



International Association for the
Study of Insurance Economics

Études et Dossiers

Études et Dossiers No. 304

**2nd International Insurance and
Finance Seminar of
The Geneva Association**

Hosted by AVIVA plc

10 – 11 November 2005
London

December 2005

**Working Paper Series of
The Geneva Association**

© Association Internationale pour l'Etude de l'Economie de l'Assurance

The Geneva Association - General Secretariat - 53, route de Malagnou - CH-1208 Geneva
Tel.: +41-22-707 66 00 - Fax: +41-22-736 75 36 - secretariat@genevaassociation.org - www.genevaassociation.org

The Geneva Association Working Paper Series “Études et Dossiers” appear at irregular intervals about 10 - 12 times per year. Distribution is limited.

The “Études et Dossiers” are the working paper series of The Geneva Association. These documents present intermediary or final results of conference proceedings, special reports and research done by The Geneva Association. As they contain work in progress or summaries of conference presentations, the material must not be cited without the express consent of the author in question.

Layout & Distribution: Valéria Kozakova

Life Insurance in the Quandary

Michael E. Bös

Agenda



Current interest rate environment and its implication for the (Live-) Insurance

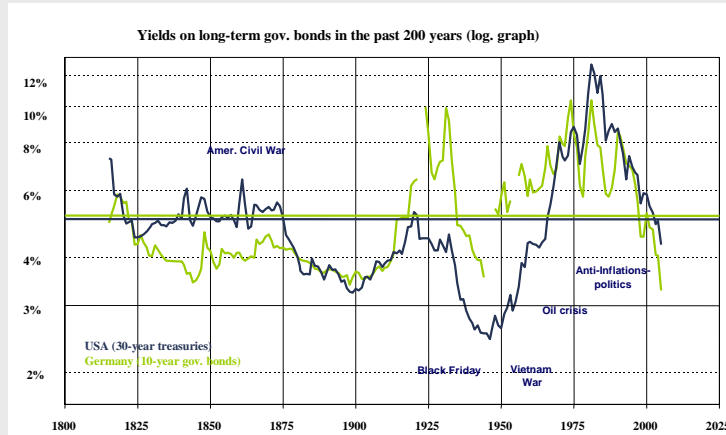


Insurers in a quandary



Ways out of the quandary

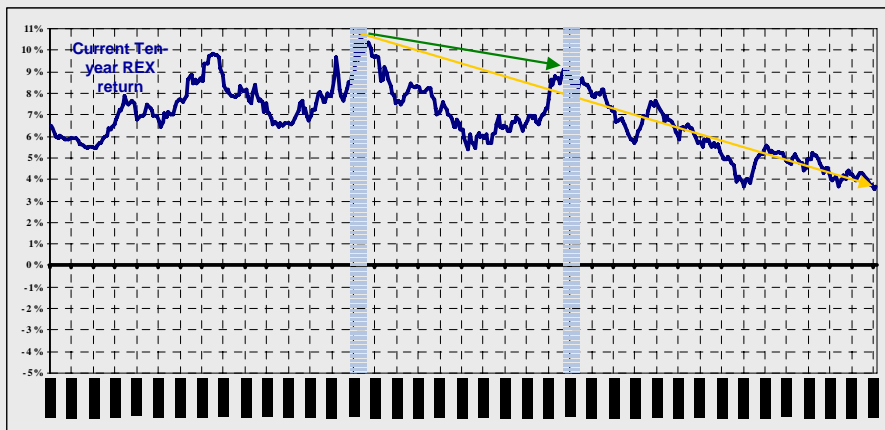
An analysis of the past 200 years puts the currently low level of interest rates in a “historical perspective”



