



# How capital markets transform the insurance industry

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Luncheon Meeting, Zurich

5 September 2007



# Agenda

- The initial catalyst for capital markets products
- The early evolution of capital market solutions

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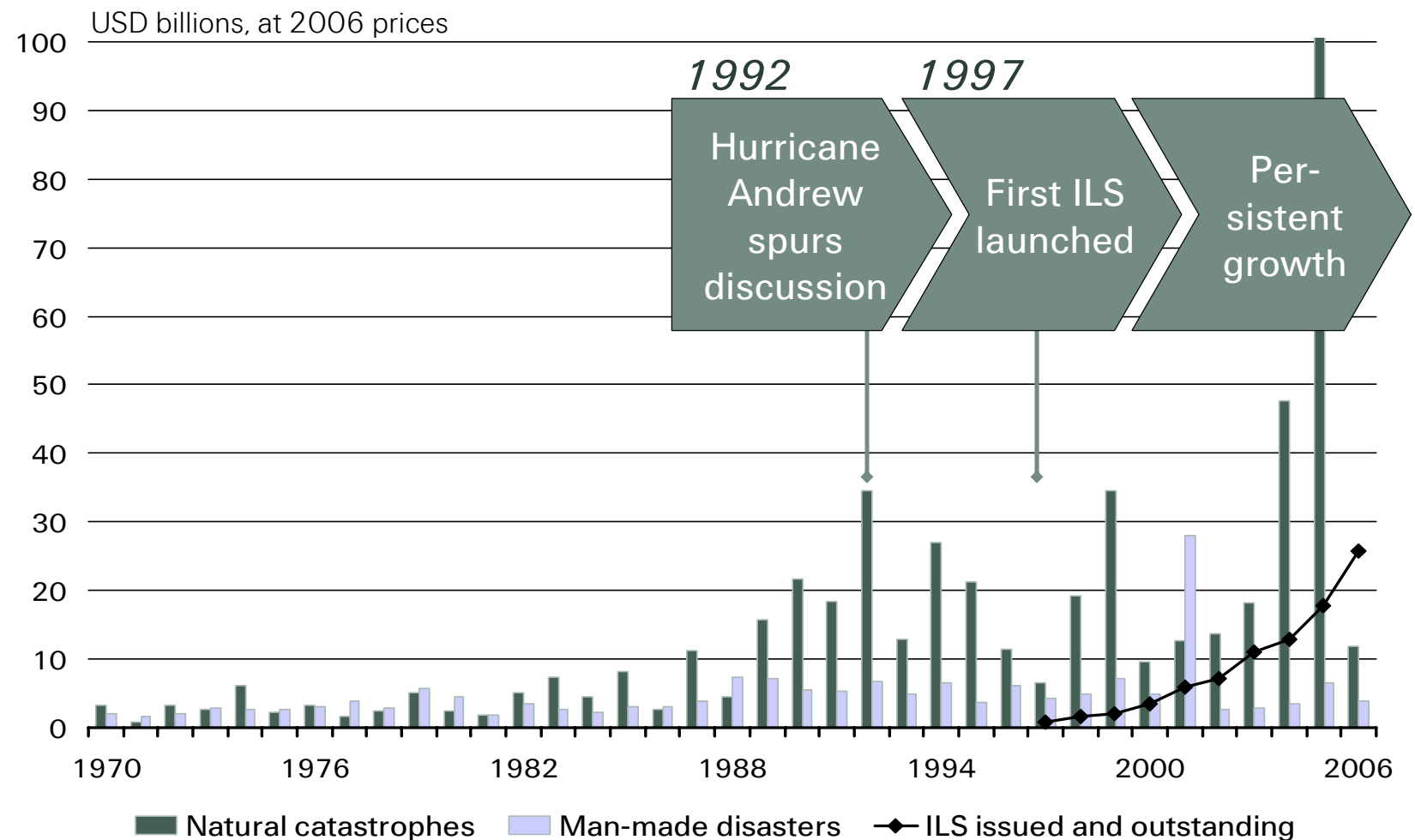
- The future of the risk transfer industry

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# Increasing catastrophe claims spur development of new risk transfer

## Development of catastrophe losses and insurance linked securities (ILS)



*Note:*  
The natural catastrophe losses also include flood losses in the US insured via the National Flood Insurance Program (NFIP).  
Source: Swiss Re, sigma No 2/2007

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# Peak risk transfer is becoming increasingly complex

