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Price Optimisation: A case study of new pricing techniques

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Agenda

- What is price optimisation?
- Price optimisation in the life market – benefits and practicalities
- Conclusions and questions



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What is price optimisation?

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What is price optimisation?

- Any movement away from a “technical” price is price optimisation, and it happens all the time:



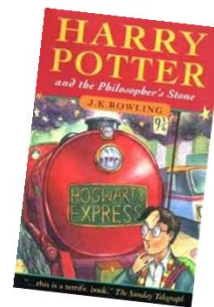
Customer
demand



Brand value



Competitive
pricing



Strategic pricing



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Price optimisation in insurance

Insurance is different!

- Customers are used to providing lots of information
- Fewer “physical” constraints
- but stronger TCF requirements

Use of customer demand to set prices

- Analyse the likelihood of different segments to purchase
- ... and use this as a quantitative input
- Traditionally done only at a very high level
- Separate “risk” and “demand and elasticity” components



Risk modelling

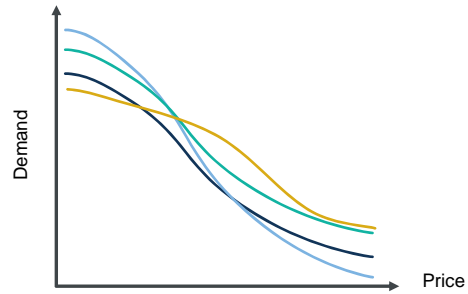
- The underlying cost of providing the insurance policy
- Covering commission, benefits, expenses, cost of capital
- Typical cashflow model, with assumptions
- Nothing new!
- But an opportunity to improve risk modelling



Demand and elasticity modelling

Demand – assess probability of sale

- As a function of different factors
- At a granular level
- Uses historical quote data
- GLMs typically used



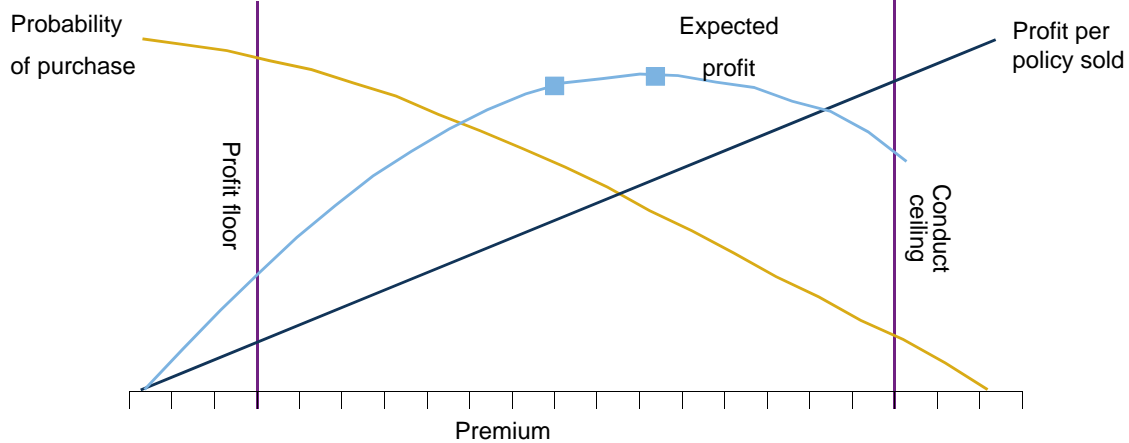
Elasticity

- Randomised price trials can be used
- Alternatives are available

Pricing constraints

- Consider overall objectives
- Essential to work through all criteria possible affecting prices:
 - Distribution agreements
 - Existing quote delivery systems
 - High-level pricing principles
- Use as quantitative constraints on rate decision-making

Pricing decision



- Price chosen at granular level, to maximise overall objectives

Current use of price optimisation

GI

- Well entrenched in UK motor market
- Also used in other markets
- Lots of factors, very competitive market, rapid repricing,
- Move to real time price optimisation

Life

- Most applicable to annuity and protection products



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Price optimisation in the Life market

Benefits and practicalities

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The Protection Market

Life & Sickness

Advised Channel

Flat Market

Price Is Important

“Standard” Price

Other Factors



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Opportunity for life insurers?