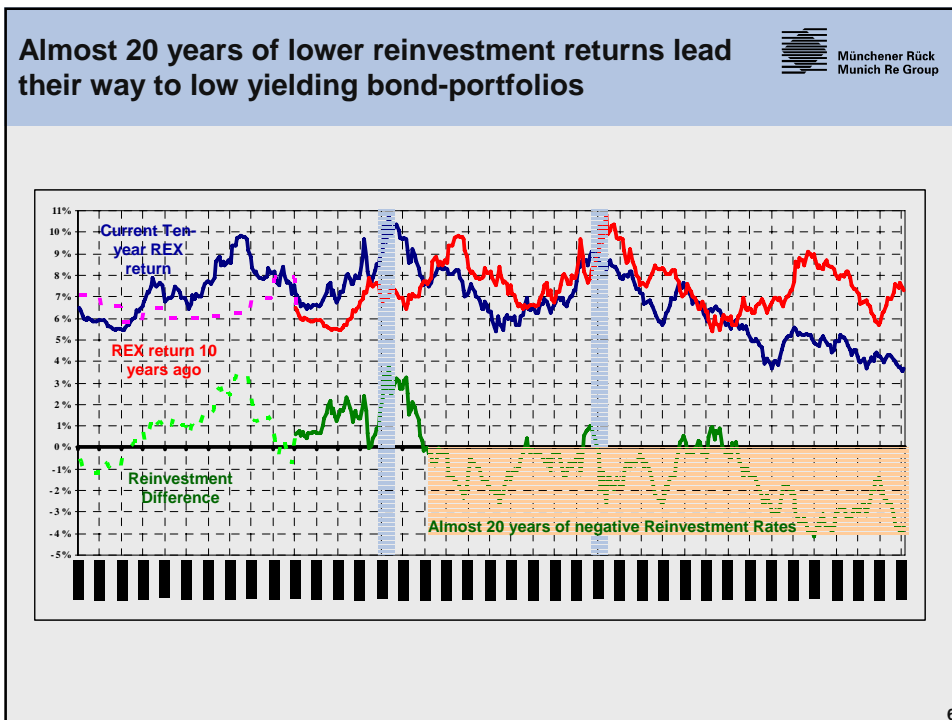
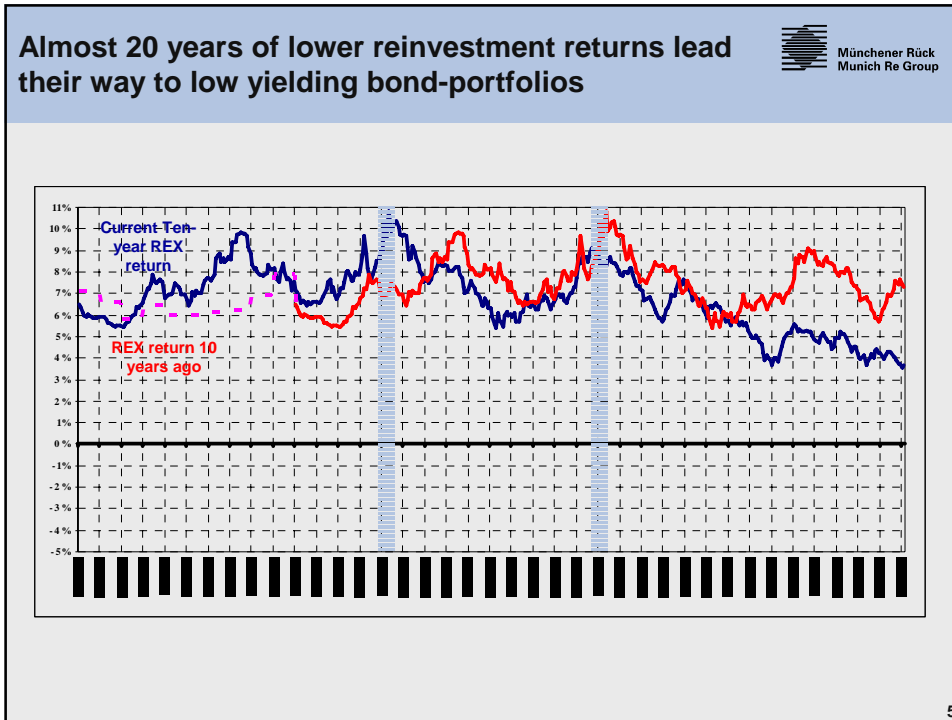
→ Interest-yields are not necessarily on their “historical-lows”