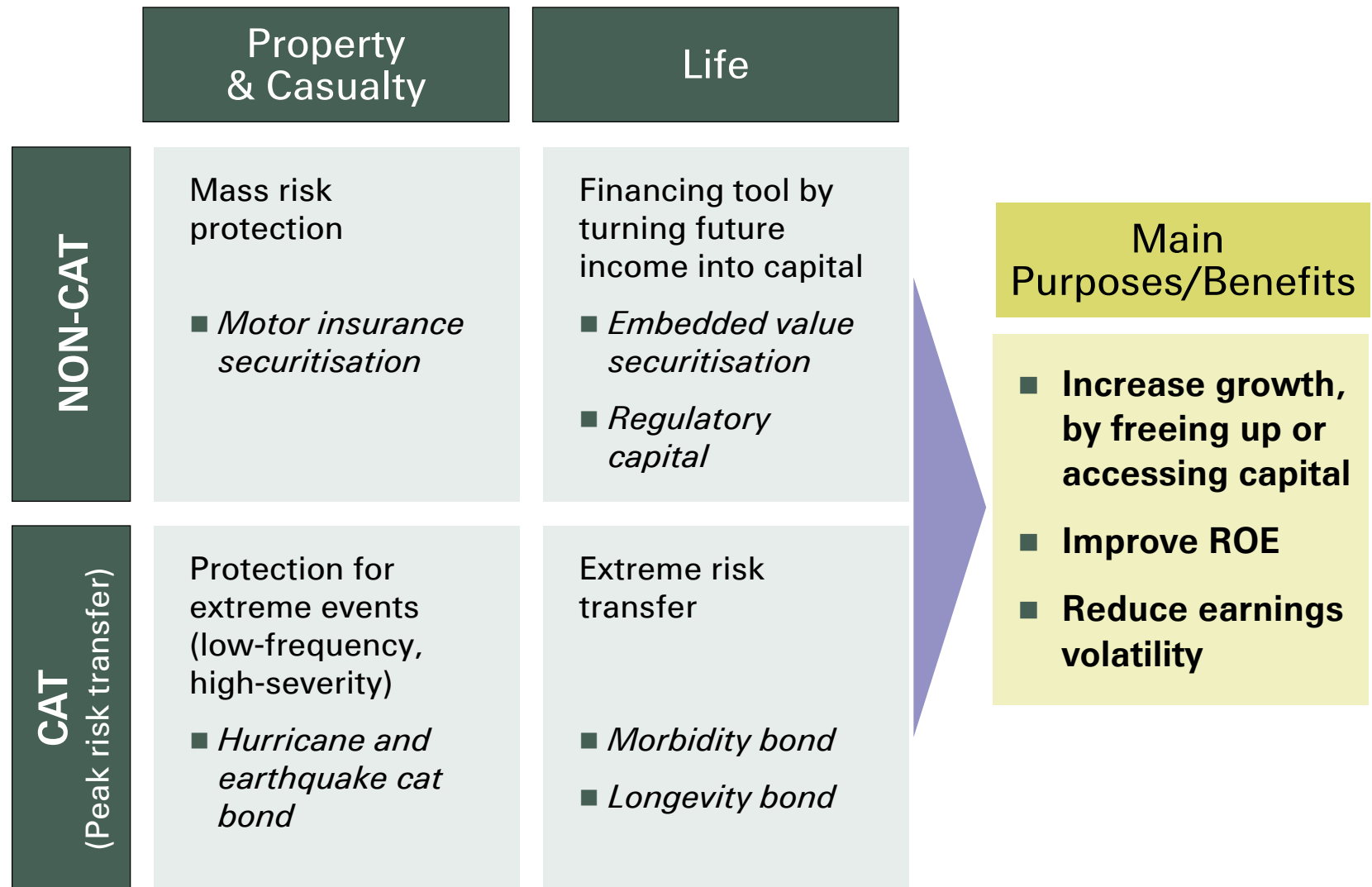


- Demand for catastrophe cover has been growing by almost 10% annually, more than most other lines of business
- Significant portions of the peak scenarios are increasingly passed on to the capital markets
- Investors (and rating agencies) expect risk adequate and stable returns
- Regulators and rating agencies require insurance companies to manage risks based on more conservative estimates

**The industry is confronted with increased volatility, more complex risks and increased demand for capacity**



# Capital market techniques can help address industry key challenges





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# Insurance linked securities transfer insurance risks to the capital market

❶ The sponsor enters into a risk transfer contract with a special-purpose vehicle (SPV).

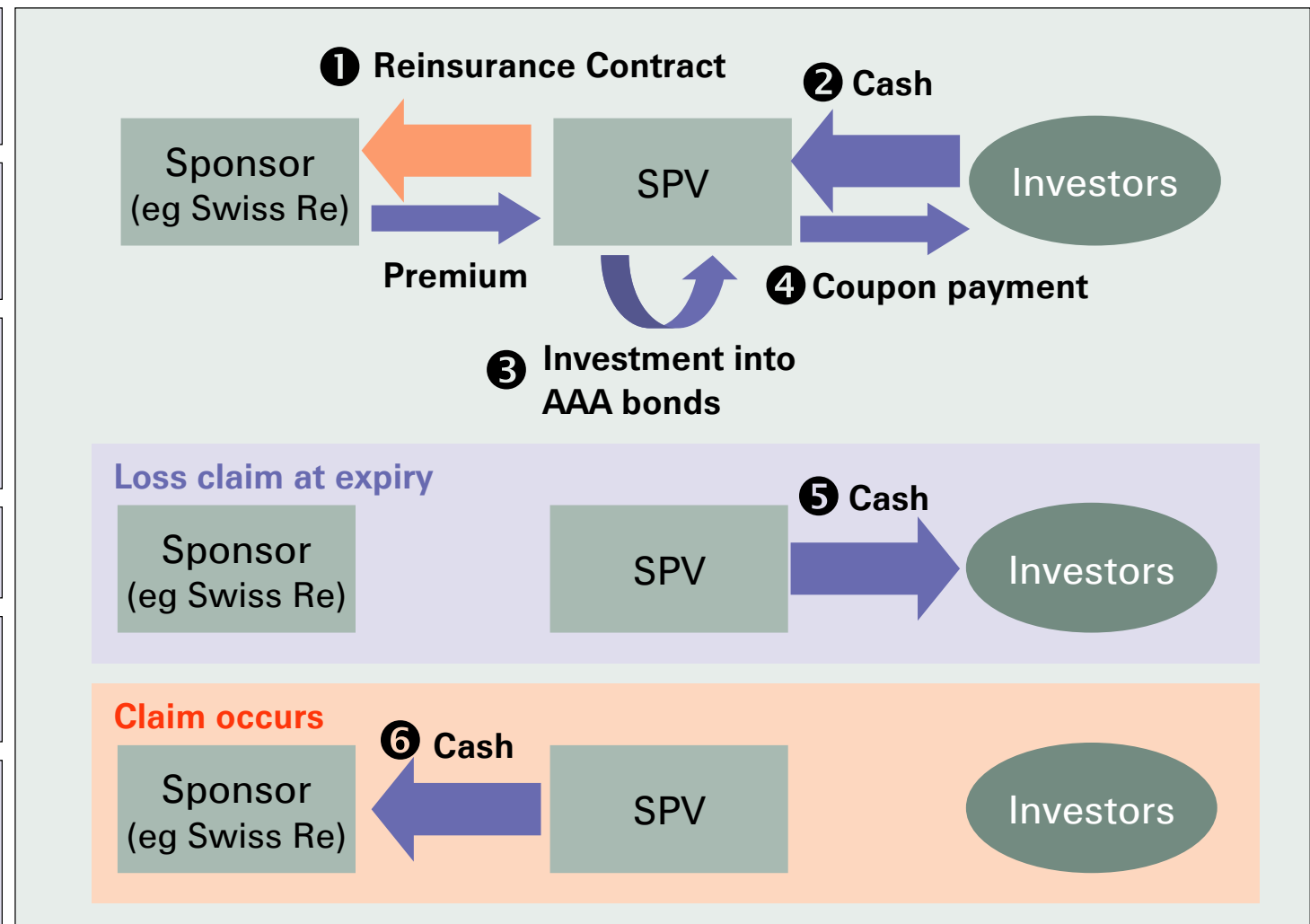
❷ The SPV collateralises its obligation to the sponsor by issuing securities to investors.

