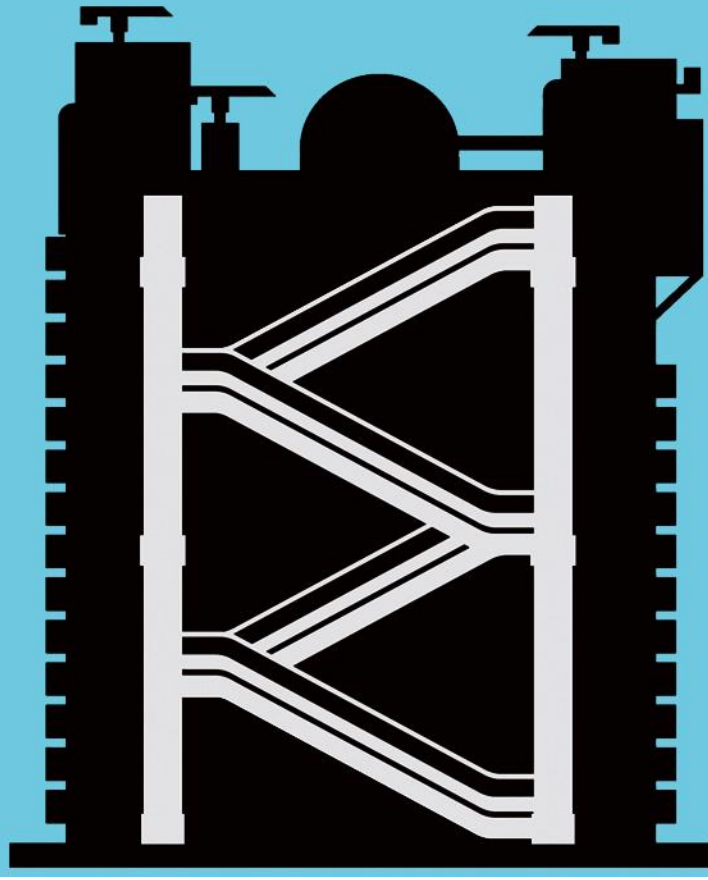


Current Underwriting Challenges

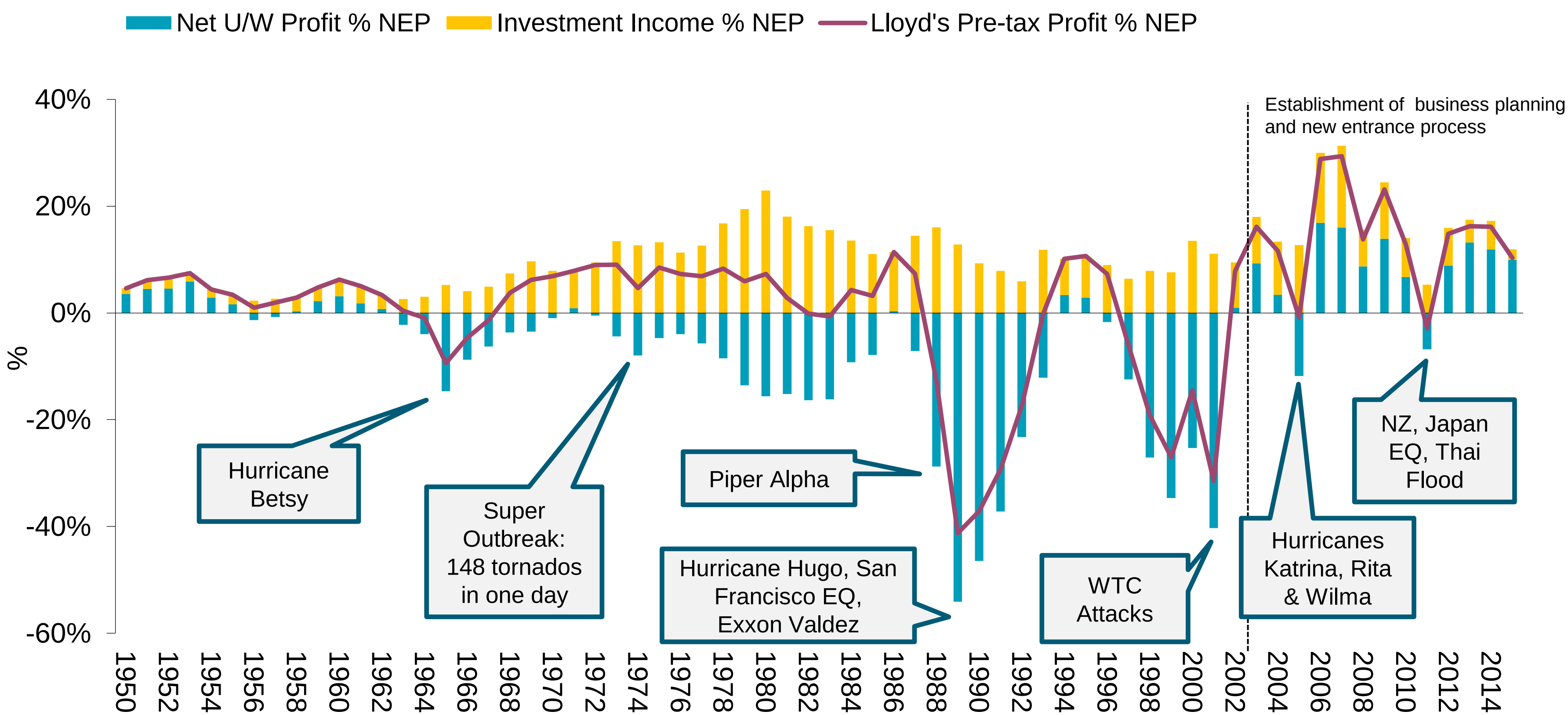
Markus Gesmann
Lloyd’s Analysis

7 June 2016

Agenda

- Review of Lloyd’s historical results
- Overview of Lloyd’s approach to challenge underwriting
- Ideas for monitoring pricing and underwriting
- Conclusions

