

33rd India Fellowship Webinar

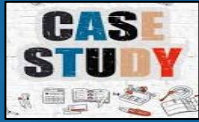
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Case Study 6 – Technical LI

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Case Study



- You are a Pricing Actuary of leading Life Insurance
- Top selling Non-par product aggressively priced
- Marketing Director worried about COVID-19 impact on:
 - Mortality assumption
 - And thus, premium rate
 - Return to policyholder
 - New business sales
- How would you respond to his concerns on competitiveness?
 - Your view on COVID-19's impact on mortality assumption
 - COVID-19's impact on any other assumptions of product
 - Regulatory & other constraints in reducing surrender values instead of increasing the premium rates

Flow



Introduction



Impact on mortality



Impact on other assumptions



Competitiveness and new business sales



Actions that can be taken to increase new business



Regulatory & other constraints to reduce surrender value



Flow



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Introduction



COVID-19:

Coronavirus is large family of viruses which may cause illness in animals or humans. COVID-19 mainly causes respiratory infections from common cold to sever diseases.

WHO declared outbreak of COVID-19 as pandemic on 12th March-2019.

Flow



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Impact on Mortality

Known impact:

- Death rate due to COVID-19 based on data available
- Data about testing, infection rate and recovery rate patchy in India

Unknown impact:

- Complete impact not clear yet as data is limited
- Long term impact will emerge, say over 5 years
- Second order effect
 - On co-morbid conditions
 - On reduction in immunity
 - Appropriate medical care not being available
 - Increase in lifestyle related issues
 - Due to people being scared, in general

No data available for second order impact



Impact on Mortality

Increase in mortality

- COVID-19 related deaths, say, due to respiratory infections
- Due to reduction in immunity
 - Increase in, say, Cancer deaths
- Lifestyle change
 - Unemployment
 - Stress
 - Loneliness due to reduced physical social interactions
 - Mental health
 - Uncertainty about cure and extent of curbs



Impact on Mortality

Decrease in mortality

- Recovery rates are increasing
- People more health cautious
- Government more health cautious
- Better hygiene in society
- Lesser travel -> lower accidental deaths
- Cleaner environment due to reduced industrial activity
- No sports related deaths



Impact on Mortality

Short term (1-2 months) Impact on Insurers:

Direct Impact of COVID-19:

- Direct deaths due to COVID-19
- Insurers facing most uncertain situation
- Insurers finding it difficult to provide hospital access
- Insurers don't know the risks

This could take a while to unwind, hence we are uncertain at present.



Impact on Mortality

Medium term (2-6 months) Impact on Insurers:

Death may not be directly from COVID-19 but from other diseases, mainly due to not getting medical help in time.

For example, COVID-19 patients getting more attention, so people with other disease could die earlier than expected. For example: almost 18000 * more cancer patients dies in UK due to deferred treatments.

(Report produced by a Health and Care work stream of ICAT (IFoA Covid-19 Action Taskforce) - R. Purcell, N. Reilly)



Impact on Mortality

Medium term (2-6 months) Impact on Insurers:

Another example is of Lifestyle change:

- Mortality rates can increase due to people sitting at home due to COVID-19. For example due to over-eating, less exercise etc. On other hand Mortality can decrease if people exercise more, or are more worried about hygiene etc.
- Mortality can decrease due to less people on roads, say, decrease in accidents. However, sitting home can increase stress, unemployment, depression causing increase in deaths.

So uncertainty



Impact on Mortality



Medium term (2-6 months) Impact on Insurers:

We have also got evidence of cases of deaths have happened but reported later with delay of 1-2 months.

- This may be because of lockdown
- Or reports from remote places

For example: as of June 16, Maharashtra saw 1409 deaths. Out of which 81 was daily increase and 1328 deaths were reported that day which occurred in March and April.



Impact on Mortality

Medium term (2-6 months) Impact on Insurers:

Other major negative impacts in medium term can be:

- Social isolation
- Increase in unemployment leading to stress related deaths.
- Alcohol consumption at home increases.
- Mental health related issues due to lockdown.

However, reduction in air, noise pollution leading to better living conditions, hence leading to better health.

We need to assess impact of above factors in detail to check mortality rates in long term.



Impact on Mortality

Long term (6 months+) Impact on Insurers:

People may be more cautious about their health, hygiene so mortality can decrease in longer term. However, we do not know how COVID develops in future. If more severe, deaths may increase. If it eases out, deaths may reduce.