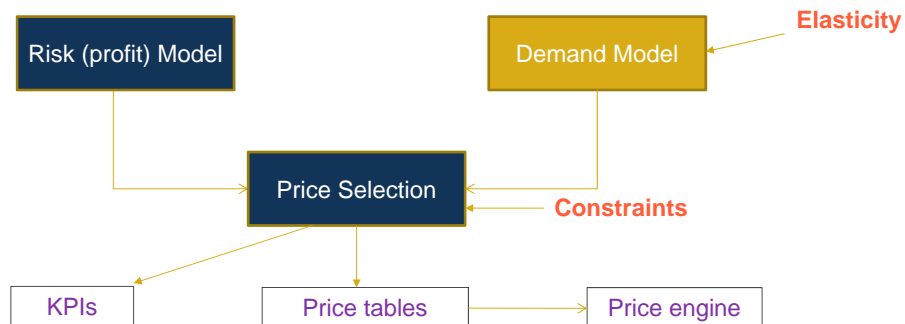
Key Reasons used in GI



Opportunities in Life



Overview of Price Optimisation Model



Focus on “Demand Model” and “Price Selection”



Demand Model: what to optimise?



An Application conversion rate could be an appropriate measure to optimise

Demand Model: What Market Data is Relevant?

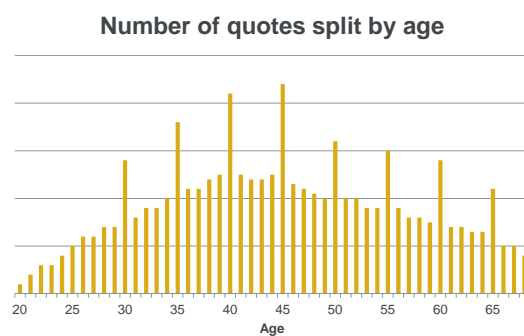


Demand Model: Checking Data

Consistency of quote data

Changes over time

Linking to Applications



You'd need to decide when the data is good enough? How to handle unfiltered data?



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Demand Model: Calculating Elasticity

Theory

Practice

Random Price Tests

Restricted Price Test

Only Change Price

Other Changes

Price Changes

Competitor Data

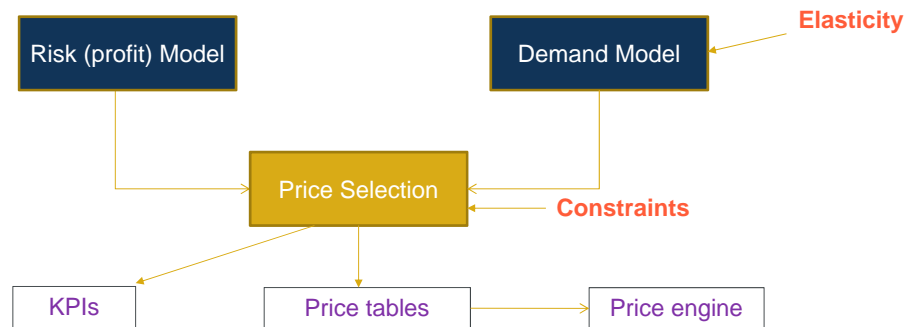


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Overview of Price Optimisation Model



Price Selection: Fairness

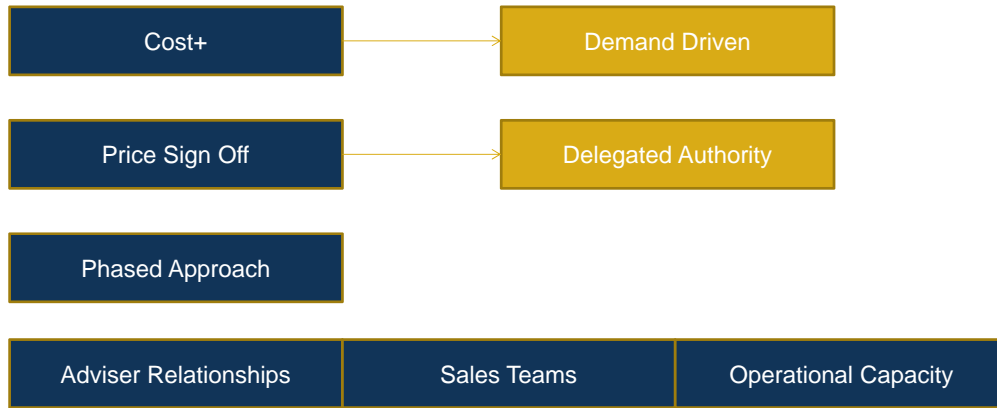
Optimal Price

Customer Value

Regulator

What is the maximum profit on a customer?
 What is the maximum difference between customers with similar risk?
 What is the approach to cross subsidies?

Price Selection: Governance & Wider Business



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Conclusions

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Price optimisation has arrived in Life insurance!

- Well proven techniques that add significant business value
- Additional challenges in Life insurance
- Enhanced understanding of customers
- Already being used in the market
- Will become a necessity to compete



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Questions

Comments

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