# RELIABLE CONTINUITY IN TIMES OF UNCERTAINTY

## Morgan Stanley "European Financials Conference 2012 – Creating Value in a Deleveraging Environment"

London, 29 March 2012

Jörg Schneider

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# In 2011 Munich Re coped well with historically high nat cat claims and severe capital market disruption …

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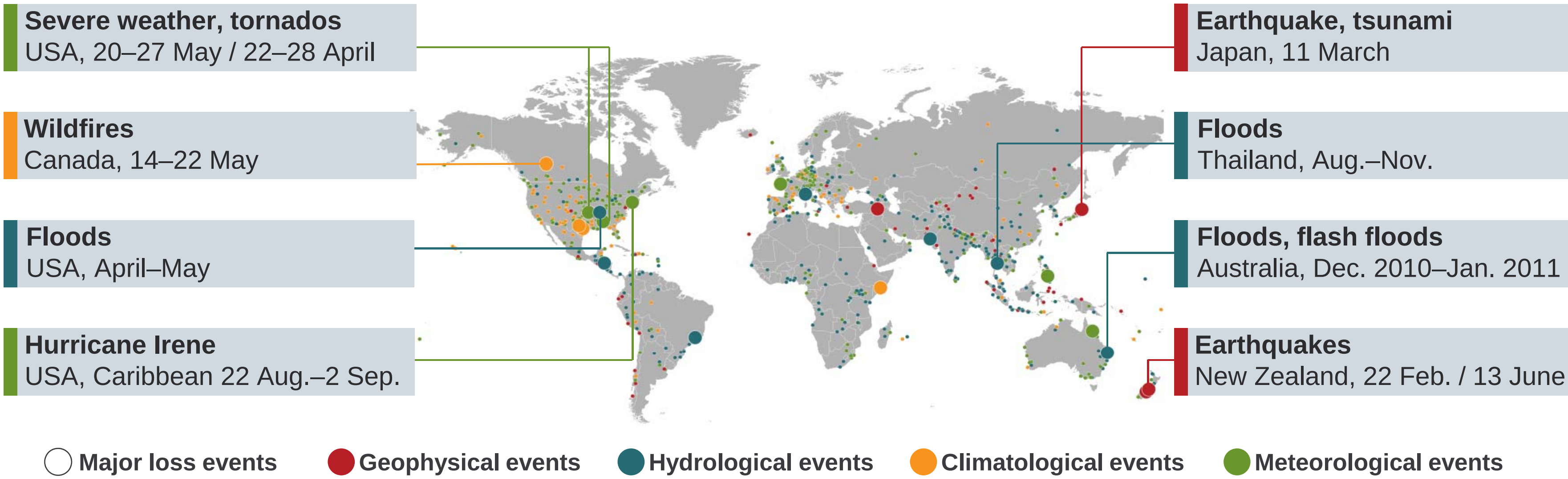
| 10-year German Bund yield[1] | Credit spreads[1,2] | EURO STOXX 50[1] |
|---|---|---|
| –113 bps | +145 bps | –17% |

## Natural catastrophes[3] – Economic losses of US$ 380bn, thereof US$ 105bn insured




**In a year of extremes, Munich Re achieved an annual result of €712m and maintained a stable dividend of €6.25 per share**

1 Change between 31.12.2010 and 31.12.2011. 2 IBOXX EURO Corporate vs. BofAML German Government 7–10 years.
3 Source: Geo Risks Research, NatCatSERVICE.

# … while Munich Re's long-term shareholder return remains attractive

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## Years of volatile macroeconomic environment

**2007** Subprime crisis → **2008** Credit crisis → **2009** Global recession → **2010/2011** Sovereign crisis → Ongoing uncertainty

## Impact

Austerity measures and quantitative easing leading to ongoing low interest rates while macroeconomic uncertainty remains

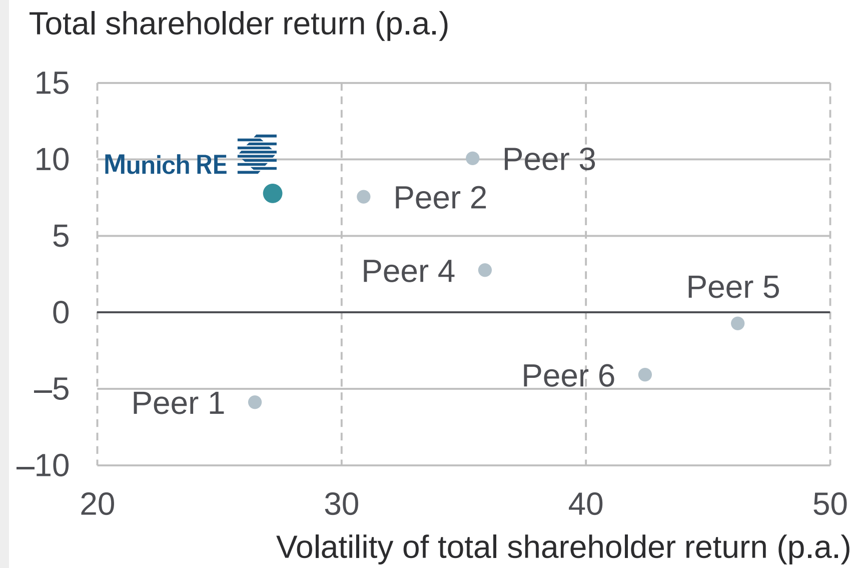
**Earnings pressure**
Gradual reduction of investment income

**Higher volatility**
Returns becoming less predictable

**Munich Re focusing on liability side as main source of value creation**

## Risk/return profile[1]

%




**Stringent risk management and high level of portfolio diversification – in core insurance business and investments**

1 Annualised total shareholder return defined as price performance plus dividend yield over the period from 1.1.2005 until 21.3.2012; based on Datastream total return indices in local currency; volatility calculation with 250 trading days per year. Peers: Allianz, Axa, Generali, Hannover Re, Swiss Re, Zurich Financial Services.

