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**LLOYD'S AND LONDON MARKET
SEMINAR**

27 JULY 2007, LONDON

Performance Information Packs
Shamit Biswas, Markus Gesmann

Agenda

- Introduction to Market Analysis at Lloyd's
 - Performance Measurement
- Performance Information Report
 - The concept behind the "Banana Chart" benchmarks
 - The other bits

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Market Analysis at Lloyd's

**"Improve, develop and supply management
information to enable effective performance
management"**

2007 Franchise Business Plan

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Performance Measurement

Market Analysis at Lloyd's involves:

- Monitoring of Business Plans
- Price Monitoring
- Portfolio Analysis
- Cycle Management
- Data Management

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The ways in which FPD monitors managing agents' performance:

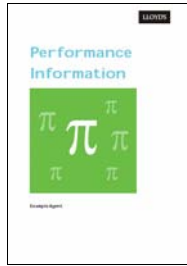
- Comparison against the market
- Comparison against individual plan
- Comparison against the Lloyd's view

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Performance Information

Performance Information

- Quarterly
- Report is tailored to each syndicate
- Relative UW performance against the Lloyd's Market
- IBNR Usage
- Rate Movements
- Market Review



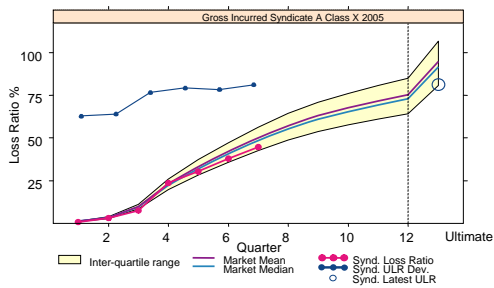
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Objectives

- Allows syndicates to compare the **performance** of classes of business against the market on a **like-for-like** basis.
- Gives **early indication** of good and poor performing classes
- Allows the syndicates to compare themselves against the **market as a whole**.
- **Monitor** business plans
- Overview over current **market conditions**

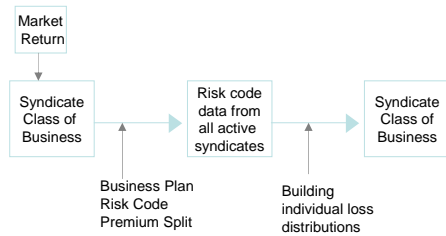
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Syndicate COB Benchmark "Banana Chart"



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Data Processing



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Ranges around the market mean via simulation. Why?

- Not all classes have enough data
- Not all classes have enough peer syndicates
 - Fine Art, Kidnap and Ransom, etc.
- New YOA wouldn't have a sensible range
 - Everyone plans for similar levels of profit

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Recipe for simulations

- Need market ULRs by risk code and YOA
- Need risk code premium split for the syndicate's own class
- Need loss distribution for all risk codes
- Need risk code correlation matrix
- Start with multivariate normal distributed random figures
- Transform them into desired distributions
- Take linear combination of the risk code results

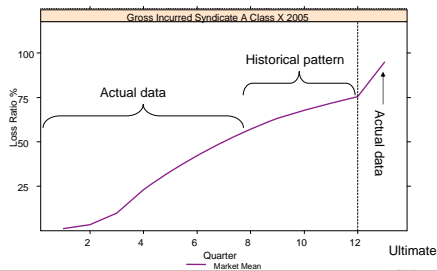
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Example: Two Risk Codes

- Suppose a syndicate class of business consists of risk codes A and B
- Premium split: A 40%, B 60%
- ULRs: A is log-normal, B is exponential
- Correlation between risk code A and B is 20%
- Market ULR risk code A: 120%, B: 80%
- COB ULR = 40% * 120% + 60% * 80% = 96%

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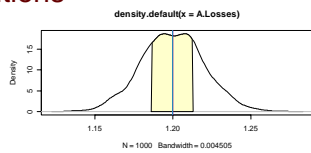
Market Mean



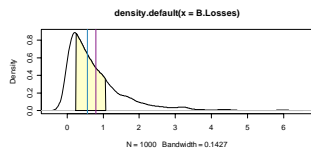
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Distributions

Log-normal

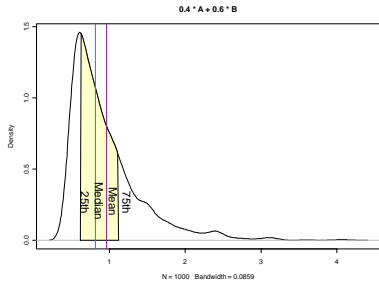


Exponential



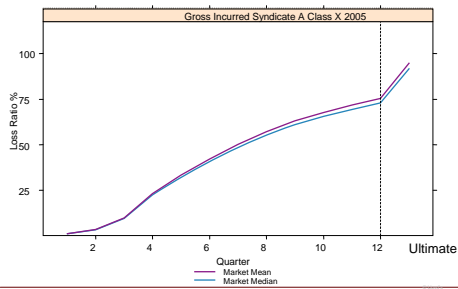
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Joint Distribution



