

Linking Pricing & Reserving in the London Market

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Underwriting Management & Actuarial Consultancy Services

GIRO October 2011



Setting the scene

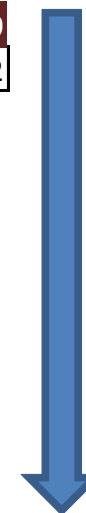
** Exposure taken on
* Indications of
profitability*

** Characteristic notification, development &
settlement pattern of claims*

** Settlement of known events & outstanding
claims*

Incurred	q3	q7	q11	q15	q19	q23	q27	q31	q35	q39
2001	213	2,013	2,872	3,434	3,387	3,341	3,100	3,176	3,136	3,072
2002	291	3,974	5,333	5,400	5,433	5,479	5,523	5,424	5,289	
2003	337	6,193	8,074	7,631	7,521	7,498	7,615	7,480		
2004	918	6,008	8,696	7,753	7,886	7,966	7,799			
2005	1,141	7,239	9,027	9,755	10,656	10,353				
2006	1,443	5,604	8,752	8,516	8,487					
2007	1,529	6,524	9,018	8,409						
2008	336	4,196	5,911							
2009	396	4,813								
2010	1,078									

IELRs



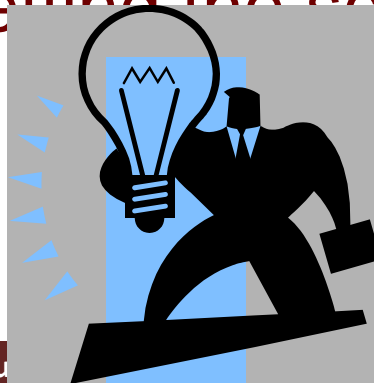
Higher
uncertainty



FinS'ments
materiality

Linking Pricing & Reserving in the London Market, GIRO Conference 2011

Setting the scene



Pricing actuary


* Characteristic notification, development & settlement pattern of claims

* Settlement of known events & claims



Actuarial Function

(& actuarial opinion on underwriting)

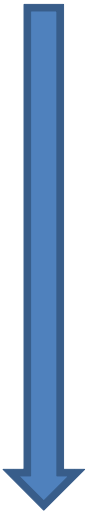
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Reserving
actuary