Lloyd's historical results 1950 - 2015

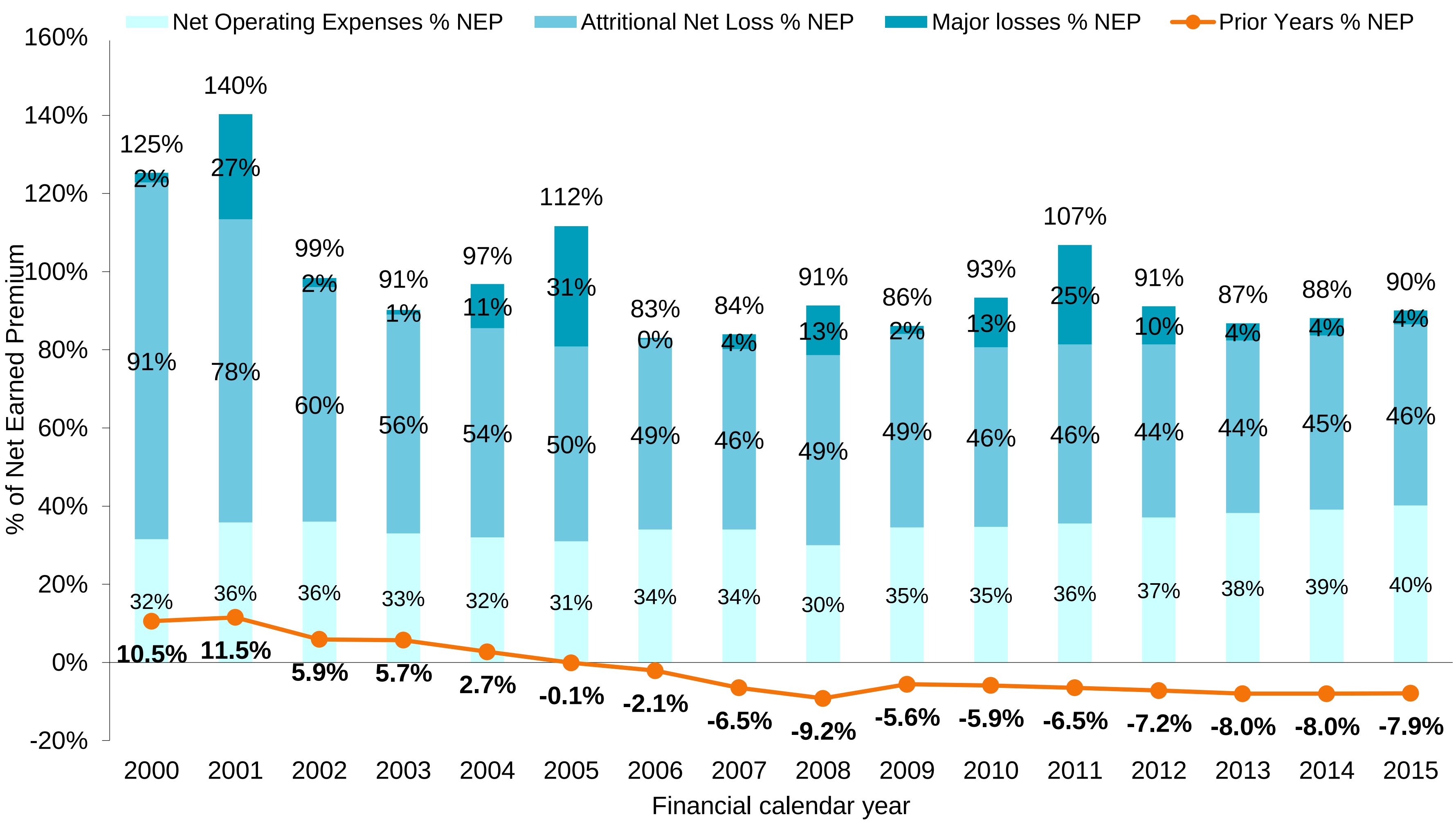


Major losses: Hurricane Betsy (1965), 1974 Super Outbreak 148 tornados in one day, Piper Alpha (1988), Hurricane Hugo (1989), the San Francisco Earthquake (1989), Exxon Valdez (1989) North European storms (1987 and 1990), Typhoon Mireille (1991), Hurricane Andrew (1992), Northridge Earthquake (1994) , WTC (2001), Hurricanes Charlie, Francis, Ivan (2004), Hurricanes Katrina, Rita, Wilma (2005), New Zealand, Chile Earthquake (2010), New Zealand, Japan Earthquake, Thailand Flood (2011)

Source: Lloyd's Annual Reports, Statistics relating to Lloyd's 2001; Lloyd's data for 1950 – 1999 on three year accounting (assuming written=earned premium and 18% brokerage), and from 2000 onwards on annual accounting basis.

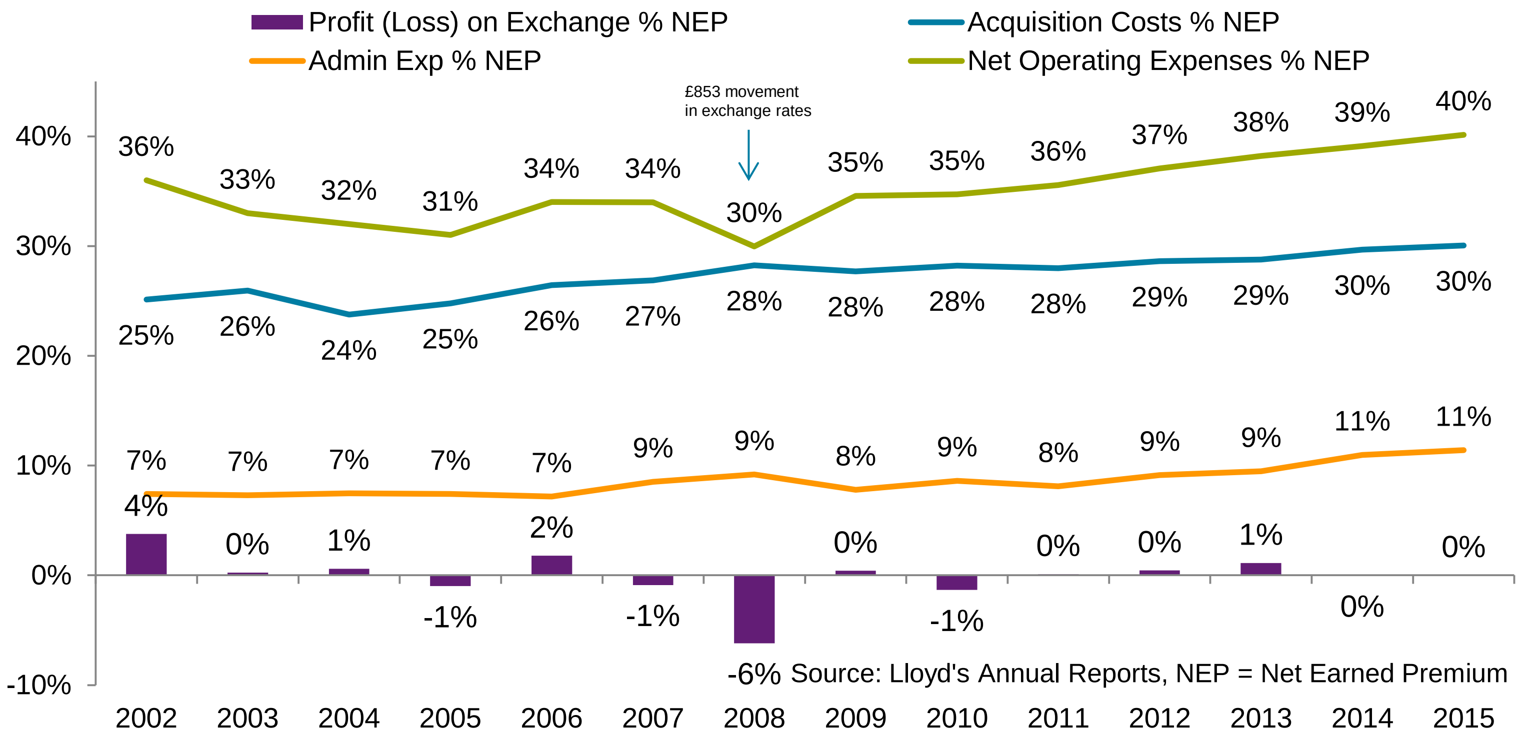
LLOYD'S

Lloyd's Underwriting Results since 2000



Source: Lloyd's Annual Reports, NEP = Net Earned Premium

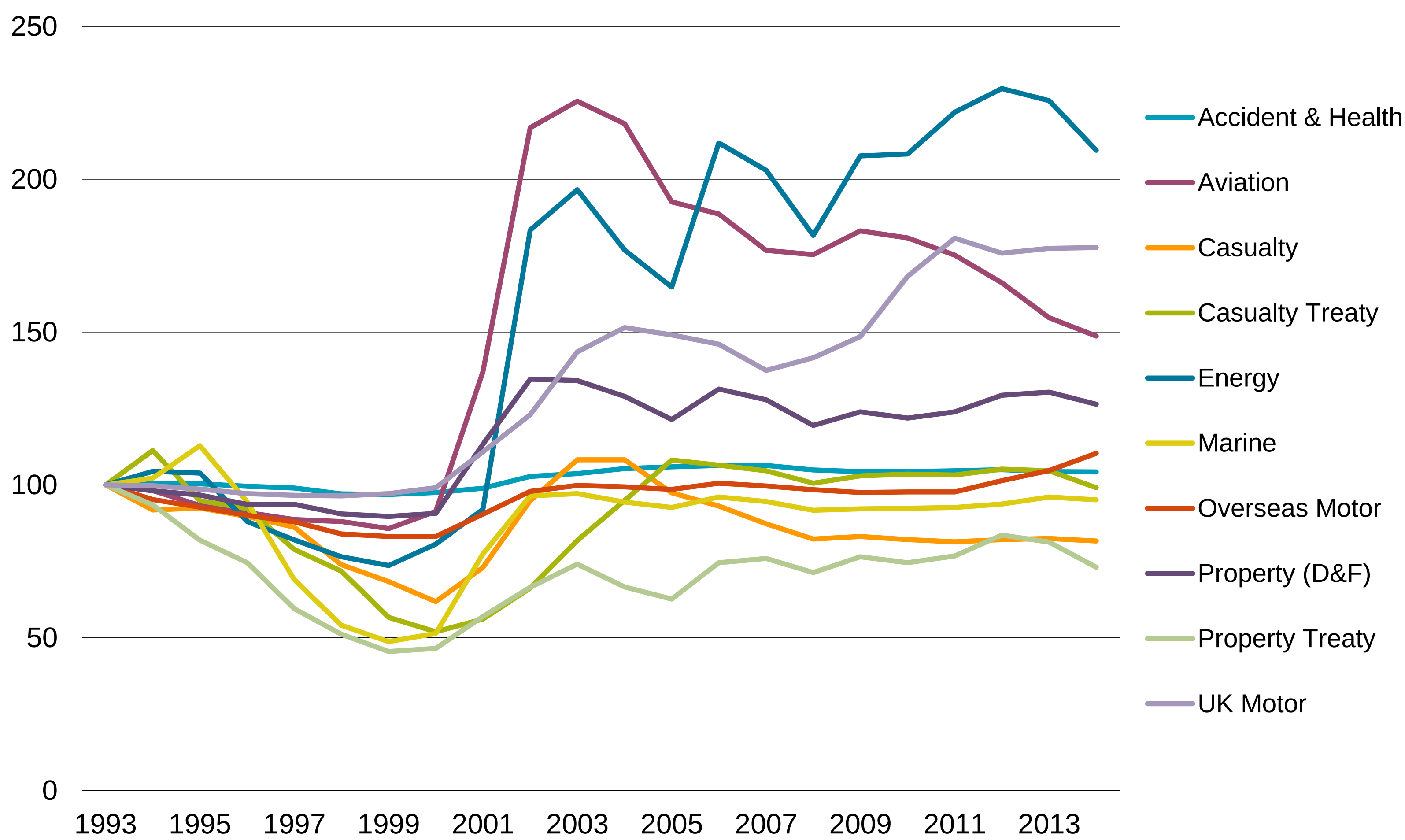
Analysis of Lloyd's operating expenses



Since 2009 operating expenses increased from 35% to 40% driven by:

