



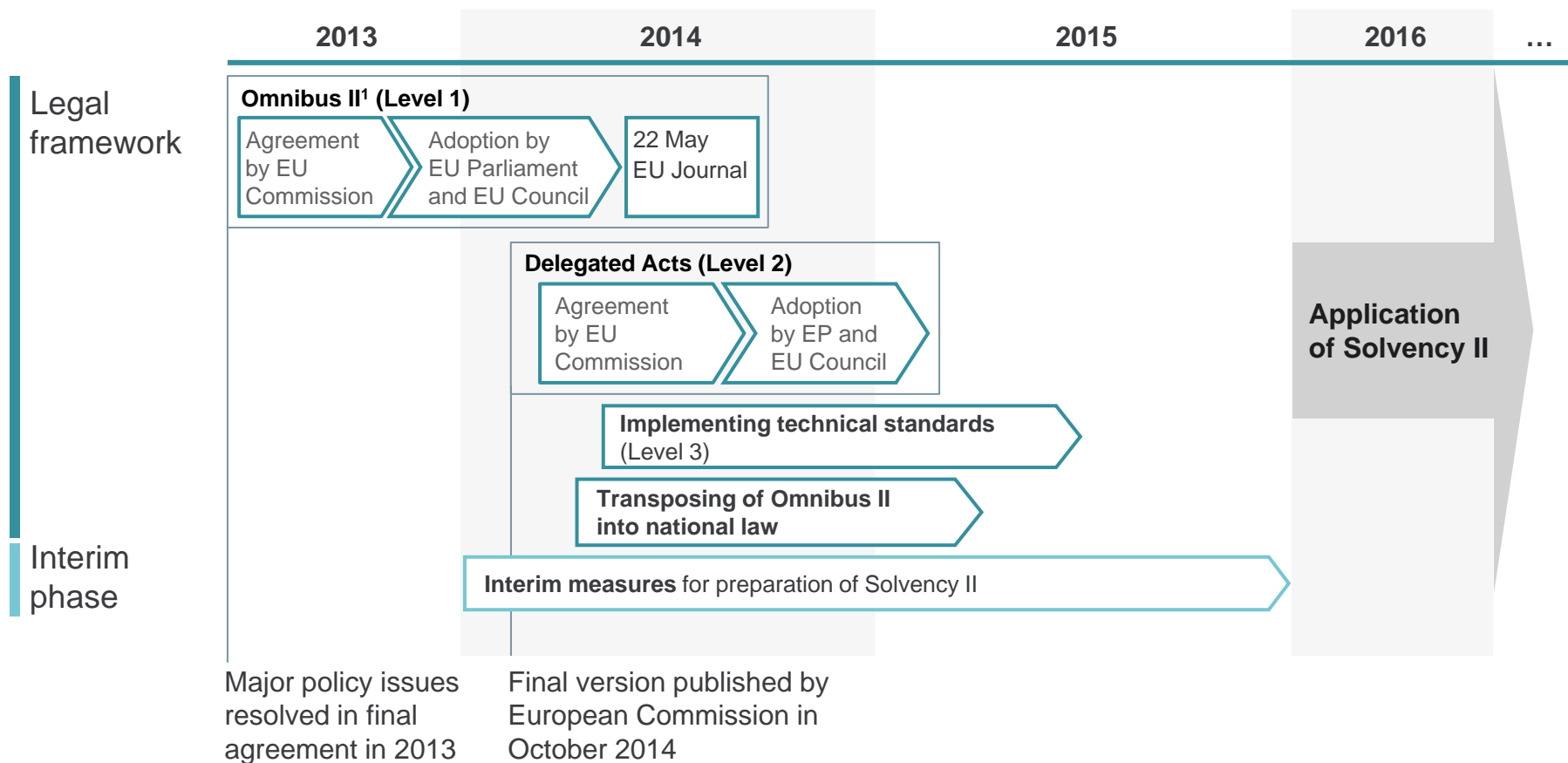
Solvency II

Analysts' briefing

London, 27 November 2014

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Application of Solvency II will start in 2016



Definition of framework at an advanced stage – Interim measures aimed at ensuring smooth transition

¹ Amendment of Directives 2003/71/EC and 2009/138/EC.

Omnibus II –

Major policy issues resolved in final agreement in 2013



Long-term guarantee measures

Yield-curve adjustments

- **Goal**
To avoid artificial volatility of technical provisions
- **Volatility adjustment¹**
To mitigate the effect of exaggerated bond spreads to prevent pro-cyclical investment behaviour
- **Matching adjustment¹**
(Re-)insurers should not be exposed to the risk of changing spreads (not caused by changes in credit risk or any other risk) on those assets in a portfolio where asset and liability cash flows are closely matched

Transitional measures

- **Goal**
To permit a smooth transition to Solvency II
- **Risk-free interest rates**
Linear transition from Solvency I interest rate to Solvency II risk-free interest rates by 1 January 2032
- **Technical provisions**
Linear transition from technical provisions based on Solvency I to technical provisions based on Solvency II by 1 January 2032
- Applicable to contracts concluded before 2016
- Public disclosure of financial position without transitionals

Equivalence

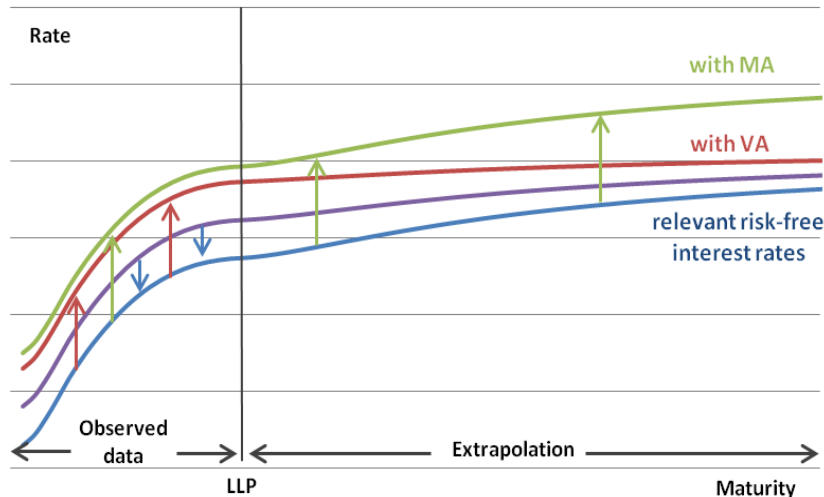
- **Goal**
To encourage international convergence towards risk-based solvency regimes
- **Provisional equivalence**
Allowance for related third-country (re-)insurers: 10 years (can be renewed for further 10 years)
- **Temporary equivalence**
Allowance for reinsurance or group supervision of (re-)insurers with third-country head office: 5 years (+ max. 1 year)

 **Technical specifications and details will be defined in Delegated Acts, Implementing Technical Standards and EIOPA Guidelines**

¹ Disclosure of financial position without adjustments to supervisors.

Long-term-guarantee measures – Designed to dampen volatility of technical provisions

Illustration of long-term-guarantee measures



Adjustments	bps ¹		
	2011	2012	2013
Credit risk adj. (CRA)	25	20	10
Volatility adjustment (VA)	80	40	20

Relevant risk-free interest rates

Interest-rate swap rates adjusted for credit risk (CRA)

Volatility adjustment (VA)

Adjustment to the relevant risk-free interest rates based on spread between interest rate of a reference asset portfolio and the risk-free interest rates

Matching adjustment (MA)

- Adjustment based on spread between interest rate of specific asset portfolio and risk-free interest rates in which asset and liability cash flows are closely matched
- Portfolio-specific – used to calculate best estimate of the liabilities of this specific portfolio

Extrapolation

Rel. risk-free interest rates (+VA) extrapolated to ultimate forward rate (UFR) starting from last liquid point (LLP)

	LLP	Convergence	UFR
Euro (current expectation)	20 years	40 years	4.2%

Improvement in solvency position of life insurers due to increased own funds achieved by applying long-term-guarantee measures

¹ End of year.

