, some pressure on rates – in particular on European property
- Price increases in distinct business lines and loss-affected programmes
- Alternative capital: Slowing growth but still at a high level
- Cautiously optimistic outlook on upcoming renewals

MUNICH RE JANUARY RENEWALS

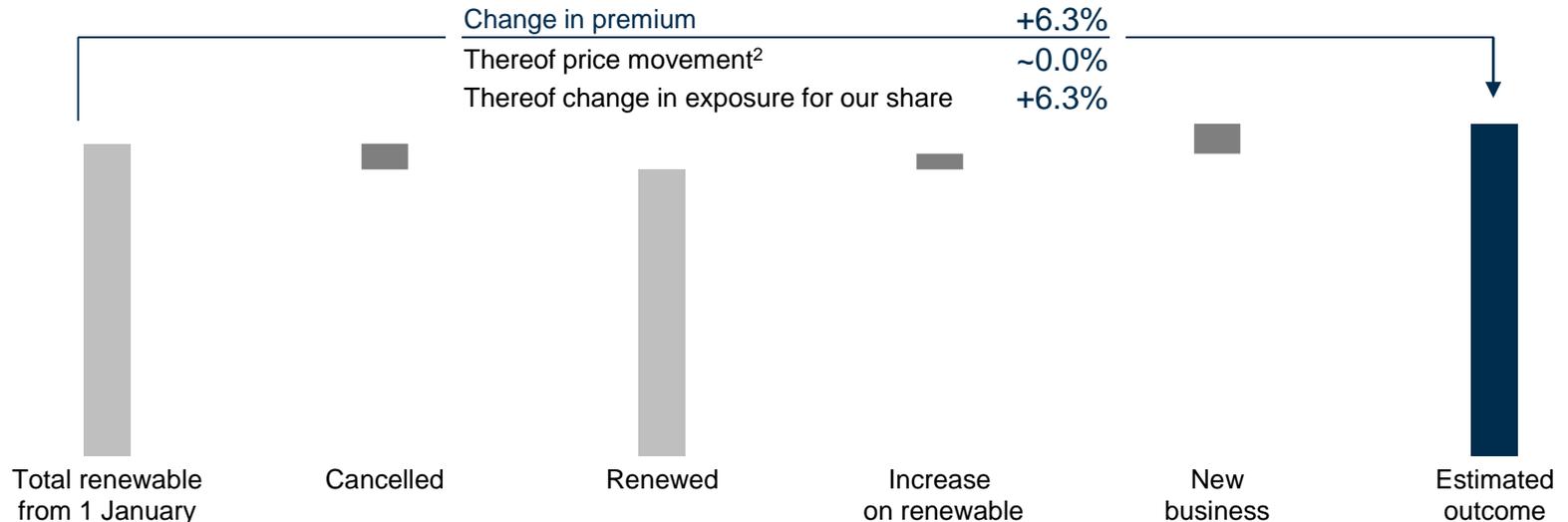
- Overall flat pricing on a portfolio view – Price decreases (mainly in Europe) could be compensated within our diversified book
- Business expansion for selected markets – Exposure growth of 6.3%
- Continued disciplined portfolio management



Overall price development largely flat – Top-line growth driven by selected expansion in proportional and XL business

