Linking Pricing & Reserving in the London Market

Fiachra McLoughlin
Gemma Dawson

UMACS Limited

Underwriting Management & Actuarial Consultancy Services

GIRO October 2011
Setting the scene

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* Exposure taken on

* Indications of profitability

* Characteristic notification, development & settlement pattern of claims

* Settlement of known events & outstanding claims

IELRs

Higher uncertainty

Fin S’ments materiality

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Setting the scene

Pricing actuary

* Characteristic notification, development & settlement pattern of claims

Reserving actuary

* Settlement of known events & outstanding claims

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IELRs

Higher uncertainty

Fin S’ments materiality

Actuarial Function

(& actuarial opinion on underwriting)

U.M.A.C.S.

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Managing for Profit...
Solvency II and Technical Provisions

- **Earned Provision (Claims Provision)**
  - Earned claims reserve
  - Future premiums relating to earned business

- **Unearned Provision (Premium Provision)**
  - Incepted business:
    - Unearned claims reserve
    - Future premiums relating to unearned business
  - Unincepted business:
    - Expected claims on the unincepted business
    - Premiums relating to this unincepted business
Solvency II and Technical Provisions

The diagram illustrates the impact of various technical provisions on the net technical provisions under Solvency II. Key components include:

- Technical Provisions at Year End (Incepted)
- Removal of Prudence & Allowance for Profit Unearned Claims (Incepted)
- Inclusion of Inwards Future Premium (Incepted)
- Additional Allowance for Expenses
- Allowance for Binary Events (Incepted)
- Additional Allowance for Counterparty Default (Incepted)
- Inclusion of Unincurred Business
- Inclusion of Discounting
- Inclusion of Risk Margin
- Technical Provisions under Solvency II

The graph shows the relative contributions of each component to the overall technical provisions under Solvency II.
Solvency II and Technical Provisions

- Realisation of profit straight away
- Allowing for binary events
- Discounting
- Risk Margin
Pricing & Portfolio analysis

- Minimum underwriting standards. For each risk;
  - Benchmark comparison with plan;
    - *(Pricing Expected Loss Ratio)*
  - Rate change analysis by component.

- Practice varies in application, especially
  - Application in the underwriting teams; &
  - Governance + information quality standards.

- Portfolio Management

  *Assignment of responsibility for assessing and calculating the impact that pricing movements, new business and non-renewed business may have on the syndicate loss ratios to a nominated director.* {Lloyd’s Minimum Standards}
Knowing the market we are operating in

- Developing a market view & dashboard
- Relative incurred + projection of market level ULRs
- Underwriter value-add
- More subjective information flows
- Usual caveats apply
## Setting the scene

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### IELRs

- Higher uncertainty
- Fin’ments materiality
Potential bias + misinformation

- Rate Monitoring subject to inherent flaws
  - Many uses & different audiences
  - Can be difficult to establish a single truth
  - Behavioural issues
- Using PMD returns to Lloyds
Just how important is Pricing Data..?

- Data storage is cheap
- Good data is a competitive advantage
- Products + policy forms are not evolving rapidly
- Information standards vary by class, broker, nature of market; but...
- Has there been enough of a focus on improvement here.?
Calibrating your pricing models

- The biggest ‘win’ of all
  - Budgeted amounts versus actual delivers quickest insight
    - By Pricing Component;
    - By Peril.
- Practicality various by class, a strong ‘view’ still provides the framework
- Underwriter ownership
- Allowing for different varying capital loads
Expected loss vrs Rate on Line

Expected loss

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<td>72.6%</td>
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Implied Capital Charge

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<td>27.4%</td>
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Market Price

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Allowing for volatility charge

Warning…

Based on ‘model prices’ not actuals
Calibrating your pricing models

- Maybe the biggest ‘win’ of all
- Practicality various by class, but;
- A strong ‘view’ is still important
- Underwriter ownership
- Governance + information quality standards.
My wrap-up

➢ Reserving
  ➢ Has changed, evolved & improved
  ➢ But further changes likely or inevitable

➢ Pricing
  ➢ Evolution to continue (some way to go)
  ➢ Improved transparency around underwriting

➢ Linking the two
  ➢ In short term, iterative learning + ‘red flag’ approach
  ➢ Medium to long term? Discuss.