Also, we do not know 2nd order impact of COVID-19: for example, what will be death rate in people who recovered from COVID-19, especially:

- at different age groups
- People with other diseases say diabetes.

Uncertainty still prevails...



Impact on Mortality



Due to high uncertainty at all aspects of COVID-19, it is safe to increase the mortality rates at present

Flow



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



Impact on Other assumptions



1. Persistency

a. Immediate impact:

- Extension of grace period provided by the regulator 
- Improved customer engagement and communication around need to retain cover 
- Companies may push for loans against the policy instead of surrender to retain persistency 
- Difficulty in premium collection 










Impact on Other assumptions



1. Persistency

b. Short-Medium term impact

- Liquidity crunch 
- Loss of jobs/ unemployment 
- Pay cuts 
- Make up for financial strain 
- Agents will not be able to service their policyholders personally 
- More percentage of customers active on digital platform 
- Need of protection in light of pandemic 








Impact on Other assumptions



1. Persistency

c. Long term impact

- Increased awareness on need for life insurance 
- Best guaranteed return available in the market 
- Increase in revival period (Non Linked Insurance Products Regulations, 2019) 
- Other lucrative investment options 
- Economy fails to recover 



Impact on Other assumptions



2. Investment Return

Investment Regulation 2016

Type of Investment	Percentage to funds as under Regulation 4(a)
Central Government Securities	Not less than 25%
Central Government Securities, State Government Securities or Other Approved Securities	Not less than 50% (including above)
Other Approved Investments	Not exceeding 50%
Investment in Housing or Infrastructure	Not less than 15% (including all of the above)

