

# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## **IFRS17 for Takaful Business**

**Amir Hassan**

Associate

**Brian Colgan, FIA**

Consulting Actuary



NOVOTEL LAMPUNG, 28<sup>th</sup> -29<sup>th</sup> MARCH 2019

Copyright



# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## Agenda

1. IFRS 17 for Takaful
2. Key challenges for Takaful companies
  - Measurement models
  - Contract boundary
  - Presentation & Disclosures
  - Multiple takaful funds
  - Surplus sharing and qard
  - Retakaful
3. Insights on BNM's QT2 for Takaful Operators
4. Liabilities under IFRS 17 & RBC
5. Takaful products under IFRS 17
6. IFRS 17 Takaful – Malaysia industry progress

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## IFRS 17 for Takaful

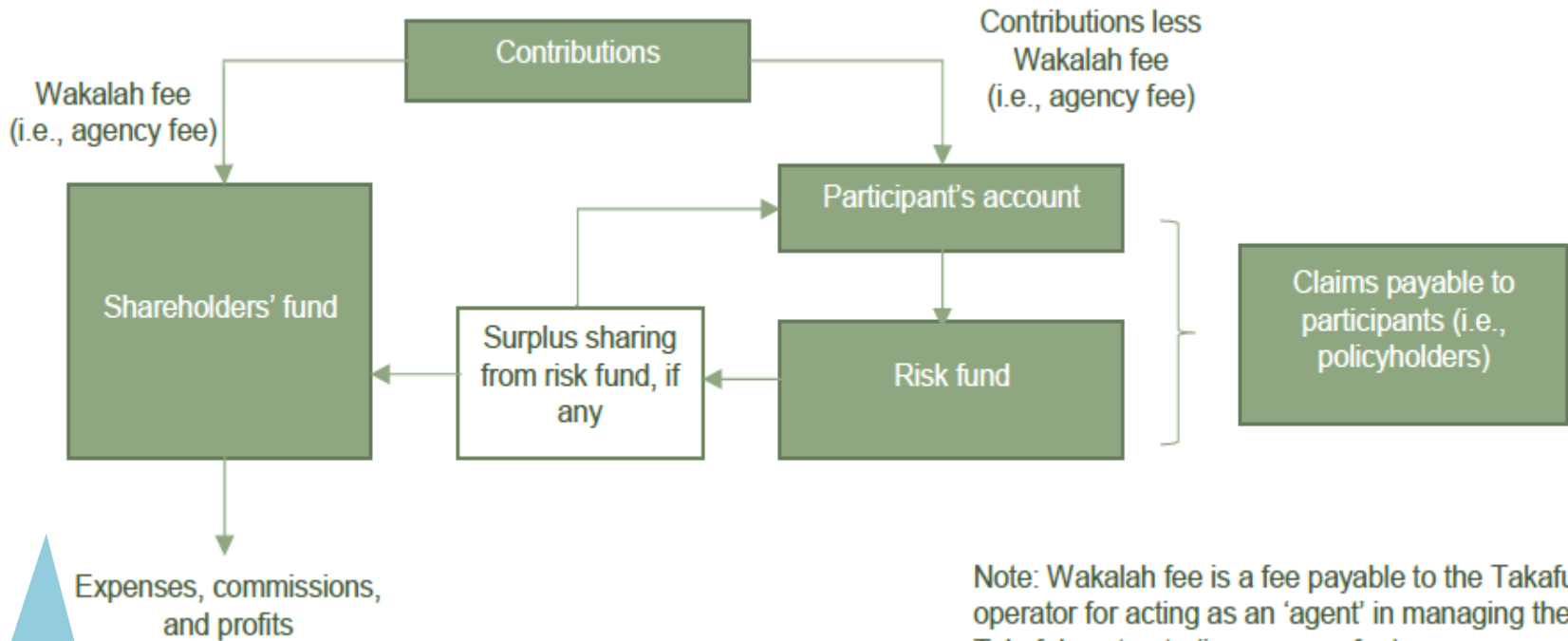
- IFRS 17 is intended to be the first international and comprehensive accounting standard for insurance contracts. It is largely developed based on conventional insurance structures.
- IFRS 17 was not set with Takaful in mind, hence a lot of the Takaful specific features were not considered within the standard.
- Takaful companies are not similar to conventional companies:
  - Segregation of funds (i.e. participant's investment fund, risk fund and shareholders fund)
  - No co-mingling of funds to meet expenses (from SHF) and claims (from PRF)
  - Contributions are segregated at outset (i.e. wakalah fee is used to meet expenses and commission)

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## IFRS 17 for Takaful

- Below is an example of a typical takaful operating model in Malaysia:



Note: Wakalah fee is a fee payable to the Takaful operator for acting as an 'agent' in managing the Takaful contracts (i.e., agency fee)

# 4<sup>th</sup> INDONESIAIAN ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## IFRS 17 for Takaful

- Some may argue, is IFRS 17 applicable to the Takaful business?
- Takaful does not represent a transfer of risk but instead a pooling of risk shared by participants. Therefore IFRS 17 should not be applicable?