# Key achievements in 2011 remain building blocks of Munich Re's future development

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## Key achievements in 2011

### 1 Disciplined asset-liability management

Investment and duration management mitigate capital market disruption

### 2 Deeply-embedded risk management

Continuity in terms of risk profile - cycle management at work

### 3 Sound capital base

Economic solvency ratio resilient to withstand another extreme year

### 4 Well-balanced business portfolio

Complementary profiles with relatively low gearing to the economic cycle

**Munich Re well-set for a deleveraging environment**

# Prudent investment approach

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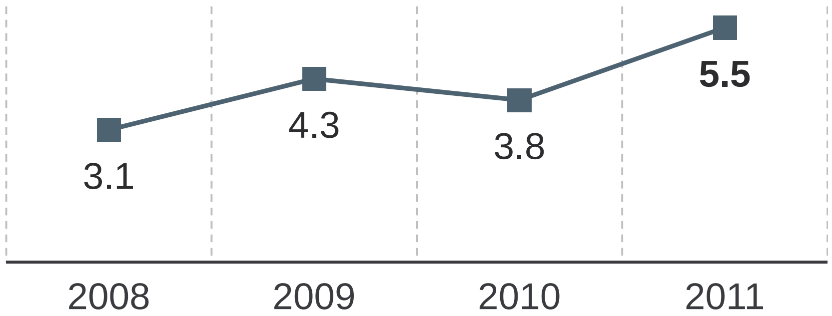
## Unrealised gains[1]

%




## Interest rate sensitivity (DV01)[4]

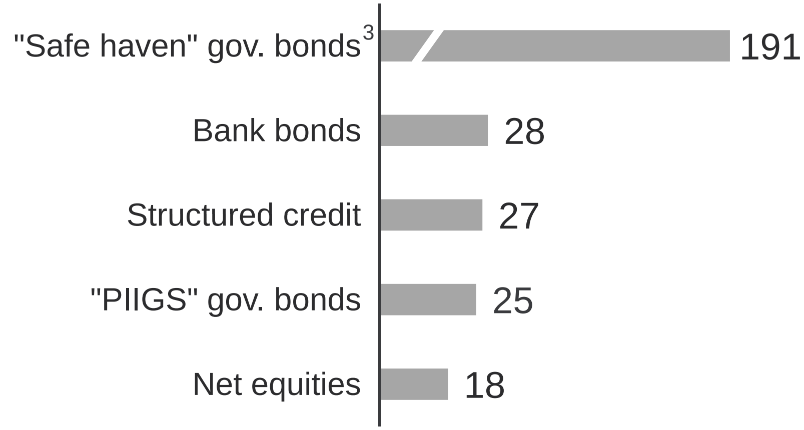
€m

| | |
|---|---|
| Reinsurance | –9.5 |
| Primary insurance | 21.2 |
| **Munich Re (Group)** | **11.7** |

Internal hedge diminishing impact of low yields

## Asset gearing[2]

%




- Limited risky asset exposure
- Overweight in high quality bonds – gains on "safe haven" bonds more than compensate for losses in "PIIGS" government bonds

**Well-balanced investment portfolio safeguarding low capital market gearing of shareholders' equity**

[1] Total on- and off-balance-sheet reserves divided by market value of investments. [2] Gross exposure divided by shareholders' equity. [3] German and US government bonds. [4] Sensitivity to parallel upward shift of yield curve by one basis point reflecting portfolio size (DV01). Economic view – not fully comparable with IFRS figures. As at 31.12.2011.

# Active asset management on the basis of a well-diversified portfolio

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## Investment portfolio[1]

%

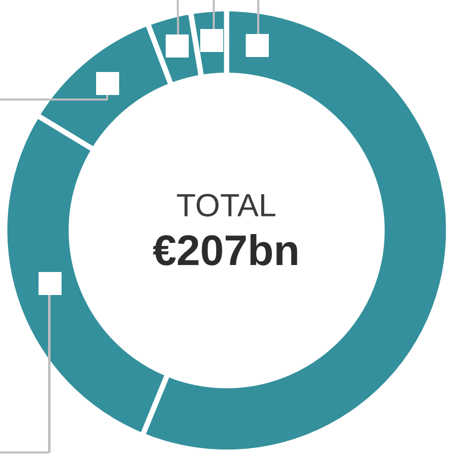
Land and buildings
**2.6** (2.9)

Shares, equity funds and participating interests[2]
**3.2** (4.0)

Miscellaneous[3]
**10.5** (9.7)

Loans
**27.5** (25.7)

Fixed-interest securities
**56.2** (57.7)




## Major changes in 2011

- Shift from weaker to high-quality government bonds, esp. Germany and western Europe
- Stronger focus on emerging market debt
- Significant reduction of bank bonds
- Further cautious increase of corporate bonds
- Reduction of equity exposure to 2.0% after hedges

**Broad diversification remains key as Munich Re is well-prepared for different capital market scenarios**

[1] Fair values as at 31.12.2011 (31.12.2010). [2] Net of hedges: 2.0% (4.4%).
[3] Deposits retained on assumed reinsurance, unit-linked investments, deposits with banks, investment funds (excl. equities), derivatives and investments in renewable energies. Economic view – not fully comparable with IFRS figures.