January renewals 2019

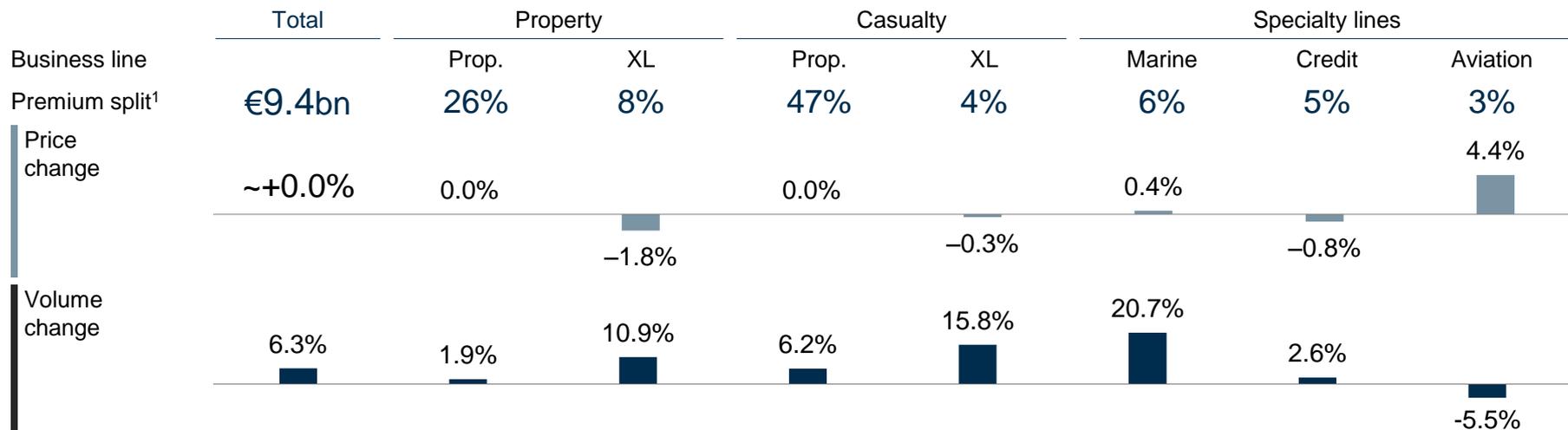
%	100	-8.3	91.7	5.1	9.5	106.3
€m	9,445 ¹	-783	8,661	481	899	10,042



¹ Deviation from outcome in January 2018 due to shifts in renewal dates, changes in included business and exchange rates. ² 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 (including cancelled and new business).

January renewals with satisfactory outcome – Overall portfolio profitability maintained

Munich Re portfolio – Price and volume change in major business lines



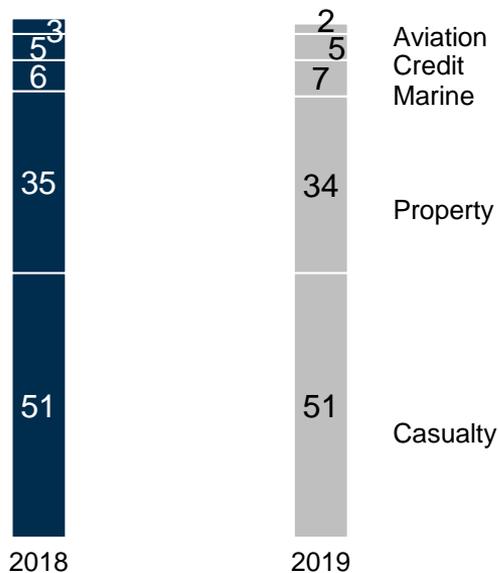
Price change

- Overall flat pricing
- Proportional casualty and property business flat, price decreases in property XL driven by European business
- Price increases in aviation and marine supported by primary market rate increases

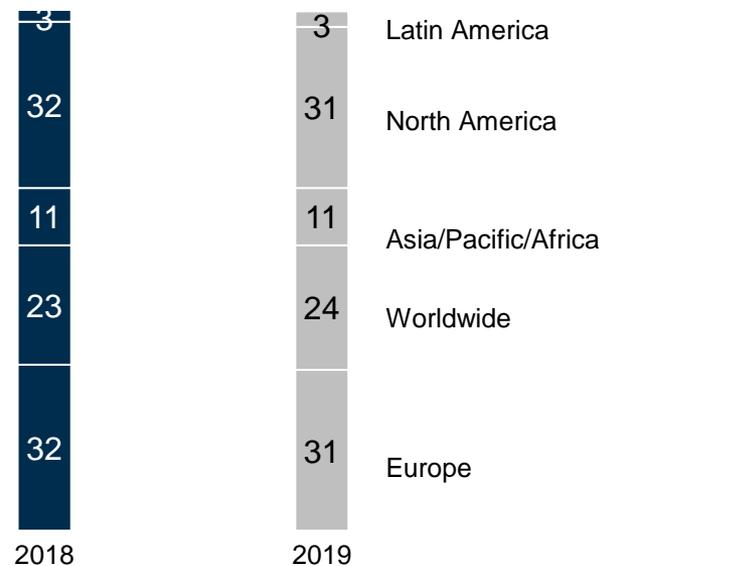
¹ Relative premium share in relation to total renewable business in January.