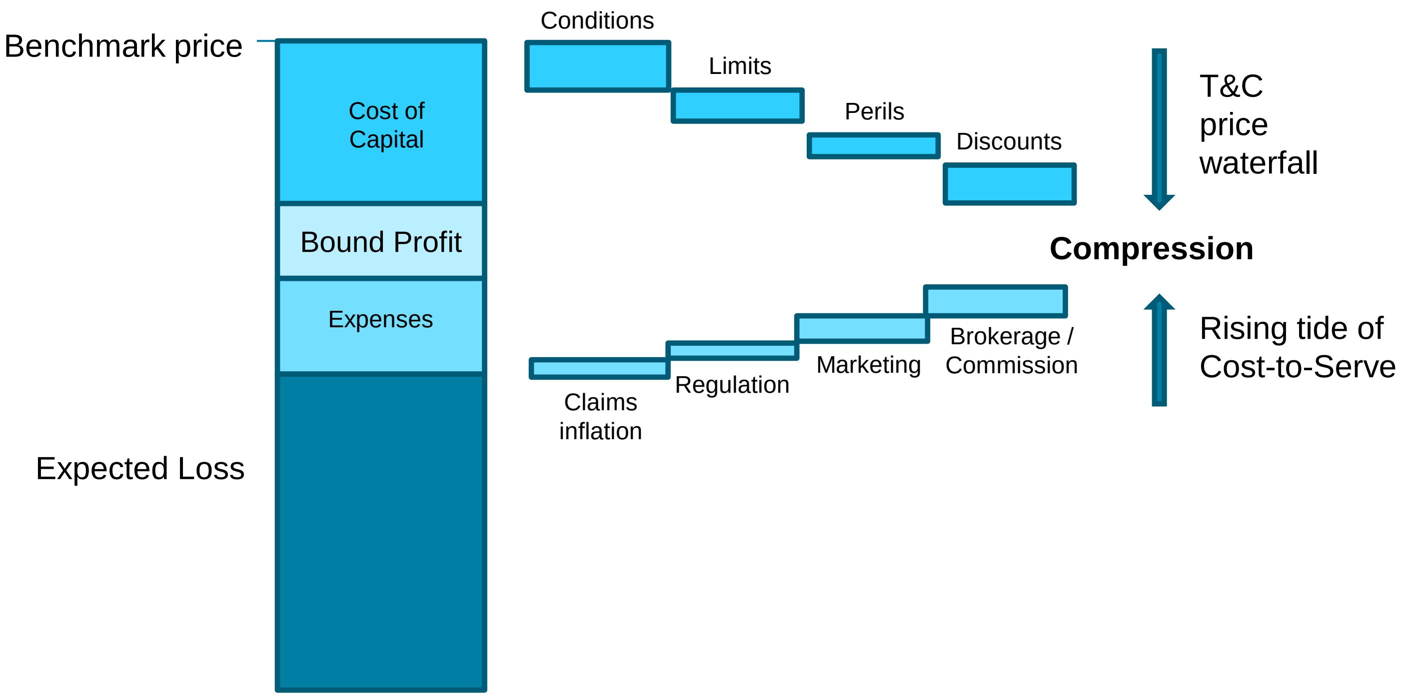
- Higher acquisition costs (28% - 30%) by and large due to increased Coverholders business (25% to 32% of Lloyd's income)
- Higher administrative expenses ratio (9% - 11%) driven by
  - Softening market environment, i.e. lower premium income for the same risk exposure
  - Weakening exchange rate (business predominantly sourced in US$, while admin expenses are predominately in GBP£ (2009: $1.61 = £1, 2015, $1.47 = £1)
  - Increased regulatory requirements, e.g. Solvency II

Lloyd’s Premium Rate Index

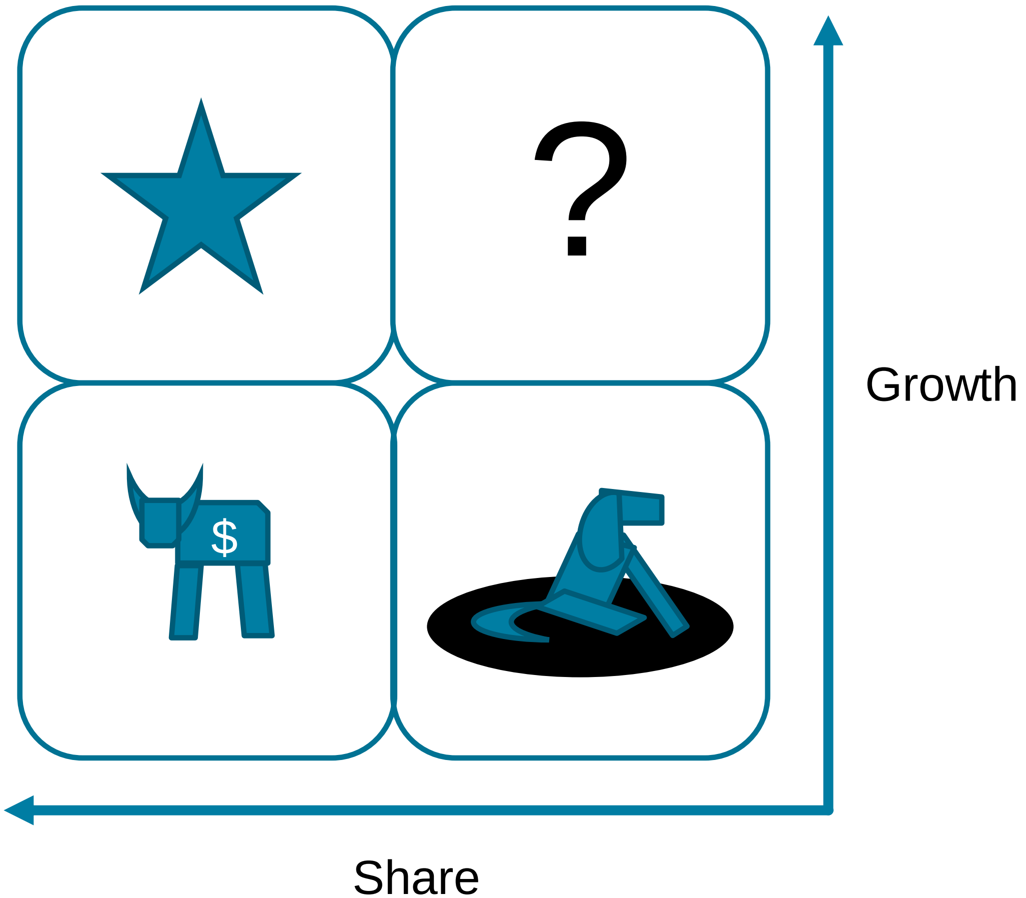


Source: Lloyd’s Statistics (2016 Edition)

