

# Measurement Model

Version	Date	Comments
0.1	28 Jun 2018	Initial Version
0.2	26 Oct 2018	After feedback from the LIA Actuarial Sub-Committee
0.3	14 Jun 2019	Formatting changes Incorporate April 2019 TRG AP02 example
2.0	17 Jun 2019	Second circulation

This IFRS17 Discussion Paper aims to facilitate discussion among actuaries and other stakeholders to capture the range of opinions on the application of IFRS17 in the Singapore context and is not meant to serve as standards of actuarial practice or guidance notes.

Any interpretation of IFRS17 set out in this Paper represents a plausible treatment given the text of IFRS17. However, it shall neither be construed as the only possible treatment nor the agreed interpretation for Singapore insurers. Users of this Discussion Paper shall be mindful that differences in the exact fact pattern and operating context facing each insurer may drive different interpretations. Users shall also be mindful that for the same fact pattern and operating context, there is scope for the substance of same transaction to be articulated differently depending on how the transaction is analysed. (For example, in substance, cash flows from a call option with strike price \$X on an asset is equivalent to the combined cash flow from the underlying asset and a put option with strike price \$X on the asset, less cash of \$X.) Differences in articulation can give rise to a range of plausible treatments. An insurer remains responsible for justifying its choice of treatment after discussion with its auditor. Opinions expressed in the discussion papers are not representative of that of the Singapore Actuarial Society.

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## 1. IFRS17 Standards

The IFRS17 general measurement model (GMM) for insurance contracts is described in paragraph 44 of the standards.

For contracts with direct participating features, IFRS17 requires modifications to the general model (commonly known as Variable Fee Approach or VFA) which described in paragraph 45 of IFRS17 text. Paragraph B101 defines insurance contract with direct participating features:

### **Paragraph B101**

Insurance contracts with direct participation features are insurance contracts that are substantially investment-related service contracts under which an entity promises an investment return based on underlying items. Hence, they are defined as insurance contracts for which:

- a) the contractual terms specify that the policyholder participates in a share of a clearly identified pool of underlying items (see paragraphs B105–B106);
- b) the entity expects to pay to the policyholder an amount equal to a substantial share of the fair value returns on the underlying items (see paragraph B107); and
- c) 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 (see paragraph B107).

### **Apr 19 TRG Staff Paper**

<https://www.ifrs.org/-/media/feature/meetings/2019/april/trg-for-ifrs-17/ap2-reporting-on-other-questions-submitted.pdf>

Entities would also have a choice to adopt a simplified third model, the Premium Allocation Approach (PAA), if the following conditions are met:

### **Paragraph 53**

An entity may simplify the measurement of a group of insurance contracts using the premium allocation approach set out in paragraphs 55–59 if, and only if, at the inception of the group:

- a) the entity reasonably expects that such simplification would produce a measurement of the liability for remaining coverage for the group that would not differ materially from the one that would be produced applying the requirements in paragraphs 32–52; or
- b) the coverage period of each contract in the group (including coverage arising from all premiums within the contract boundary determined at that date applying paragraph 34) is one year or less.

## 2. Interpretation of Standards

The GMM should be adopted for all contracts that does not qualify for VFA or PAA.

Paragraph B102-B108 of the IFRS standards provide further elaboration on how the criteria for VFA should be assessed.

Key Aspect	Interpretation
<p>B101(a)</p> <p>contractual terms specify a participation in a share of underlying items, which are clearly identifiable</p>	<p>Contractual terms would be matter of law.</p> <p>B106 requires that the underlying items are clearly identified by the contract. The underlying cannot be changed retrospectively.</p>
<p>B101(b)</p> <p>the entity expects “a substantial share of the fair value returns on the underlying items” is to be paid to policyholder</p>	<p>Standard provides no materiality threshold on “substantial”.</p> <p>B107(a) allows interpretation of “substantial” in the context of the objective of the contract, which is to provide investment-related services with the entity receiving compensation via a fee.</p> <p>B107(b) specifies that the assessment should be performed over the duration of the contracts using present value probability-weighted basis.</p> <p>Apr 19 TRG paper (AP02 question S115) provides an example which indicates how the IASB staffs interprets the requirement of B101(b) for investment-linked contracts. The example suggests that the deduction of premium or charge for mortality cover is an amount paid out of the policyholder’s share. In other words, the policyholder’s share includes that charge. The paper also indicates that policyholder’s share will be reduced by management fee charges which are specified as certain percentages of the value of the underlying.</p>
<p>B101(c)</p> <p>a substantial proportion of changes in amount payable to policyholder varies with the change in the fair value of the underlying items</p>	<p>B108 indicates that this requirement is an assessment of how significant the changes in benefit amount are over the life of the contracts:</p> <ul style="list-style-type: none"> <li>• due to changes in fair value of the underlying, vs</li> <li>• due to guaranteed returns and cashflows that do not vary based on returns on the underlying items.</li> </ul>