❸ Proceeds from securities offering are invested in high quality securities (AAA) and held in a collateral trust.

❹ SPV pays quarterly coupon payments to investors.

❺ If no trigger event occurs, full principal returned to investors at maturity.

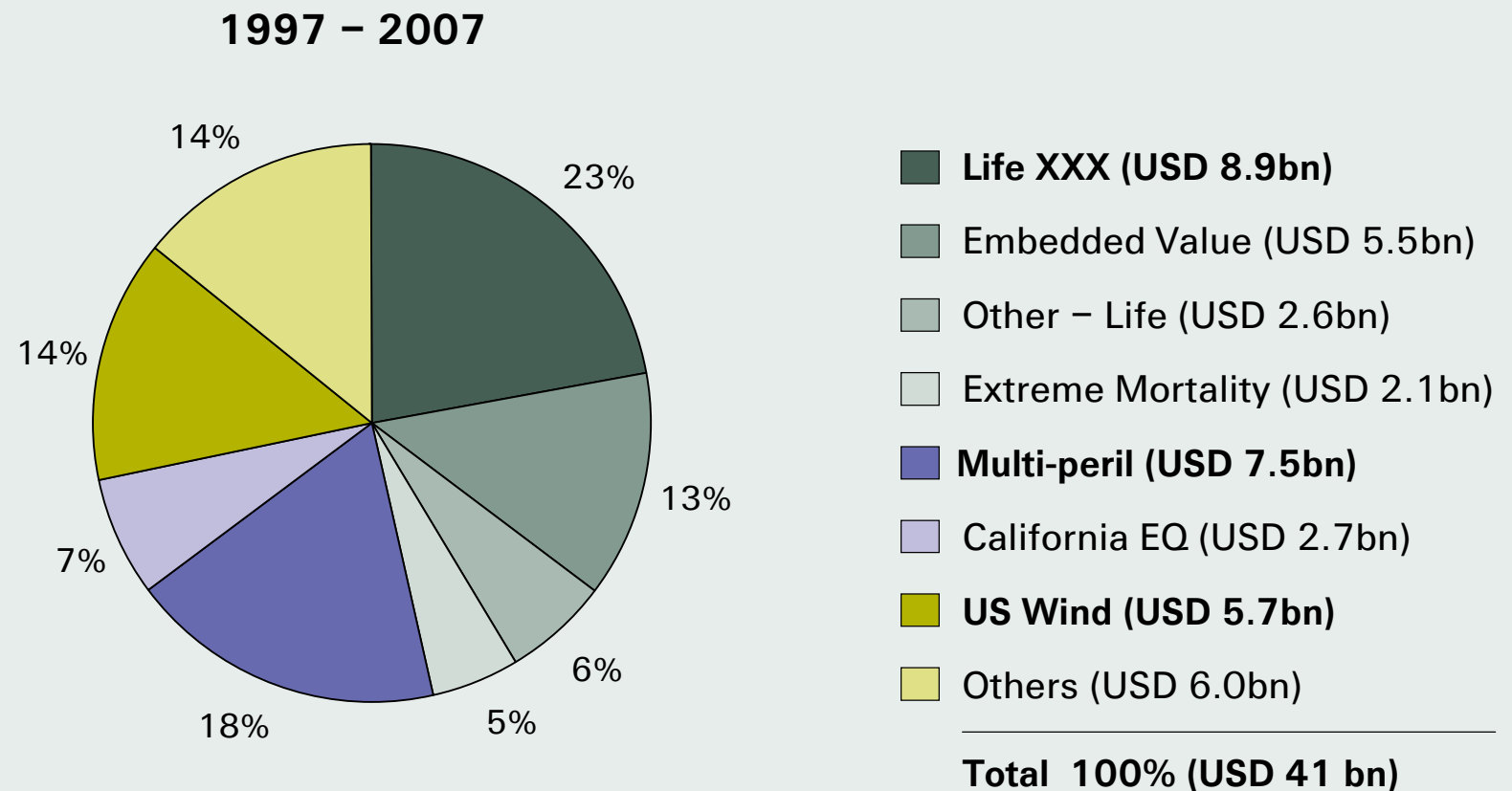
❻ If trigger event occurs, sponsor receives claims payment and any remaining principal is returned to investors at maturity.