*An entity identifies as an insurance contracts those contracts under which the entity accepts **significant insurance risk** from another party (the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder*

- IFRS 17 is applicable to mutual and given the significant portion of insurance risk borne by the risk fund, it is likely that the answer is yes.
- IFRS 17 does not provide much details for Takaful business currently. Therefore, interpreting IFRS 17 for Takaful is often not straightforward.
- Many challenges are acknowledged, and would require many stakeholders to agree on the approach which are to be used.

# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## **Key challenges for Takaful companies**

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Takaful – Key challenges

### Measurement Model

- Takaful with surplus sharing to use VFA.
- Takaful without surplus sharing to use GM.
- There are still certain takaful products which remain debatable.

### Contract Boundary

- Tabarru' rates are often not guaranteed and are reviewable.
- How should we define contract boundary for takaful contracts?



Takaful  
Focus & Challenges

### Multiple Takaful Funds

- Should calculation for FCF and CSM be split or combined?
- If combined, how should surplus sharing and qard be accounted for?
- Should the financial statements report separately for different funds?

### Retakaful

- How should YRT retakaful arrangement be measured?
- Retakaful rates are often not guaranteed.

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Measurement Model Approaches

- There are three measurement approaches in IFRS 17, depending on the type of insurance contracts:



**GENERAL MODEL**  
(aka Building Block Approach  
or BBA)

Default valuation approach



**VARIABLE FEE APPROACH**  
(VFA)

Approach for contracts with direct participation features (e.g. unit-linked, with-profit / participating contracts)



**PREMIUM ALLOCATION  
APPROACH**  
(PAA)

Simplified approach for short duration contracts (coverage period up to one year)

## Measurement Models – Conditions for VFA

**1**

The policyholder participates in a share of a clearly identified pool of underlying items

**2**

The entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items

**3**

The entity expects a substantial proportion of any change in the amounts to be paid to the policyholder to vary with the change in fair value of the underlying items.

- In many aspect, takaful with participant's account and surplus sharing fit all the conditions of the above and has similarities to investment linked products. Does this mean that it should be measured on VFA approach?

## Measurement Models – Conditions for VFA

- Whilst most takaful contracts meet the first requirement, the second and third conditions are less clear.
- E.g. MRTT contracts are significantly protection focused (i.e. amount paid from the PA is likely to be small compared to the protection payout or sum covered).
- Certain takaful contracts may not meet the conditions for VFA if we consider:
  - IFRS 17 describes VFA contracts as insurance contracts that are *substantially investment related service contracts*. It is not clear for protection-oriented contracts.
  - On a probability-weighted basis, a substantial proportion of the amounts paid to policyholders may not vary with the fair value of the underlying items (given the high protection component).
- Companies need to assess each product independently to determine if they qualify for VFA.

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Measurement models under BNM QT2

Contract boundary	Type of product	Measurement model
1 year or less	Not applicable	Expired portion – General model
	Not applicable	Unexpired portion - PAA
Greater than 1 year	Conventional non participating	General model
	Conventional participating	Variable Fee
	Investment - linked	Variable Fee
	Family takaful without surplus sharing	General model
	Family takaful with surplus sharing	Variable Fee
	General insurance/takaful without surplus sharing	General model
	General takaful with surplus sharing	Variable fee
	General takaful with surplus sharing	Variable fee
	Reinsurance/retakaful held	General model

- BNM suggested the measurement models to be used in takaful in the recent Quantitative Testing 2 (QT2) in August/September 2018.
- However, the appropriate measurement model for certain takaful products remain to be subject to industry debate.

Source: BNM QT2 for MFRS 17

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Measurement Models – Discussion

PRODUCT INFORMATION	PRODUCT TYPE	TAKAFUL MODEL	CONTRIBUTION MODE	DEATH BENEFIT	SURRENDER BENEFIT
	Mortgage Reducing Term Takaful	No Participant's Account	Single pay	Sum covered	Not applicable
PRODUCT INFORMATION	PRODUCT TYPE	TAKAFUL MODEL	CONTRIBUTION MODE	DEATH BENEFIT	SURRENDER BENEFIT
	Investment Linked	Participant's Account, Tabarru' Dripping	Regular pay	Sum covered + Participant's Account Value	Participant's Account Value

1

The policyholder participates in a share of a clearly identified pool of underlying items

2

The entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items

3

The entity expects a substantial proportion of any change in the amounts to be paid to the policyholder to vary with the change in fair value of the underlying items.