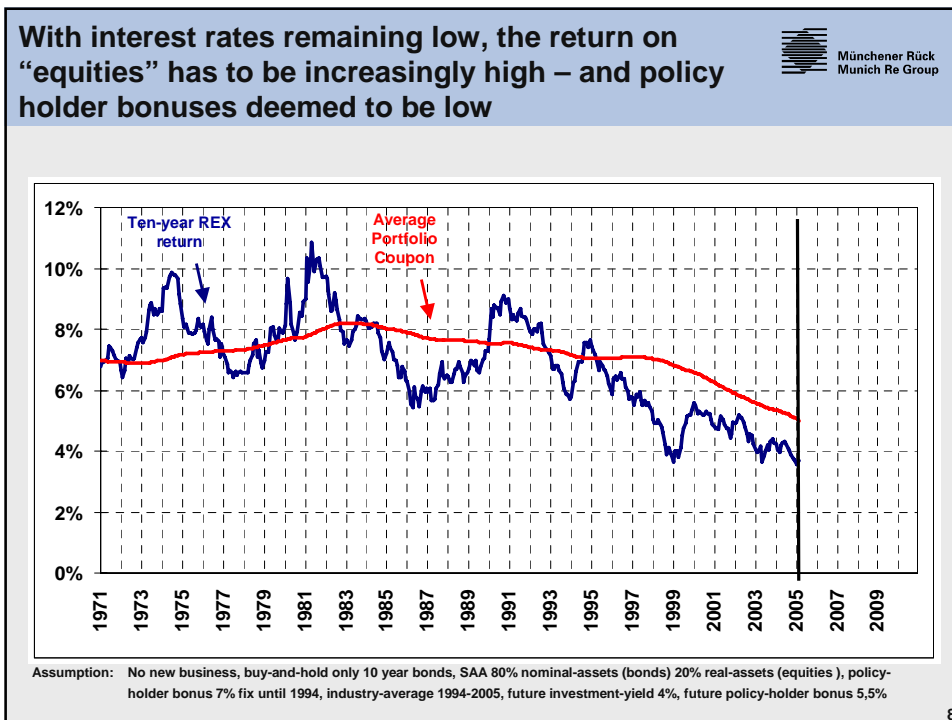
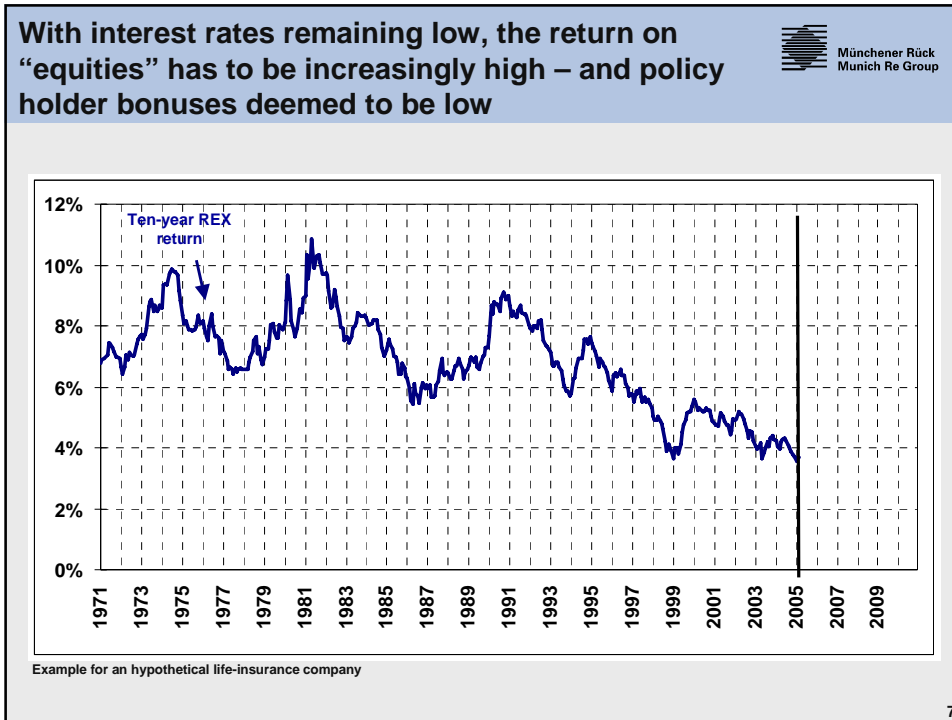
3