Delegated Acts – Final version published by European Commission in October 2014

Delegated Acts (Level 2)

Agreement by EU
Commission

Adoption
by EP and EU
Council

Key issues of Delegated Acts

- Methods and assumptions to be used for the market-consistent valuation of assets and liabilities, including technical provisions
- Methodologies, principles and techniques for the determination of the relevant risk-free interest rate structure including the effects of the long-term guarantee measures
- Specification of eligibility of insurers' own fund items to cover capital requirements
- Details of standard formula for the calculation of solvency requirements, especially
 - set of parameters that may be replaced by undertaking-specific parameters
 - market risk factors applicable to assets (especially to infrastructure bonds and securitisations)
 - correlation parameters
 - risk-mitigation techniques
- Details for reporting (deadlines, information)
- Review of the standard formula parameters by end of 2018

Further delay in Solvency II unlikely after timely publication of the Delegated Acts – even though EU Council and Parliament have a right of veto

Transposition of Omnibus II into national law and detailed technical specifications under construction

Finalisation of technical standards and guidelines

- Timeline: By June 2015
- To be set out in implementing technical standards and guidelines, e.g.
 - criteria for approval, e.g. of ancillary own funds, non-listed own funds items, undertaking-specific parameters, ...
 - details of standard formula, group solvency calculation, system of governance, ORSA, ...
- Agreement on provisional or temporary equivalence of non-EEA countries¹

Transposition of Omnibus II into national law

- Timeline: By March 2015
- Important for single member states not to implement additional requirements that lead to (dis-)advantages for insurers in those countries (“level playing field”)
- Example: according to Omnibus II government bonds of member states are credit-risk free applying the standard formula – aimed at countering incentive to invest in government bonds
Treatment in ORSA and for internal model users still under discussion
- Example: member states may require prior approval to apply a volatility adjustment

Some outstanding issues still to be resolved before the introduction of Solvency II

Final implementation of Solvency II depends on technical specifications – Industry demanding early clarification to prepare Solvency II-compliance

¹ EEA: European Economic Area.

Solvency II outlook – Fuelling a global trend towards risk-based supervision

Development of global regulatory framework

- Insurance core principals (ICP) provide globally accepted framework for the supervision of the insurance sector
- Further work on international supervisory requirements (ComFrame) focusing on insurance groups with international operations
- Basic Capital Requirements (BCR) are basis for consolidated group-wide capital requirements (reported by systemically relevant insurers (G-SIIs) to supervisors from 2015)
- Additional Higher Loss Absorbency (HLA) for G-SIIs build on the BCR and are to be developed by the end of 2015
- Implementing of risk based group-wide global Insurance Capital Standard (ICS) by 2019, to be applied to insurance groups with international operations



**IAIS –
International
Association
of Insurance
Supervisors**

Adjustments to and development of local solvency requirements

- Planned adoptions of Solvency II, in e.g. China, Singapore, Brazil, Chile, Columbia, Mexico, ...
- Adjustments to models using risk-based capital in USA and Canada

Global regulatory framework can lead to adjustments to Solvency II

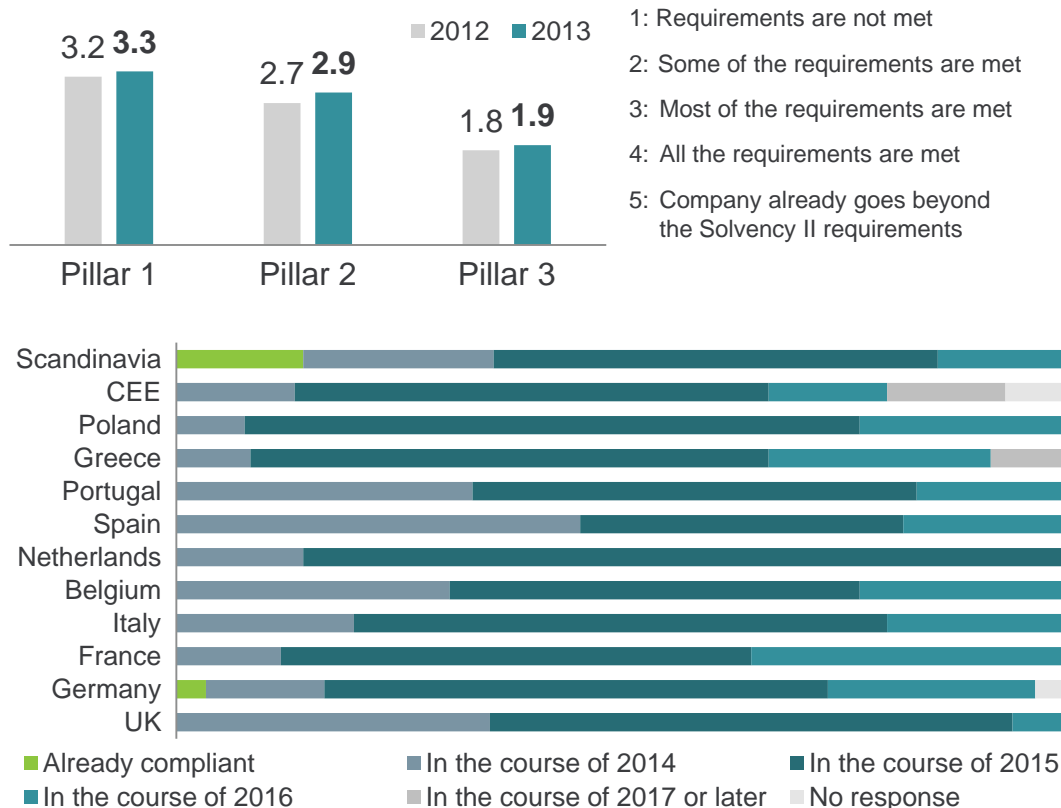
Current status of Solvency II

Impact of Solvency II on insurance industry

Impact of Solvency II on Munich Re

How well is the industry prepared for Solvency II?

Current implementation readiness for Solvency II (European Solvency II Survey 2014 conducted by EY¹)



Pillar 1 (quantitative requirements)

- High state of readiness, especially for the own funds calculation
- Achieving internal model approval remains major challenge

Pillar 2 (governance)

- Most requirements met
- Improvements necessary for integrating capital model implications in business decisions and development of multi-dimensional and quantified stress tests

Pillar 3 (disclosure)

- Least-developed area
- Almost 76% of the insurers only partially meet the requirements, and currently only 7% all requirements
- Low level of automation of reporting

Nearly 80% of European insurers expect to fully meet the Solvency II requirements by January 2016

¹ See "European Solvency II Survey 2014" by EY (Pan-European survey with more than 170 insurers participating to assess the implementation readiness for Solvency II conducted in autumn 2013).

Impact of Solvency II varies according to company size, product specifics and attitude towards economic steering

1 Products/investments

- Products with high market risk exposure¹ may have to be redesigned or replaced
- Development of products balancing capital needs and clients' demands – shift towards less capital-intense products
- Changes in asset allocation due to link between ALM and Solvency II
- Transitional measures could delay the alignment of risk and capital management with Solvency II in the transitional period until 2032

2 Competitiveness

- Excellence in enterprise risk management fosters competitive advantage – especially for large and well-diversified groups
- Increased pressure on smaller, less diversified players
- Higher capital requirements and transparency on profitability may drive consolidation and increase in reinsurance demand
- High cost of compliance raising barriers to entry

3 Transparency

- Enhanced comparability between insurance companies across different business models and countries
- Predefined reporting templates should ensure market-wide consistency
- Fostering a paradigm change towards economic valuation and management concepts
- Increased interaction with supervisors

Diversification and flexible product design are key to fully exploiting Solvency II competitive advantages

¹ E.g. "asset-gathering business".

1 Impact on products – Implications for long-term insurance products expected to be significant

General impact of Solvency II on insurance products

Solvency I sets no incentive for risk-based pricing



Solvency II is risk-based and leads to alignment of pricing, risk and capital management



The design of new insurance products will take the risk-return profile into account

Example

German primary life insurance business

- Capital intensity for guarantee life insurance business under Solvency II is high, especially in current low interest rate environment
- Development of less capital-intensive products is essential
- Changing product mix, making business less dependent on traditional guarantee business

Example

Multi-year property and casualty business

- Capital requirements based on premiums to be earned during the contract period
- Multi-year products have higher premium risk than one-year contracts
- The same applies for multi-year health insurance non-similar to life insurance
- Multi-year covers will be under review

Solvency II gives incentive to diversify insurance portfolios that are less dependent on long-term effects

1 Impact on investments – Implications for the asset allocation ...



Highlights

- Exposure to real assets hardly linked to insurance liabilities, resulting in high capital charges²
- Capital charges for infrastructure and ABS revised in October 2014
- Reallocation of real estate to fixed income leading to significant reduction in market risk – usually improving economic solvency ratio
- However, before any reallocation, the impact on diversification and potential decline of investment returns should be considered
- In this example, the expected excess return of the initial asset allocation must be ~140bps to achieve the same return on risk capital

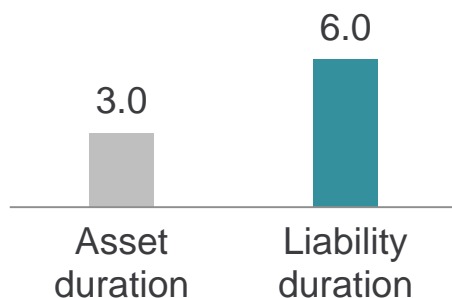
Solvency-capital-intensive asset classes may be replaced by less intensive instruments

¹ This example is based on a real case of a European primary insurer with approx. €1.5bn total investments.