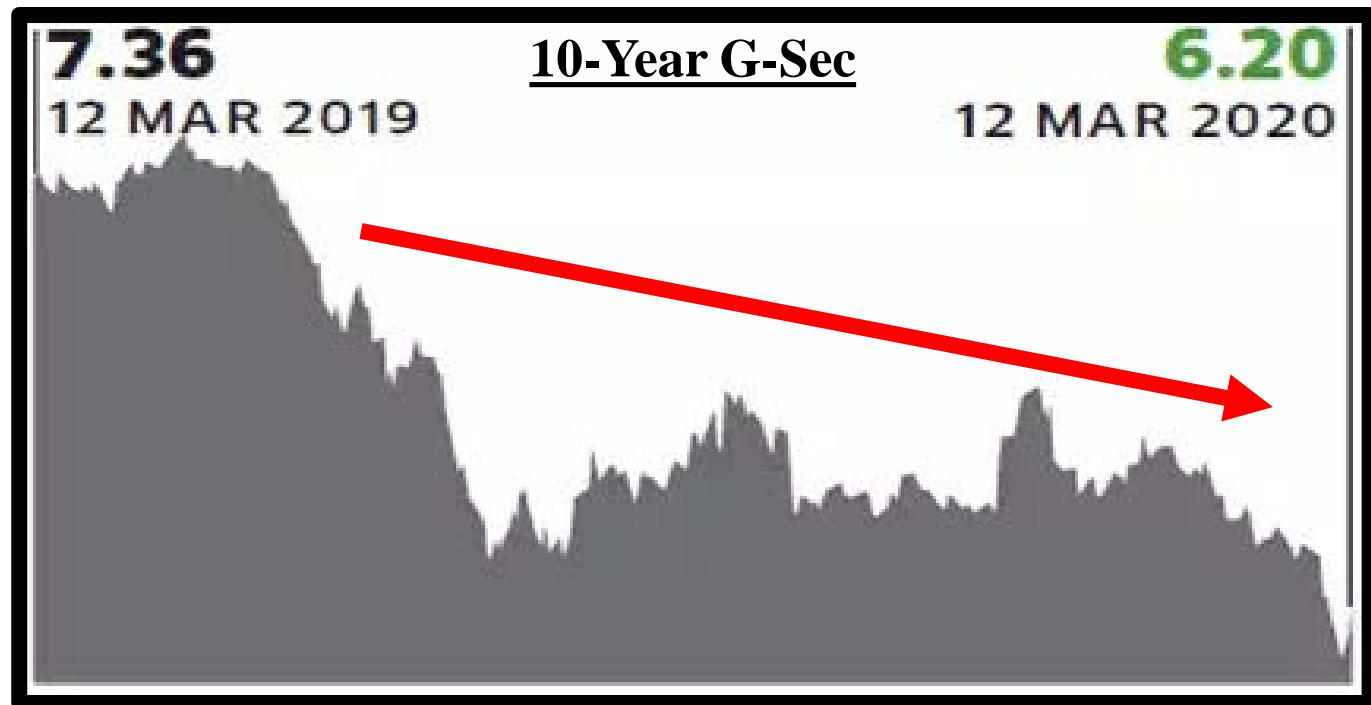


Impact on Other assumptions



2. Investment Return

a. *Before outbreak of Covid-19:*



Source: Economic Times dated 12th March 2020

Real GDP growth declined to 7-year low in December 2019 quarter



Impact on Other assumptions



2. Investment Return

a. Before outbreak of Covid-19:

Bond yields declined due to

- Economic growth being slow
- Market expectations and Rate cuts by RBI to stimulate growth
- Fall in oil prices internationally





Impact on Other assumptions

2. Investment Return

b. Current scenario (amidst Covid-19)

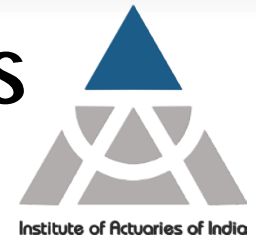


Source: www.investing.com

The spike in the middle was due to fiscal deficit concerns and increased government borrowings, meant to support economy amid Covid-19



Impact on Other assumptions



2. Investment Return

b. Current scenario (amidst Covid-19)

Yields majorly fell due to liquidity measures taken by RBI such as:

- Cutting Repo Rate
- Cutting Cash Reserve Ratio
- Open market operations



Impact on Other assumptions



2. Investment Return

c. Long term impact



Source: www.investing.com



Impact on Other assumptions



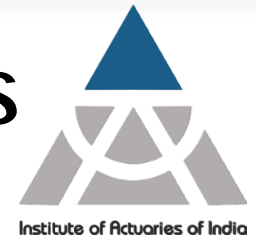
2. Investment Return

c. Long term impact

- Yields could see huge swings in either direction, depending on
 - Efficiency and effectiveness of the Indian government in containing the spread of virus and eradicating the same
 - Development of vaccination
 - Development on cure/medication
 - Extent of fiscal/monetary stimulus
- Quantum of impact on the product will hugely depend on the hedging strategy of the company






Impact on Other assumptions






3. Expenses

a. Short term impact

❖ Sales related expenses:

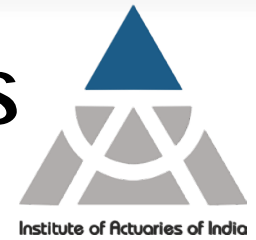
- Reduction in sales 
- Cost control measures taken by the company 
- Motivating agents to increase sales 

❖ Fixed expenses:

- Salaries and Rent 
- Digital infrastructure in place 
- Set up of new technology in response to Covid-19 





Impact on Other assumptions






3. Expenses

b. Long term impact

❖ Sales related expenses:

- Increased online sales 
- Sales increase through web aggregator 

❖ Fixed expenses:

- Successful work from home model 
- Digitalisation 
- Impact on Per policy expense if sales continue to fall 