# Investment strategy
# Further optimisation on the basis of a defensive risk profile

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## Market expectations of MEAG

| | |
|---|---|
| **"Relief"**<br>▪ Considerable rise in interest rate level; high but still manageable inflation<br>▪ Significant equity performance | ~15% probability |
| **"Euro-Recession"**<br>▪ Interest rates rise moderately, but stay low, inflation recedes somewhat due to base effects<br>▪ Equities perform moderately | ~70% probability |
| **"Further escalation"**<br>▪ Interest rates fall below the lowest level ever seen, low inflation<br>▪ Equities drop sharply | ~15% probability |

## General investment strategy

- No intention to increase asset risk significantly
- Cautious shift from safe-haven governments to strong corporates to optimise credit risk
- Reduce exposure to financial institutions
- Further increase of solid non-financial corporate bonds at the longer end and ABS/MBS at the shorter end of the yield curve as buy and hold investments
- Further diversification into real assets, such as renewable energy and infrastructure
- Equity investments will remain at low levels

**Sustainable strategy with flexibility to take investment opportunities**

# Extensive strategic asset-liability management measures in 2011

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## Asset-side measures

### ERGO life

- Substantial measures taken at early stage to address interest rate sensitivity
  - Reinvestments in long-duration bonds
  - Purchase of receiver swaptions
- Effect: Increase of ~1.2 years asset-side duration
  - Enhanced cash flow matching
  - Reduced convexity risk

### Reinsurance

- Strategic increase of asset-side duration for the reinsurance segment to optimise Munich Re Group's duration mismatch
- Effect: "Duration hedge" between primary and reinsurance has worked

## Liability-side measures

### Focus on own business portfolio

New product development in primary life focusing on guarantees that can be hedged more efficiently

### Focus on clients

- Complex hedging capabilities already developed and established since 2007 …
- … leveraged to support clients' needs to develop and set up new products with an improved risk-return profile
- Asset protection in life reinsurance proved successful throughout turbulent year 2011

**Demonstrated commitment to optimising Munich Re Group's duration mismatch through active duration steering**

# Munich Re benefits from strong diversification between natural catastrophe risks

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## Attractive risk-return profile


## Munich Re's nat cat risk profile

- Munich Re's capital model (MRCM) uses 35 nat cat scenarios representing the bulk of the overall nat cat loss cost
- According to MRCM, the probability of experiencing an aggregated loss from natural catastrophes as in 2011 is 2% for Munich Re

## Strategy in peak scenarios

**Atlantic Hurricane**
Opportunistically taking advantage of positive pricing trend and model refinements

**Storm Europe**
Reduction of exposure due to clear focus on profitability in a still competitive market environment

**Earthquake Japan**
Opportunistically taking advantage of positive pricing trend

**Even including exceptional years like 2005 and 2011, Munich Re's nat cat business has been profitable for more than 15 years**

[1] Accumulated economic profit 1995–2011.

# Sound capital position according to all metrics

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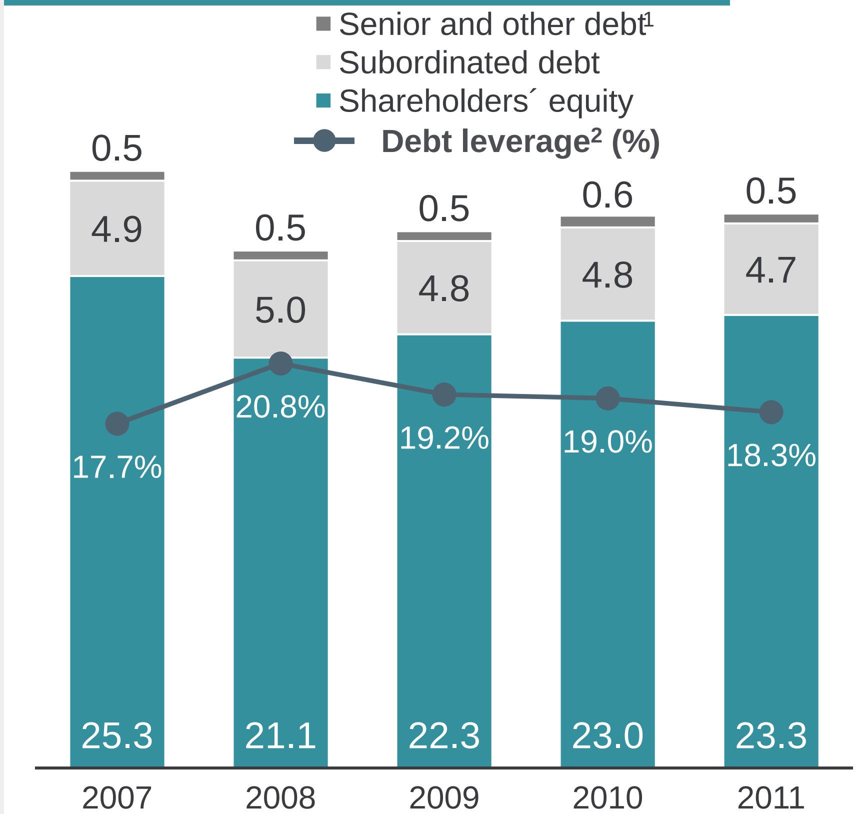
## Capital structure

