

## Role of data in insurance

The insurance industry has always relied on data to understand and analyse the risks faced by their clients with a view to design and offer insurance policies. This process has two parts:

- 1 When designing and pricing their products, insurers analyse past events to estimate the probability of these events occurring again. This allows them to manage the potential risks and economic impact of offering a new insurance policy and ensures that customers will benefit from accessible, sustainable and secure products over the long-term.



- 2 When an individual buys an insurance policy, the insurer **uses relevant data of that person to assess** whether they present a higher risk compared to other insured individuals.



Based on this assessment, the insurer determines the premiums to be paid by the policyholder and premiums might therefore vary depending on the level of risk of the applicant. This process is referred to as **risk-based underwriting**, and it underpins private insurance, and ensures affordability of products.

With access to larger volumes of data and better tools to analyse it, insurers can assess individual risks more accurately. However, there are emerging concerns that some high-risk individuals might be unable to afford insurance if premiums are set too high for them, which could lead to financial exclusion. Nevertheless, risk pooling remains at the core of how insurance works.

“ The use of more sophisticated tools and advanced data and risk models as well as increased access to data have proven to strengthen insurers’ role as risk-takers in society and, in fact, support financial inclusion. ”

## Insurers rely on risk-based underwriting to ensure fairness

Private insurance works by pooling the premiums paid by the many to create a reserve to pay for the claims of the few. With risk-based underwriting, individuals or entities with similar risk profiles are charged similar premiums and given similar coverage terms, meaning that when the risk profiles are different, different premiums are charged. A higher risk will be therefore reflected in a higher premium. However, any increase is proportionate to the risk and must be based on sound and accurate data. This is called differentiation, and is not the same as discrimination, which is illegal.



Risk-based underwriting is a fundamental mechanism in private insurance. Potential policyholders that are low risk may not want to pay for a higher price that does not match their risk. Pricing based on risk can attract more low-risk policyholders so they take part in a risk pool. **The larger the pool, the more the cost of potential losses can be spread among the portfolio of policyholders.** This is the nature of insurance: **to pool risk so that individuals share the risks, and no one has to bear the entire economic loss on their own.**

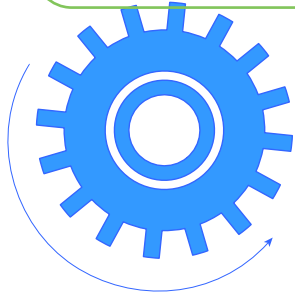


How does risk-based underwriting work?  
**Scan here to find out!**

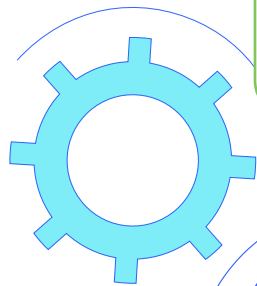
Prices differentiated according to individual risk do not undermine the risk-sharing mechanism in insurance. Insurers have always pooled risks of varying magnitude in the same pool. For risk-pooling to work, it is not necessary that all members of the pool are equal regarding their risk. Therefore, a more granular risk assessment does not lead to demutualisation. **On the contrary, prices differentiated according to risk enable affordable insurance cover.**

## What happens when there is not enough data to assess the risk?

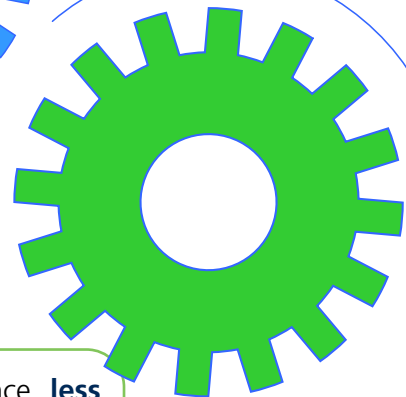
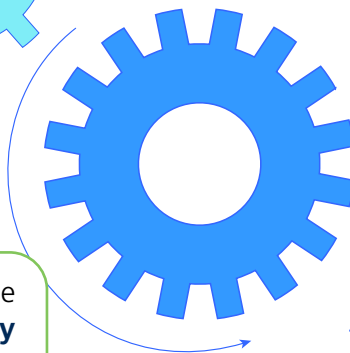
Insurers would have to **increase premiums** to **compensate for uncertainty** about what claims to expect.



Higher premiums will **drive away low-risk individuals** who feel the cost is too high for their risk level.



With fewer low-risk customers, the **remaining pool consists mainly of higher-risk individuals**, forcing insurers to raise premiums further.



This cycle makes insurance **less affordable and less attractive** to all consumers, leading to less consumer coverage.

**Result:** When insurers cannot effectively assess and price risk, the insurance pool becomes disproportionately populated by high-risk individuals. This drives up premiums across the board, making insurance increasingly unaffordable for consumers, or even unsustainable, therefore leading to more financial exclusion.