# Which risks are being securitised?

Life, multi-peril and US wind securitisations have been predominant



As of 1 August 2007  
Source: Swiss Re Capital Markets

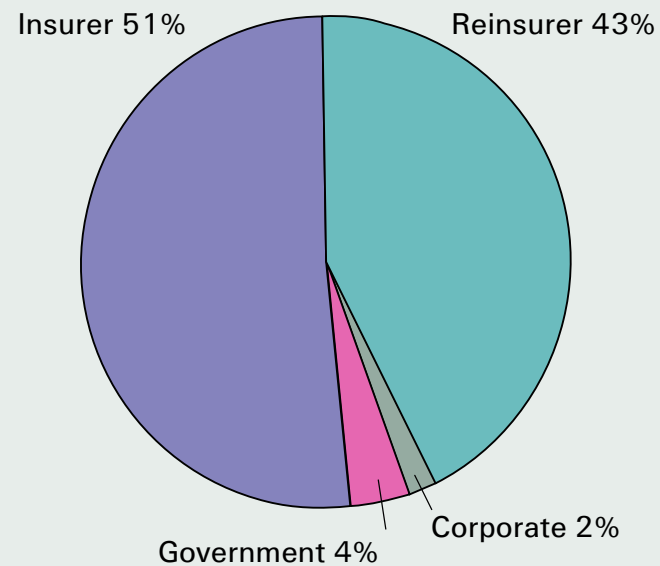




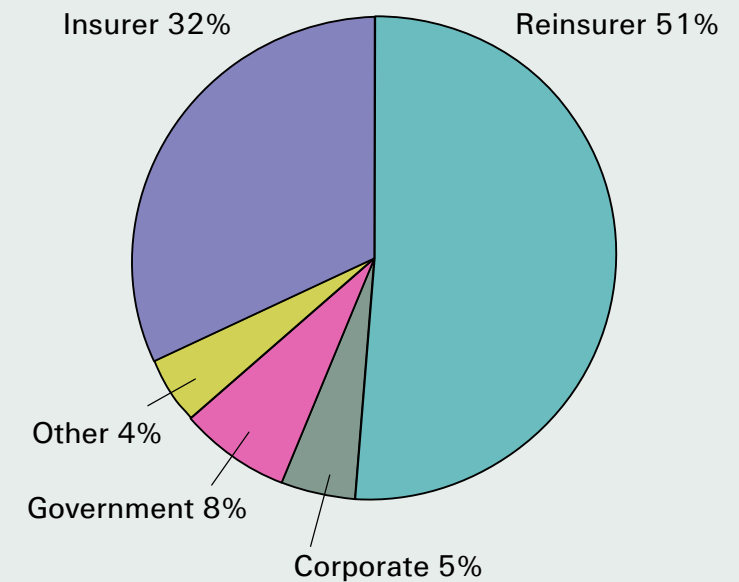
# Who securitises insurance risks?

Insurers and reinsurers still dominate the scene as sponsors

**1997 – 2007**



**2001 – 2007**



*Note: As of 31 July 2007*

*Source: Swiss Re Capital Markets*



# Pylon Ltd.: First catastrophe bond sponsored by a European corporate



## Electricité de France Pylon Ltd.

- ▶ Fully collateralised cat risk protection (Windstorm France)
- ▶ Multi-year coverage (Dec 03 – Dec 08)
- ▶ Parametric trigger
- ▶ First EUR-denominated cat bond:  
EUR 70m Class A (A2/BBB+)  
EUR 120m Class B (Ba1/BB+)
- ▶ Price: 3-month Euribor +150bps (A) / +390bps (B)
- ▶ Underwriters: Swiss Re / IXIS

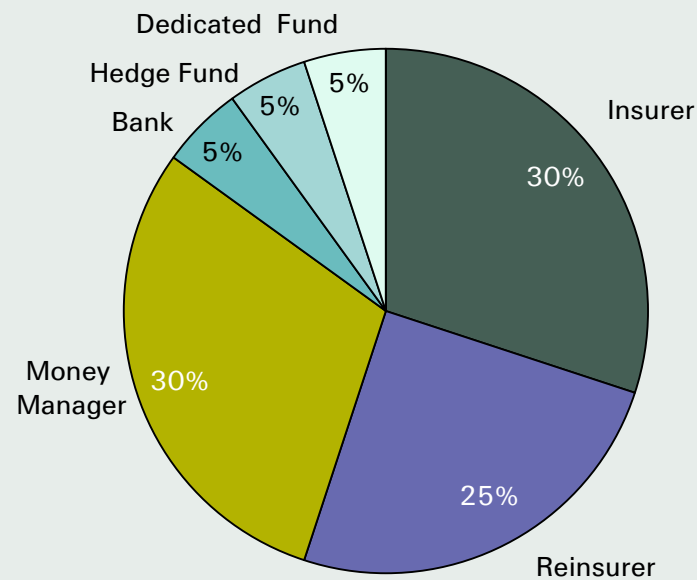




# Who invests in insurance linked securities?

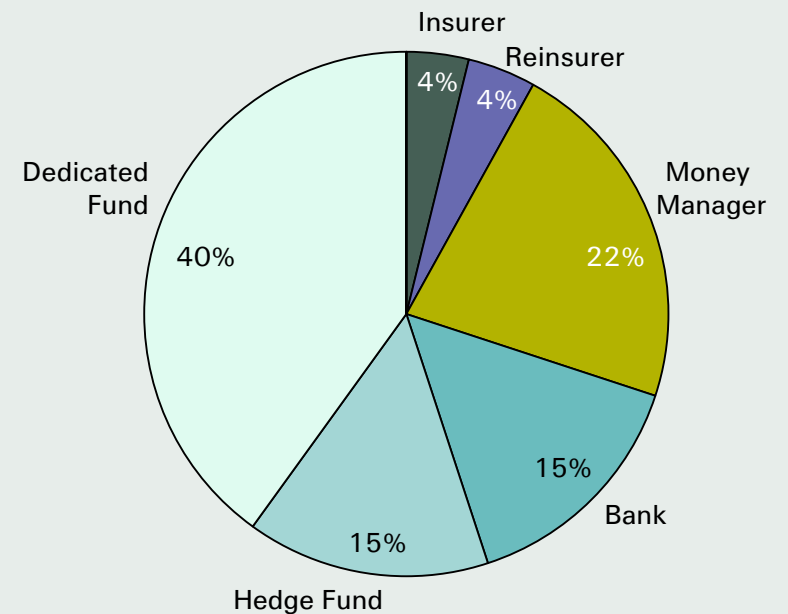
## Capital market investors now dominate the natural catastrophe ILS investor base