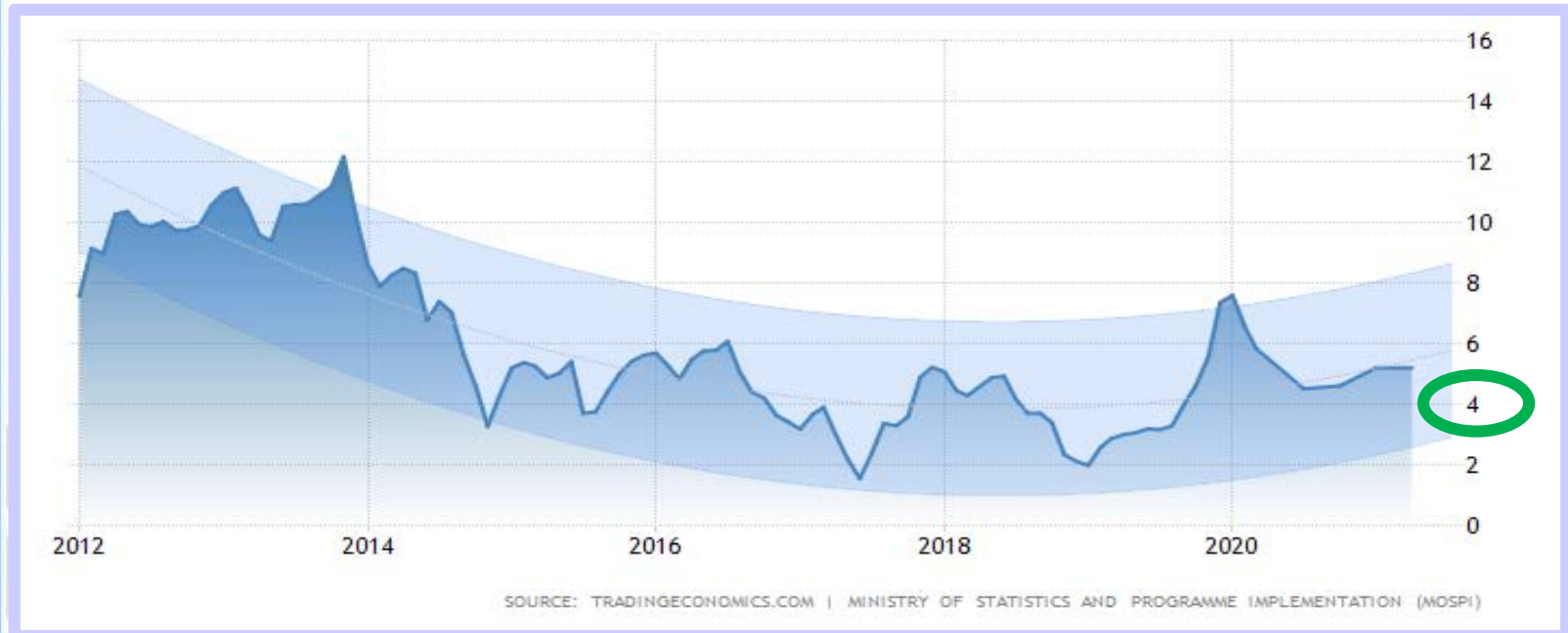
Impact on Other assumptions



4. Inflation

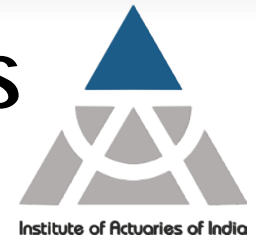
- Lack relevant market instruments for the Indian economy
- No INR inflation swaps or inflation indexed bonds
- Unable to derive a reliable market implied price inflation

Inflation Rate in India





Impact on Other assumptions



4. Inflation

❖ Business drivers:

➤ Salary



➤ Rent



or ↔

➤ Sales



➤ Business promotion



➤ Information Technology





Impact on Other assumptions



5. New Business Volume and Mix

- Increased need for protection with savings
- Short term: Lower new business volume
- Sales volume will even depend on how competitive guarantees are
- Attractiveness towards the non par savings product would increase given lower interest rates on other guaranteed income opportunities in the market

❖ Mix:

- Sum Assured 
- Premium 
- Age and Gender 
- Term 
- PPT 
- Mode of Pay: **Monthly**
- Distribution: **Online**



Governing Regulations and Standards



APS1- Appointed Actuary and Life Insurance Business

APS7 – Appointed Actuary and Principles for determining MAD in Life Insurance Liabilities

Appointed Actuaries Regulation, 2017 – Fairness of premium rates



Professionalism while setting assumptions



- ❖ An Actuary is a professional which implies:
 - Being reliable
 - Recognizing others have valid views
 - Developing direct and trusting relationship
 - Skilled communication and documentation
 - Clear pitch and language
 - Include background information
 - Optimal solution
 - Present other solutions without bias
 - Comply with professional guidance



Flow



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Competitiveness and new business sales

Short Term-

- Increasing temporary/permanent unemployment
- General market volatility
- Appetite for insurance products may decline
- May see high lapses of existing policies

- Increased interest in insurance  heightened awareness
- As economy recovers & consumer behaviour begins to stabilize, the pandemic may highlight the value of these products and increase sales.



