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ERM – A Capital Idea

Jack May

18 November 2014

Agenda

- Enterprise Risk Management
  - Relative profit
  - Risk portfolio
  - Holistic management
- Capital Modelling
  - What?
  - How?
  - Why?

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Enterprise Risk Management

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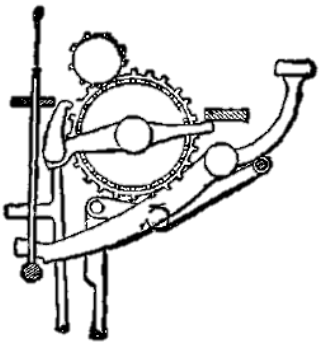
Enterprise Risk Management

- Widget Co.
- 2014: £1m profit



Enterprise Risk Management

- Widget Co: What affects profit?
  - Material cost
  - Consumer demand
  - Transport costs
  - Marketing
  - Competition
  - Overheads
  - Finance costs
  - Tax
  - …
  - Fraud
  - IT failure
  - Investment performance
  - Litigation
  - Warehouse fire
  - Theft
  - Director's resignation
  - Reputation
  - Creditor default
  - …

Enterprise Risk Management

- "Shopping list" of risks
  - Reduce
  - Remove
  - Retain
  - Transfer

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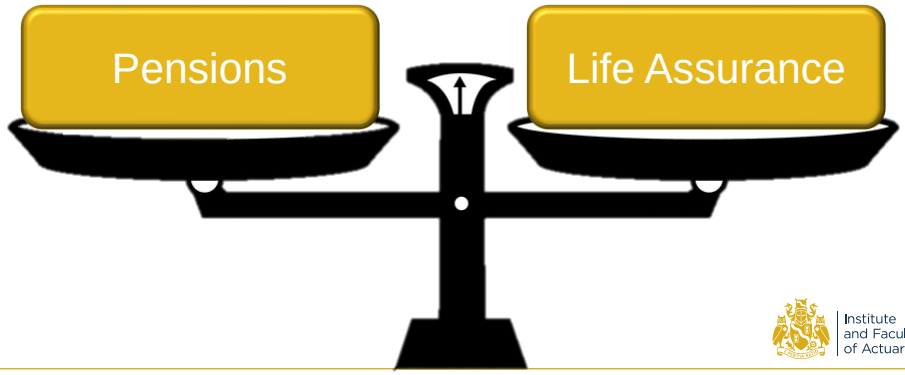
Enterprise Risk Management

- ~~Enterprise~~ Risk Management
  - Life Insurance Co.



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Enterprise Risk Management

Widget Co.	• Profit is relative • Portfolio of risks
Life Insurance	• Holistic risk management
Retail Bank	• Combine: • **Enterprise** Risk Management

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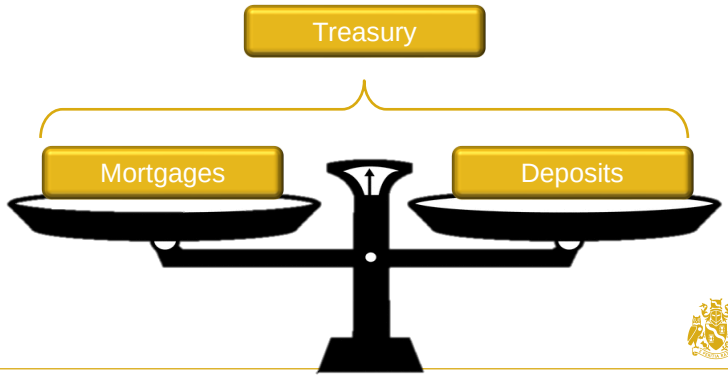
Enterprise Risk Management

