



Institute  
and Faculty  
of Actuaries

# Impact of Covid-19 on the assumption setting for Life Insurance products

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# Introduction



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# Introduction (cont.)

## What we will cover

- Additional considerations within assumption setting process in Life Insurance brought by Covid-19 pandemic
- Aim to cover points we noted insurers started considering within the past year
- Points discussed within this presentation do not intend to be exhaustive

## What we will not cover

- Mortality and morbidity Covid-19 impact and additional considerations





# Impact of Covid-19 on new business

## Underwriting

- Modified requirements and specific Covid-19 questions
- Automation and increased number of remote medical assessments and statements
- Consider privacy and discrimination
- Fast reaction to reflect new medical information

## Pricing

- Increased uncertainty in assumptions for long-term products
- Redundancies and reduced staff needs
- Uncertainty about availability of medical help



# Impact of Covid-19 on new business

## Life Insurance product demand

- Part of general population reconsidered importance of insurance
  - **Protection:** increased awareness vs. falling income
  - **Investment and financial guarantees:** attractiveness to customers vs. market reluctance to offer guarantees; investment income volatility and demand on smoothing
  - **Pension:** personal demand on liquidity impact on new business volumes



# Factors informing difference in impact between regions

## Availability of data and structured sources

### Responses to the pandemic:

- Lockdowns stringency and speed of implementation
- Economic support from the government
- Insurance regulators' responses

## Population profile



# Considerations for setting assumptions - Persistency

## Types of Product Requiring Persistency Assumptions

- Differences in Persistency between Participating and Non-Participating business

## Primary Drivers of Persistency Experience under COVID-19

- Type of Product and Features
- Policyholder Age & Type
- Economic Impact
- Perceived Value of Insurance
- Distribution Channels
- Customer Support





# Considerations for setting assumptions - Persistency

## Applicability of existing persistency experience analysis methodologies

- Does the investigation period introduce skewness in the results?
- Are decreases in persistency experience during 2020 a paradigm shift?
- Are there geographical clusters of persistency experience?

## Covid-19 Impact

- Uncertainty on whether pandemic has fundamentally altered policyholder behaviours
- Stress/Sensitivity testing is required to understand impact on capital position
- Experience analysis may need to be reconsidered



# Considerations for setting assumptions – Expenses and Expense Inflation

## The operational structure of many insurers has changed

- Regulatory and policyholder responses to the pandemic have also had an impact on expense levels

## A number of factors relating to the measures taken impact expense assumptions:

- Digitisation of on-boarding, customer support and BAU
- Changes to business persistency rates, and future mix of business
- Regulatory and voluntary actions

**The allocation of the above will need to be carefully considered.**



# Considerations for setting assumptions – Expenses and Expense Inflation

- Expense inflation will be impacted insofar as the underlying drivers, CPI, CPIH and RPI rates have been affected by the pandemic
- Alternatively, the relationship between fixed-interest and index-linked bond yields may be considered as the market view of inflation



# Considerations for setting assumptions – Charges for unit-linked business

## Premium allocation charges will be affected by:

- Expectations of future New Business
- The impact of changes to persistency (covered earlier)
- Impact of inflation on the charge in the short-term
- Current capital strain, and structure of charges schedule

## Charges to provide life cover will be affected by changes to the underlying population's health:

- Potential increases in mortality rates due to Covid-19
- The typical population for a product will need to be considered
- Market volatility will impact the Sum at Risk



# Considerations for setting assumptions – Charges for unit-linked business

## Fund management charge considerations:

- Possible reduction in fund values on UL products due to a market fall
- Impact of increase in lapses or paid-up rates on investment-linked funds

## Other charges:

- Policy Administration: potential effect of inflation increases and falling fund values
- Investment Guarantees: drops in fund values will need to be considered
- Riders: revisit the charges, particularly for health or hospitalisation benefits, based on emerging experience



# Considerations for setting Economic assumptions

**Focus on investment economic assumptions** (inflation covered earlier)

**Main impact of pandemic is more volatile investment markets**

## Key things to consider in investment strategy

- Equity exposure
- Quality of assets
- Liquidity
- New business premium
- Continuing risks





# Considerations for setting Economic assumptions

- **Different investment risks depends on the products insurer writes**
  - Unit Linked/Investment products
  - Annuity products
  - With profits products
  - Non participating products
- **Key things for insurer to understand**
  - Sensitivity to changes in investment market and how that impacts the outlook for capital position



# Considerations for setting assumptions – Bonus rates for participating products

## Key features of Participating products

### Consider Year End regulations

- UK – allow for future bonus
- UK – allow for management actions
  - Reduce bonus
  - Change split of bonus
  - Change investment approach

### Bonus calculation regulations

- UK – Principles and Practices of Financial Management
  - Asset share basis, Mix bonus annual and final, Investment philosophy, Smoothing approach
- Use assumptions for expenses, lapses, investment returns and mortality



# Considerations for setting assumptions – Bonus rates for participating products

Year end bonus assumption start from latest bonus declaration

## Covid 19 impact

- Things are uncertain
- Is latest bonus declaration ok? Is PPFM ok? Assumptions ok?
- Valuation - Need to be able to explain method and assumptions used
- May need more stress/scenario testing to understand the impact
- May need to update year end numbers more frequently as pandemic develops



# Impact on margins over and above best estimates

- Financial reporting looked to use assumptions that are best estimate for valuing assets and liabilities
- Best estimate – equal chance of assumption being too optimistic or too cautious
- Geography, company and individuals culture may impact approach to best estimate
- Interaction of different assumptions give holistic view



# Impact on margins over and above best estimates

## Impact of Covid 19

- Increased the range of uncertainty and this uncertainty is a challenge to assumptions
- Opportunity for Actuaries to advise management by looking at different scenarios
- Valuation bases are long term but expect more volatility in next few years
- Potentially look to hold explicit additional reserve for Covid-19 impact than change best estimate
- Could have an addition to Best Estimate than reduces over time to Long term expected level



# Conclusions

- It is taking longer to understand potential long-term impacts of the pandemic
- Insurers should consider points applicable specifically to their business and their insured population and these may vary greatly from company to company
- Consider research performed by CMI and other workstreams in respect of potential impacts on mortality and morbidity as these are very often most important risk categories for Life Insurers





# 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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