January renewals 2019 – Split by line of business and region

Split by line of business



% Split by region

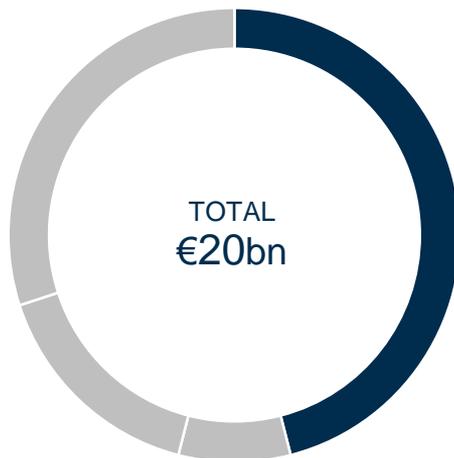


January renewals – Almost half of total P-C book up for renewal

Total property-casualty book¹

Remaining business
30

January renewals
46



July renewals
16

April renewals
8

Regional allocation of January renewals

Worldwide
23

Latin America
3

Asia/Pacific/Africa
11

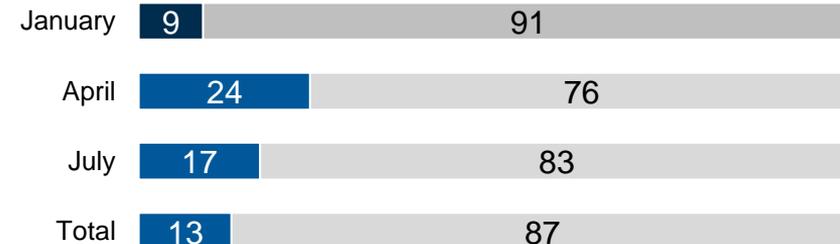


Europe
32

North America
32

Nat cat shares of renewable portfolio²

■ Nat cat ■ Other perils



¹ Gross premiums written. Economic view – not fully comparable with IFRS figures. ² Total refers to total P-C book, incl. remaining business.