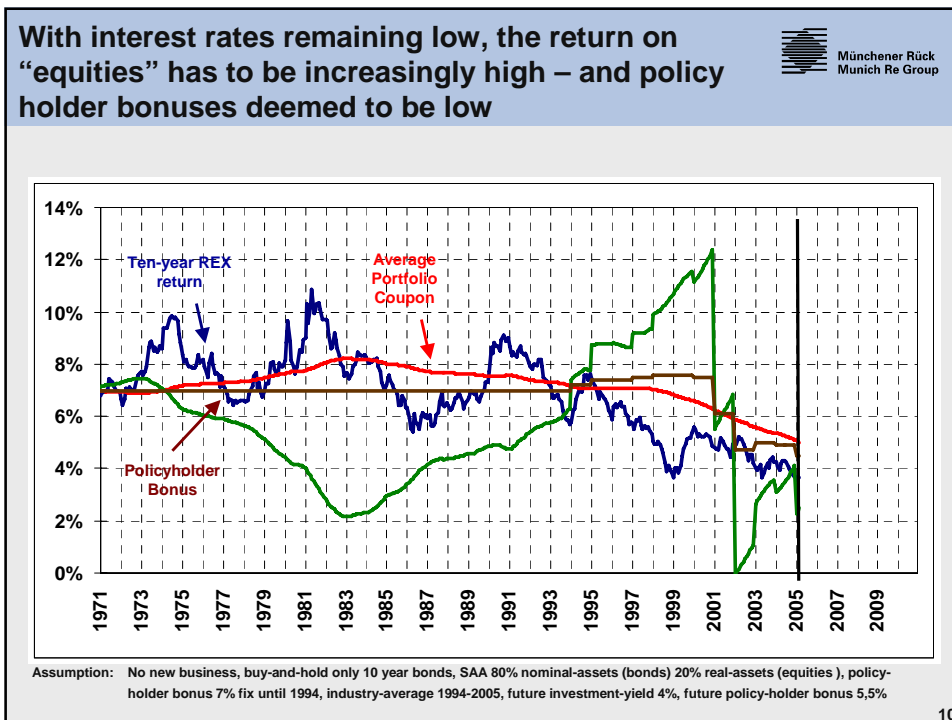
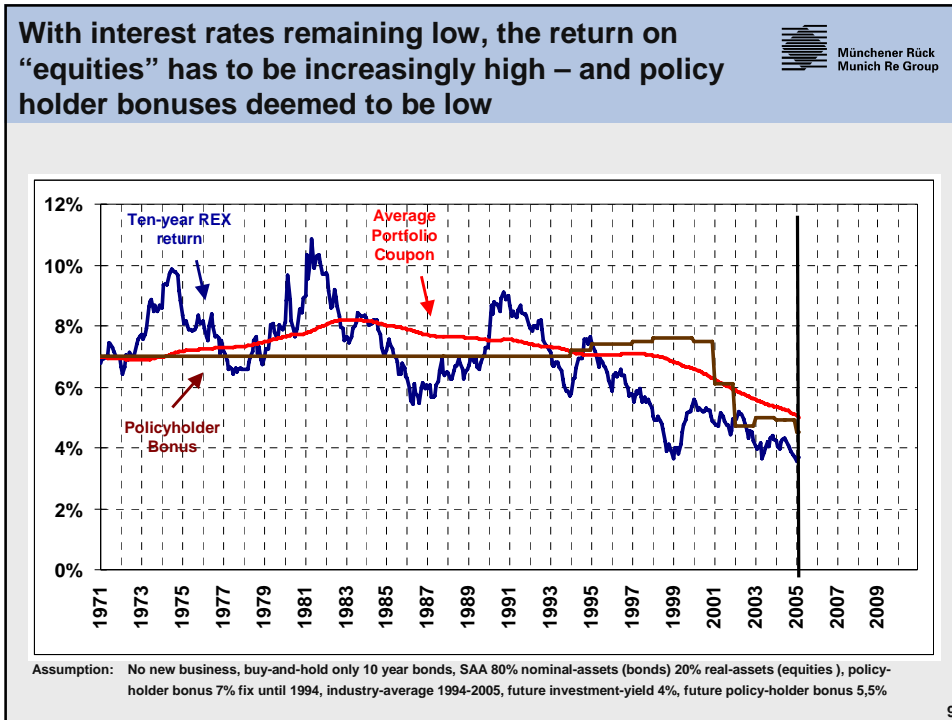
Almost 20 years of lower reinvestment returns lead their way to low yielding bond-portfolios