² Risk capital charge for equities (39% / 49% ± adjustment), real estate (25%), charge < 20% for investment grade corporate bonds with a duration < 10 years.

1 ... and asset-liability management expected to focus on solvency ratios

Initial duration positions



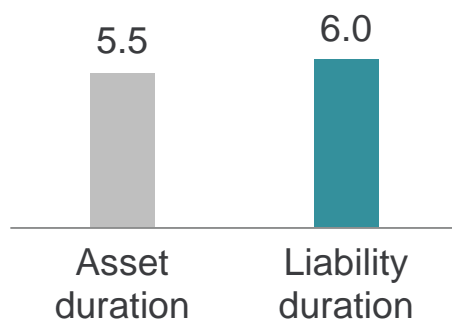
Duration mismatch

3
years

Highlights

- Investments positioned to rising interest rates – resultant duration mismatch causing high capital charges
- Closing the duration gap from 3.0 to 0.5 years significantly reduces market risk
- Comprehensive assessment of interest-rate sensitivity of assets and liabilities (ALM)
- While changing interest rates may cause IFRS accounting volatility, the economic impact of a largely immunised duration position is not significant

After duration increase



0.5
years

Mismatch will be charged with solvency capital, triggering higher demand, e.g. for fixed-income instruments aligning asset with liability duration

2 Impact on competitiveness – Solvency II fully crystallising the value of the reinsurance business model

Risk transfer – Illustration

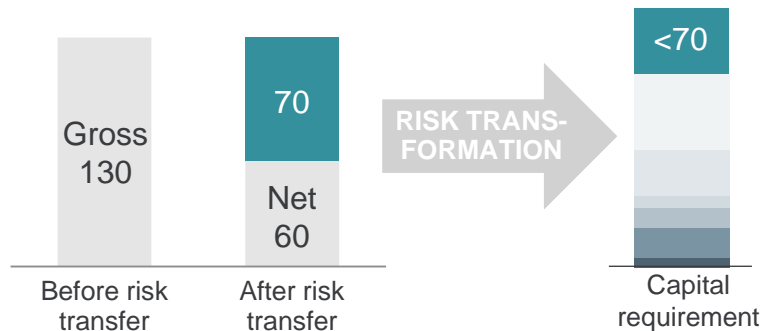
Primary insurer's portfolio

Risk capital
€m

Capital relief

Reinsurer's portfolio

Additional risk capital



Diversification of reinsurers is higher due to

- number of individual risks
- geographical spread (global business model)
- product and line of business mix

Risk transfer from insurer to well-diversified reinsurer beneficial for both

Counterparty default per rating and n. of reinsurers¹

€ Capital strength	Number of reinsurers				
	#1	#2	#3	#4	#5
AAA	8	7	6	6	6
AA	19	16	15	14	14
A	42	21	21	21	30
BBB	92	66	66	66	66
BB	340	284	263	245	245
B	625	523	483	462	448

Lower default risk for a single AA-rated reinsurer than for a panel of 5 A-rated reinsurers

- Explicit consideration of reinsurance credit risk by insurers through counterparty default risk module
- A better-rated single reinsurer always produces a lower counterparty default risk than a panel of lower-rated reinsurers

Financial strength of reinsurer to provide a clearer competitive edge

¹ Based on loss-given default of €1,250; total reinsurance recoverable of €1,000, total risk-mitigating effect of €500, no collateral considered.

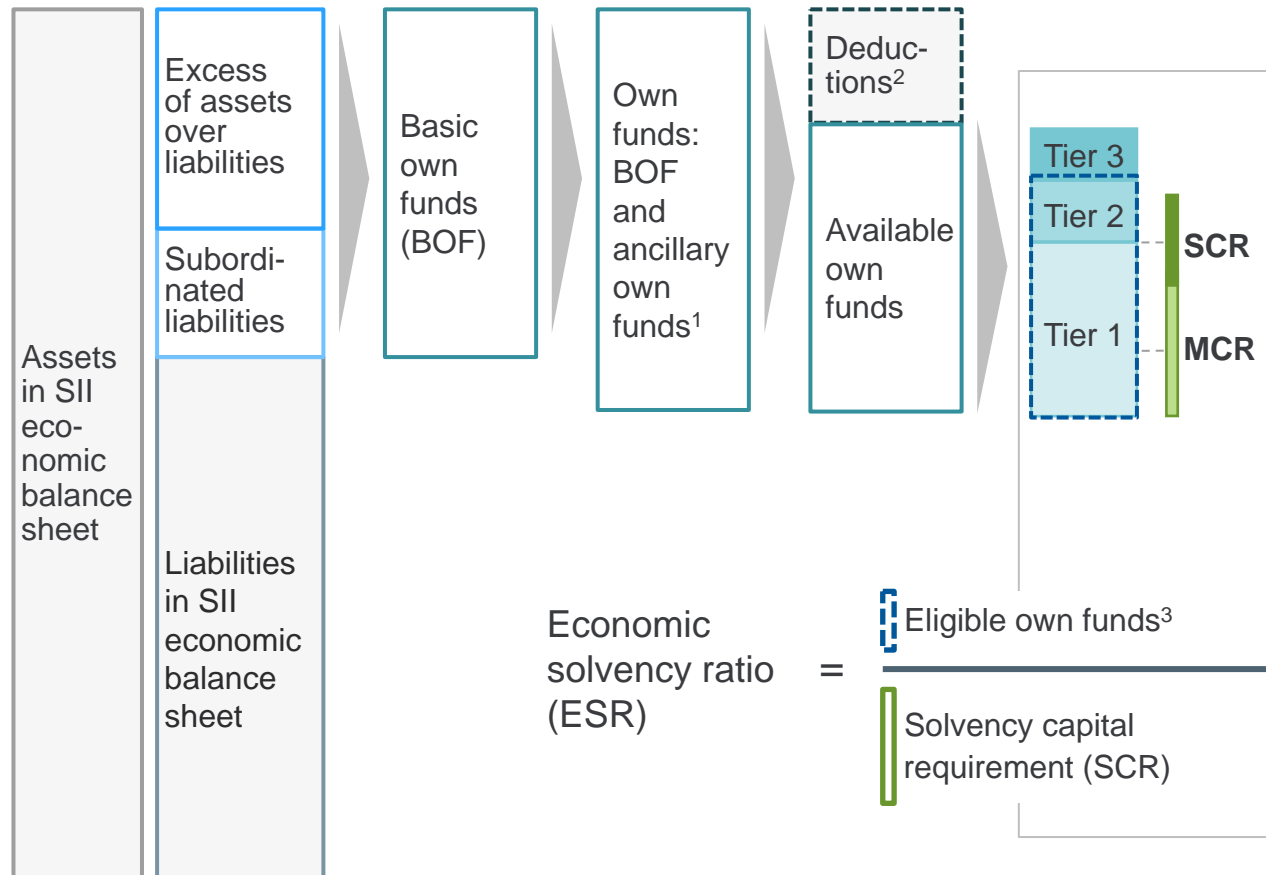
3 Impact on transparency – Solvency II in the context of other capital models and accounting principles

	Solvency II	IFRS	Rating agencies	... German GAAP
Relevance	Economic financial strength and business management	International accounting principles	Credit rating	Ultimate source of capital repatriation
Valuation principle	Comprehensive economic valuation of assets and liabilities	Assets: market values; liabilities: largely undiscounted	Factor-based – Mix between IFRS and Solvency II with some adjustments	Assets: lower of cost or market; liabilities: largely undiscounted
Impact of rising interest rates on capital position	Decrease of fixed-income assets and liabilities; increase in solvency ratio due to lower capital requirements	Decrease in shareholders' equity driven by decreasing market values of fixed-income assets	Decrease in rating capital while M-factor ¹ adjusting capital requirements to improving Solvency II capital; haircut on MCEV uplift	Decrease if market values of fixed-income assets fall below historical costs

Introduction of Solvency II will have no direct impact on accounting regimes – Convergence of some dimensions can be expected in the next few years

¹ Only applies to capital model of Standard and Poor's.