Cautiously optimistic outlook on upcoming renewals

Total P-C book¹

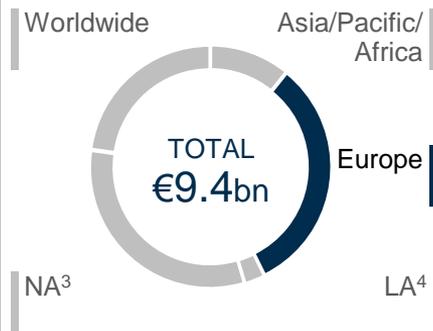


Nat cat share: 13%

~50% of total P-C book renewed in January

Treaty business

January

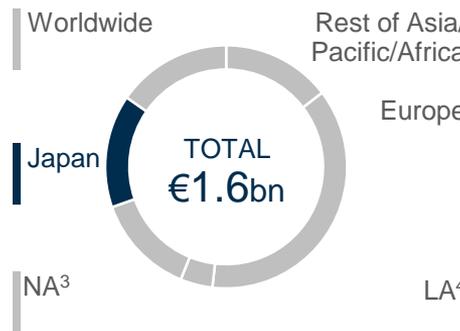


Focus: **Europe**

Nat cat share: 9%

Flat price change

April

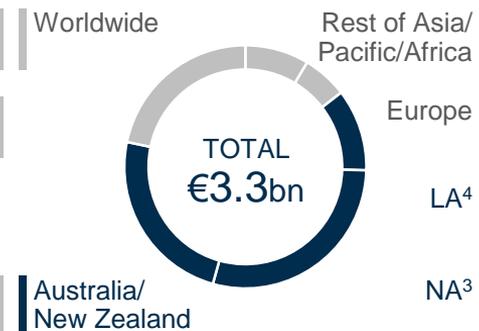


Focus: **Japan**

Nat cat share: 24%

Claims experience in individual market segments will play a major role

July



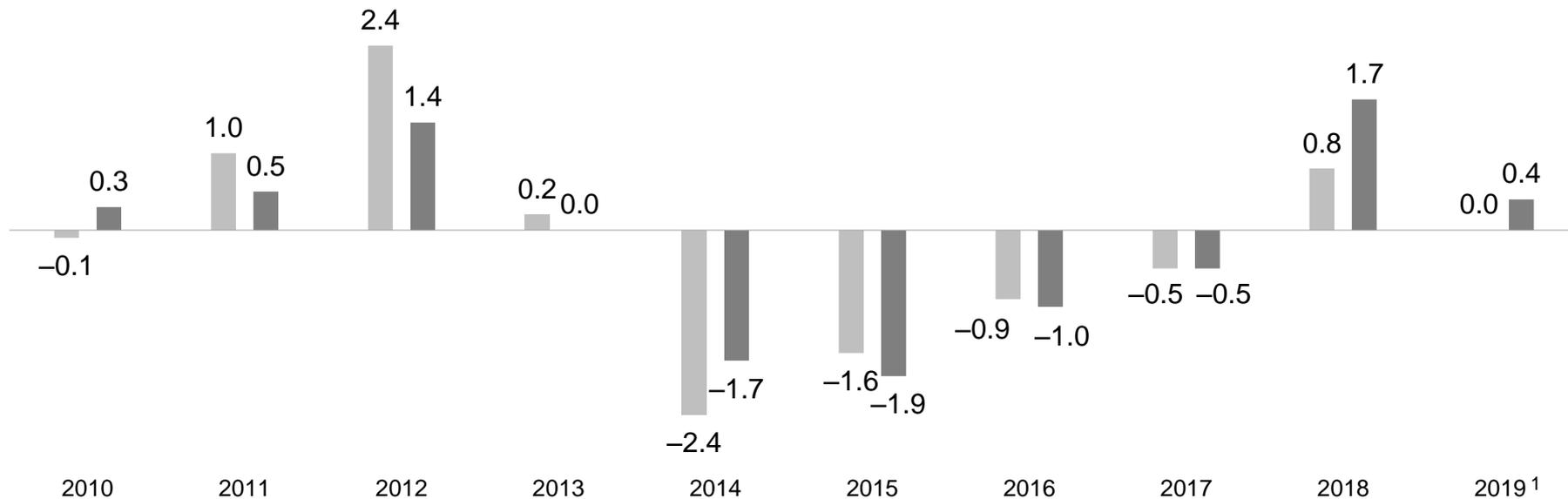
Focus: **USA, LA, Australia**

Nat cat share: 17%

Renewal results

Year-to-date price change 2010–2019

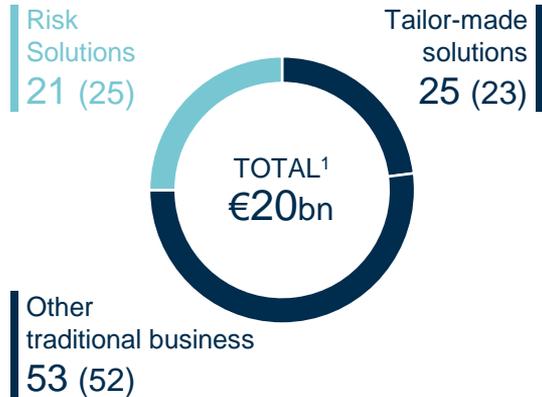
■ Nominal ■ Adjusted for interest-rate changes



¹ January renewals.