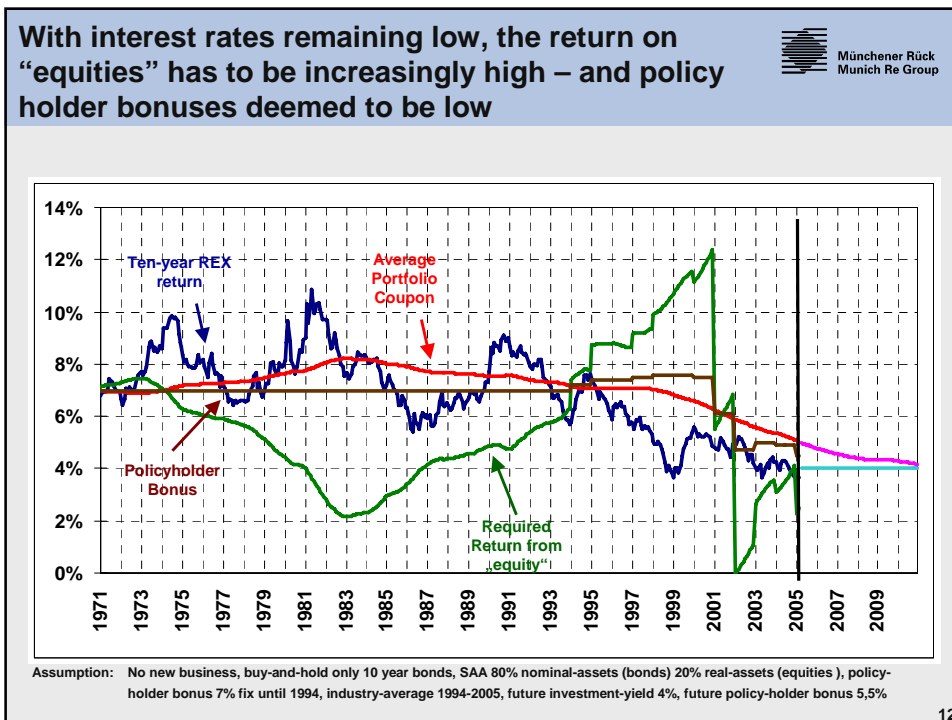
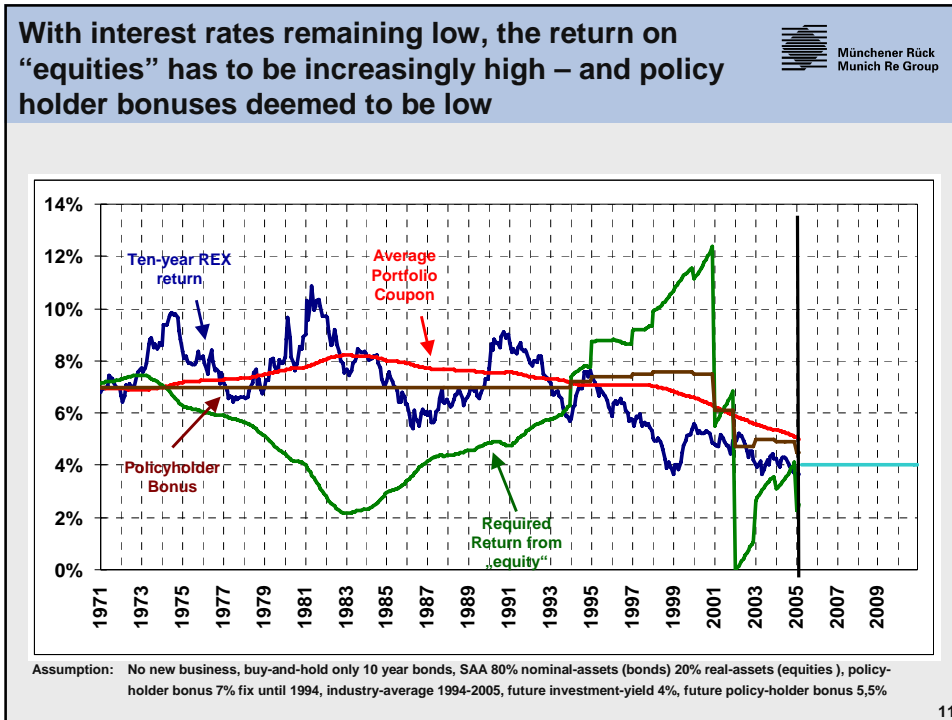