3 Economic balance sheet – Asset- and liability-balances determining capital resources



Information

- Higher granularity of own funds
- Disclosure of tiers to allow assessment of quality of own funds
- Comparison of own funds with capital requirement / minimum capital requirement to permit assessment of solvency position

Reconciliation

- Transitional reconciliation of currently reported Available Financial Resources (AFR) and Basic Own Funds (BOF)
- Drivers for change in BOF are analysed within Profit and Loss attribution (PLA)

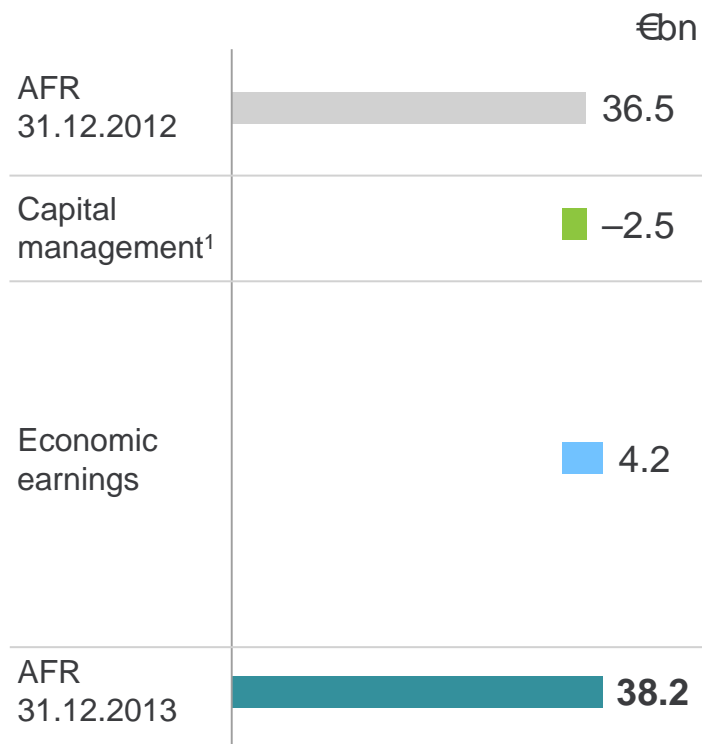
Increased transparency on own funds components, quality and change

¹ Off-balance sheet items that can be called up to absorb losses, e.g. letter of credit – subject to supervisory approval.

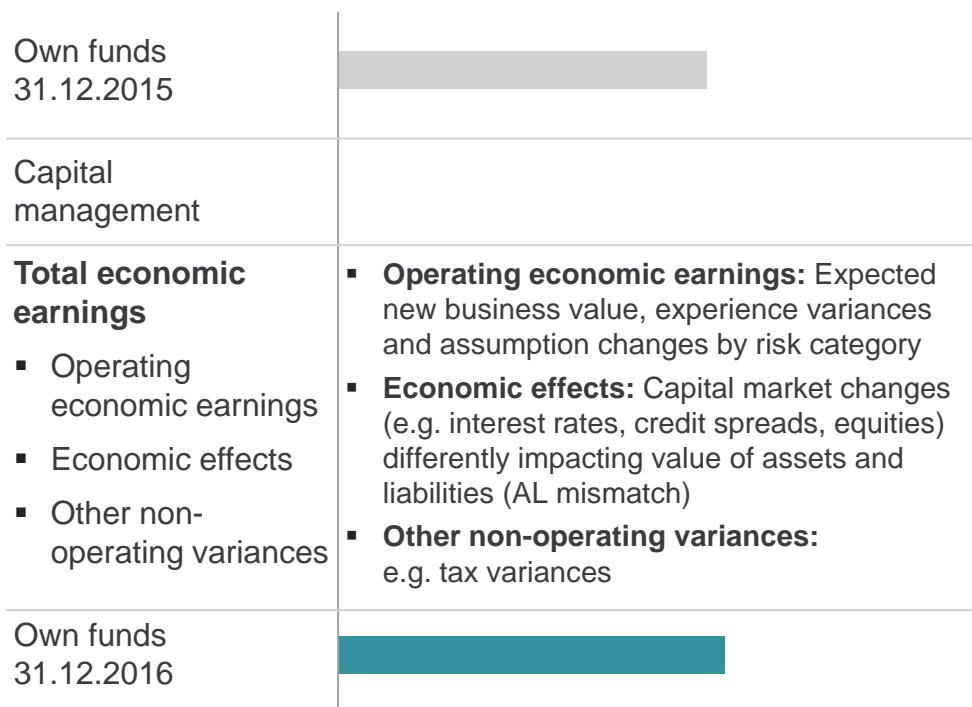
² E.g. dividends and distributions, own shares, ring fenced funds etc. ³ Eligible own funds covering SCR consist of Tier 1, and limited amount of Tier 2 and Tier 3 items.

3 Profit and loss attribution – Own funds to replace available financial resources (AFR)

“Old world” – AFR development Munich Re analysts’ conference 2013



“New world” – Profit and loss attribution “PLA” More granular information on economic earnings²



Economic earnings explain the change in economic capital resources based on value and risk drivers – Transition of MCEV reporting to SII-based metric from 2016

¹ Mainly dividends (–€1.3bn), share buy-back (–€0.3bn) and change in hybrid capital (–€1.1bn).

² Final metric to be discussed.

3 Regulatory actions based on economic solvency ratio

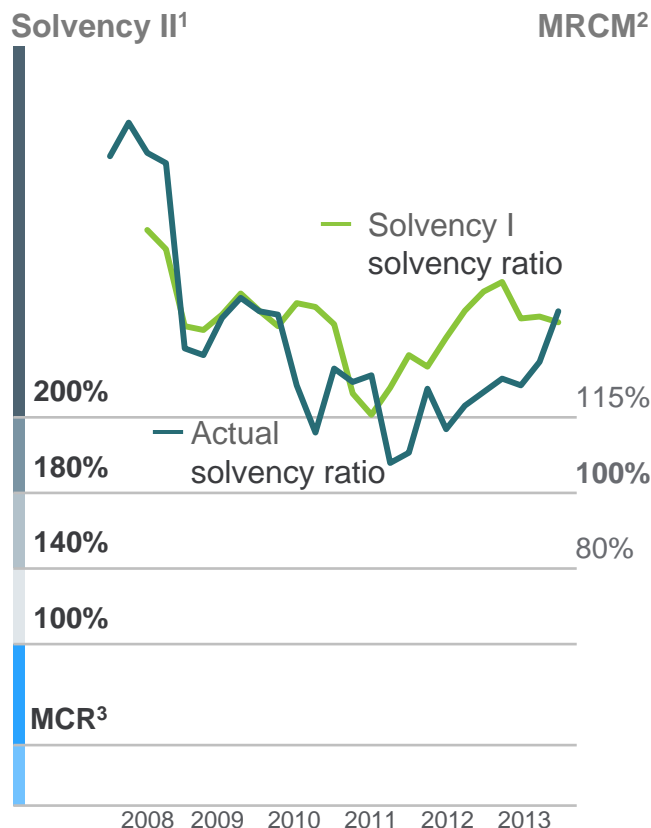
Below target capitalisation

- ESR (SII)¹ between 45%–100%
- Obligation to submit a realistic recovery plan and to take necessary measures to achieve compliance with the SCR

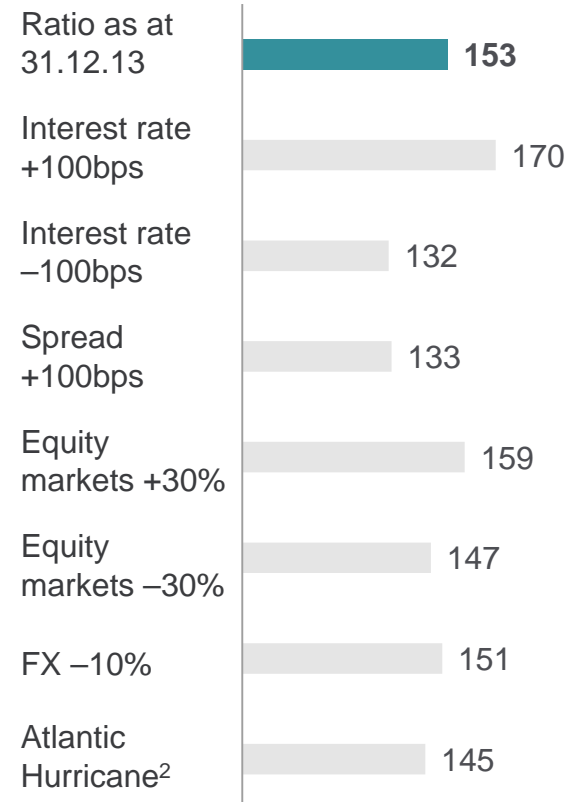
Insufficient capitalisation

- ESR (SII)¹ less than MCR (25%–45% of SCR)
- Obligation to submit a short-term realistic finance scheme
- Regulator may restrict or prohibit the free disposal of insurer's assets
- Ultimate supervisory intervention: withdrawal of authorisation

Munich Re's econ. solvency ratio



Sensitivity of ESR (MRCM)² %



Economic solvency ratios are likely to show high volatility under Solvency II, particularly due to the mark-to-market valuation

¹ Economic solvency ratio (SII): Based on VaR 99.5%. ² Economic solvency ratio (MRCM): Based on 1.75*VaR 99.5%.