Competitiveness and new business sales

➤ Sales- decrease due to lockdown & social distancing norms

➤ Strong digital sales structure- less impact on sales



➤ Challenge: Digital channel contributes only 3-4% of the industry business



Competitiveness and new business sales

- ❖ According to a poll conducted by the IAI in its webinar- "*COVID-19 - Response to business risks & championing them!*" dated 16th June 2020, non-par products are least likely to be impacted due to COVID-19 crisis as opposed to ULIP.
- ❖ Our top selling non-par product might not have much impact.

Likely impact on different kinds of products:

- ❖ Term insurance
 - Renewed interest in Pure Life cover
 - Relatively larger online market- boost in demand
 - Higher preference- to preserve cash in hand



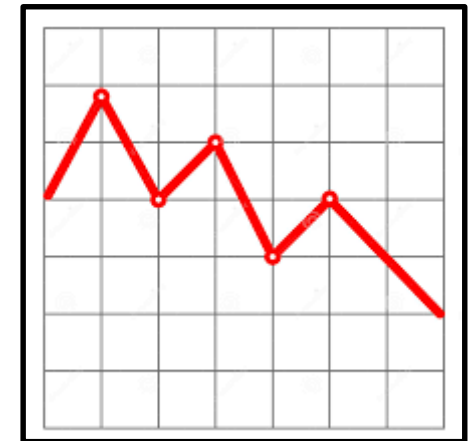
Competitiveness and new business sales

❖ Long term savings

- Long term guarantees will look attractive
- Insurers might face constraints in marketing these- as interest rates plummet

❖ ULIP

- Customer confidence in the stock market will be hit
- Liquidity constraints





Competitiveness and new business sales

New questions added in underwriting

- Might restrict the insurer from taking up some new business cases
- Or charge a high extra premium which is not accepted by the policyholder



Medical tests could be avoided

- But tele-underwriting might not be allowed for higher sum assured
- Reinsurance treaties



Competitiveness and new business sales

- Brand equity of life insurance- trust factor attached as this is a leading life insurance
- Uniqueness of features- If the product has distinct features, less impact on demand even if premiums increase
- Competitor moves- If a competitor provides innovative/ need of the hour features at similar premiums, NB sales likely to be impacted

Flow



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Actions to increase new business

- Offering COVID-19 as a Rider with lower Sum Assured
- Extending grace periods
- Giving extra means to pay premiums (contactless)
- Digital distribution- must be stronger than ever
- Provision of structured lump sum benefit payouts





Actions to increase new business

- Improved e-learning platforms for agent training
- Extension of Premium paying term for Limited pay products
- Tele-underwriting

Extra care to be taken to adhere to APS5-AA & Principles of Life Insurance Policy Illustrations.

Illustration should help the potential customer in developing a proper understanding of product features and flow of benefits in different circumstances.





Actions to increase new business

Challenges:

Lack of claims experience

Anti-selection and moral hazard

Aggressive underwriting required

System setup, policy issuance and claims handling



Actions to increase new business



IRDAI Steps & guidance to life insurers:

- Exclusion of clause “Force majeure” for COVID-19 claims
- Thorough assessment of claims reported under COVID-19 before repudiating the claims
- Enabling paperless KYC process through Aadhar Authentication Services of UIDAI

Reference: Webinar on “COVID-19 in India: An Actuarial Perspective” by the IAI Pandemic Research Group

Flow



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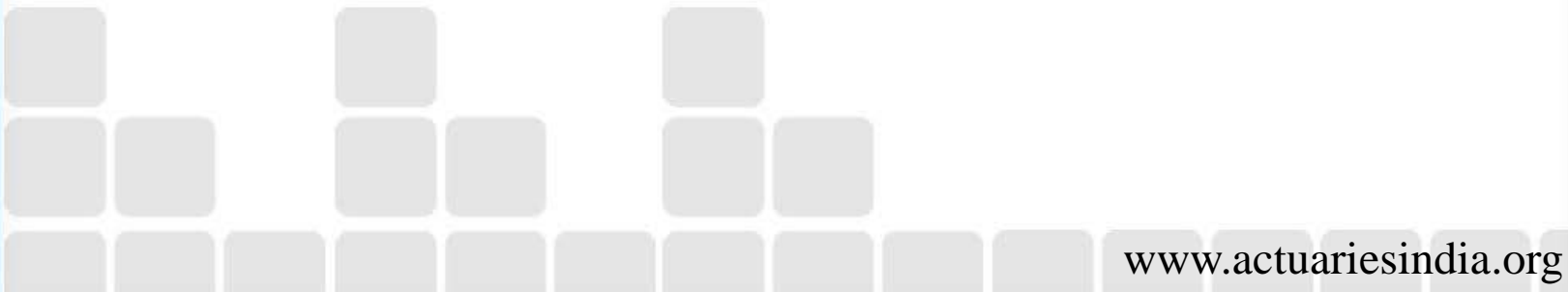
Competitiveness and new business sales