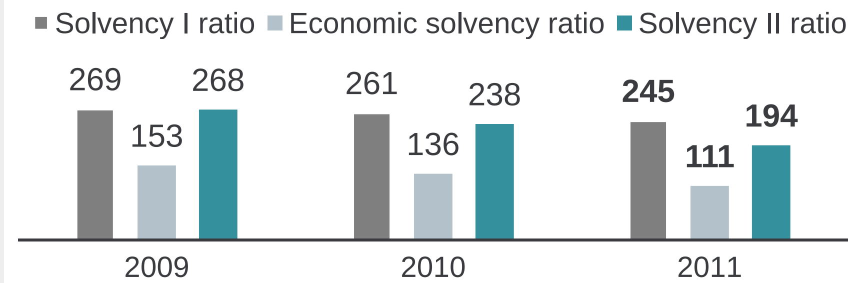
€bn




**Munich Re one of the least leveraged groups in the industry**

## Solvency ratio

%




## Economic capital position

€bn

| | Capital at Solvency II calibration / Additional 75% buffer | **31.12. 2011** | 31.12. 2010 |
|---|---|---|---|
| Available financial resources (AFR) | 28.3 | **28.3** | 29.6 |
| AFR after share buy-back and dividends[4] | 27.2 | **27.2** | 28.1 |
| Economic risk capital[3] | 13.9 / 10.5 | **24.4** | 20.7 |
| Economic solvency ratio | | **111%** | 136% |
| Economic capital buffer after share buy-back and dividends[4] | 2.8 | **2.8** | 7.4 |
| Capital buffer under Solvency II-calibration | 13.3 | **13.3** | 16.3 |

1 Other debt includes bank borrowings of Munich Re and other strategic debt.
2 Strategic debt (senior, subordinated and other debt) divided by total capital (= sum of strategic debt + shareholders' equity).
3 Solvency II capital based on VaR 99.5%, Munich Re internal risk model based on 175% of Solvency II capital.
4 After announced dividend payout of ~€1.1bn for 2011 to be paid in April 2012 (subject to AGM approval). 31.12.2010: after dividend of €1.1bn for 2010 and €0.4bn share buy-back.

# Moderate impact of capital market scenarios on Munich Re's solvency position

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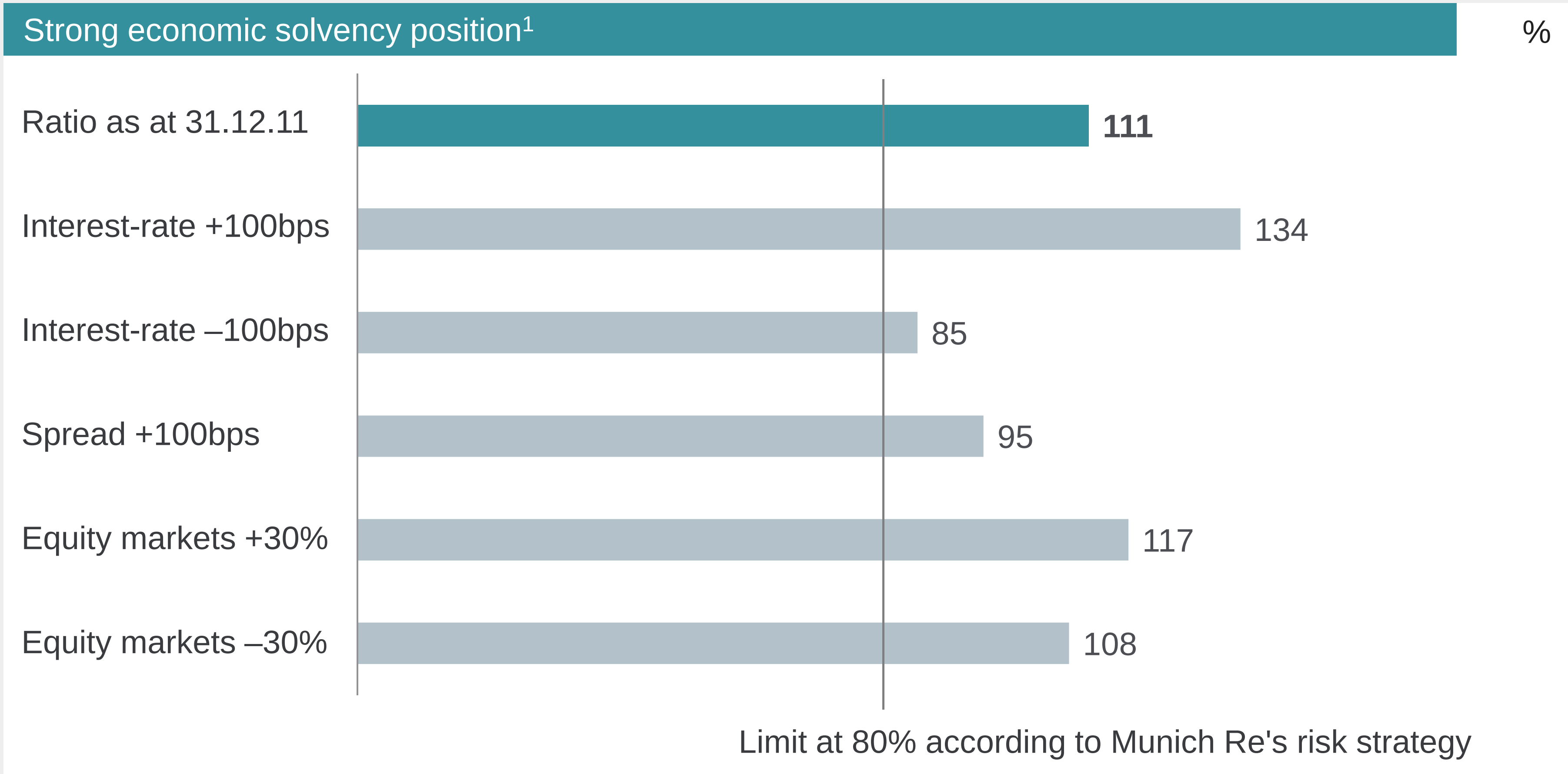
## Strong economic solvency position[1]




