

The mechanics of insurance: the magic of averages

How does insurance manage to prevent society from having to set aside literally billions to cover risks? By applying a combination of sophisticated risk management techniques to the basic principle that many will be aware of a risk occurring, but few will actually make a claim.

Insurance focuses on understanding the nature of risk by accessing detailed statistics on claims. Spreading the cost of the risk into a premium that people will be prepared to pay also requires a good understanding of the risk itself, as well as the human nature of the person trying to mitigate it.

How can insurance prevent society from having to set aside billions?

We kicked off our *Social Value of Insurance* series by imagining a world without insurance. This described a society—households, businesses, institutions, and governments—having to set aside the billions between them to guard against every risk. So how could a few insurance firms possibly manage to pick up all that slack?

Managing risk

The process of “risk management” has five elements, and only one involves what we know generally as the insurance markets. But the insurance sector is involved in the other four as well:

- **Avoid the risk:** prevent it from occurring by avoiding the activity in the first place.
- **Minimise the risk:** introduce measures to reduce the probability of the risk occurring.
- **Minimise the consequences:** soften the effects of the risks that do occur.
- **Accept the risk:** ensure the customer takes full responsibility for risk management.
- **Transfer or share the risk:** use the insurance markets to pay for the cost of claims. More common, certainly in retail markets, is sharing the risk to pay for part of the claim.

Bearing the cost of the claiming few against the risk of the many

Risk will rarely occur to us all, let alone at once. So insurance is all about working out the probability of a claim occurring, and pricing the risk accordingly. As Winston Churchill put it in 1909, “insurance brings in the magic of averages to the aid of the millions.”

Behind the magic, there’s a complex science. Understand as much as possible about the nature of the risk; the number of people it would affect; the probability of them needing a claim; you can then estimate how much insurance will be needed, and therefore set the price. In a nutshell, insurance bears the costs of the claiming few out of a pool filled by the premiums of the many.

Understanding risk

Being in the business of risk management, insurance firms understand the nature of risks far better than any individual. Insurers combine years of experience and claims data with the latest risk modeling techniques and technologies.

Pricing risk

Spreading the cost of the risk into a premium that people will be prepared to pay also requires experience and judgement. Human nature plays a strong role. The price has to be high enough to cover the risk, low enough to be accessible, yet not too low that it induces wanton or disproportionate claims.

Mitigating risk

Insurance is also about actively influencing probability by reducing risks. In doing so, insurance enforces some degree of responsibility upon the customer e.g. abiding by policy terms, such as home insurance policyholders locking their doors when they go out.

Making insurance work better

Sometimes, the very features that make insurance work well also act as limitations, which need to be addressed.

The concept of insurance: a promise to pay

For a start, insurance is a *promise to pay* in the event of a risk occurring. This is quite abstract compared to other retail propositions. Insurance thrives on the simple human desire for peace of mind: but fundamental to this is the trust required to believe the insurer *will* actually pay out on a claim.

Not all risks should be insured

While insurance is supposed to prevent people from bearing the risk themselves, there are some cases where simply accepting the risk is more efficient. This means the customer has to take their own view on probability and the cost of absorbing the peril. This does not come naturally to most people, and “useless” insurance is becoming an issue.

Insurance is often a “sell” rather than a “buy”

While some insurance such as motor and home is mandatory in the UK, most is voluntary. This requires the customer to think about the possible risks they should insure against. However, most people only think of the risks that come immediately to mind, either through their own experiences or awareness, or through friends and family or the news.

Pricing

While insurance premiums seem a straightforward proposition, it's not always easy to clearly present a relatively fixed headline cost for insuring the risk, normally over the life of the policy.

Transparency

The product features underpinning a price for insurance are not always comparable, raising the issue of transparency. This has been the focus of the regulator's pre-sale “Key Facts” disclosure material, an approach designed to encourage consumers to prioritise in advance the features that are most important to them.

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