## Contract boundary

- Contract boundary is used to determine the fulfilment cashflows under IFRS 17.
- An entity shall recognise the BE liability cashflows that are within the contract boundary of an insurance contract.
- Expected premiums / claims outside of the insurance contract should not be included.
- Tabarru' in takaful contracts are not guaranteed and are reviewable in nature. How should this be accounted for when deciding contract boundary of takaful contracts?
- How should contract boundaries for investment linked riders be determined?

# 4<sup>th</sup> INDONESIAN ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Contract boundary under BNM QT2

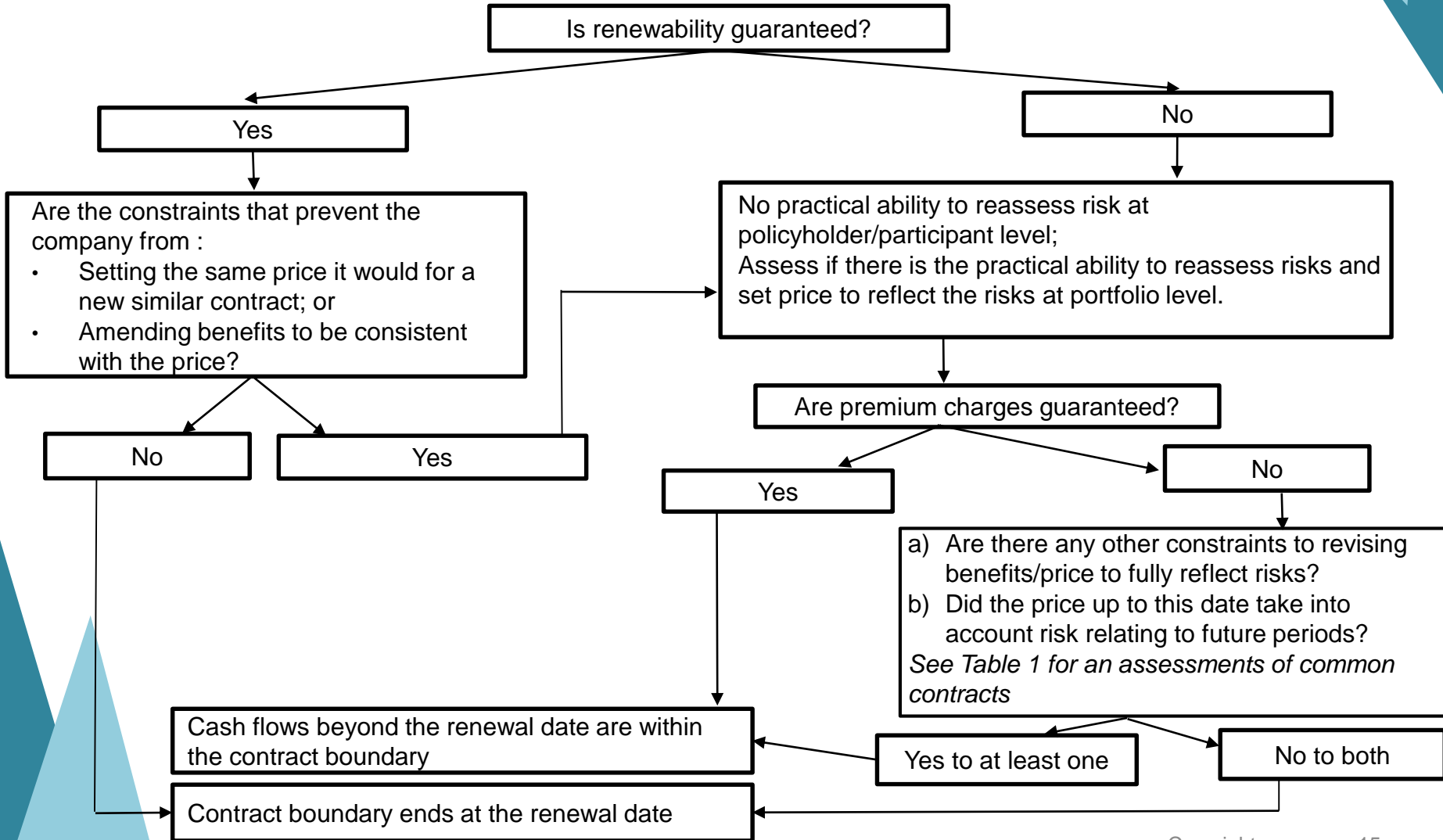
Type of contract	At renewal date ...	
	Are there known practical constraints to revise benefits/price to fully reflect risks at the portfolio level?	Did the pricing of premiums/charges up to this date take into account the risks that relate to future periods?
Contracts with level premiums /charges	No	Yes The premiums/charges in early periods subsidise the premiums/charges in later periods
Contracts with step-rated premiums/charges (e.g. according to attained age)	No	No
Contracts with premium /charges which are step-rated but level for specific periods of time (e.g. step up every 3 years)	No	Yes The premiums/charges at the start of the step-up subsidise the premiums/charge until the next step up
Long-term contracts with reviewable premiums/charges (considered to have guaranteed renewability)	Assess based on paragraph 3.3, considering factors like policyholder expectations, feasibility of re-pricing	Refer to assessment on level and step-rated premiums/charges
Industry products where assessments of price is not carried out at company level	Yes	Not applicable