Price Leakage:
Profits compressed from both sides

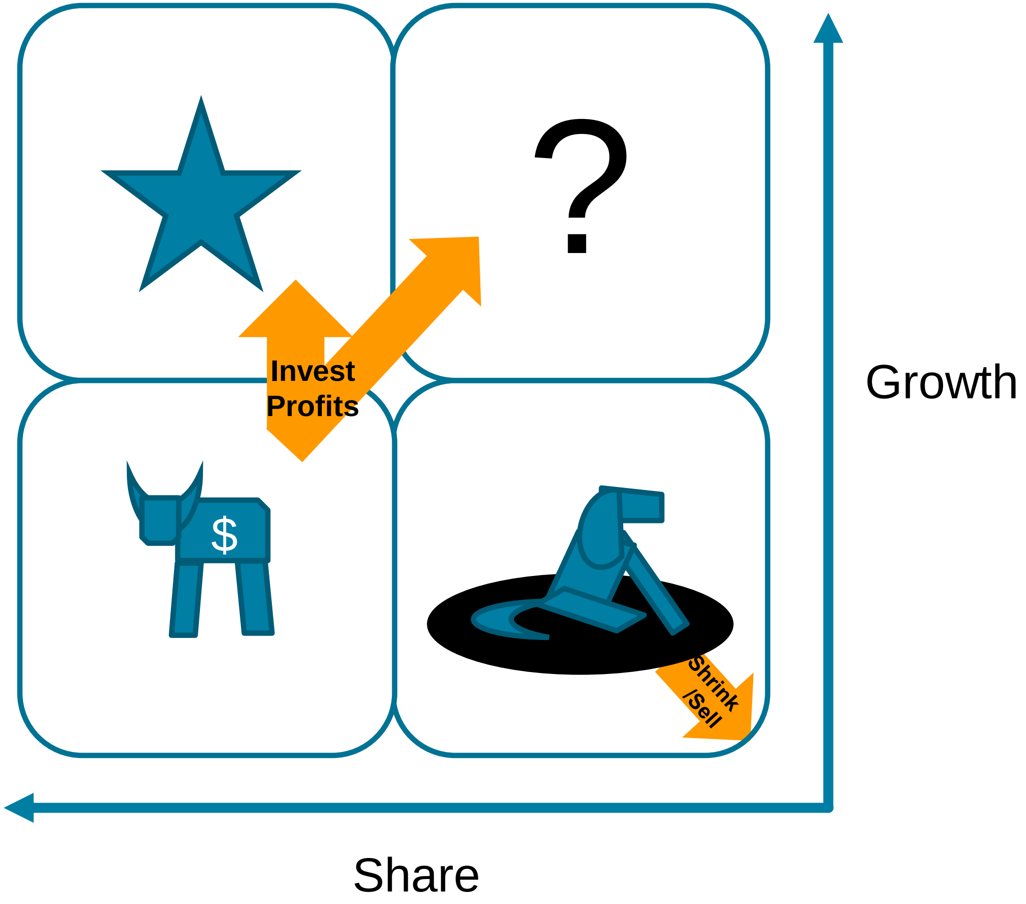


BCG Growth-share Matrix

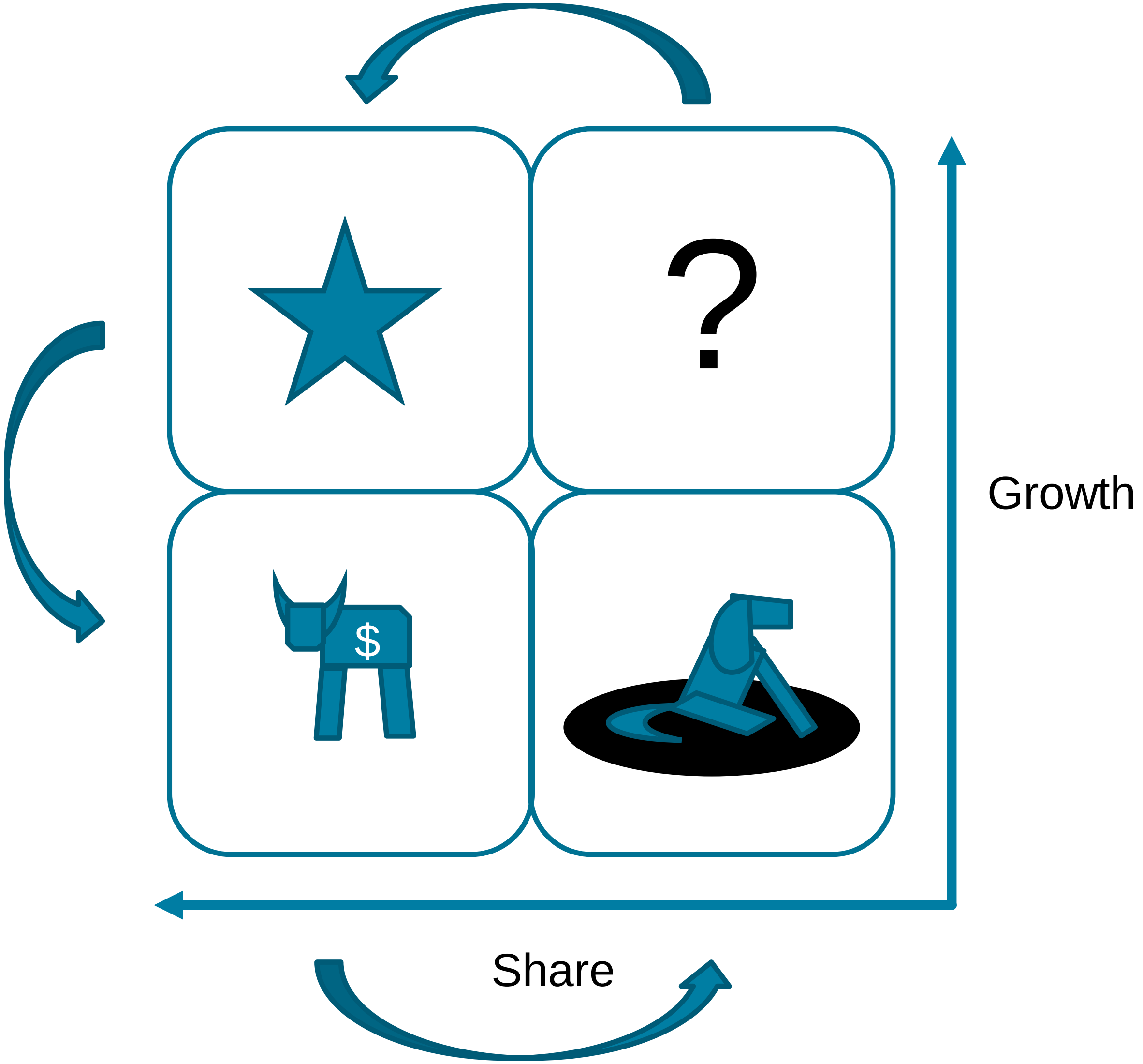


Visit: https://www.bcgperspectives.com/content/articles/corporate_strategy_portfolio_management_strategic_planning_growth_share_matrix_bcg_classics_revisited/