**Munich Re able to withstand further stress scenarios**

[1] Solvency ratio defined as Available Financial Resources (AFR) over Economic Risk Capital (ERC; 175% of Solvency II calibration); AFR after announced dividend for 2011 of €1.1bn to be paid in April 2012.

# Economic capital – Management intervention much more granular than supervisory scheme

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## Munich Re actions[1]

**>120%**
**Excellent capitalisation**

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

**100%–120%**
**Comfortable capitalisation**

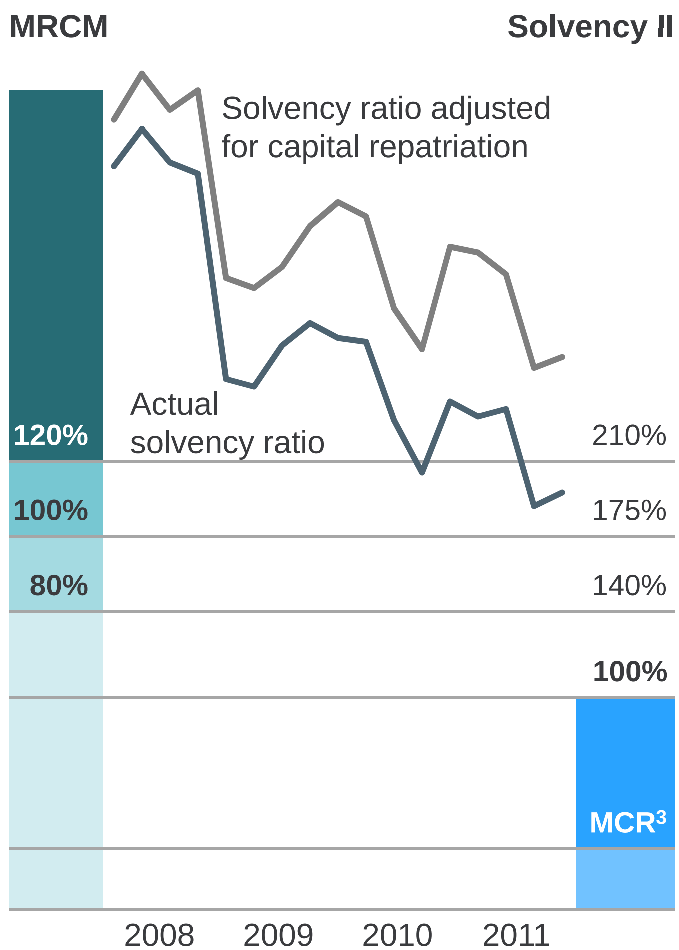
**80%–100%**
**Adequate capitalisation**

- Tolerate and monitor
- (Partial) suspension of capital repatriation

**<80%**
**Below target capitalisation**

- Risk transfer
- Scaling down of activities
- Raising of (hybrid) capital

## Munich Re solvency ratio




## Regulatory actions[2]

**MCR–100%**
**Below target capitalisation**

- Obligation to submit a comprehensive and realistic recovery plan
- Insurer to take necessary measures to achieve compliance with the SCR

**<MCR**
**Insufficient capitalisation**

- 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

1 Based on Munich Re capital model (MRCM): 175% of VaR 99.5%.
2 Based on Solvency II calibration: VaR 99.5%.
3 MCR = Minimum Capital Requirement, typically between 25% and 45%; for groups called "Group SCR floor".