- Yes to at least one – cashflows beyond the renewal date are within contract boundary
- No to both – Contract boundary ends at the renewal date
- Under QT2, all guaranteed renewable standalone medical contracts are classified as long term.
- Riders for investment linked contracts are valued under one contract given that most riders in Malaysia are UDR.

Source: BNM QT2 for MFRS 17

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"



# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

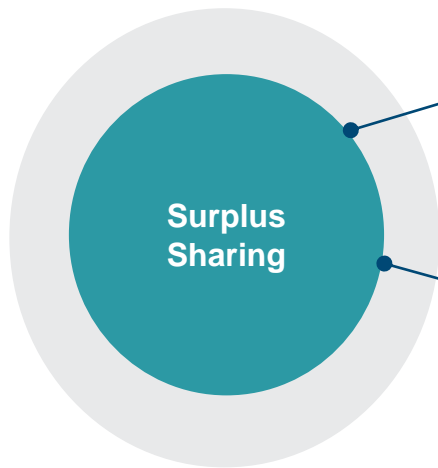
"ACTUARY AND BUSINESS ETHICS"

## Presentation & Disclosure

- Will there be any need for the financial statements be split into each takaful fund level?
- Currently, there are no clear decision on how these are to be presented for takaful operators.
- IFRS 17 does not require any separation to be done.
- Should they be required, how would companies split the figures?
- For regulatory reports, it is likely that they will be split by funds, but it may be unclear how the regulatory reports would translate to the financial reports.
- Given this uncertainty, companies are preparing their resources to be able to provide granular disclosures (i.e. by fund level).



## Surplus Sharing & Qard



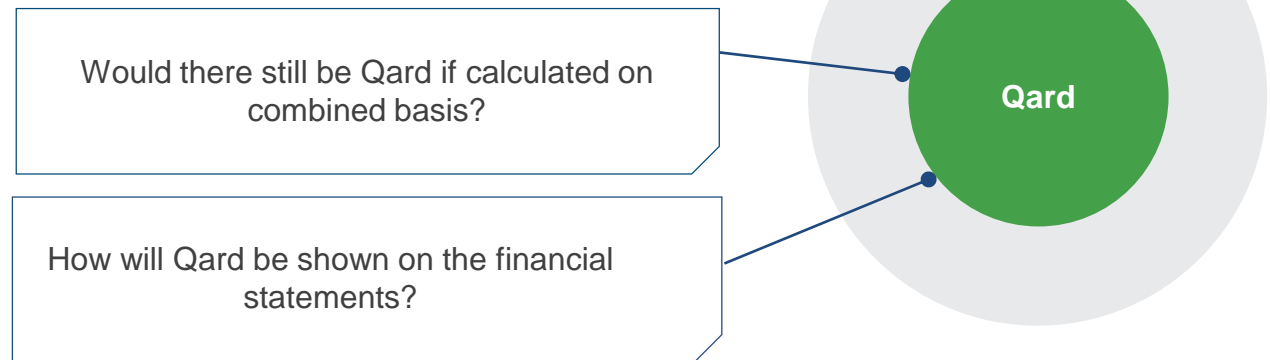
If calculated on combined basis, how should the surplus sharing of risk fund be considered?

If considered, which surplus sharing methodology should be considered? Is it after a provision of capital or otherwise?

- In Malaysia, surplus sharing is subject to minimum regulatory requirements i.e. must be in line with company's surplus management policy and take into account statutory reserves.
- It is unclear under IFRS 17 whether surplus sharing should reflect statutory reserves and capital requirements or accounting requirements.
- Ignoring reserves and capital requirements will likely accelerate the emergence of surplus to shareholders fund and may not necessary reflect timing of expected future cashflows.

## Surplus Sharing & Qard

- Under QT2, fulfilment cashflows makes an allowance for surplus sharing
- The determination of surplus sharing can be based on existing surplus sharing policy which is then systematically allocated to each group.



- Under QT2, there is no allowance for Qard in the fulfilment cashflows

## Retakaful

- This is a significant challenge for takaful companies, given the heavy reliance on retakaful for takaful companies.