Increased top line – well-balanced diversified portfolio

Total P-C book



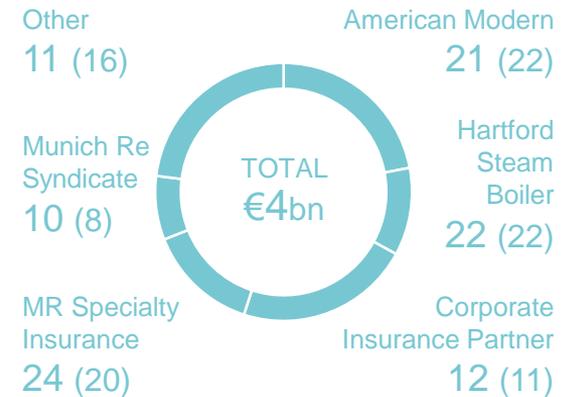
- Growth in traditional and tailor-made reinsurance business
- Lower share of Risk Solutions mainly due to growth of remaining business

1 | Traditional



- Well-balanced traditional portfolio
- Slight move towards casualty

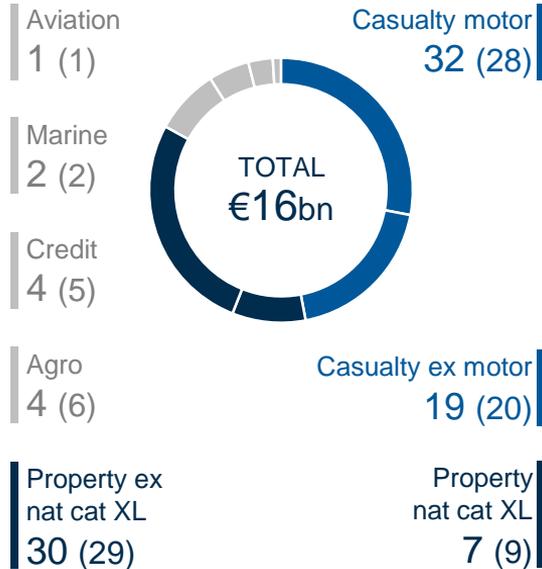
2 | Risk Solutions



- Dominated by US business – around 60%
- Adjusted for currency effects stable premium overall despite exit from underperforming business

1 | Portfolio management and high share of proportional business support earnings resilience

Traditional



Proportional
77 (75)



%

Facultative
8 (9)

XL
15 (16)

Portfolio developments

Share increases

- Proportional property and casualty – following the realisation of profitable business opportunities
- Accordingly, ongoing slight shift towards proportional business

Share decreases

- Top-line reduction in agro driven by a merger-driven cancellation, partly compensated for by selected expansions
- Relatively stable nat cat XL volume, reduced share due to growth in proportional business

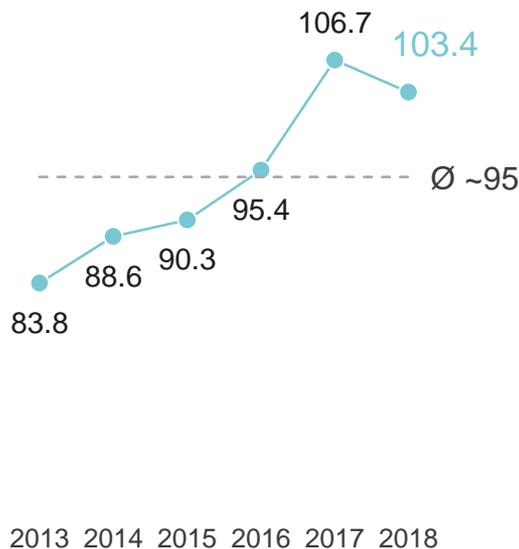
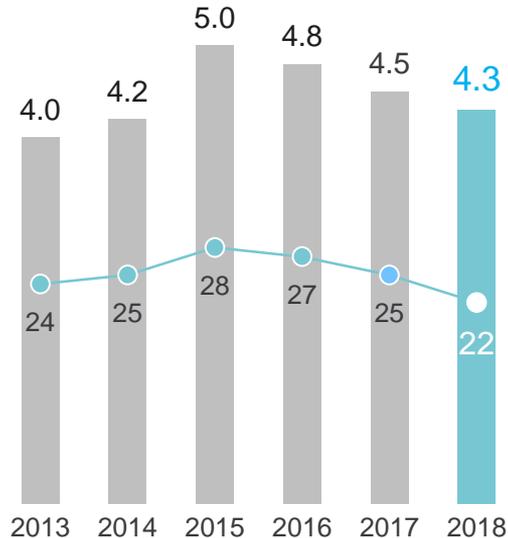
2 | Risk Solutions: Outlier emergence again above expectations – Ongoing portfolio management activities