³ Minimum capital requirement (MCR).

Impact of Solvency II on insurers within EEA ceding business to reinsurers outside the EEA

European Economic Area (EEA) insurer



ceding
business
to ...

Non-EEA reinsurer



Supervision of EEA insurer (cedant)

Third country is equivalent

No difference from the requirements applicable to reinsurance from EEA reinsurers

Third country is not equivalent

Member states may require of pledge assets to cover unearned premiums and outstanding claims provisions

Supervision of non-EEA reinsurer

Has to meet local solvency requirements

Assessment of equivalence – Process

- European Commission specifies criteria for equivalence and names countries deemed to be equivalent
- Equivalence can be granted temporarily for 5 years (+ maximum one year extension) before the European Commission has to take a final decision on full equivalence

Solvency II may not lead to a competitive advantage for non-EEA reinsurers

Impact of Solvency II on EEA insurers and reinsurers with parent undertaking outside the EEA

Non-EEA parent



writing
business
within ...

EEA subsidiary



Group supervision of non-EEA parent

Third country is equivalent

Supervision of parent is based on the equivalent group supervision of the third-country supervisor – no further group supervision by EEA supervisors

Third country is not equivalent

Supervisors may take steps to ensure appropriate supervision of the undertakings in a group; in particular they may require the establishment of an insurance holding company with head office in the EEA

Supervision of EEA subsidiary

Has to meet the Solvency II requirements

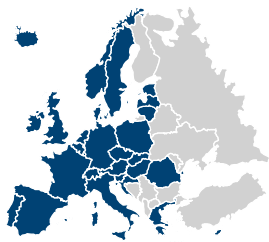
Assessment of equivalence – Process

- European Commission specifies criteria for equivalence and names countries deemed to be equivalent
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Solvency II does not lead to a competitive advantages for non-EEA headquartered insurers writing business in the EEA

Impact of Solvency II on EEA (re-)insurers with subsidiaries outside the EEA

EEA parent



writing
business
via ...

Non-EEA subsidiary



EEA group has to meet the Solvency II requirements

Group solvency capital is based on consolidated accounts

The group solvency calculation of the subsidiary is based on Solvency II

Deduction and aggregation method is used

Third country is equivalent

The local solvency capital and own funds of the third country can be used for the group solvency calculation

Third country is not equivalent

The group solvency calculation of the subsidiary is based on Solvency II¹

Supervision of non-EEA subsidiary

Has to meet the local solvency requirements

Assessment of equivalence – Process

- European Commission specifies criteria for equivalence and names countries deemed to be equivalent
- Equivalence can be given provisionally for 10 years (possible renewal for 10 years)

Competitive disadvantage in non EEA countries due to costs of implementation of qualitative requirements in subsidiary to meet SII requirements at EEA group level

¹ E.g. standard formula.

Current status of Solvency II

Impact of Solvency II on insurance industry

Impact of Solvency II on Munich Re

Munich Re well on track to meet all Solvency II requirements by the introduction in 2016

Pillar 1 (quantitative requirements)

- Official application for the approval of the internal model expected in Q2 2015
- Trial application submitted in October 2014
- Since 2009 Munich Re has been in the pre-application process with BaFin
- In 2014 Munich Re has completed an informal model change phase for parts of the internal model
- Application is a strategically important issue for Munich Re, as the standard formula has primarily been developed for primary insurance and does not properly reflect the diversified business model of global reinsurance

Pillar 2 (governance)

- Risk management already effective and integrated in management and business decisions
- Key functions established
- Most of the requirements for validation, documentation and internal policies already finalised

Pillar 3 (disclosure)

- Implementation of Pillar 3 requirements at an advanced stage
- Dry run for Solvency II balance sheet successfully completed based on FY 2013 figures
- Late publication of final quantitative reporting requirements (QRTs) by EIOPA is a challenge

**Most of risk management already Solvency II-compliant –
Capitalisation of Munich Re remains very strong under Solvency II**

Pillar 1 – Transition from Munich Re's available financial resources to Solvency II basic own funds

Transition from AFR to SII BOF	Available financial resources (AFR)	Impact (expected)
	▪ Reduction by foreseeable dividends, distributions, charges and repayment or redemption (e.g. share buy-back)	↓
	▪ Transition from market value margin to Solvency II risk margin	↘
	▪ Fungibility and transferability restrictions (Group) and restrictions due to ring-fenced funds and matching adjustment portfolios (solo)	↘
	▪ Contract boundaries	↗
	▪ Surplus funds	↗
	▪ Mandatory adjustments of current risk-free interest rates to Solvency II risk-free interest rates (extrapolation and CRA)	↗
	▪ Long-term-guarantee measures (volatility and matching adjustment)	↗
	▪ Further adjustments (tax, other liability items, ...)	↓ / ↑
	Solvency II basic own funds (BOF)	

Shift from available financial resources to basic own funds will have an impact, but overall no major effects on capital position expected¹

¹ Regulatory practice may lead to certain modifications during the first years of application.

Pillar 1 – Implications for Munich Re's required economic capital

Internal model deeply entrenched in management and reporting

- Internal capital model developed for management purposes within the last 15 years, hence reflecting the specifics of reinsurance business, e.g.:
 - large non-EEA exposures
 - high diversification
 - non-proportional reinsurance
 - risk mitigation
 - geographical diversification of mortality
- Granular view on risks, e.g. cyber risk
- Options and guarantees adequately considered
- Government bonds of member states have spread and default/migration risk in the internal model

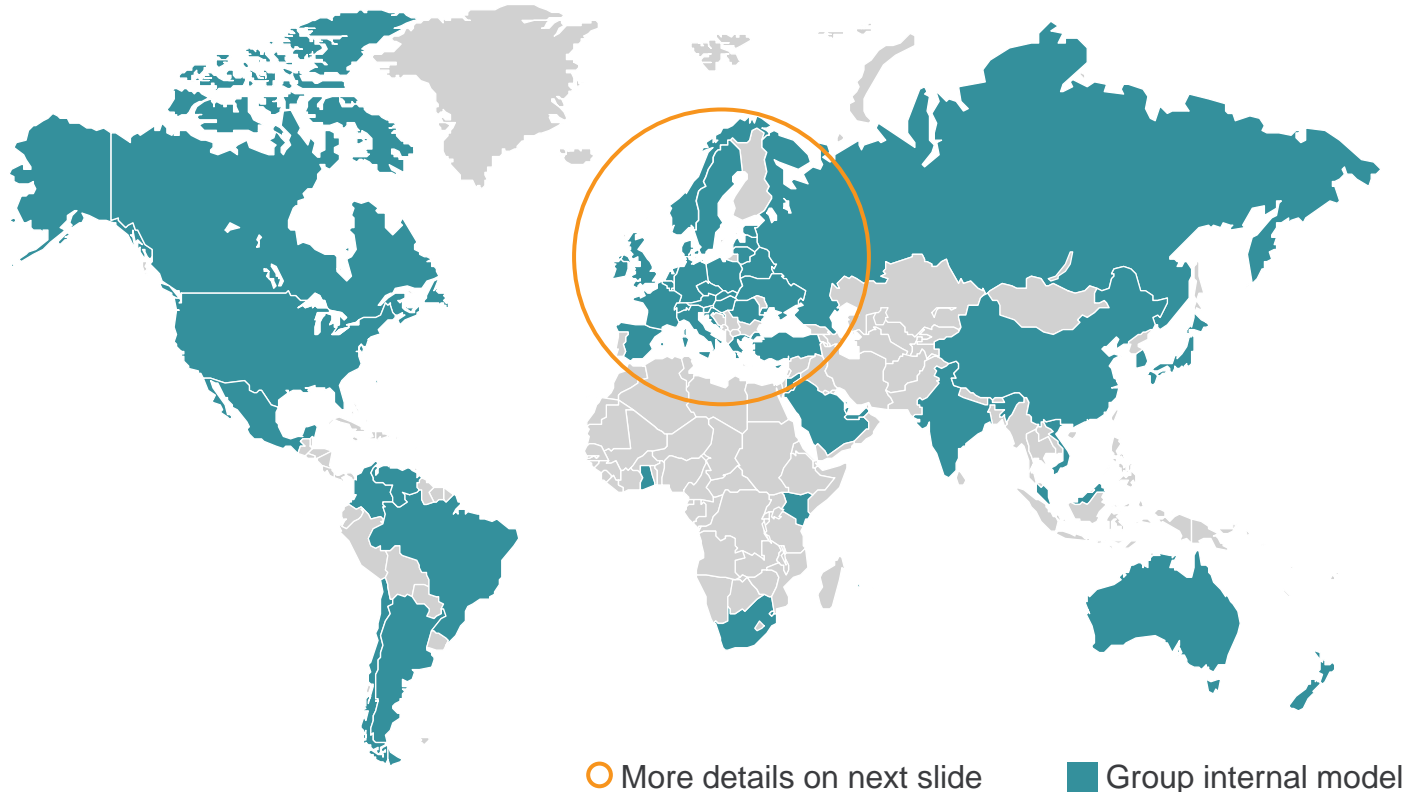
Adjustments to the internal model to meet final Pillar 1 requirements