BCG Growth-share Matrix

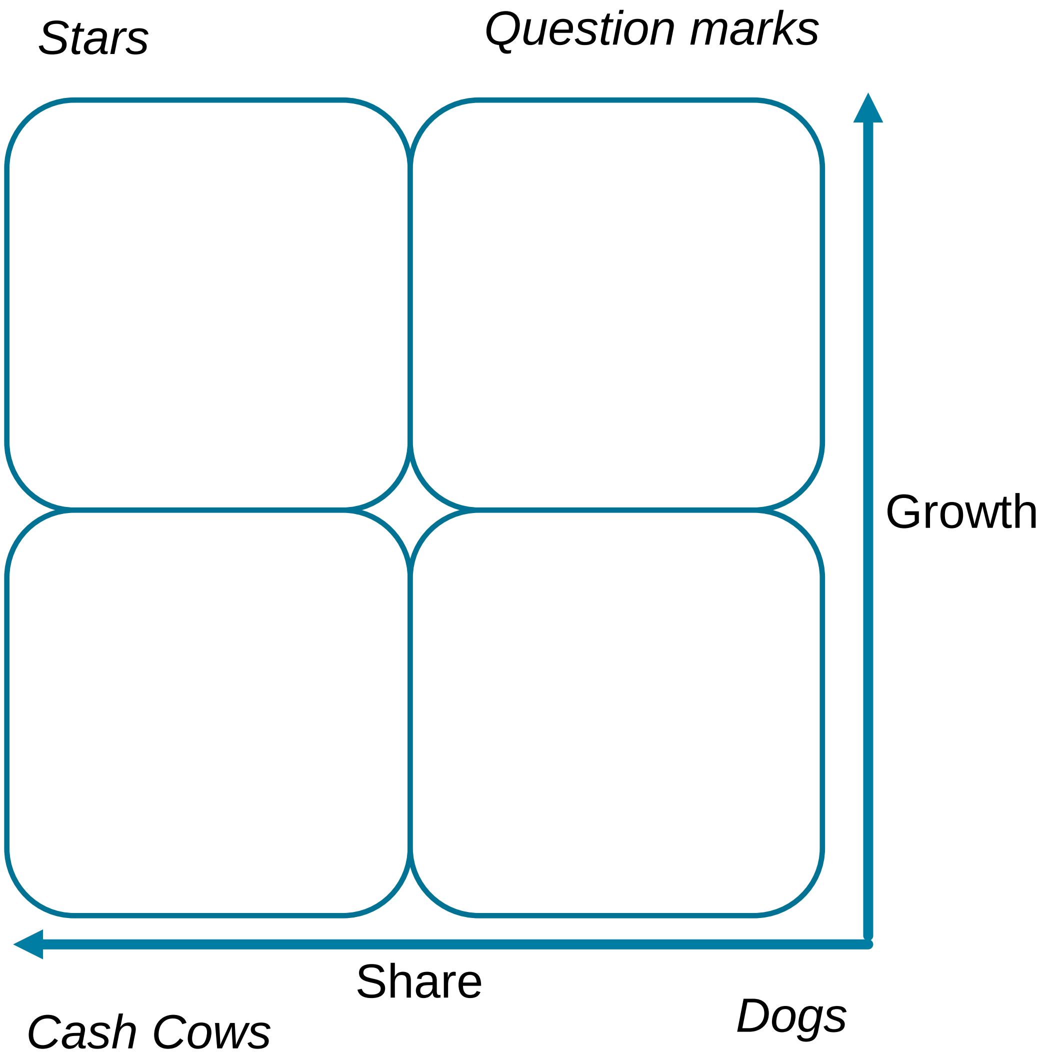


BCG Growth-share Matrix Life Cycle



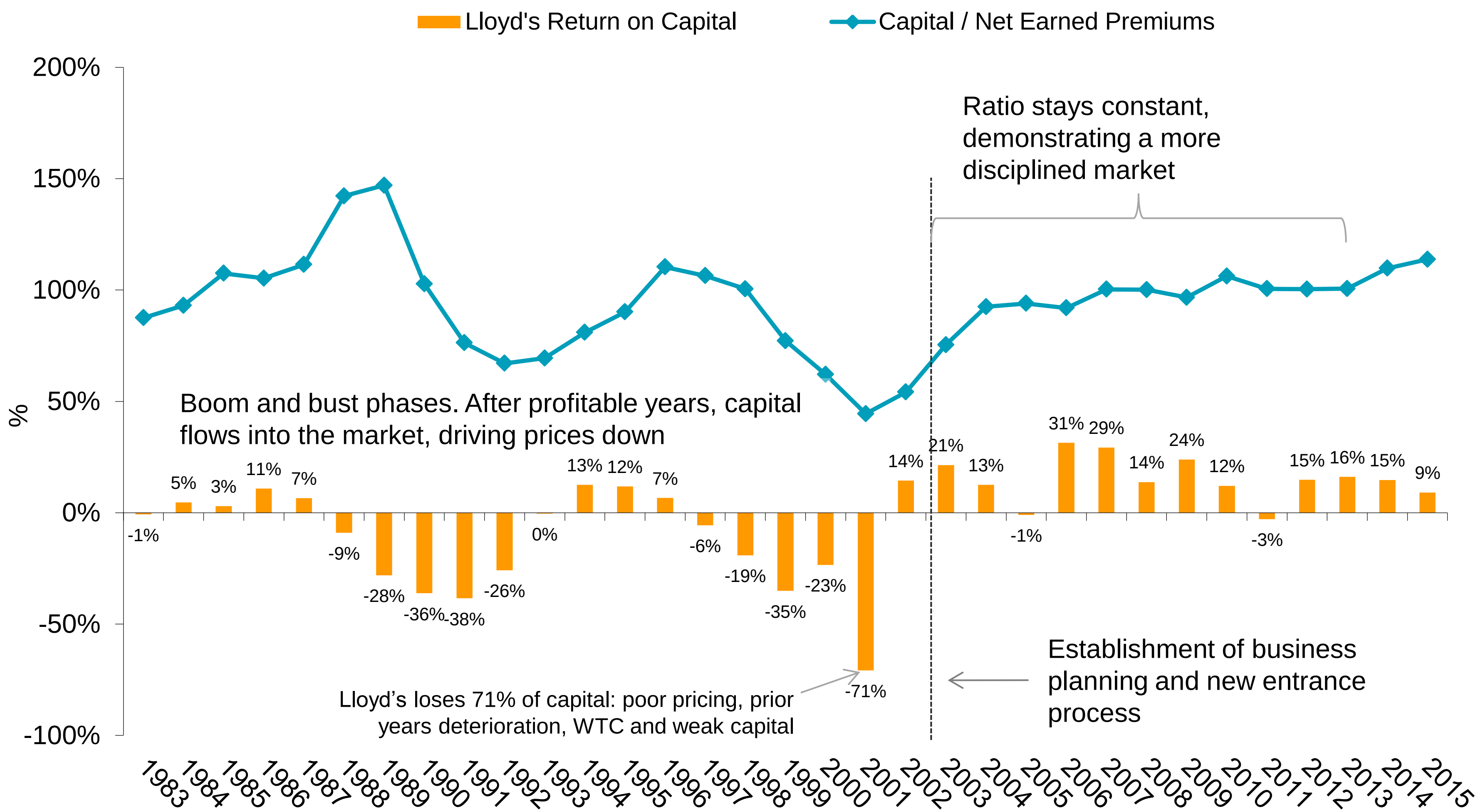
LLOYD'S

Which line of business would you put where?



Lloyd’s return on capital 1983 - 2015

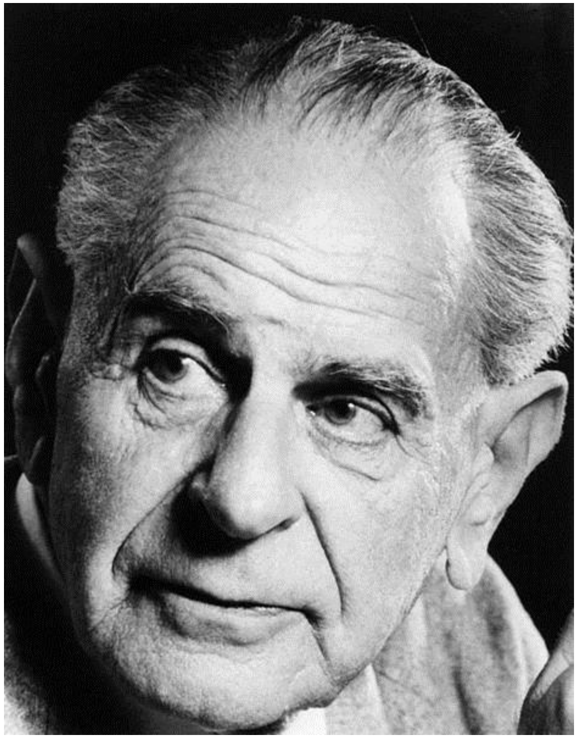
LLOYD'S



Source: Lloyd's Annual Reports, Statistics relating to Lloyd's 2001; Lloyd’s data for 1983 – 1999 on three year accounting (assuming written=earned premium and 18% brokerage), and from 2000 onwards on annual accounting basis. Capital = Total Net Resources of the Society of Lloyd’s and its members less subordinated debt

You can only be proven wrong

Black Swans



Karl Popper

Good tests kill flawed theories; we remain alive to guess again.

You make money until you don't

Chances of entering a new class of business successfully

- A Lloyd's syndicate is planning to enter a new class of business, where historically only 15% of the syndicates met its planning loss ratio and 85% failed.
- The syndicate has a track record of meetings its business plan loss ratio 4 out 5 years.
- How much confidence would you have that this syndicate can achieve its planning loss ratio in the new class of business?