- Enterprise Risk Management
  - Retail Bank



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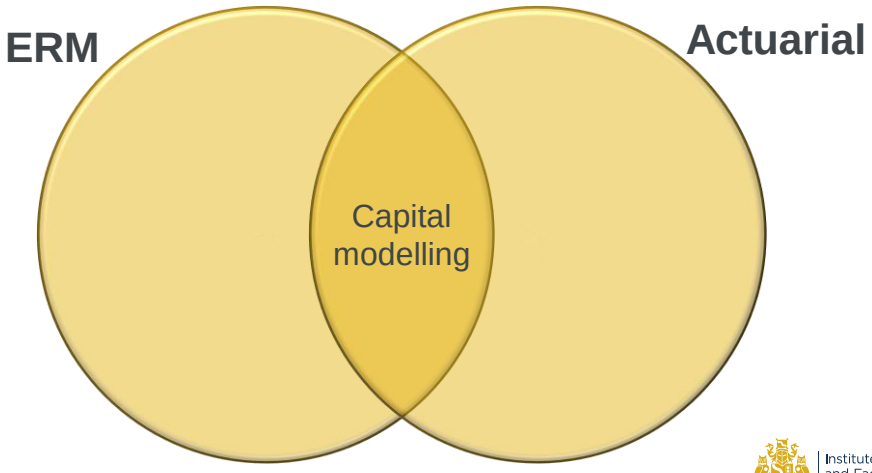
Capital modelling – what?



Capital modelling – what?

- Financial statements: Profit & Loss

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Capital modelling – what?

Simulation	Plan	Sim 1	Sim 2	Sim3	Sim 4	Sim 5	…	Sim 100,000
Gross premium	500	510	520	520	520	480	…	510
RI premium	-50	-60	-60	-50	-50	-50	…	-40
Gross claims	-350	-350	-390	-430	-300	-320	…	-380
RI recoveries	25	27	33	29	18	25	…	20
RI defaults	-2	0	-12	0	0	0	…	0
Investment income	10	11	12	8	8	9	…	10
Expenses	-100	-101	-104	-101	-99	-96	…	-101
Other losses	-5	-5	-5	-5	-5	-5	…	-5
Profit	28	32	-6	-29	92	43	…	14

Capital modelling – how?

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Capital modelling – how?

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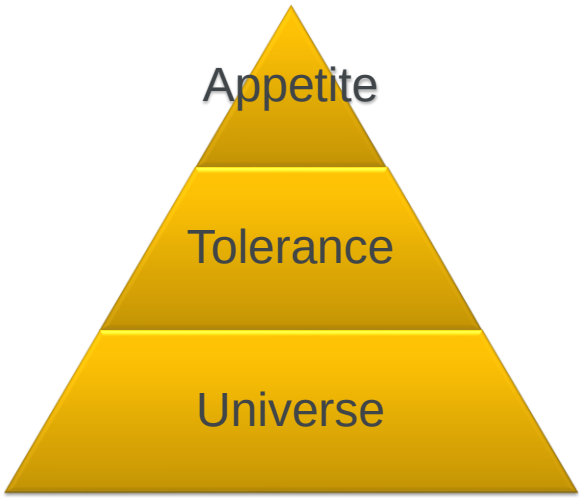
Capital modelling – what?



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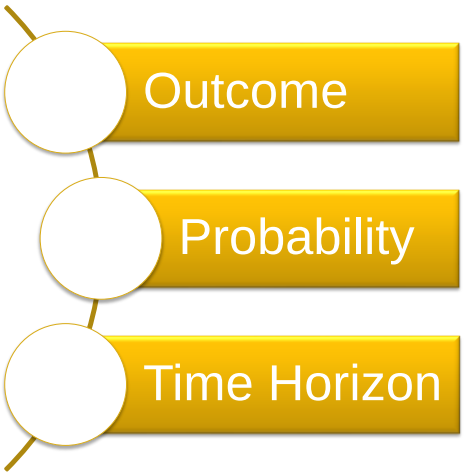
Capital modelling – what?