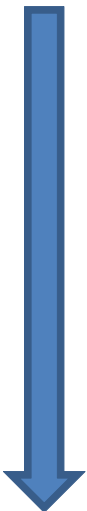
IELRs



Reserving actuary



Higher uncertainty



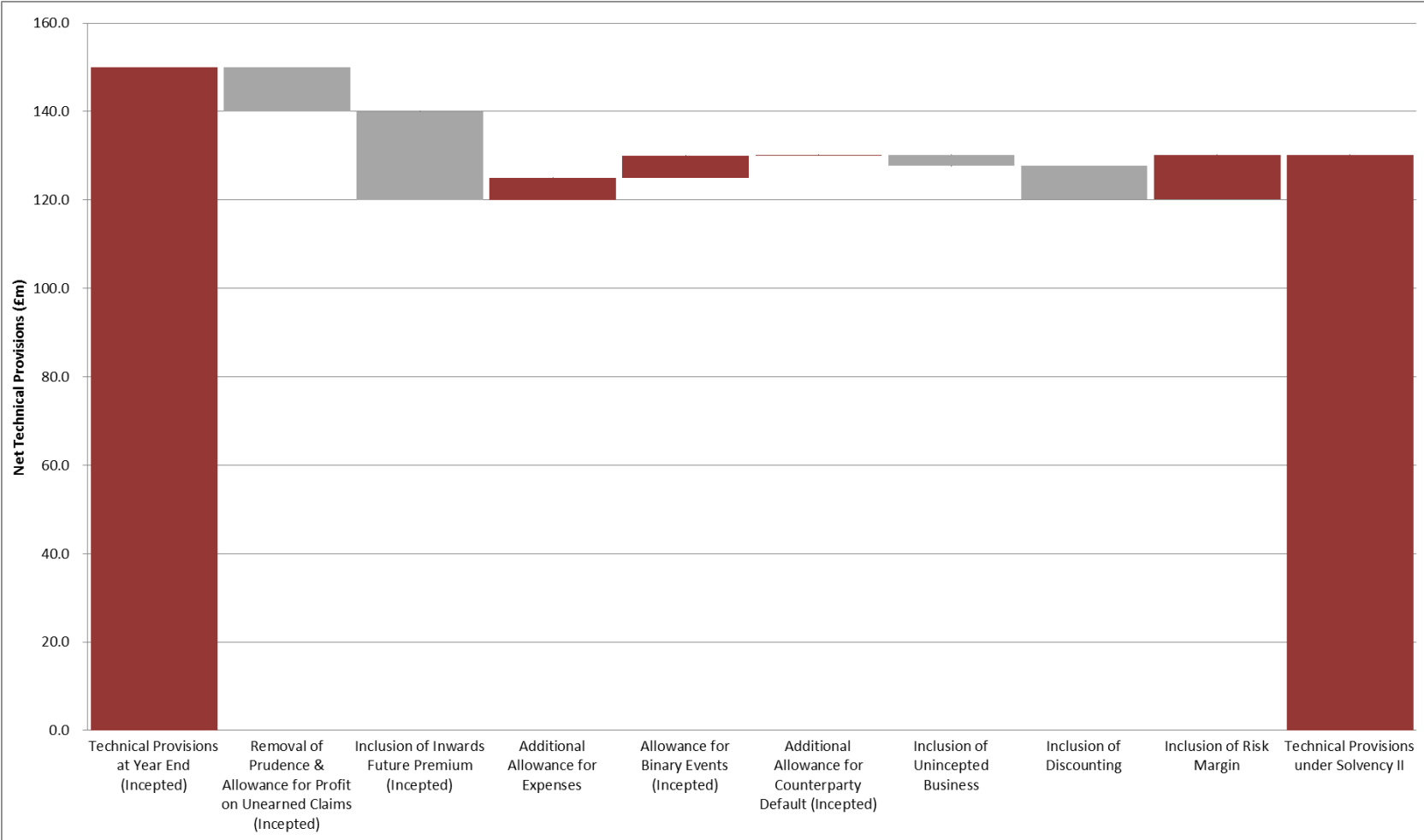
FinS'ments materiality



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



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

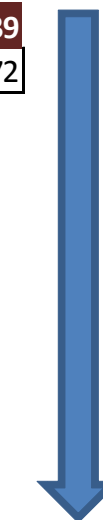
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IELRs



Higher
uncertainty



Fin S'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

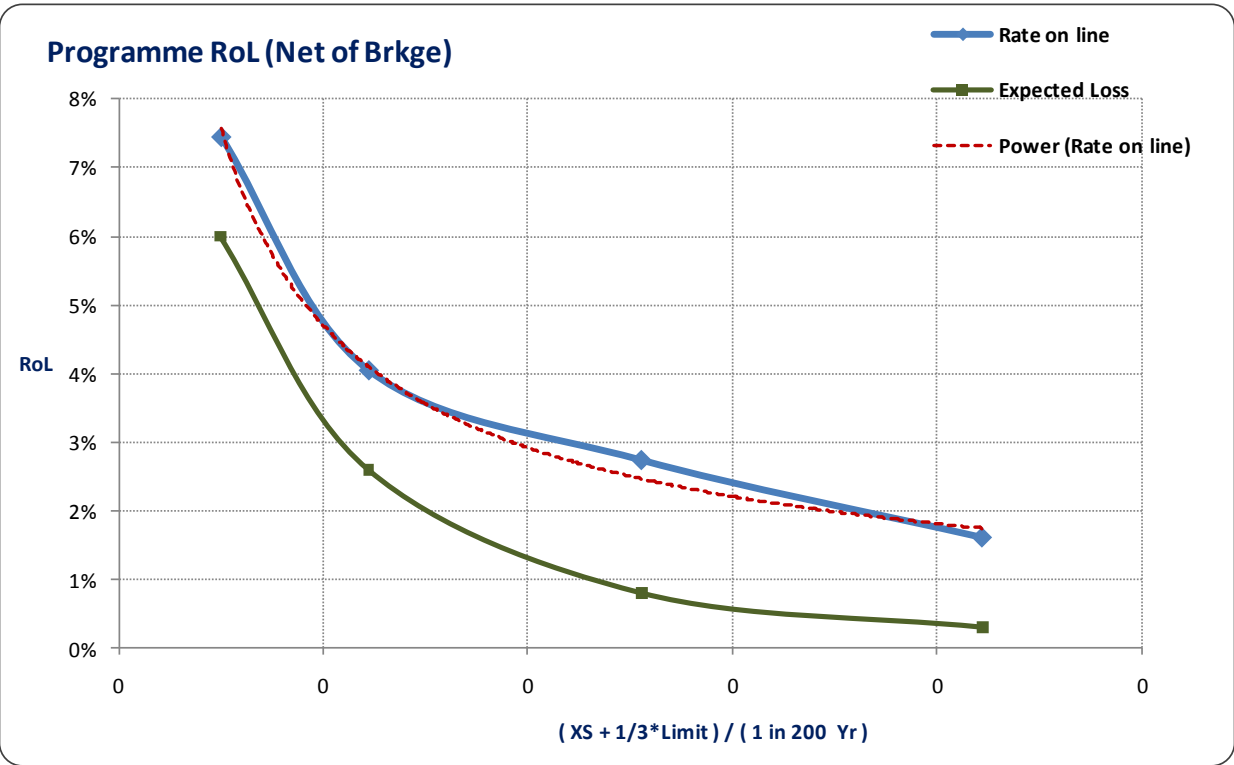
Just how important is Pricing Data..?