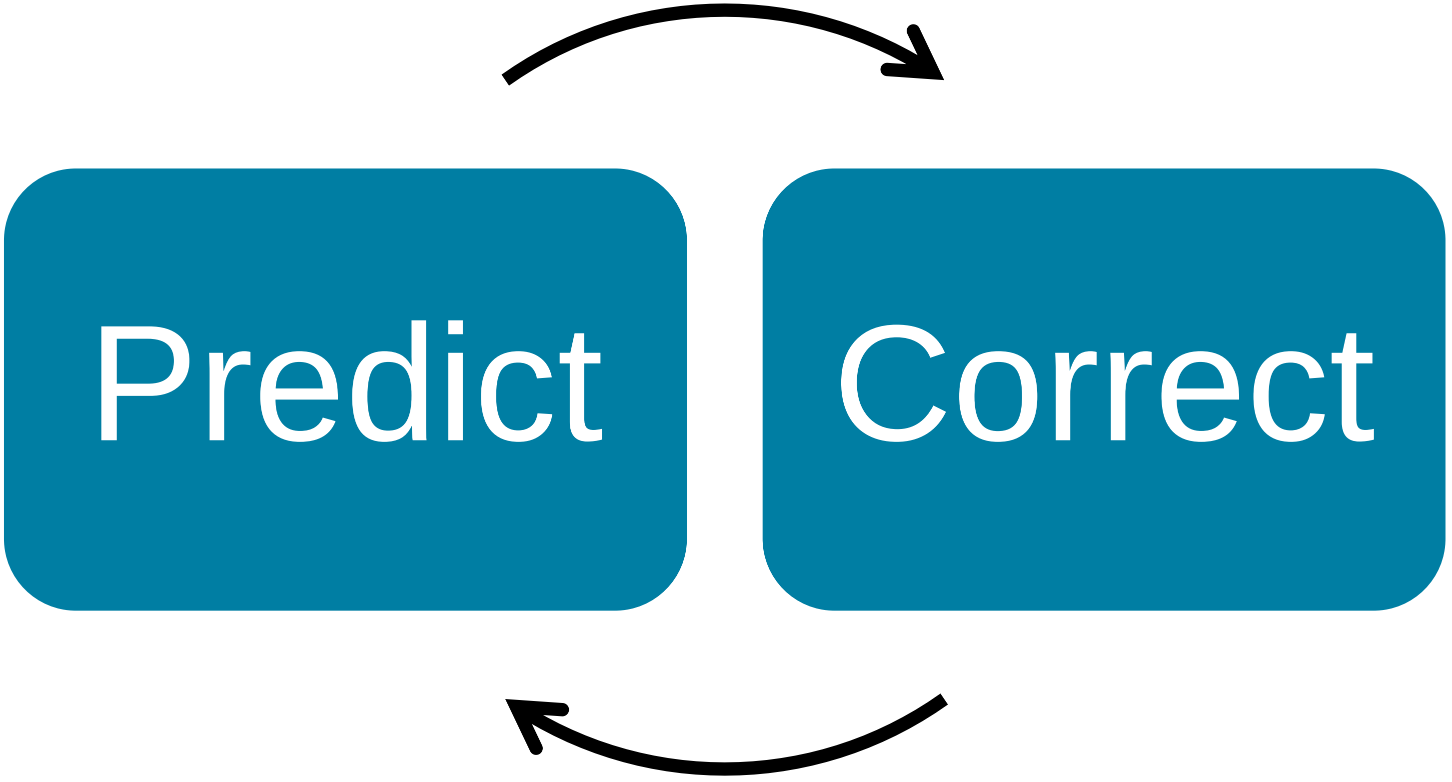
Hit and run … away from your tail

- There are two kinds of casualty underwriters, the skillful ones and the ones who run away from their tails.
- Reviewing the historical market data reveals that only 15% of casualty underwriters are skillful and 85% are running away from their tails.
- A CEO employs a new casualty underwriter.
- The CEO believes that she can identify the skillful underwriter with 80% confidence.
- What is the probability that the CEO actually employed a skillful underwriter?

Performance review cycle at Lloyd's

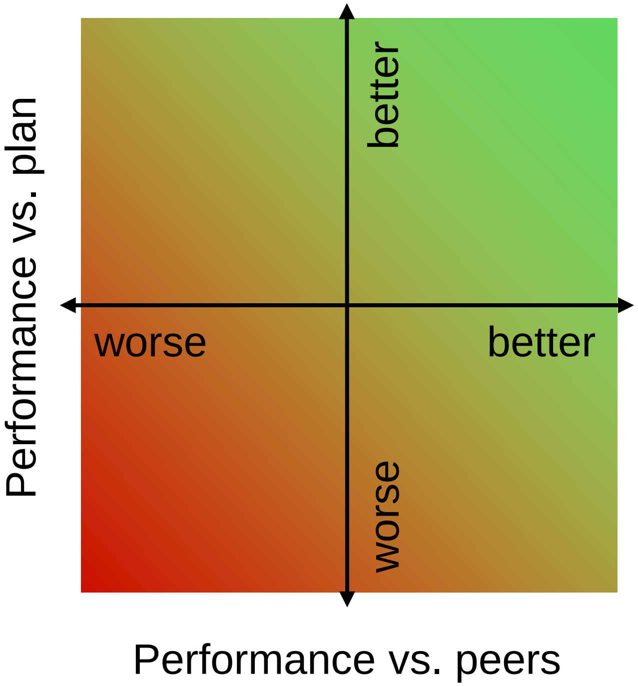
- Market submits data to Lloyd's
- Lloyd's analyses the data
- Bespoke management information is generated
- Agent specific reports and tools are played back internally and externally
- Lloyd's and agents use the MI to review and improve their performance

In a nutshell



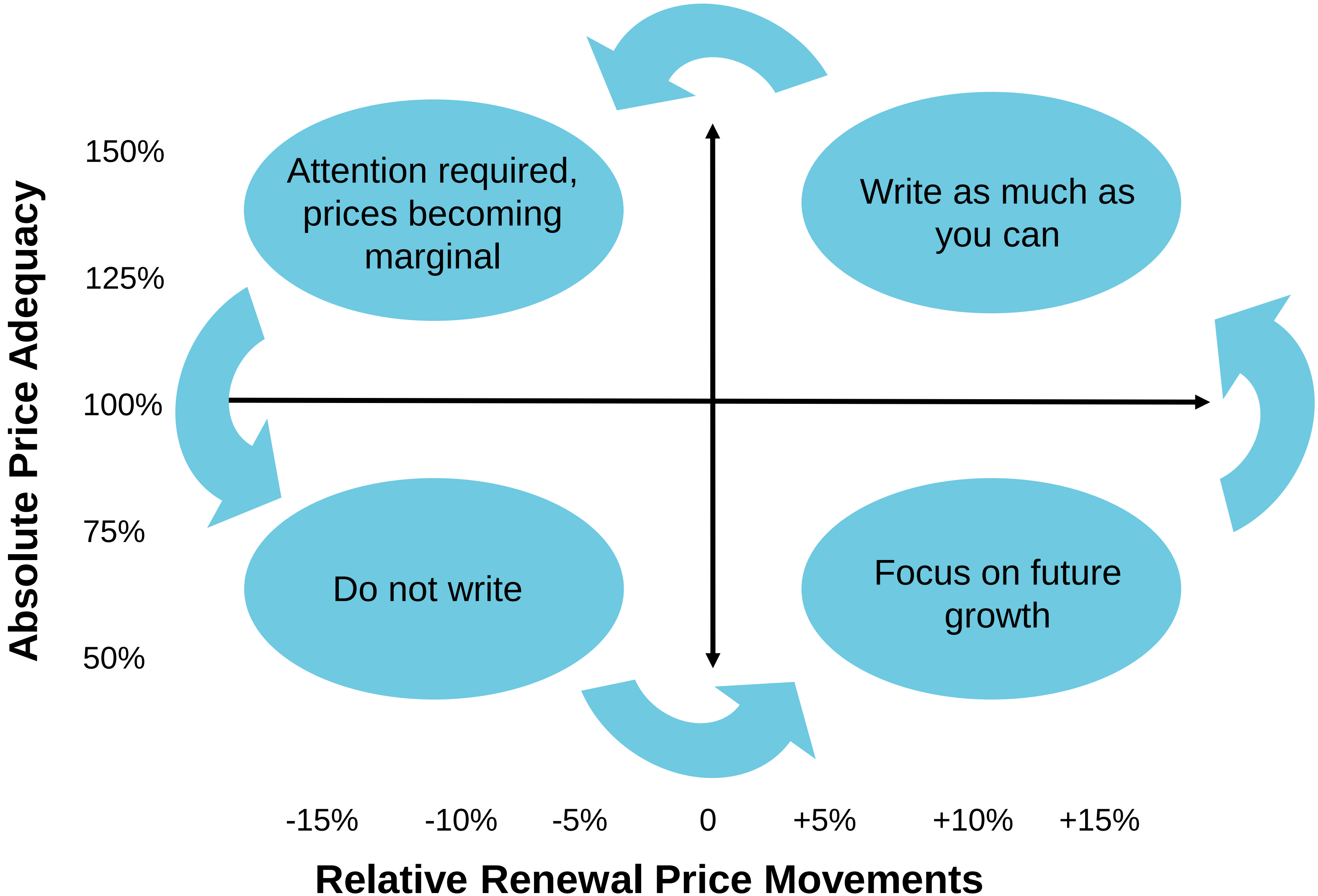
Example: Benchmarks vs. peers and plan

- Underwriting performance benchmarks vs. **notional market and plan**
  - Top performing syndicates or classes sit in the top right quadrant
  - Bottom performers sit in the bottom left quadrant
  - Movements over time highlight changes in performance