- *No more than a 5% chance of losing over $100m in the next five years.*
- *Less than a 1% chance of losing our 'A'-rating over the next 12 months.*
- *Less than a 10% chance of making a loss over the next 10 years.*

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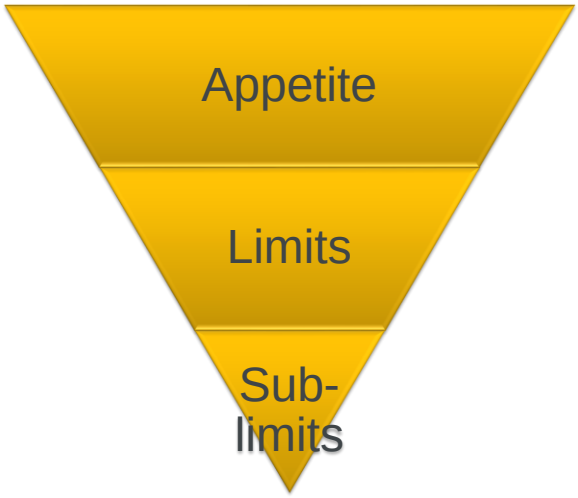
Capital modelling – what?



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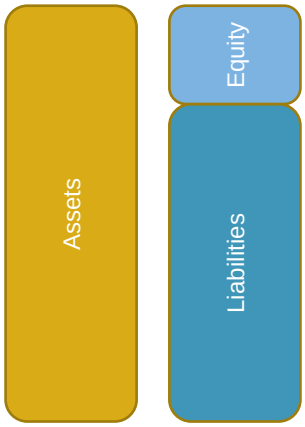
Capital modelling – what?



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Capital modelling – what?

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Capital modelling – what?

Safe

- Policyholders
- Regulators
- Long-term?

Expensive

- Shareholders
- Short-term?

What about:

- The board?
- Rating agencies?
- Creditors?
- Competitors?

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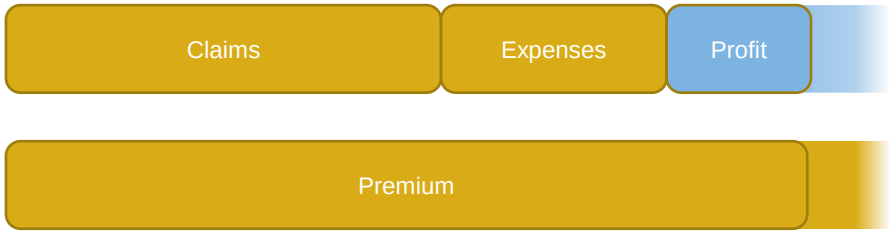
Capital modelling – what?

New policy

- How much to charge?



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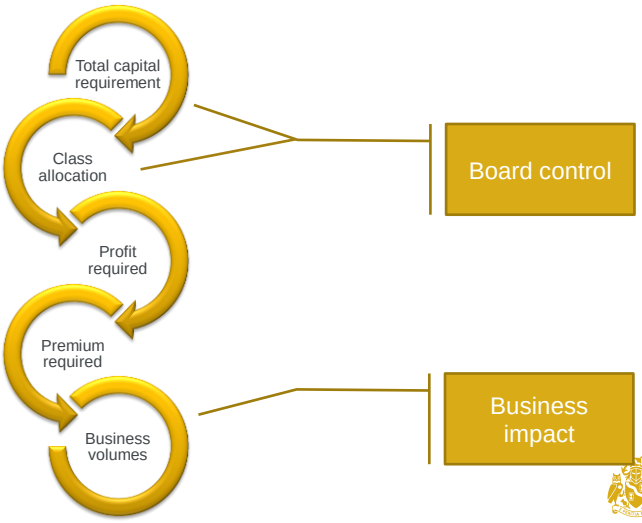
Capital modelling – what?



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Summary

Enterprise Risk Management	**Capital Modelling**
Profit is relative	Profit / Loss
Manage holistically	Identify drivers
Align behaviour	

Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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