### Contract boundary

- Retakaful arrangement are likely yearly renewable and retakaful rates are often not guaranteed.
- How would the contract boundary for retakaful arrangement be measured? Would it be different to the underlying takaful contract?
- Under QT2, BNM has allowed companies to populate the retakaful portion according to:
  - (a) where the retakaful cash flows are matched to the respective products (current methodology); and
  - (b) where the retakaful arrangements are measured separately from the underlying contracts (as set out under MFRS 17).

## Retakaful

- Some companies have assumed retakaful cashflow to be only for one year due to their definition of its contract boundary which creates a mismatch between retakaful cashflows and the company's takaful cashflow.

### Modelling Cashflows

- Previously retakaful contracts in general are not specifically modelled into cashflow projections e.g. excess of loss arrangements. Often only quota share arrangements are modelled in the cashflow projections e.g. in MRTT products.
- Under IFRS 17, companies will be required to model each retakaful contracts accordingly which may create challenges (i.e. modelling and resource challenges).

### Reporting & Disclosure

- As retakaful arrangement are to be reported separately in the new financial statements, how would the reserve and capital credit be recognised?

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Other insights from BNM QT2



### Lack of resources

- Lack of resources to conduct the runs and review results.
- Situation will be exacerbated if reporting to regulators in two basis i.e. IFRS17 and RBC Framework

### Grey issue areas

There is still uncertainty for several issues in takaful:

- Single CSM or CSM by fund?
- Treatment of qard?
- Measurement models?
- Discount rates (separate rates or weighted)?
- How to determine risk margin (RA)?
- Surplus sharing in IFRS 17 vs statutory basis?



### Other potential challenges faced by takaful operators



### Interpretation of result

Difficulty in communicating of result under IFRS17 and RBC Framework basis to BOD.



### Liabilities IFRS17 vs RBC

- How different are the liabilities under IFRS17 and RBC Framework?



### Modifications from current basis

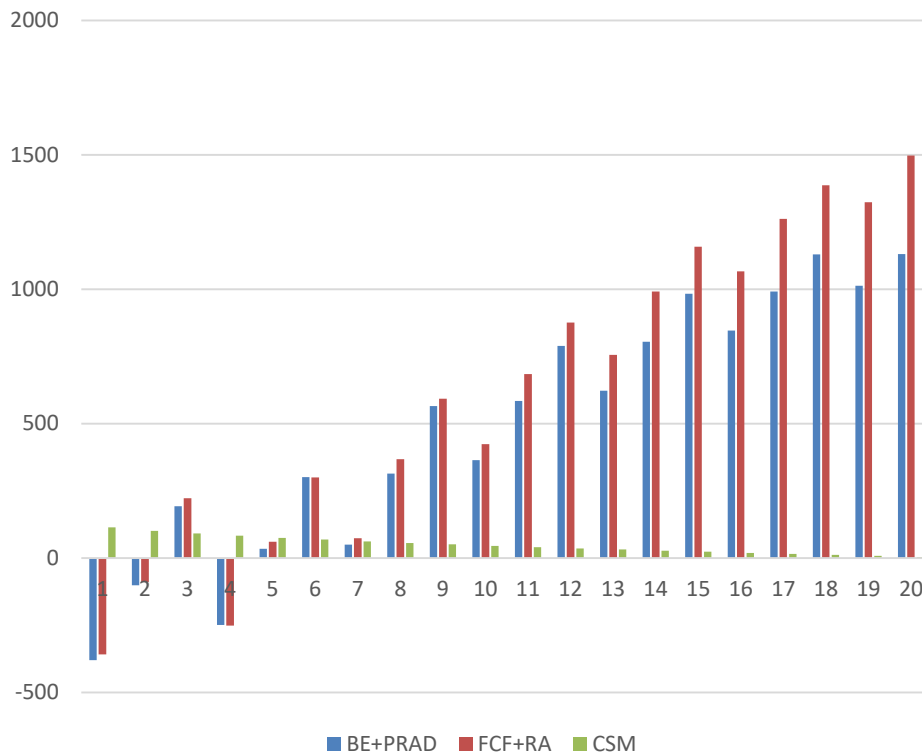
If IFRS17 is also considered for regulatory reporting there will be significant modification required (i.e. zerorisation, capital calculations)

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Liabilities under IFRS 17 and RBC

Liabilities by category



- We observe that the liabilities held under IFRS 17 basis is higher compared to RBC Framework.
- Potential reasons for this includes:
  - a) Requirement to set up and hold CSM
  - b) Treatment of cashflows under IFRS 17 vs RBC
- Other considerations include:
  - a) Zerorisation of negative reserves
  - b) Direction of biting scenario (aggregate or separate basis)
  - c) Choice of RA method
  - d) Discount rate used under IFRS 17 vs RBC
  - e) Retakaful cashflows (i.e. contract boundary and grouping)

# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## **Takaful products under IFRS 17**

