Insurance in Terms of Basic Economics
GIRO 2009, Edinburgh
The first thing we learn in economics...
The first thing we learn in economics ...
... is how a market has an equilibrium
Things change

Quantity traded

Price

Demand

Supply

The Actuarial Profession
making financial sense of the future
Different supply curves
Different demand curves

Quantity traded

Demand

Price
The supply curve today
The supply curve soon
Demand for insurance

- People will always need insurance
- Sometimes we must have it
- Little appetite for extra
- An inferior good?
- A commodity?
Demand for insurance

Quantity traded vs. Price

Demand

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Supply of insurance

- Quick and easy to make
- No stock to clear
- Limited by capital/need to service capital
- Desire for profit
Typical insurance product

- Claims 100
- Paid over 5 years
- Expenses 25
- Investment income 5%
- Capital 40
- Half released at year end
Return on capital
Supply of insurance

[Graph showing the relationship between quantity traded and price, with a line labeled 'Supply' starting from the origin and extending upwards to the right.]
The insurance market

Quantity traded vs. Price

Demand

Supply

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Characteristics

- Not much variation in quantity
- Price could be quite variable
  - Demand changes will not move price much
  - Changes in supply could

- Is this what we see in practice?
The insurance cycle

- Prices rise → High profit level
- More capacity provided → Prices fall
- Prices fall → Low profit level/losses
- Low profit level/losses → Exits from market

- Exits from market → Prices rise
Where does the cycle come from?

- Entirely on the supply side
- Movements in the supply curve
The insurance market

<table>
<thead>
<tr>
<th>Quantity traded</th>
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<tbody>
<tr>
<td>Demand</td>
<td></td>
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<tr>
<td>Supply</td>
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The market for wheat

This is the price it fetches

This is the amount we plant to

This is the amount we have
The wheat cycle

1. Prices very high
2. Bumper profits for farmers
3. Farmers plant more
4. Bumper harvest
5. Prices rise
6. Small harvest
7. Farmers cut planting
8. Farmers’ misery
9. Prices fall
Compare two industries

Wheat

- Plant
- Wait
- Weather
- Harvest
- Prices

Insurance

- Sell
- Wait
- Weather
- Claims
- Profit
Conclusions

- The insurance cycle is not like an agricultural cycle
- The insurance cycle is not entirely rational
- It may be more rational than it used to be