**1999**



**Market size ≈ USD 1.1 bn**

**2007**



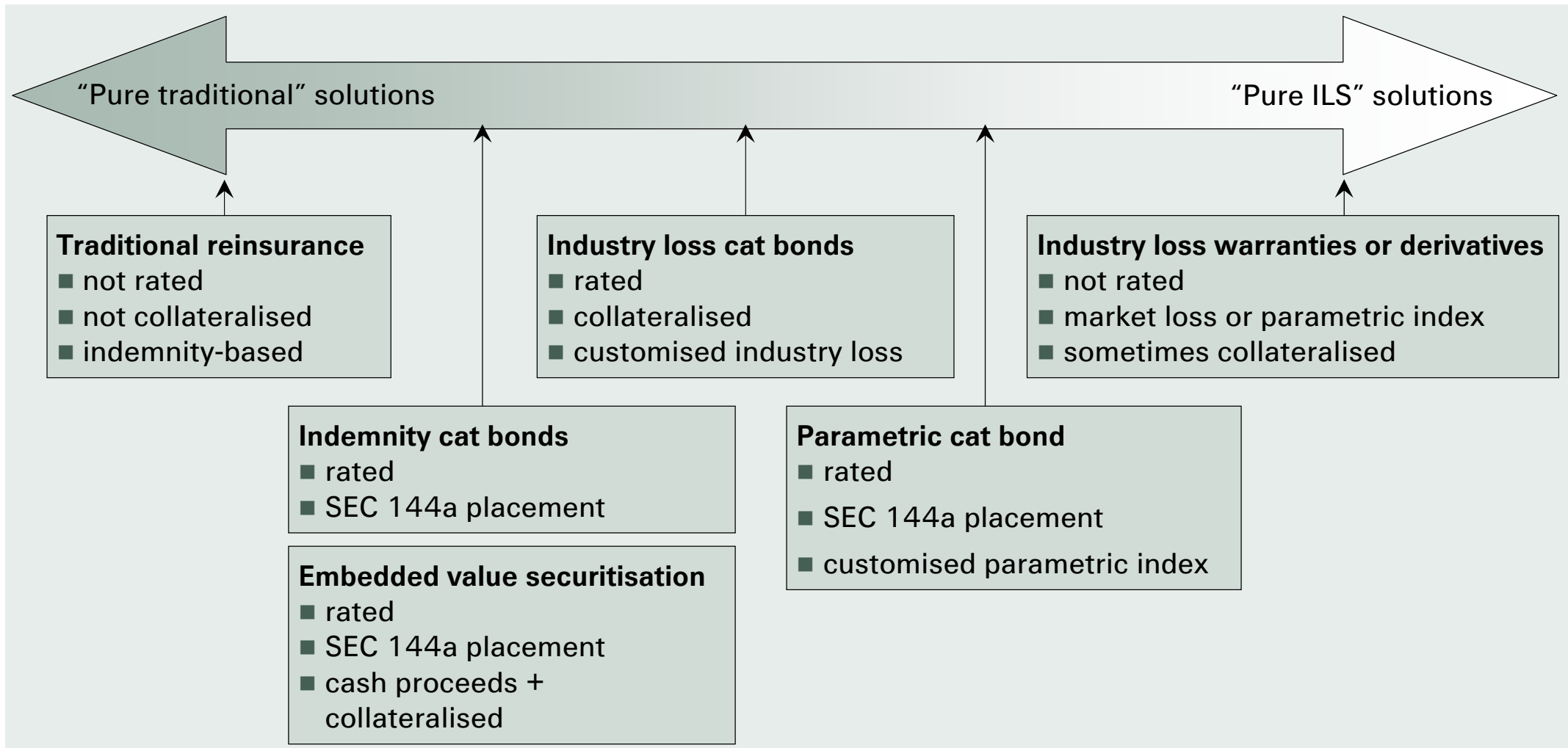
**Market size ≈ USD 10.0 bn**

*As of 1 August 2007*

*Source: Swiss Re Capital Markets*



# Continuous spectrum of capital market solutions





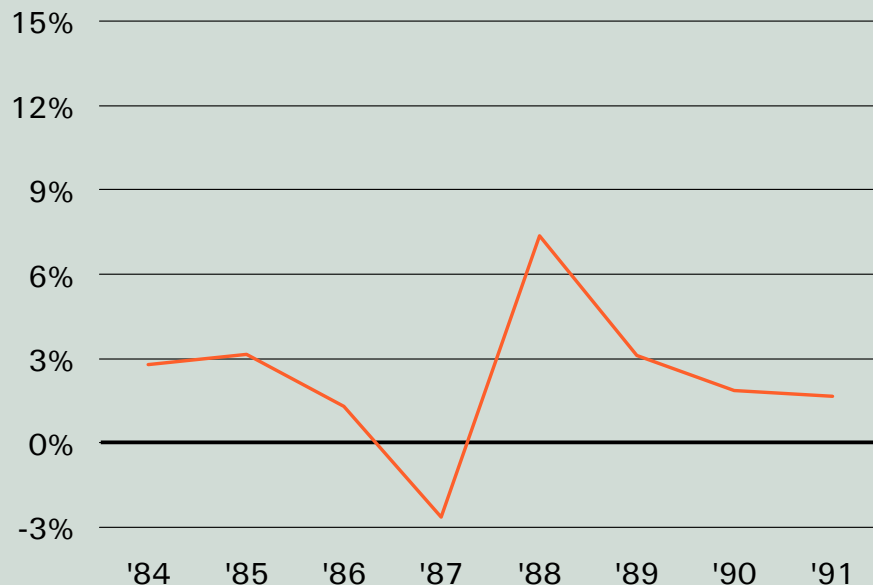
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# The parallel: Commercial banking's ROE challenge in the late 80's

## Commercial banking 1984 – 1991 Low ROE – high volatility



Source: Stone Point Capital

## Subsequent changes in the banking industry

- ▶ Modernised capital adequacy models
- ▶ Accelerated balance sheet through strong growth of asset-backed securities (ABS)/mortgage-backed securities (MBS)
- ▶ Increased fee income generation
- ▶ Aggressive expense management