# Capital strength facilitates reliable shareholder participation

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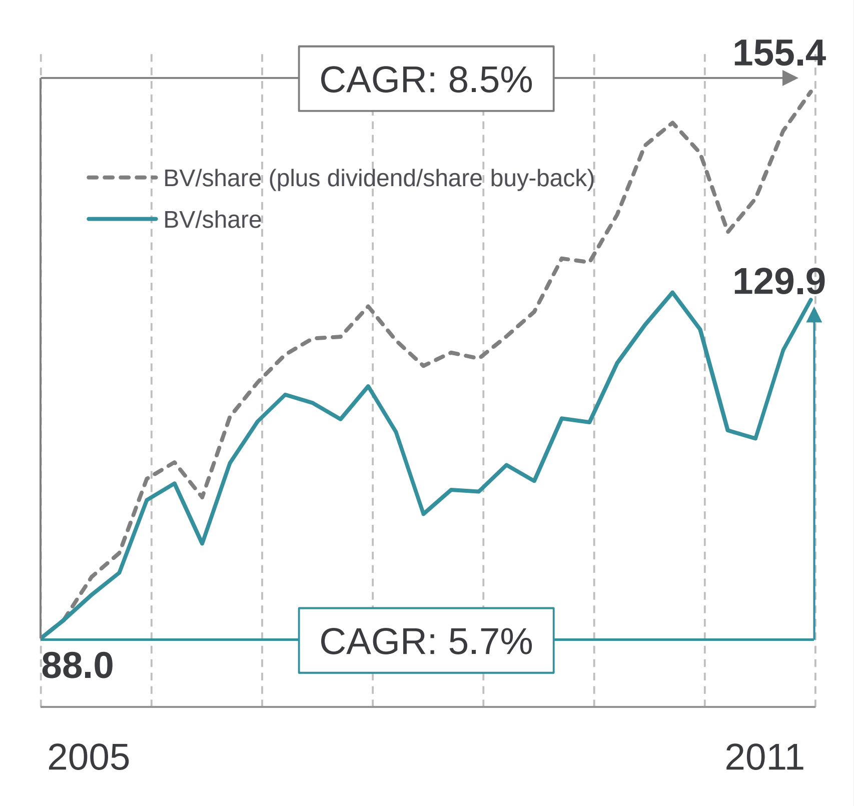
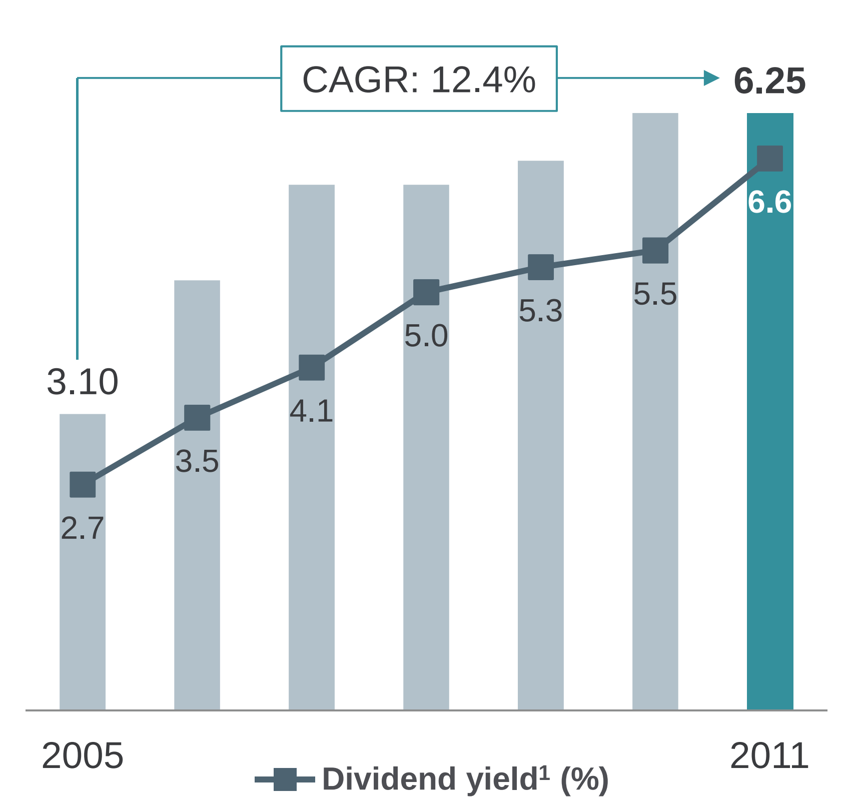
## Sustainable book value … €




## … and dividend growth €




**Sustainable dividend growth for decades[2] – Providing attractive dividend yield even in challenging times**

[1] Dividend divided by year-end share price.
[2] 1969 was the only year since 1952 with a decreased dividend per share.