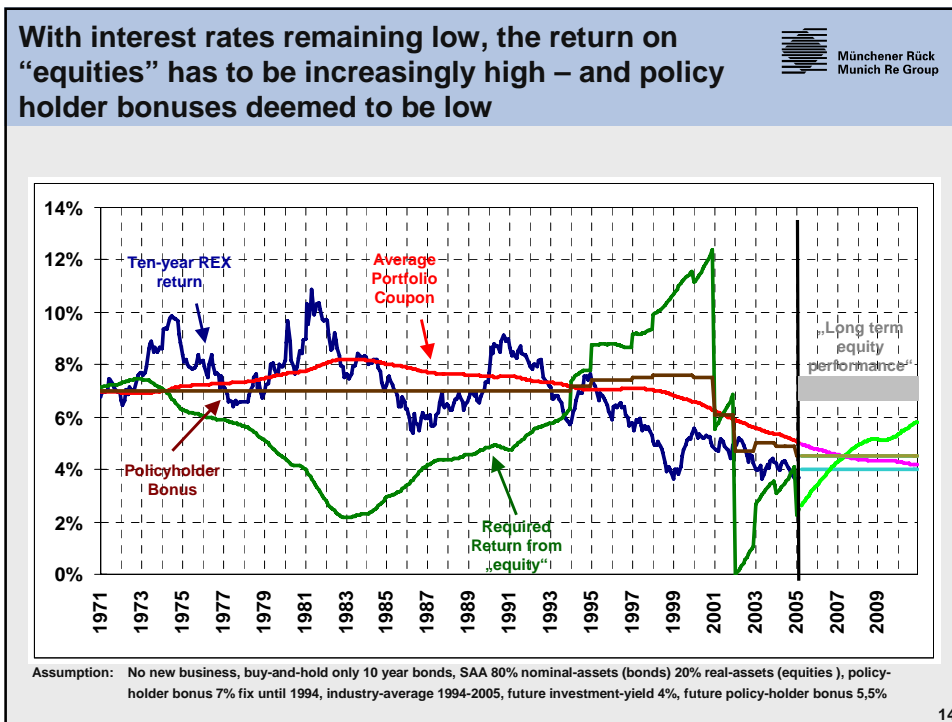
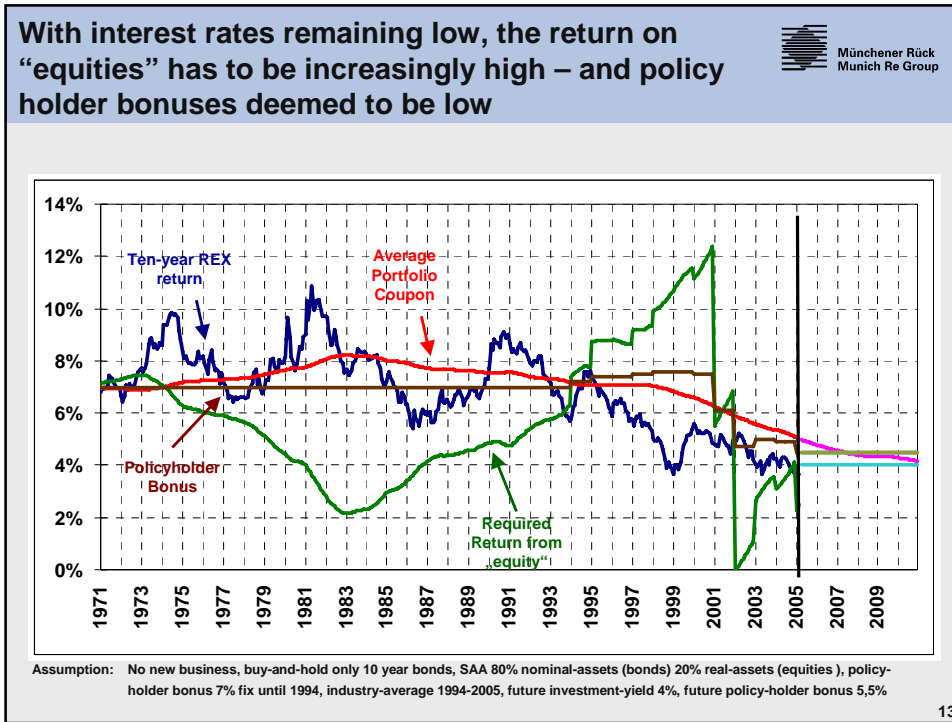
4