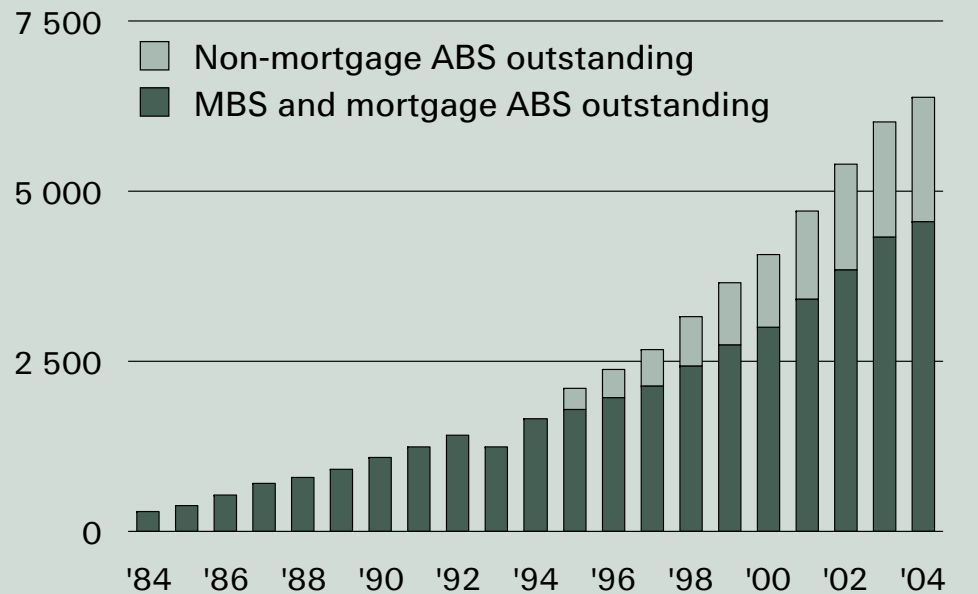
Source: Stone Point Capital

**Low ROE and high volatility triggered transformation of the banking industry**



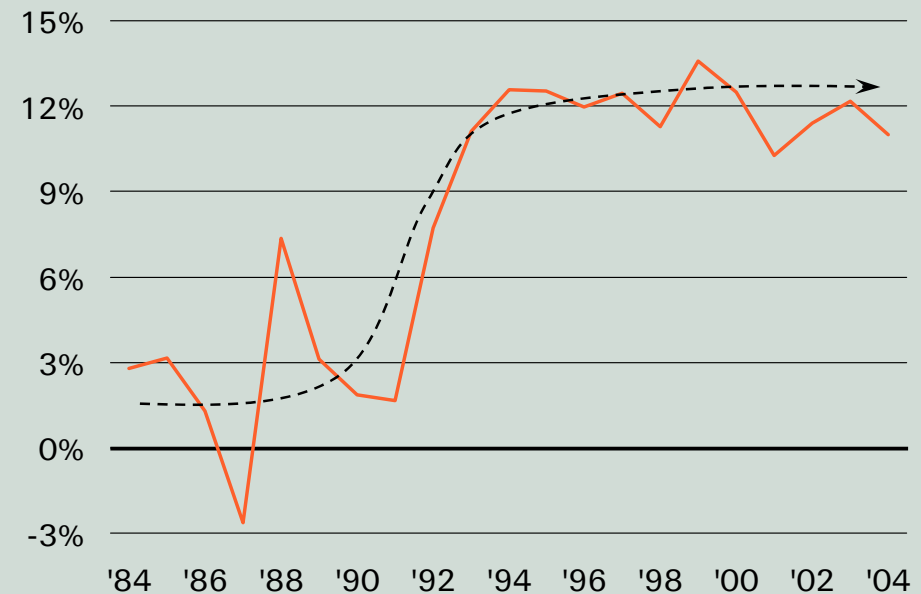
# Successful transformation of the banking industry

ABS/MBS outstanding in the US in USD billions



Source: Morgan Stanley  
Note: Non-mortgage ABS only included from 1995

Commercial banking ROE (1984 - 2004)



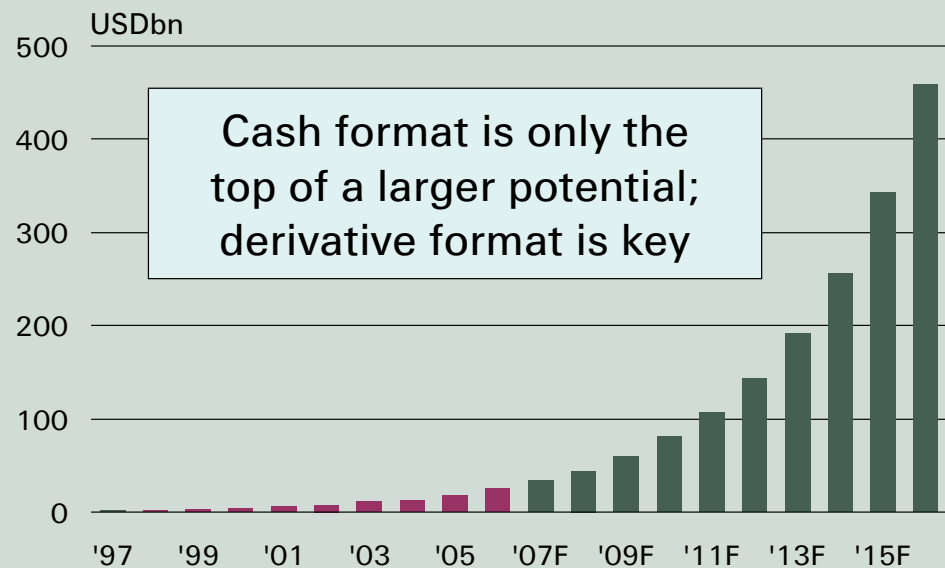
Source: Stone Point Capital

**ABS/MBS issuance accelerated drastically in 1994 improving ROE's considerably**



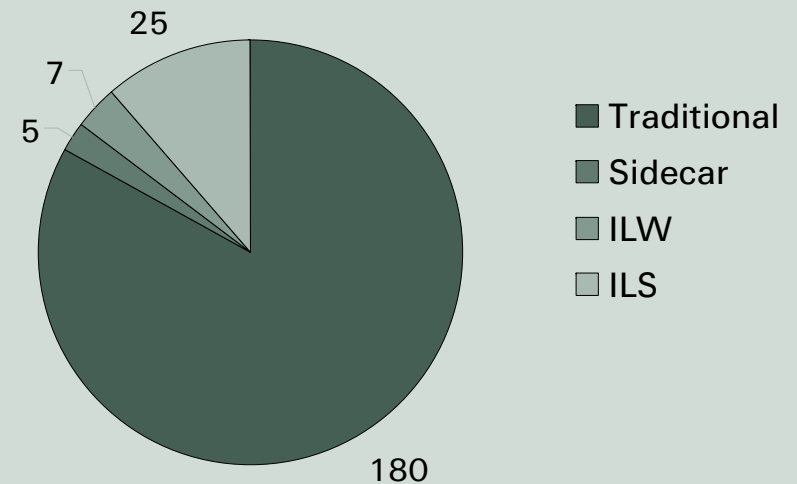
# Transfer to capital markets is expected to increase