- Most of the Solvency II requirements already fulfilled by Munich Re's internal model
- Final adjustments required
 - Treatment of tax
 - Solvency II yield curves (aligned with own funds)
 - Fungibility
- External reporting is based on SCR (VaR 99.5%) calculated with the internal model
- Internally higher capital requirements ($ERC = 1.75 \cdot SCR$) to fulfill AA-rating requirements even in stressed market situations

Internal model developed for internal steering of business – No major changes expected in our capital allocation and distribution, insurance or investment portfolio

The internal model of Munich Re Group captures all relevant legal entities

Worldwide overview of application of Munich Re's group internal model

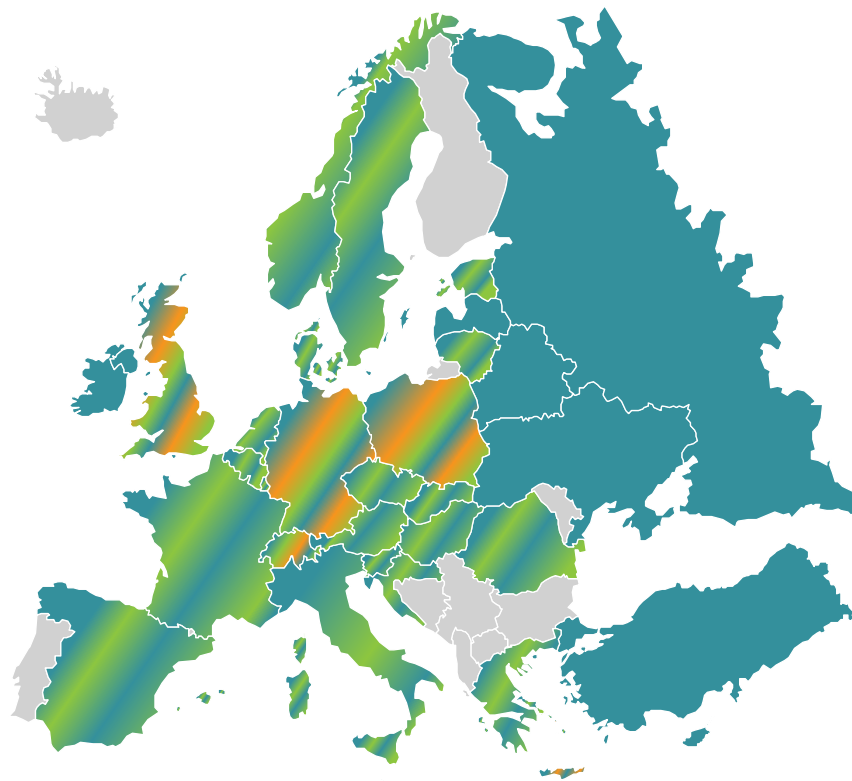


- Calculation of the solvency of Munich Re Group is planned to be carried out on the basis of consolidated accounts
- Assessment of equivalence of third-countries is not relevant for Munich Re if calculation is not based on the deduction and aggregation method
- No decision yet on application of long-term guarantee measures and transitionals within Munich Re

Group solvency capital calculated with the internal model covering all entities in Munich Re Group

At solo level, internal models or standard formula are applied at EEA legal entities

European overview of application of Munich Re's internal model or standard formula on legal entity level



- Group internal model
- Internal model applied to legal entity¹
- Standard formula applied at solo level

- Standard formula developed for primary insurers in EEA
- Munich Re intends to apply the standard formula at legal entity level if the calibration fits the portfolio of the entity (e.g. ERGO Leben, Victoria Leben, ERGO Previdenza)
- The internal model reflects the reinsurance specifics and is applied for all reinsurance entities (e.g. MR AG, Munich Re of Malta, Great Lakes UK)

Solo solvency capital based on standard formula for specific EEA primary legal entities – Solvency capital of reinsurance legal entities based on internal model

¹ Germany: Munich Re AG, DKV, ERGO property-casualty, D.A.S., ERGO Direkt.

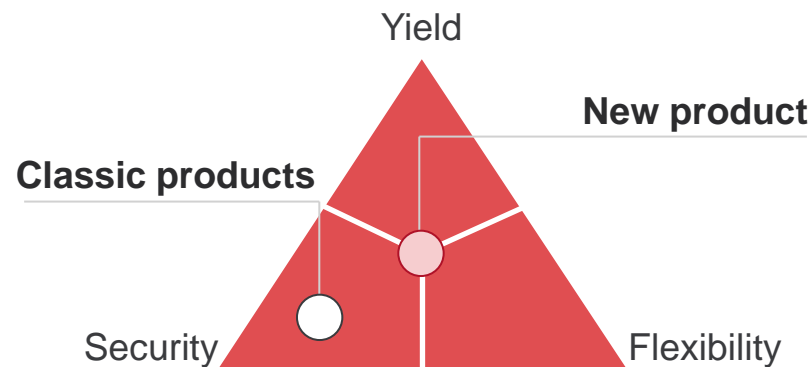
Implications for Munich Re's primary insurance – Development of new product generation in German primary life

Comprehensive management of back book

- Interest-rate hedging programme already implemented in 2005
- Duration gap noticeably reduced
- Comparatively low bonus rates for policyholders

Expansion of new product generation

- New product generation launched in June 2013
- Already making up more than 70% of new business in private pensions¹
- Significantly lower risk capital requirements



New product less exposed to interest rates, gradually leading to reduced capital requirements

¹ Annual premium equivalent (APE), only third-layer private provision ("ungeförderte Rentenprodukte") and tied agent organisations.