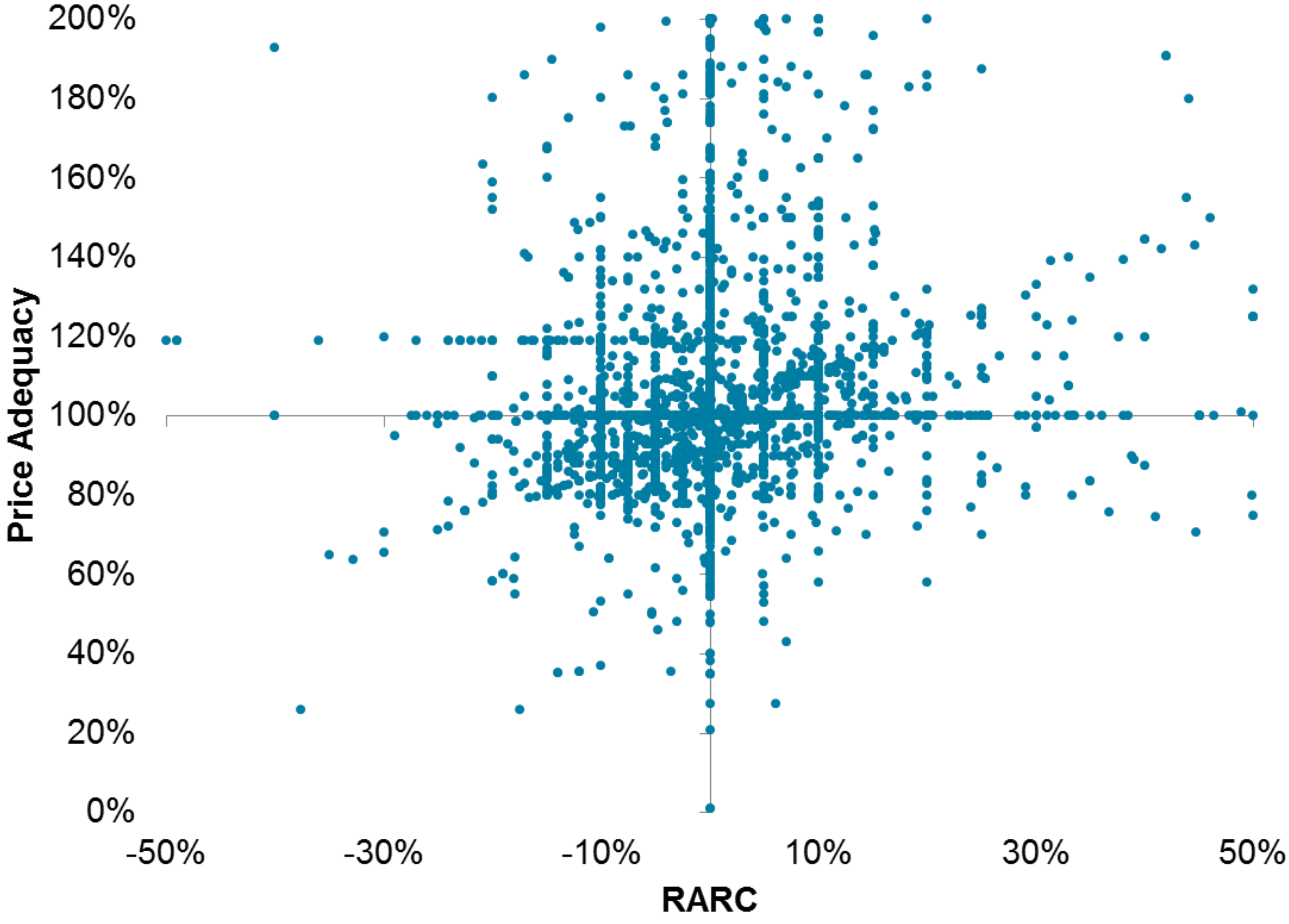
Source: Quarterly Performance Information reports from Lloyd's

Illustrative example for price monitoring

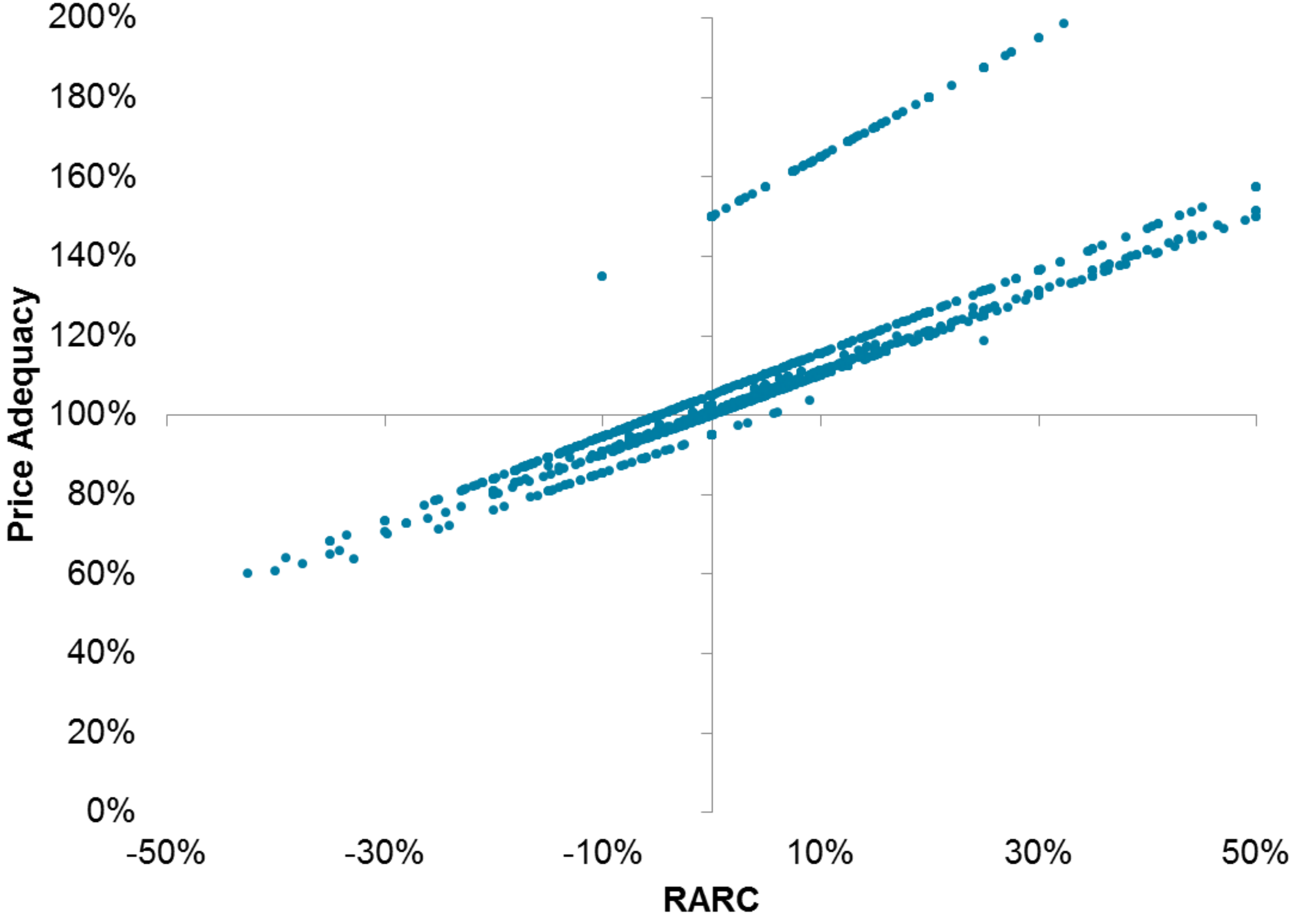


Original diagram by David Bracewell, Deutsche Bank

Signal and Noise



Signal and Noise



Since 2009: Performance Management Data Return (PMDR)

- Monthly data feed from syndicates' underwriting systems
- Information on premium income by risk, including
  - Price changes for renewals
  - Price comparison against business plans
- Key tool to monitor syndicates' business plan and performance oversight