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Illustration: Takaful endowment product with PA

### Product features and policy information

The key features and assumptions of the takaful product we illustrate are as follows:

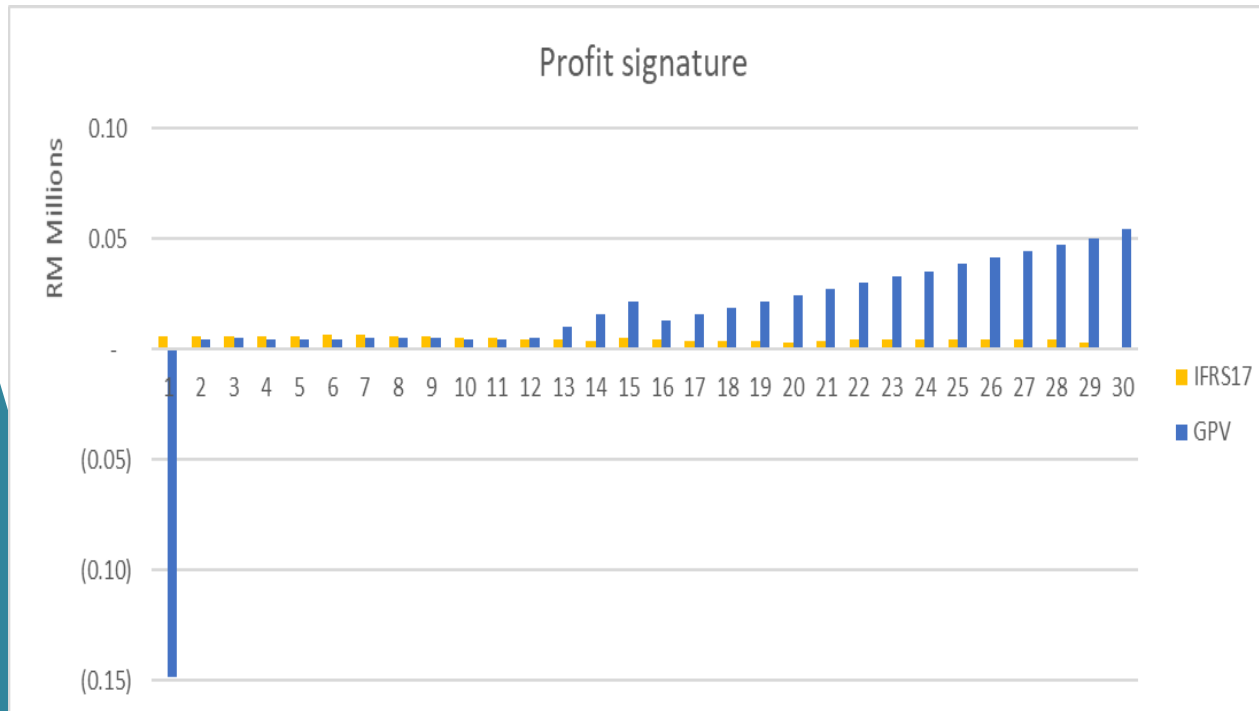
<b>PRODUCT INFORMATION</b>	<b>PRODUCT TYPE</b>	<b>TAKAFUL MODEL</b>	<b>CONTRIBUTION MODE</b>	<b>DEATH BENEFIT</b>	<b>SURRENDER BENEFIT</b>
	Endowment	Participant's Account, Tabarru' Dripping	Regular pay	Sum covered + Participant's Account Value	Participant's Account Value
<b>MFRS 17 INFORMATION</b>	<b>MEASUREMENT MODEL</b>		<b>DISCOUNT RATE</b>		<b>RISK ADJUSTMENT</b>
	VFA		GII rates		RBCT reserves
<b>OTHER CONSIDERATIONS</b>	<b>OTHERS</b>				
	<ul style="list-style-type: none"> <li>• Calculation of FCF and CSM assuming combined fund basis</li> <li>• Qard is not modelled</li> </ul>				

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Illustration: Takaful endowment product with PA

Comparison between IFRS 17 & GPV



Observations:

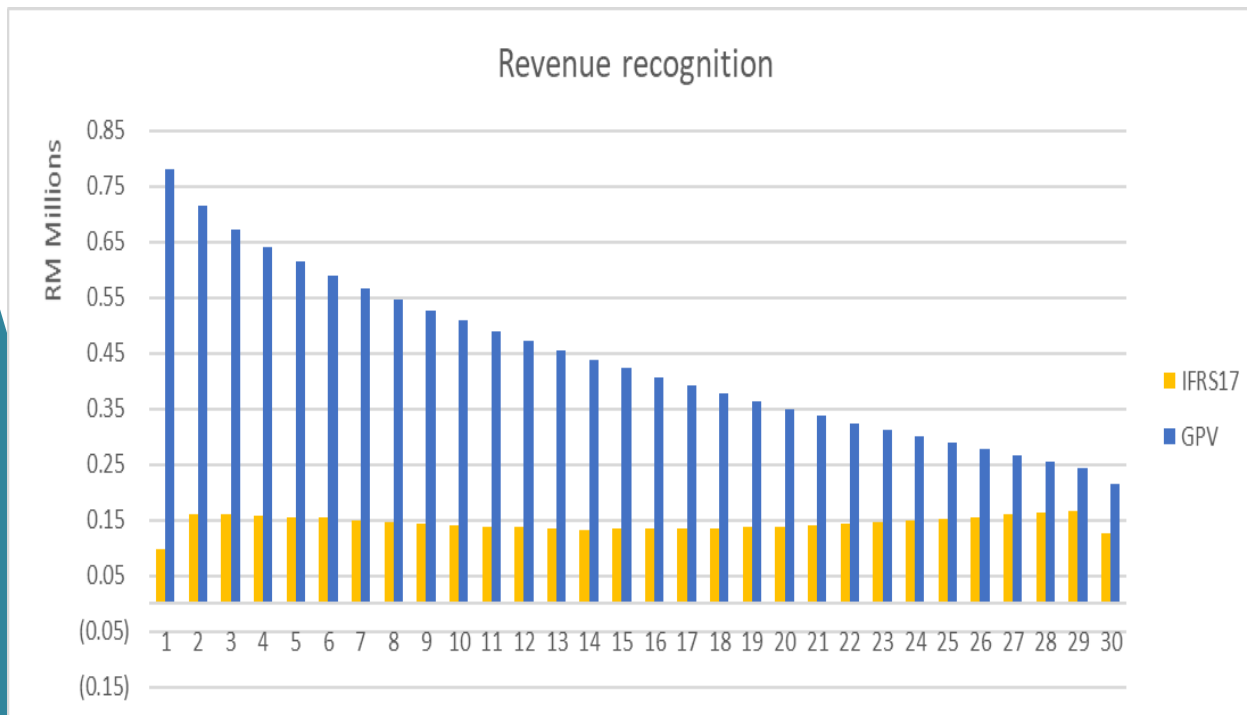
- Observation may differ should different discount rate and investment returns are used
- Negative profit under GPV is observed in the first year due to high initial expenses and commission
- However, under IFRS 17, the profit is spread throughout, with no first year loss.

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Illustration: Takaful endowment product with PA

Comparison between IFRS 17 & GPV



### Observations:

- Revenue under IFRS 17 is the release in CSM, RA and expected claims and expenses.
- Difference between IFRS 17 and GPV is due to the exclusion of allocated contributions in IFRS 17's revenue.

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Illustration: Investment-linked product

### Product features and policy information

The key features and assumptions of the investment-linked product we illustrate are as follows:

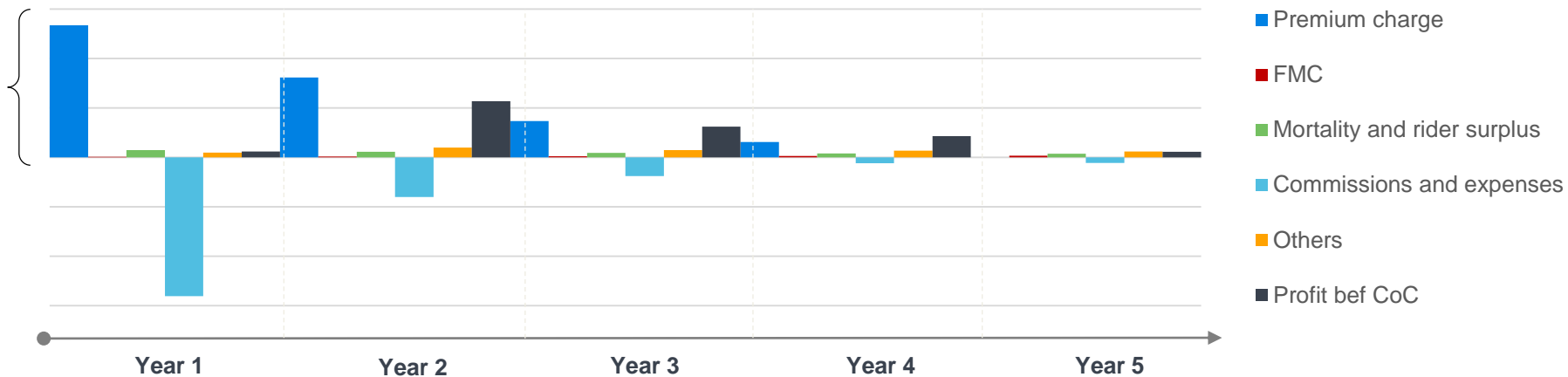
KEY FEATURES	PREMIUM TERM	POLICY TERM	DEATH BENEFIT	SURRENDER BENEFIT	OTHER
	35 years	35 years	Level death benefit (Account value + SA)	Account value	Attached with riders Allow for partial withdrawal
REPRESENTATIVE POLICY	AGE AT INCEPTION	GENDER		PREMIUM	SUM ASSURED (SA)
	35	Male		4.5 million	60 million
KEY ASSUMPTIONS	INVESTMENT RETURN (IR)		DISCOUNT RATE (DR)		EXPENSES
	7.0% p.a.		7.0% p.a.		All expenses are assumed to be directly attributable to the contract