Implications for Munich Re's reinsurance business – Solvency II brings a paradigm shift in reinsurance buying motivation

Paradigm shift

- Increased transparency on the economic value of reinsurance
- More volatile solvency ratios leading to higher attention from board and management
- Removal of artificial caps on recognition of reinsurance as a risk mitigation instrument
- Beyond pure risk transfer, reinsurance reduces the solvency capital requirement rapidly
- Reinsurance as a capital management solution can be purchased quickly ...
- ... while guaranteeing more confidentiality than traditional capital market solutions or the use of long-term-guarantee measures

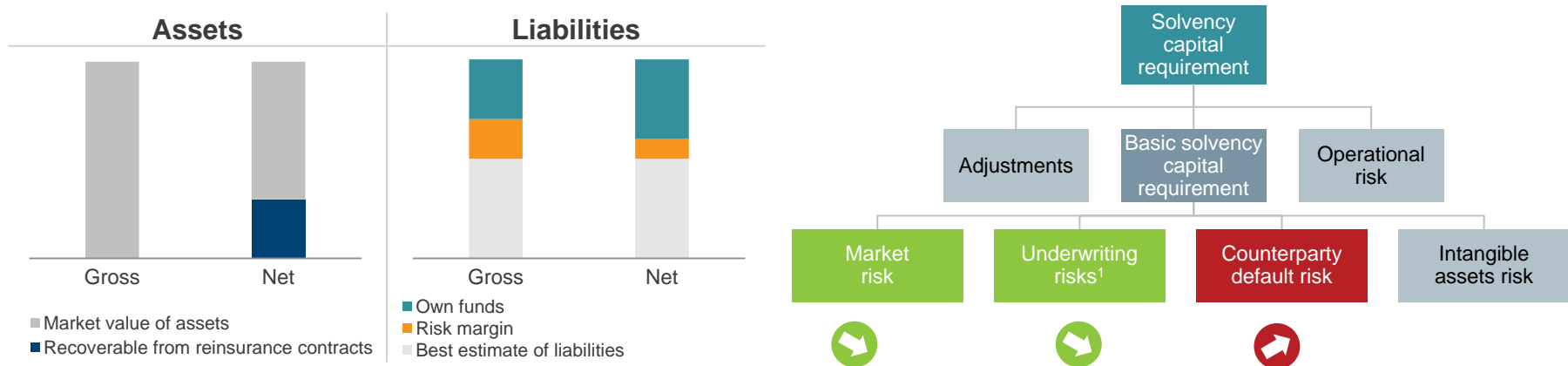
Reinsurance benefits

- Enables clients to
 - free up solvency capital
 - actively manage the economic balance sheet
- Accumulate solvency relief over time as more and more risk arising from technical provisions is mitigated
- Quickly and widely accessible – also for small companies and mutuals with limited access to capital markets
- Less detailed information to be published

Increasing range of tailor-made reinsurance solutions that are both competitive in price and Solvency II-efficient

Reinsurance solutions well suited to help clients improve their solvency position

Reinsurance solutions – Effect of reinsurance on the economic balance sheet



Effects

- Reinsurance reduces the risk margin substantially – technical provisions include not only the best estimate, but also the risk margin, which acts as a loading for non-hedgeable risks
- Counterparty default risk increases as a result of the risk of unexpected default by the reinsurer ...
- ... but is more than compensated by a significant reduction in underwriting risk
- In general, market risk will decrease due to reinsurance premium payment and reinsurance recoverable showing similar interest rate sensitivity to the original liability

Reinsurance is a simple and flexible way to consistently reduce solvency capital requirements

¹ Life, health and property-casualty risks.

Illustration¹ – Reducing solvency capital requirements in non-life insurance (NL)

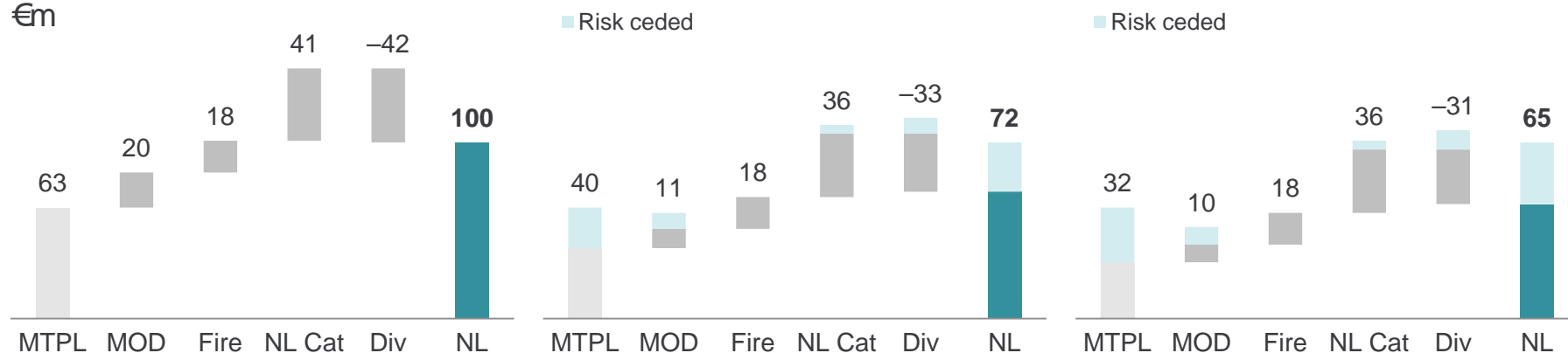
Starting point before reinsurance

After one year

After three years

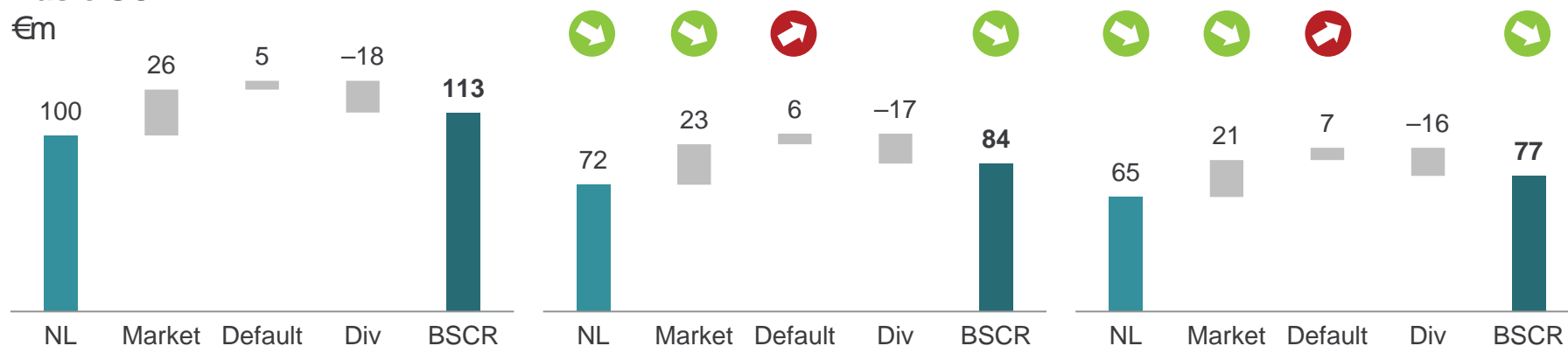
Underwriting risks

€m



Basic SCR

€m






¹ Example: 50% reinsurance quota-share motor business.

Capital relief

- While for long-tail business it takes some time to fully exploit the reinsurance relief, an immediate effect is visible for short-tail business
- The longer the duration of business, the later reserve risk will be relieved
- Reinsurance solutions that cover reserves from old underwriting years (e.g. LPT/ADC) lead to an immediate reserve (risk) relief
- Quota share has an immediate and full effect on premium risk, while the relief generated for reserve risk follows later

Solvency capital requirements







- Reinsurance has a positive effect on
 - underwriting risk: –€35m 
 - market risk: –€5m 
- Marginally offset by a higher charge for
 - counterparty default risk: +€2m 



SCR reduction of >30%

Reinsurance leads to a significant reduction in SCR – unfolding its full potential after some years

Examples of recent transactions – Reinsurance as a means of risk transfer and capital support