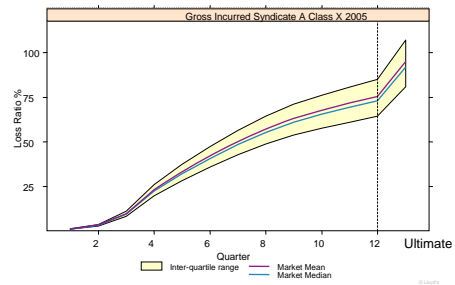
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Market median



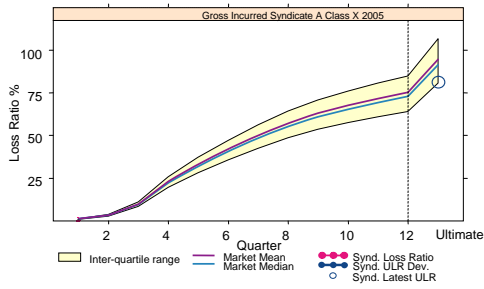
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Benchmark curve



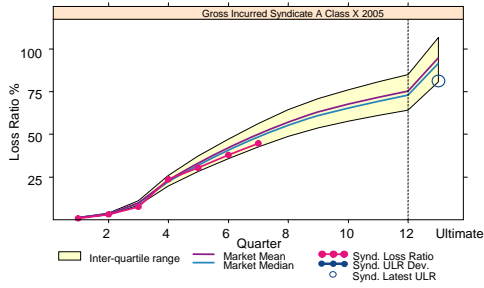
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Syndicate's forecast



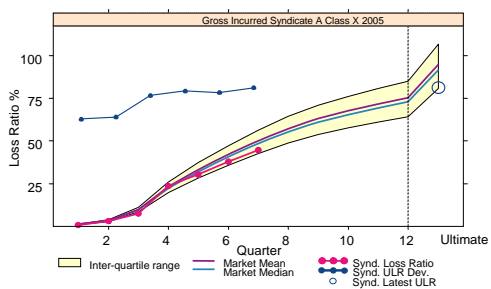
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Incurred development



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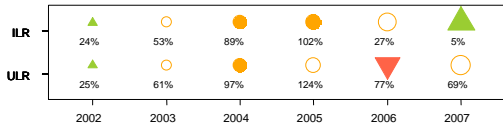
Syndicate COB Benchmark "Banana Chart"



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Performance Summary

Whole Account Gross Benchmark Quartile Positions



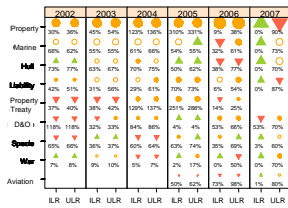
Symbol size is proportional to gross stamp premium

▲ top quartile ○ second quartile ● third quartile ▼ bottom quartile

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COB Summary

Gross COB Benchmark Quartile Positions



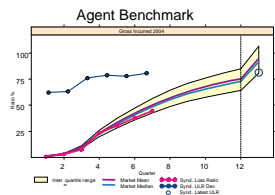
ILR and ULR are stated for the syndicates' COB
Symbol size is proportional to gross stamp premium

▲ top quartile ○ second quartile ● third quartile ▼ bottom quartile

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Banana Chart Summary

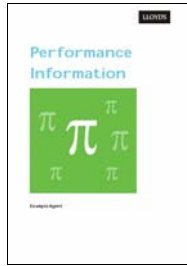
- Benchmark by syndicates' specific class
- Gives early indication of good and poor performing classes
- Shows volatility of the business
- Checks reasonableness of forecasts



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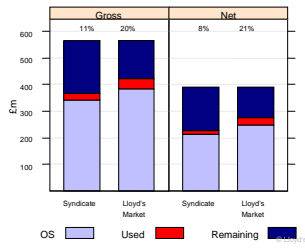
Performance Information

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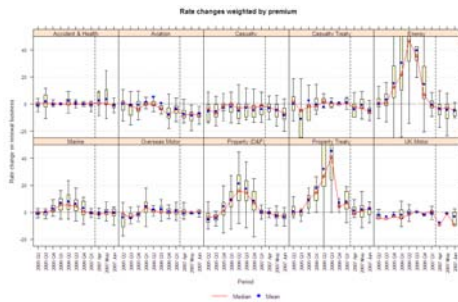
IBNR Usage



$$\text{IBNR Usage} = \frac{\text{Year end IBNR b/f} - \text{IBNR Remaining}}{\text{Year end IBNR b/f}}$$

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Renewal Rate Movements



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Market Overview

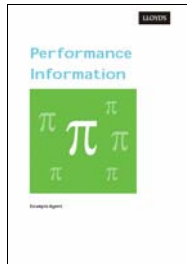
Lloyd's Class of Business Team provides:

- In-depth analysis by major lines of business
- Current market conditions
- Market trends

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Performance Information - Summary

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