## Potential future growth of ILS outstanding Projections using 75% of actual historical CAGR



Source: Swiss Re Capital Markets

## Reinsurance capital split 2006 in USD billions



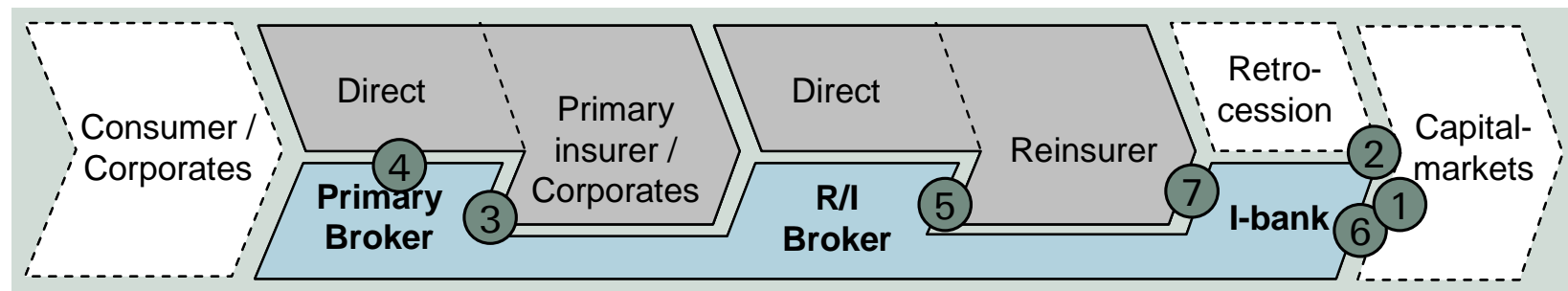
Source: Swiss Re Economic Research & Consulting

**Securitisation, ILW, collateralised quota shares and sidecars add to the flexibility of capital in the industry**





# Different actors are becoming more active: Brokers, I-banks, hedge funds

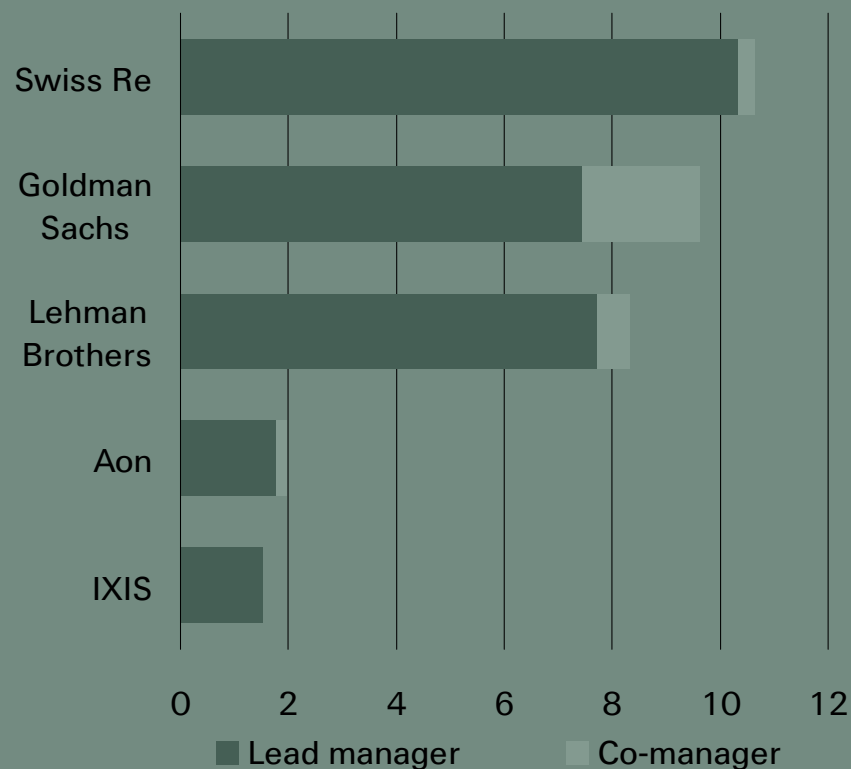


<b>March '07</b>	①	JP Morgan partnering with Millea to form Tokio Marine Bluebell Re to provide VA reinsurance based on advanced derivatives strategies
<b>Feb. '07</b>	②	JLT establishing a joint venture with ICAP, the worlds' largest interdealer broker, to focus on the developing insurance risk derivatives market
	③	Morgan Stanley acquiring US insurance brokerage firm, Hub International
<b>Jan. '07</b>	④	Marsh setting up primary sidecar MaRI Ltd. with ACE as fronter; Morgan Stanley advisor and placement agent, Lehman invested
	⑤	Goldman Sachs Capital Partners acquiring US insurance brokerage firm, USI Holdings
<b>April '06</b>	⑥	Benfield partnering with Merrill Lynch to offer cat bonds
<b>Nov. '05</b>	⑦	Citadel Inv. Group, a hedge fund, forms another reinsurance firm, New Castle Re, with an initial capitalisation of USD 500m