Actions that can be taken to increase new business



Regulatory & other constraints to reduce surrender value





Marketing Director's concern



- After internal discussion, it is proposed to increase premium rates
 - To absorb expected impact of COVID-19
- Marketing Director concerned about competitiveness of product with proposed change
 - Affecting new business sales
- Suggestion - Reduce surrender value (SV) instead of increasing premium rates



Regulatory constraints



- IRDAI (Non-Linked Insurance Products) Regulations, 2019

- All individual non-linked products shall acquire both
 - Guaranteed surrender value
 - Special surrender value

- Guaranteed Surrender Value
 - Acquired if at least two consecutive years' premium paid, plus
 - SV of any guaranteed additions already accrued



Regulatory constraints



➤ Minimum Guaranteed Surrender Value

As a proportion of total premiums paid less any survival benefits already paid

Policy Year	Single Premium	Non-Single Premium
First	75%	-
Second	75%	30%
Third	75%	35%
Fourth to Seventh	90%*	50%*
Last two	90%	90%

* SV beyond fourth and seventh year filed with regulator for single and non-single premium products, respectively. Such SV shall follow smooth progression and converge to at least 90% factor as policy approaches maturity.



Regulatory constraints

- Special surrender value shall reflect the guaranteed maturity or survival benefits
- Scope of reduction in surrender value proposed is limited due to regulatory floor
- Cross subsidy between mortality and persistency may not be allowed
- Change in design may not be allowed
 - No changes allowed within one year of product approval



Other constraints



- Shareholders concerned about equivalence
 - If quantum of increase in premium rate is less than appropriate to decrease in SV
- Impact of lesser SV depends on actual surrender experience
 - If surrenders are higher than assumed, then reduction in premium could have been lower for same profit margin
- Detrimental impact on repeat purchases
- Distribution channel feedback
- Impact on competitiveness as other similar products may have higher SV



Other constraints

➤ Treating customer fairly

- Fairness between maturing policyholders and discontinuing policyholders
- Experience of change in mortality due to COVID-19 will not be shared by continuing policyholders
- Unfair to charge the adverse experience entirely to surrendering policyholders

➤ Consistency

- SV should be consistent with premiums paid in the early durations and with maturity value in the later durations
- SV may not converge smoothly into maturity values if surrender values are reduced



Other constraints

- Risk that policyholders' expectations not met
 - PRE influenced by the past practice of company
 - Top-selling product would create expectations
 - If not managed properly may lead to dis-satisfaction
- SV not be subject to frequent change
 - To avoid confusion to customers, distributors and servicing staff
- Benefit illustration and customer facing documents would be affected
- Policyholders already reeling from COVID-19 impact
- Bad publicity if the only one making such change



Other constraints



- Professional Conduct Standards:
 - Obligation to serve the public interest
 - Integrity, Objectivity and Skill
- Actuarial Practice Standard (APS) 1
 - An Appointed Actuary should ensure, so far as is within his/her authority, that the life insurance business of the company is conducted on sound financial lines and that he/she has regard to Policyholders' Reasonable Expectations (PRE)



Other constraints



- Actuarial Practice Standard (APS) 1
 - Whether the premium rates are appropriate is a probability statement and hence the Appointed Actuary must exercise judgement. It needs to be based on the use of sound techniques and the Appointed Actuary must specifically consider.... c) the existence of any options, including guaranteed surrender values, and the risk that financial conditions could be such that a policyholder could gain by surrender and re-entry.

- Actuarial Practice Standard (APS) 5
 - Appointed Actuary should ensure that benefits on surrender are clearly spelt out with conditions

Conclusion

- Exact and comprehensive impact of COVID-19 not clear yet
 - Mortality
 - Persistency
 - Investment return
 - Expenses and Inflation

- Increase in premium rate to reflect uncertainty

- Professional guidance



Questions?

Thank you