Gross earned premiums¹ €bn

Combined ratio¹ %

Drivers in 2018

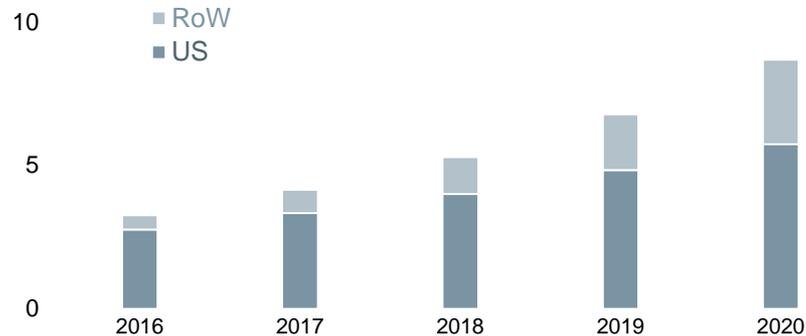
● Share in % of total P-C book



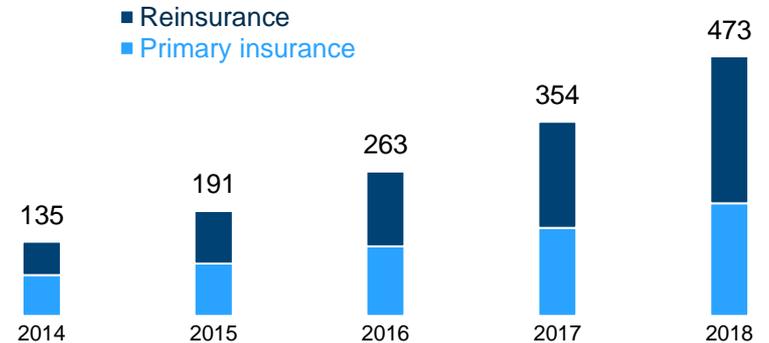
- Top-line decline driven by FX only
- Bottom-line negatively affected by outlier losses and adverse one-off effects
- Hartford Steam Boiler and Munich Re Syndicate with sustained positive performance

Strong long-term growth in cyber (re)insurance expected – Munich Re with leading-edge expertise and market presence

GWP global cyber insurance market¹ US\$ bn



GWP Munich Re cyber portfolio US\$ m



REINSURANCE: First mover and global market leader

- Dynamic growth through joint projects with cedants
- Steady growth in the US, accelerated growth in Europe
- Strong accumulation models, increased expert headcount
- Network with external cyber-service providers further extended (underwriting, data, claims services for cedants/insureds)

PRIMARY INSURANCE: Specialised single-risk taker

- Hartford Steam Boiler: Established player in the US for SMEs and individuals
- Corporate Insurance Partner: Focus on larger corporate clients – Cooperation with IT providers and Beazley

¹ Munich Re estimates.

Reinsurance Property-casualty – Economic earnings

€bn	2018	2017
Operating impact	1.2	-1.2
New business contribution	-1.5	-2.4
Expected in-force contribution	1.1	1.1
Operating variances in-force business	1.8	0.2
Debt costs	-0.1	-0.1
Other, including holding costs	-0.1	0.0
Market variances	0.2	-0.3
Other, including tax	0.0	0.1
Other, non-operating and non-market changes	0.0	-0.2
Tax	0.0	0.3
Economic earnings	1.4	-1.4

Operating impact

- Increase due to lower outlier losses in 2018 (€2.2bn) compared with 2017 (€4.3bn) and favourable development of prior years

New business contribution

- Outlier losses affecting new business above expectation but substantially lower than previous year
- Prudency margin (~-€0.7bn) on the level of 2017 due to continued reserving discipline

Operating variances in-force business

- High reserve releases in 2018 for outlier losses as well as basic losses in prior years

Financial calendar

2019

- 30** APRIL Annual General Meeting 2019
- 8** MAY Quarterly statement as at 31 March 2019
- 7** AUGUST Half-year financial report as at 30 June 2019
- 7** NOVEMBER Quarterly statement as at 30 September 2019

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