# Business portfolio of complementary profiles performing in any market environment

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ILLUSTRATIVE

Sensitivity to macroeconomic changes: Higher – Lower

**Primary life**
In particular, products with investment component dependent on interest rate development

**ERGO International**
Cautious business expansion in CEE and Asia in a macroeconomic-sensitive environment

**Primary non-life**
Quite robust to macro-economic changes delivering stable earnings

**Primary health**
Yearly price adjustments to reflect medical inflation in addition to high client retention

**Munich Health**
Managing political risks and portfolio consolidation while long-term growth opportunities persist

**Reinsurance non-life**
Nat cat and some other businesses hardly correlated with macroeconomic cycle

**Reinsurance life**
Potentially more client demand for capital relief in addition to further business expansion in Asia

Capital generation – Business development

**Balancing long-term growth opportunities and capital generation – Relatively low gearing to economic cycle**

# Ongoing price increases expected in upcoming reinsurance renewals

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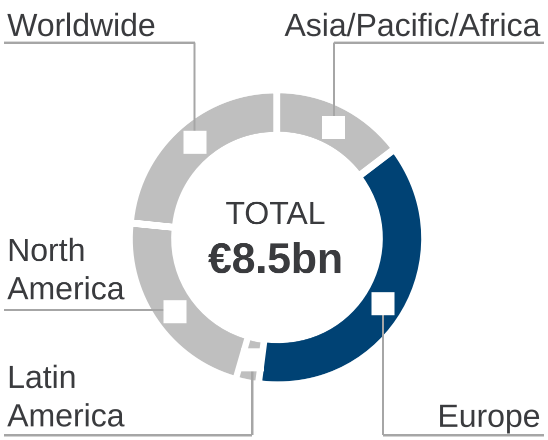
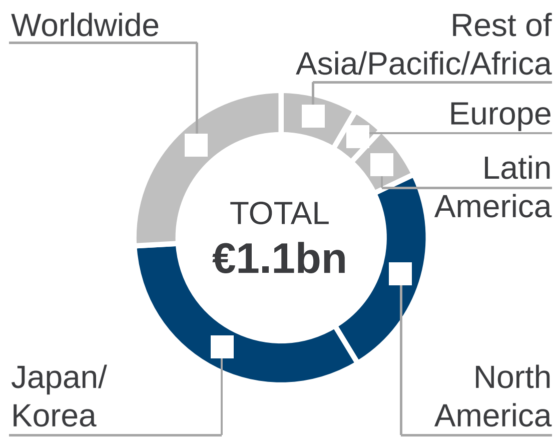
## January




Renewal focus on **Europe** – showing flat price development

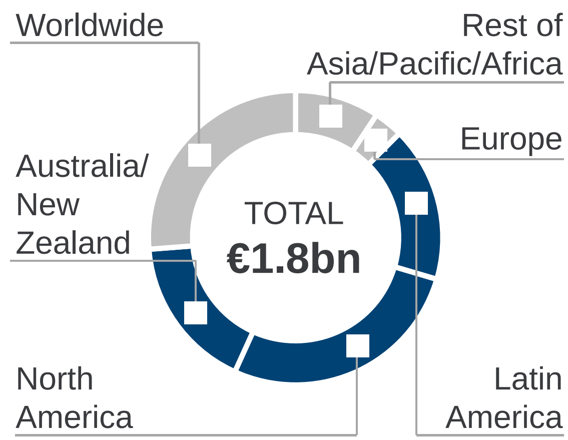
- **Nat cat portion only 11%** – with significant price increases
- **Casualty portion** quite **high**

## April




Renewal focus on **Japan/Korea**

## July




Renewal focus on **USA, Latin America and Australia**

- **Nat cat portion ~30%** – More impact at April/July renewals
- Significant price increases for nat cat expected, as especially loss-affected regions will be renewed
- Trend of nat cat price increases expected to continue

**Continuation of portfolio improvement expected**

# Munich Re well positioned to manage changes and capture opportunities arising from Solvency II

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## Key open issues

- Valuation of insurance liabilities, especially
  - Triggers and level of the Counter-Cyclical Premium
  - Method for the determination of the Matching Adjustment
- Overburdening reporting requirements (Pillar 3)

## Further process for 2012

- Adoption of Omnibus II Directive
- Finalisation of Level 2 measures
- Drafting and finalisation of Level 3 binding technical standards
- Transposition into national law

## Start of Solvency II[1]

- Phasing in: 2013
- Application of Solvency II starting in 2014 with transitional measures
- Non-compliance with SCR[2] and reporting requirements tolerated for a transitional period