# 4<sup>th</sup> INDONESIAN ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Illustration: Investment-linked product

Source of surplus on a GPV basis:



Profit is mainly driven by the premium charges in the first years of the contract

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

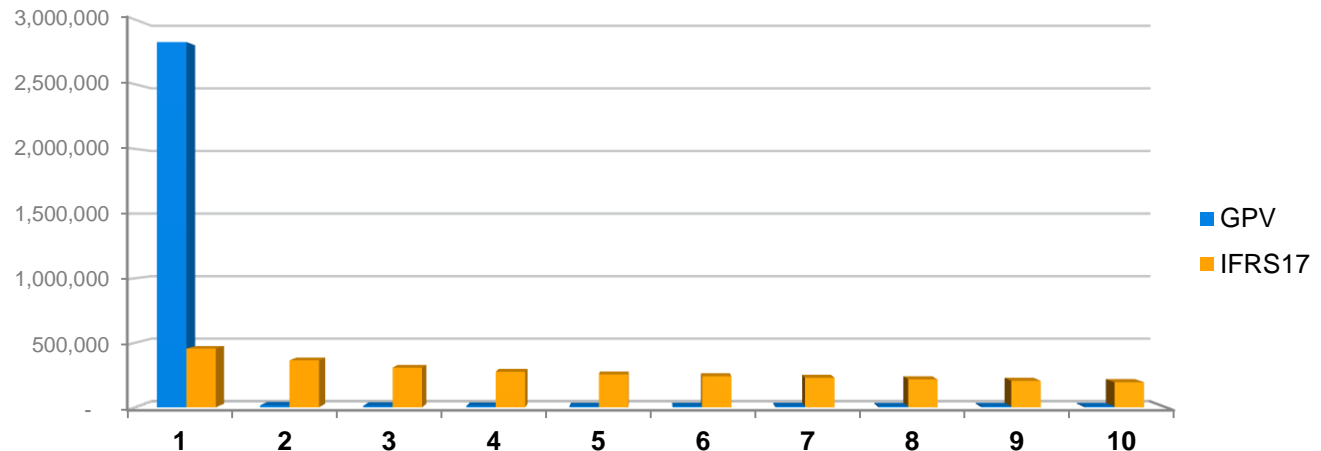
## Illustration: Investment-linked product

Actual = Expected: GPV vs MFRS 17 profit signatures

Profit before tax and cost of capital under MFRS 17 basis and GPV basis:

**BASE CASE  
PROFIT  
SIGNATURE**

(Front end loaded  
ILP)



### PROFIT TREND

The CSM required under IFRS 17 spreads the profit recognition over the policy year. This contrast to the exiting standard which allow recognition of the large profit up front.

# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## **IFRS 17 Takaful – Malaysia industry progress**

# 4<sup>th</sup> INDONESIA ACTUARIES SUMMIT 2019

"ACTUARY AND BUSINESS ETHICS"

## Takaful – Malaysia industry progress

- In terms of IFRS 17 progress, takaful operators tends to **lag behind** conventional companies.
- This is likely due to the **uncertainties in IFRS 17** for the takaful business.
- Many takaful operators are local companies. For multinationals, the initial focus is likely for the (larger) conventional business/ Takaful is also **unique** to a handful of countries (e.g. Malaysia, Indonesia).
- Many operators have engaged external consultants and have conducted **gap analysis**.
- Setting up **MFRS 17 methodology** remain a key challenge for many operators.
- Attracting and retaining **talents** is also expected to be a challenge for many operators.

# 4<sup>th</sup> **INDONESIAN ACTUARIES SUMMIT 2019**

"ACTUARY AND BUSINESS ETHICS"

## Thank you

Amir.Hassan@milliman.com  
Brian.Colgan@milliman.com

Disclaimer : This presentation is intended solely for educational purposes and presents information of a general nature. It is not intended to guide or determine any specific individual situation and persons should consult qualified professionals before taking specific actions. Neither the presenters, nor the presenters' employer, shall have any responsibility or liability to any person or entity with respect to damages alleged to have been caused directly or indirectly by the content of this presentation.