# Swiss Re sponsors and underwrites a wide range of securitisations

Leading ILS underwriters between 1 Jan '03 and 1 Aug '07, in USD bn



Swiss Re sponsored securitisations as of May 2007

			Growth	RoE	Manage volatility
<b>Queensgate</b> (Jan 05)	US Admin Re <sup>SM</sup>	EV monetisation	✓	✓	✓
<b>Vita II</b> (Apr 05)	Extreme mortality	Peak risk protection	✓		
<b>ALPS II</b> (Dec 05)	US Admin Re <sup>SM</sup>	EV monetisation	✓	✓	✓
<b>Crystal Credit</b> (Jan 06)	Credit reinsurance	Mass risk protection	✓		✓
<b>Australis</b> (Jan 06)	Nat cat	Peak risk protection	✓		
<b>Successor</b> (June 06)	Nat cat	Peak risk & earnings protection	✓	✓	✓
<b>Vita III</b> (Jan 07)	Extreme mortality	Peak risk protection	✓		
<b>MedQuake</b> (May 07)	Nat cat	Peak risk protection	✓		



# Our Strategic Direction benefits strongly from securitisations

## Securitisation Benefits

Manage volatility

Improve RoE

Free up / access capital for growth

More efficient capital management

## Swiss Re's Strategic Direction

Reduce earnings volatility

Generate economic profit growth

Enlarge market scope

Organisational excellence

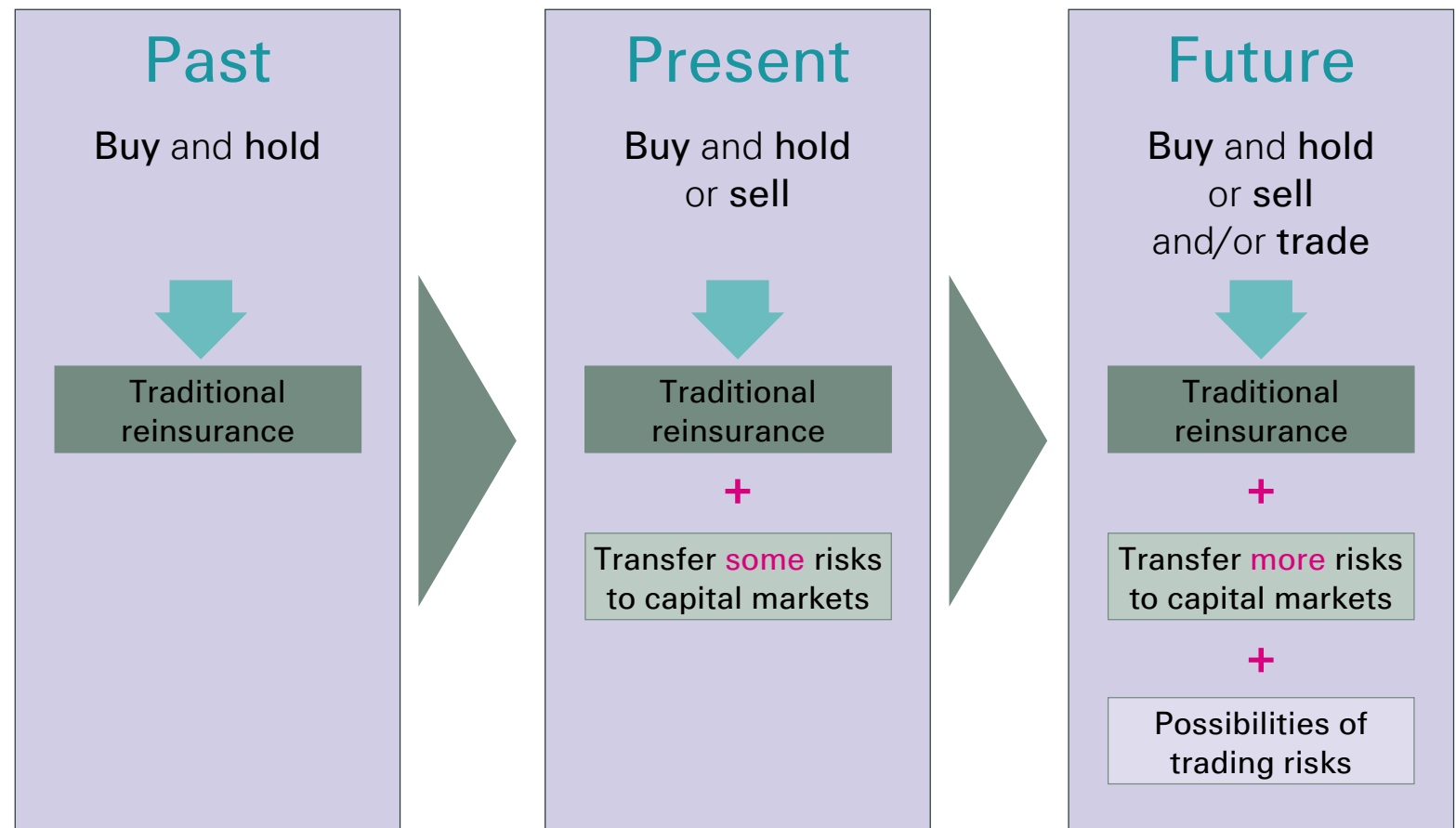
Best in class customer service

&

Attractive shareholder returns



# Further future opportunities arise from the convergence of financial services

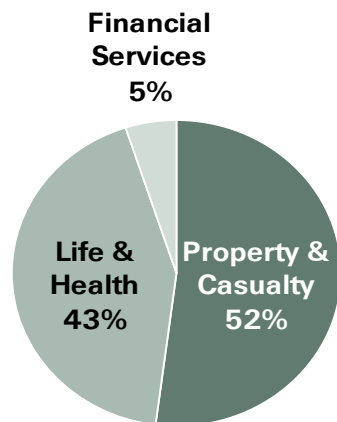




# Swiss Re Group financial highlights

## Revenues by business

(Total 2006: CHF 40.3bn)



CHF billions	2005	2006	H1 2007
Net income	2.3	4.6	2.5
Earnings per share (in CHF)	7.44	13.49	7.26
Return on investments	6.3%	5.3%	5.7% <sup>1)</sup>
Return on equity	10.3%	16.3%	16.8% <sup>1)</sup>