The criteria for PAA is clear in the IFRS17 standards and there is little room for interpretation.

### 3. How it applies to Singapore

The assessment below is based on the common features of products sold in Singapore; there would be other products which have other features that could change the assessment results. There could also be other contract-specific circumstances for which the assessment below may not apply.

Most non-participating products are expected to be measured under GMM (or PAA if the criteria are satisfied). An exception would perhaps be the non-participating riders attaching to basic plans that are measured under VFA, in which case both products might have to be measured together as a single contract under VFA.

The following is a discussion on how the VFA criteria could be assessed for the types of products commonly sold in Singapore.

Par	B101(a)	There is generally a clear contractual link between the benefit and the underlying Par fund.
	B101(b)	<p>Under normal circumstances, most participating policies sold are expected to pay out benefits close to the underlying asset share throughout the policy term, except for the early policy years when the guaranteed Sum Assured bites.</p> <p>The April 2019 TRG did not address how B101(b) should be applied to participating products. Judgement and interpretation is required on the treatment of each amount charged to asset share.</p> <p>One point of view is that only profit sharing amounts with Shareholder would reduce the policyholders' share of return on the asset share. If this view is taken, on probability-weighted present value basis at contract inception, this criterion is likely satisfied for most participating policies.</p>
	B101(c)	<p>Paragraph B108 requires the assessment to be "present value probability-weighted average" on all different possible (economic) scenarios.</p> <p>At policy inception, most participating policies are priced at a profit, and it would be expected under most scenarios that guarantees would not be biting for significant periods of time.</p> <p>On a probability-weighted basis, for most Par products sold in Singapore, a "significant" portion of changes in benefit amount should be caused by changes in the asset share (fair-value of the underlying) rather than changes in guarantees.</p>
Investment-linked	B101(a)	There is generally a clear contractual link between the benefit and the underlying Unit account.
	B101(b)	<p>On surrender, the benefit payouts are generally computed based on the value of unit account less surrender charges. Hence the criteria would be satisfied.</p> <p>For ILP contracts, the claims benefits are often defined as either</p> <ul style="list-style-type: none"> <li>• Sum Assured + Unit value</li> <li>• Max(Sum Assured, Unit Value)</li> </ul>

		<p>The relative size of the Sum Assured and Unit value depends on the product design, duration of contracts, and the riders chosen by the policyholders.</p> <p>Apr 19 TRG paper provides some guidance on determining which charges would reduce policyholders share of return from the unit fund. Particularly, cost of insurance charges which are fixed amount are deemed not to reduce policyholders' share. Judgement and interpretation is required to assess the other charges.</p> <p>Depending on threshold selected for "substantial", some ILP contracts may not satisfy this requirement.</p>
	B101(c)	<p>For ILP contracts, the claims benefits are usually defined as either</p> <ul style="list-style-type: none"> <li>• Sum Assured + Unit value</li> <li>• Max(SA, Unit Value)</li> </ul> <p>As the Sum Assured are generally fixed, changes in benefits throughout the life of the contract would mainly be due to Unit Value (i.e. fair value of the underlying item).</p>
Universal Life	B101(a)	For Universal Life policies sold in Singapore, there is generally no contractual link between the benefit and a clearly specified pool of assets. Insurers could exercise significant discretion in the crediting rate mechanism.
	B101(b)	N/A
	B101(c)	N/A

On an overall assessment based on the above:

- Universal Life is not expected to be classified as a product with direct participating feature.
- Most Participating products would be expected to qualify for VFA. There could be exceptions for products that are sold at losses.
- ILP are expected to qualify for VFA unless conditions for B101(b) are not satisfied. Hence, the threshold for "substantial" may impact the measurement model chosen for ILP.