## Munich Re's positions

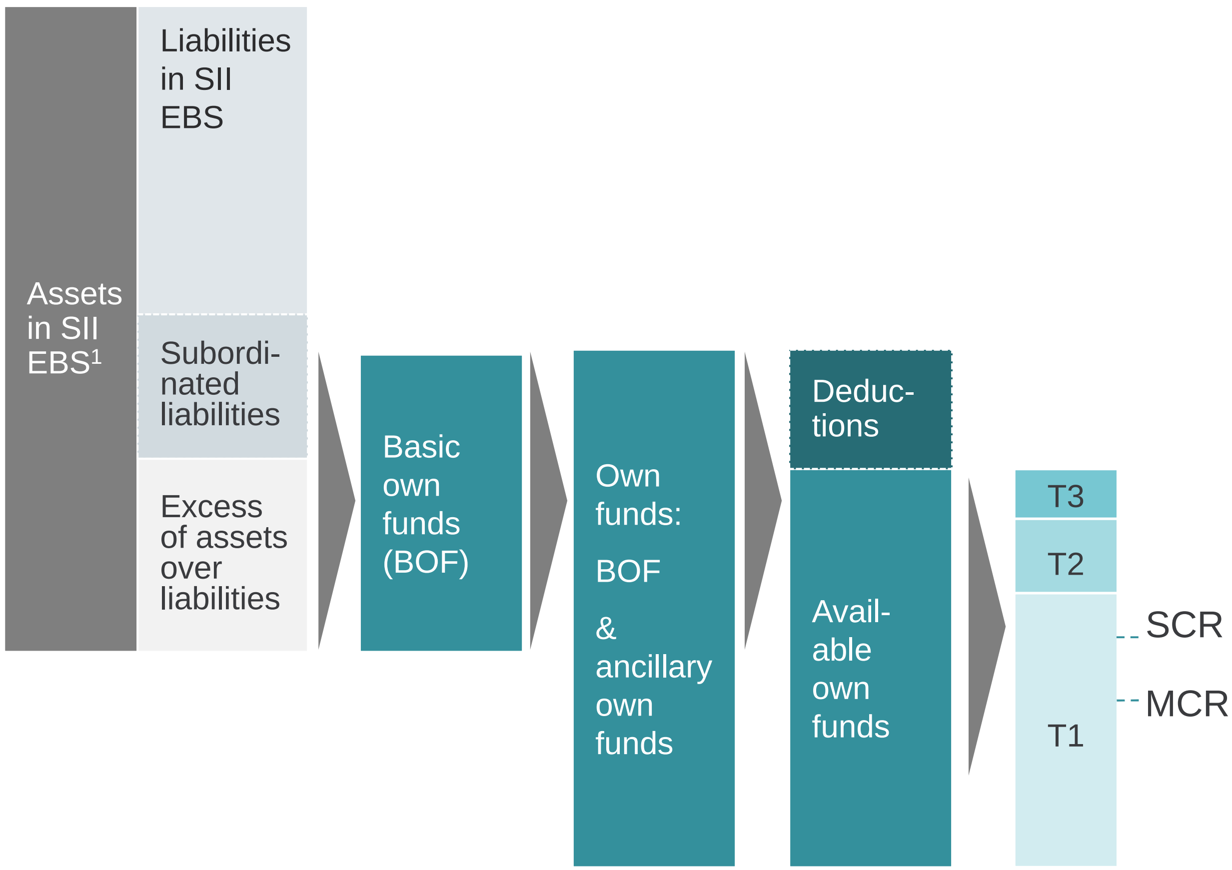
In favour of balance between smooth transition to Solvency II and adhering to the spirit of the Solvency II Directive in the long run

Timely introduction of Solvency II is possible with common efforts

**Soft-launch of Solvency II during the first year after transposition and transitional measures is a good compromise**

[1] Draft Report on Omnibus II by Burkhard Balz, 16.03.2012, agreed by the ECON Committee on 21.03.2012.
[2] SCR: Solvency Capital Requirement.

# Solvency II allows for an adequate reporting of the insurance business model




## Purpose

- Detailed summary of own funds – shows legal origin and mix of own funds
- Disclosure of tiers permits assessment of quality of own funds
- Compares own funds with capital requirement/minimum capital requirement

## Requirements

- To be produced quarterly ...
- ... though only published annually
- Required for both legal entities and groups (the latter with additional information)

**Increased transparency on own funds components and quality**

[1] Economic balance sheet.

# Outlook 2012 – Back to normal

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## Munich Re (Group)

**GROSS PREMIUMS WRITTEN**
€48–50bn

| | |
|---|---|
| Reinsurance | €25–27bn |
| Primary insurance | €17–18bn |
| Munich Health | slightly above €6bn |

**RETURN ON INVESTMENT**
~3.5%

Ongoing low interest rate environment gradually reducing running yield to slightly below 4%

**NET RESULT**
~€2.5bn

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

Significantly improving technical result

## Reinsurance

**Combined ratio**
~96% over the cycle

**Net result**
€1.9–2.1bn

## Primary insurance

**Combined ratio**
<95%

**Net result ERGO**
~€400m

## Munich Health

**Combined ratio**
~99%

**Net result**
€50–100m

# Munich Re geared to "creating value in a deleveraging environment"

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**Good track record of dealing with challenging economic conditions**

We remain a strong partner for clients and reliable for shareholders in times of uncertainty

**Integrated business model safeguarding sustainable value generation**

Focus on insurance risks – Limited correlation to economic cycles and capital markets

**Rigorous approach to risk management – High level of investment diversification**

Able to cope with all kinds of scenarios – Actively managing the low-yield environment

**Strong capital position providing flexibility**

Allowing us to seize opportunities for profitable growth

# Financial calendar

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## Financial calendar

| | |
|---|---|
| 26 April 2012 | Annual General Meeting, Munich |
| 27 April 2012 | Dividend payment |
| 8 May 2012 | Interim report as at 31 March 2012 |
| 15 May 2012 | Deutsche Bank "German, Swiss & Austrian Conference", Frankfurt |
| 21 May 2012 | Deutsche Bank "2012 Global Financial Services Investor Conference", New York |
| 22–23 May 2012 | Credit Suisse "West Coast Conference", San Francisco |
| 23 May 2012 | Autonomous "Rendez-Vous 2012", London |
| 13 June 2012 | Goldman Sachs "Annual Financials Conference", Brussels |
| 7 August 2012 | Interim report as at 30 June 2012 |
| 7 November 2012 | Interim report as at 30 September 2012 |

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