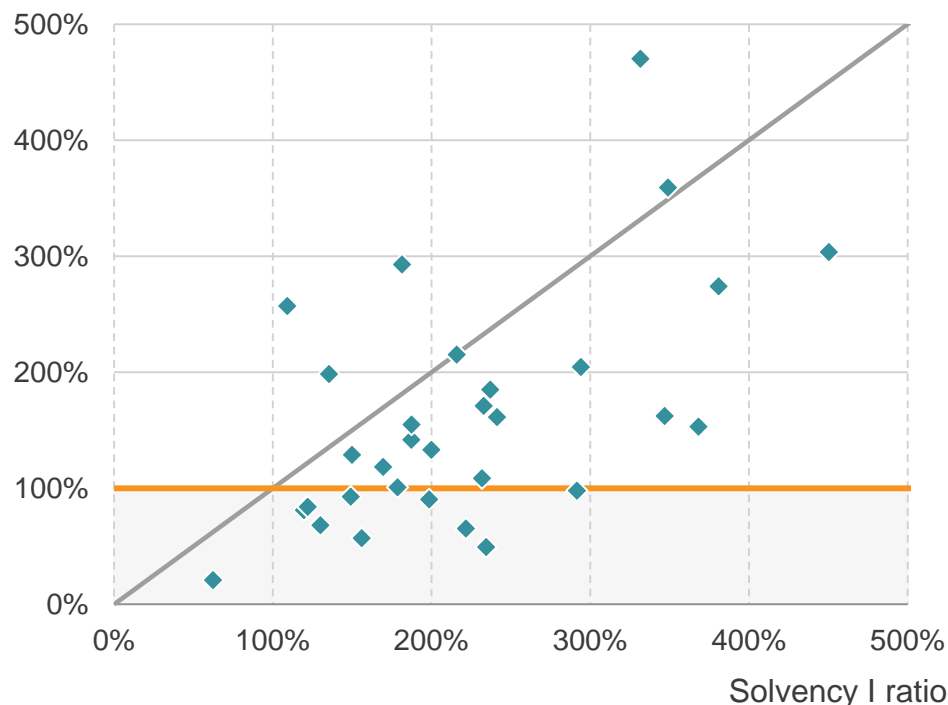
Country	Deal	Deal motivation	Munich Re solution
 Austria	Bridge the gap	Support planned future growth and temporary protection of solvency ratios	Combined non-life product (QS, LPT) and integrated life solution
 Norway	Partnership wins	Strategic capital optimisation after management buy-out to support growth	Multi-line quota share
 Slovenia	Trust enables	Stabilisation of KPI's and refinancing of parent company	Multi-year quota share with innovative features
 France	Fire brigade	Improvement of rating capital position due to recent government bond valuations	Integrated reinsurance solution consisting of various QS and LPT
 Cyprus	Timely intervention	Enhancement of Solvency II ratio due to unsatisfactory QIS5 results	Three-year quota share
 Spain	Unlock sales channel	Pre-funding of investments in additional sales channels	Integrated retroactive solutions to generate balance-sheet-neutral results
 Canada	Quick recovery	Improvement of capital position after the financial crisis	Multi-year quota share

Munich Re supporting clients to improve their solvency positions

A standard model for non-life insurers

Comparison of Solvency I and Solvency II ratios at companies analysed¹

Solvency II ratio



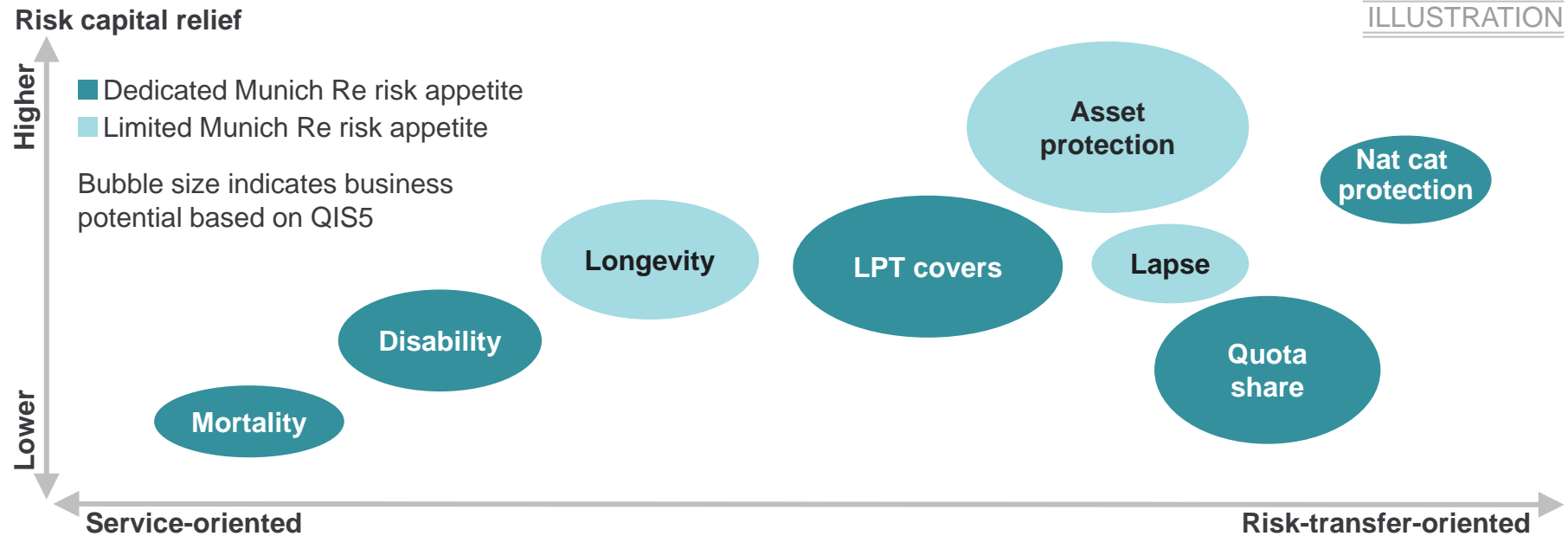
Main findings

- In general, the Solvency II ratio is considerably lower than the Solvency I ratio
- On average, the ratio under Solvency II is 30% below the Solvency I ratio (the diagonal line represents parity)
- The correlation between the two sets of ratios is only 56%, indicating that a strong Solvency I position does not necessarily indicate that a company will have a correspondingly strong Solvency II ratio
- Companies will have to hold a buffer on top of the SCR to ensure smooth operation

More than a quarter of the companies analysed would have had a solvency problem (SCR <100%) on conversion to Solvency II (standard formula)

¹ In cooperation with our clients, over 60 analyses were carried out up to March 2014.

Business opportunity segmentation



Life business

- Largest potential for products covering market risk
- Underwriting risks less important and generally written in connection with services

Non-life business

- Largest potential for nat cat, retrospective covers and quota share treaties depending on client risk profile
- Standard formula favours proportional treaties

Business opportunities will arise but careful selection will be required

Business opportunities – Munich Re actively encourages demand for Solvency II motivated reinsurance

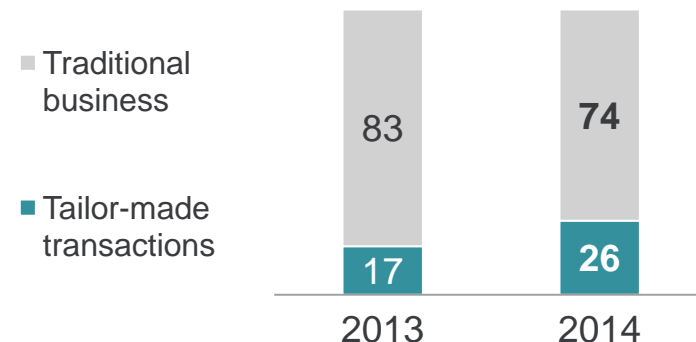
Munich Re offers

- Tailor-made prospective reinsurance solutions providing solvency capital relief at a competitive price
- Strengthening client relationship through ad-hoc analysis and services showing the multi-year economic effect of reinsurance solutions
- Transfer of Munich Re expertise and vast experience gained in Europe to regulatory regimes similar to Solvency II in Asia and Latin America
- Retrospective solutions to protect loss reserve in order to remove the timing uncertainties of claims while providing a “new start” for the company

Munich Re positioning

- Market-leader position in structuring complex capital relief transactions for European insurers
- High risk appetite for complex and “non-traditional” covers
- Increased demand for interdisciplinary capabilities

Munich Re capital relief transactions volume¹



Capital relief transactions delivering growing share of business less bound to market terms

¹ Share of total renewed business.

Solvency II is setting new standards in the risk-based supervision of insurers

- Uniform regulatory framework in Europe, allowing for economic evaluation of risks
- Comparability of solvency position and own funds
- Movement analysis split into operational and economic changes
- Solvency II fuels trend to global risk-based supervision

Capitalisation of Munich Re remains very strong under Solvency II

- Internal model developed for internal steering of business
- No major changes expected in capital allocation and distribution, insurance and investment portfolio
- New business opportunities in reinsurance due to capital relief transactions and tailor-made solutions

Limitations of Solvency II

- Models have limitations
 - Calibration may lead to pro-cyclical decisions (e.g. investments at end of credit cycle)
 - Assumptions may lead to concentration risk, e.g. nil credit risk charge on sovereign bonds for member states in standard formula
- Reporting may not provide expected insight and comparability because of underlying valuation models and assumptions

2015

5 February	Preliminary key figures 2014 and renewals
11 March	Balance sheet press conference for 2014 financial statements Analysts' conference with videocast
23 April	Annual General Meeting, ICM – International Congress Centre Munich
7 May	Interim report as at 31 March 2015
30 June	Investor Day, London
6 August	Interim report as at 30 June 2015
5 November	Interim report as at 30 September 2015

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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 conform them to future events or developments.

Figures up to 2010 are shown on a partly consolidated basis.

"Partly consolidated" means before elimination of intra-Group transactions across segments.