- 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

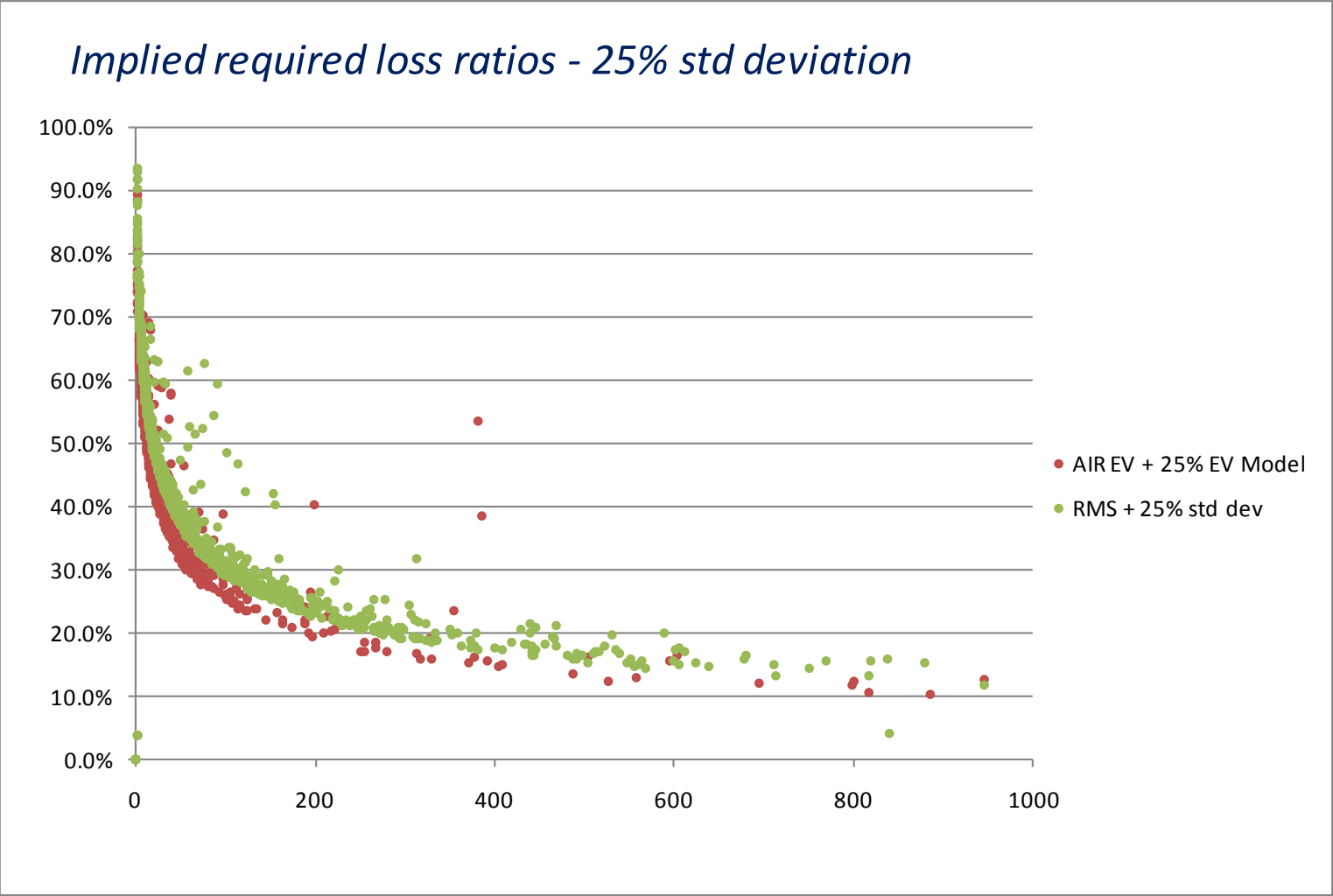
- The biggest 'win' of all
 - Budgeted amounts versus actual delivers quickest insight
 - By Pricing Component;
 - By Peril.
- Practicality various by class, a strong 'view' still provides the framework
- Underwriter ownership
- Allowing for different varying capital loads

Expected loss vrs Rate on Line



	Ly1	Ly2	Ly3	Ly4
Expected loss	72.6%	57.8%	26.2%	16.1%
Implied Capital Charge	27.4%	42.2%	73.8%	83.9%
Market Price	100.0%	100.0%	100.0%	100.0%
	0.4	0.7	2.8	5.2

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.