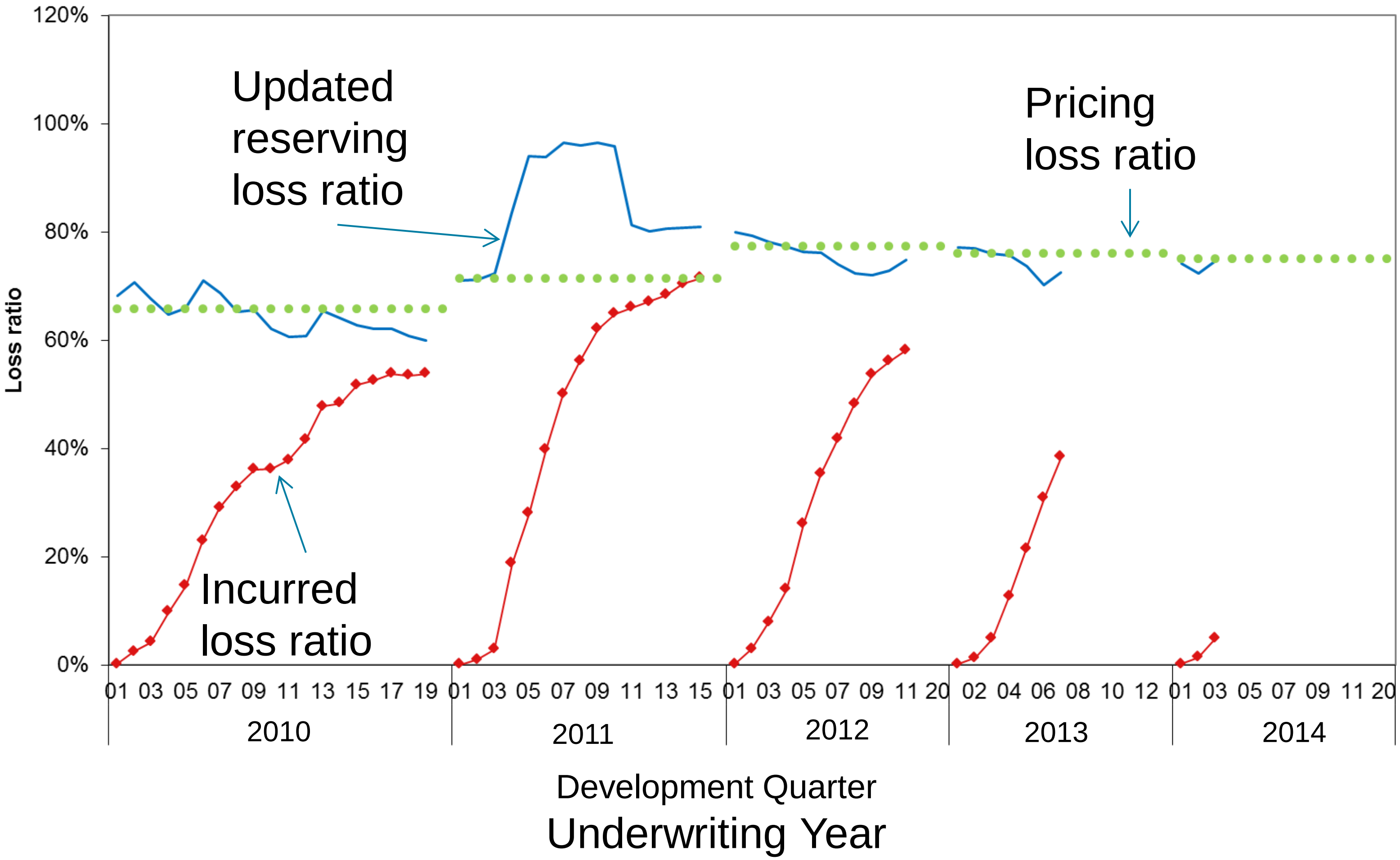
Past	Present	Future
←		→
Quarterly Monitoring Return	PMDR	Syndicate Business Plan

PMDR in practice

- PMDR highlights potential issues before loss ratios have to deteriorate.

	Premium and policies				Rate Change		Benchmark Price		Loss Ratio %		
Syndicate No / COB	PMDR Written Premium (000's)	Current Year PMDR % of Approved Plan	Lapsed Premium %	New Premium %	Current Year Pure Rate Change % (RARC)	Previous Year Pure Rate Change % (RARC)	% of Total Premium with Benchmark Price	Benchmark Price Overall	Plan Loss Ratio %	Loss Ratio % with benchmark price applied	Latest Actual Loss Ratio %
xxx	yyy	51%	18%	25%	-1%	3%	100%	94%	68%	72%	74%
xxx	yyy	66%	18%	18%	0%	2%	100%	95%	68%	72%	67%
xxx	yyy	51%	13%	19%	-1%	4%	85%	117%	73%	62%	78%
xxx	yyy	62%	30%	30%	-2%	5%	100%	111%	72%	65%	71%
xxx	yyy	52%	23%	17%	-1%	8%	46%	115%	65%	56%	67%
xxx	yyy	59%	32%	34%	-1%	5%	87%	111%	67%	60%	82%
xxx	yyy	53%	26%	11%	-1%	3%	47%	100%	64%	63%	75%
Overall:	**10,743,532**	**53%**	**23%**	**26%**	**-1%**	**4%**	**67%**	**105%**	**70%**	**66%**	**73%**

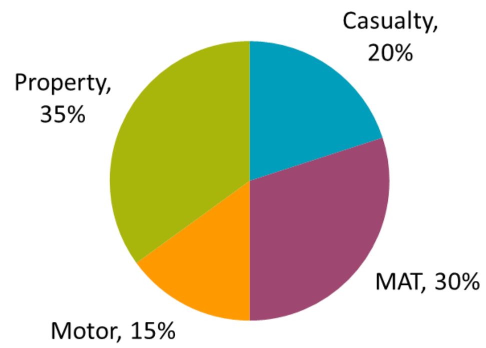
Calibrating pricing models takes time …

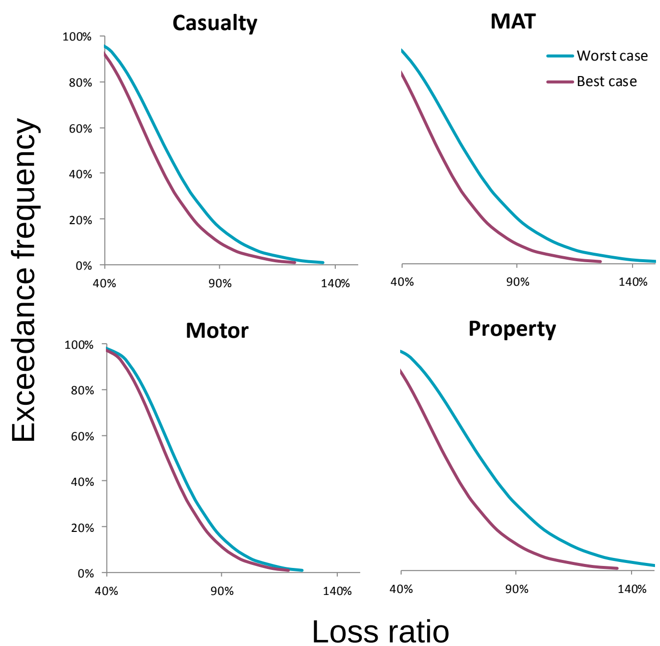


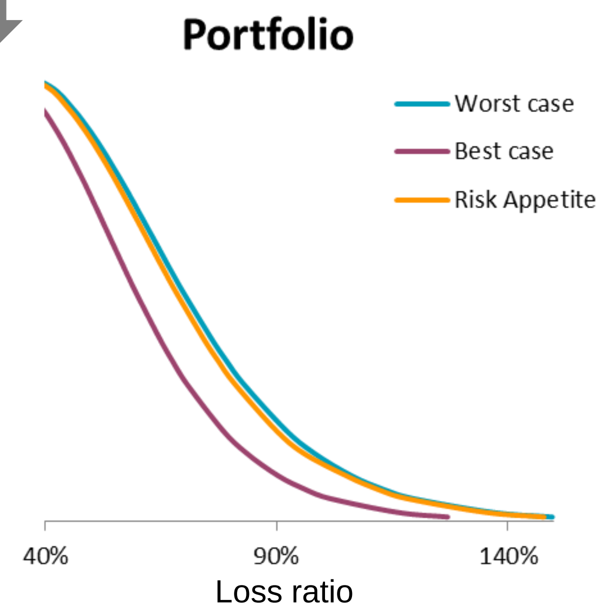
… but can enhace better monitoring of risk appetite

Range of prices

Portfolio Mix







Cycle Management Decision Tree

- Does our current portfolio deliver targeted return on equity over the cycle?
- Can less cyclical (sub-)segments be identified?
- Is focusing on these segments a valid strategy?

Yes → Follow the cycle

No ↓

- Does our business model support a flexible exit/entry?
- Can we gain customers back when re-entering the market?
- Can we preserve underwriting expertise during exit periods?

Yes → Flexible exit/entry

No ↓

- Can an active price management compensate for the expected price decrease over the next cycle?
- Can we establish the required skills/tools for systematic price management?
- Can we align the mindset and behaviour of individual underwriters?

Yes → Active price management

No → Value-maximising exit

Source: “Three strategic approaches to active cycle management”, Thomas Sepp and Oliver Bäte, Cycle proficiency. Post Magazine, 1 July 2004, pages 22 – 23,

Conclusions

- Underwriting conditions are challenging
- Business planning and monitoring are essential
- Better data and risk modelling should allow for better portfolio cycle management
- Solvency II capital models should allow for better allocation of capital to risk appetite

References

- Directory of data and reports from Lloyd’s:
  - www.lloyds.com/data
- Lloyd’s Statistics:
  - www.lloyds.com/stats
- PMDR framework and examples:
  - www.lloyds.com/pmdr
- Guidance on claims inflation
  - www.lloyds.com/claimsinflation

Thank you

- Questions?

- Contact:
  - Markus Gesmann
  - markus.gesmann@lloyds.com
  - +44 (0) 20 7327 5694