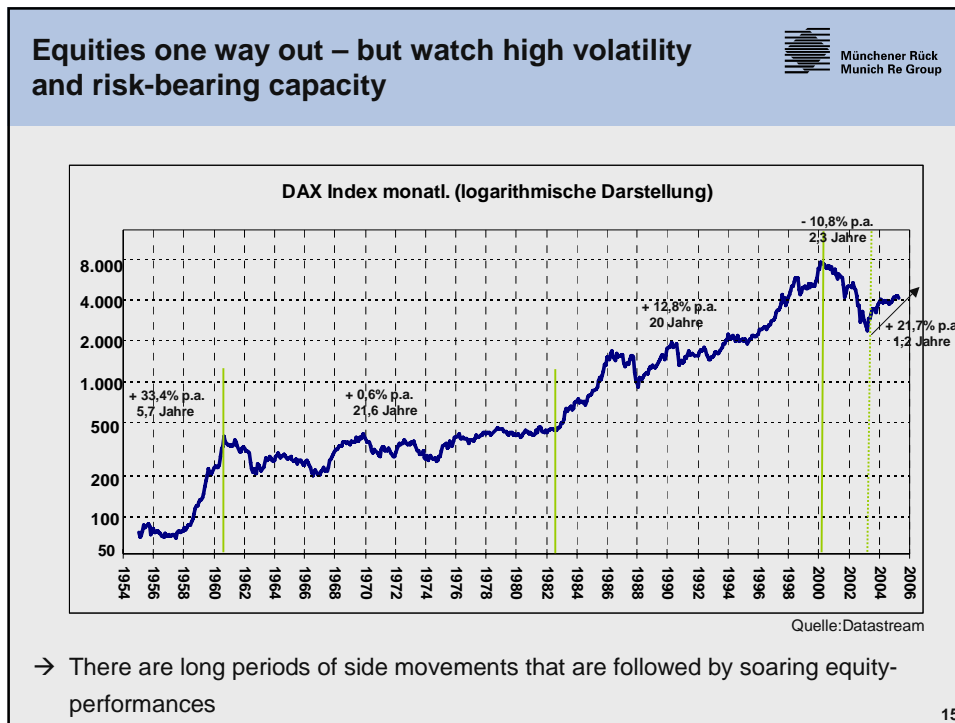















Agenda

Münchener Rück
Munich Re Group

-  Current interest rate environment and its implication for the (Live-) Insurance
-  **Insurers in a quandary**
-  Ways out of the quandary

16

Nowadays life insurers find themselves trapped in a quandary

Münchener Rück
Munich Re Group

Protecting equity capital
Close the duration gap (invest longer) as interest rates fall

Dynamic hedging strategies

Market consistent pricing

AIM

Dynamic bonus policies

Optimising product mix

Invest short to meet policy holder expectations as interest rates rise
Maximising franchise value

→ on one hand they have to protect the equity capital

→ on the other hand the policy holder expects a high franchise value

Source: Munich Re's Presentation to Analysts, 15. March 2005

17

Often this situation is aggravated because of misassessment of the market environment

Münchener Rück
Munich Re Group

Comparison between interest-rate forecasts (10Y Bund - Research group: 9 investment banks) and actual investments

5.5

5

4.5

4

3.5

3

01.01.2001 01.01.2002 01.01.2003 01.01.2004 01.01.2005

— Min for research group — Mean value for research group — Max for research group — Yield on 10Y Bund benchmark bond

Prognosticated development as at the end of the year

Source: Datastream

→ In expectation of rising interest rates, the duration on bonds was often reduced

18

Agenda

Current interest rate environment and its implication for the (Live-) Insurance

Insurers in a quandary

Ways out of the quandary

19

Not knowing the exact nature of liabilities may lead to non efficient matching or hedging strategies

Conventional calculated liabilities with fixed bonus rate

20

