

## Transition - Fair Value Approach (“FVA”)

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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

This paper focuses on Fair Value Approach (“FVA”). The key passages in the IFRS17 standards that relate to FVA are outlined below:

### Transition

**IFRS 17:C3.** An entity shall apply IFRS 17 retrospectively unless impracticable, except that:

(a) an entity is not required to present the quantitative information required by paragraph 28(f) of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors; and

(b) an entity shall not apply the option in paragraph B115 for periods before the date of initial application of IFRS 17.

**IFRS 17 (ED):C3.** Unless it is impracticable to do so, or paragraph C5A applies, an entity shall apply IFRS 17 retrospectively, except that:

(a) an entity is not required to present the quantitative information required by paragraph 28(f) of IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors; and

(b) an entity shall not apply the option in paragraph B115 for periods before the transition date of IFRS 17. An entity may apply the option in paragraph B115 prospectively on or after the transition date if, and only if, the entity designates risk mitigation relationships at or before the date it applies the option.

**IFRS 17:C4.** To apply IFRS 17 retrospectively, an entity shall at the transition date:

(a) identify, recognise and measure each group of insurance contracts as if IFRS 17 had always applied;

(b) derecognise any existing balances that would not exist had IFRS 17 always applied; and

(c) recognise any resulting net difference in equity.

**IFRS 17:C5.** If, and only if, it is impracticable for an entity to apply paragraph C3 for a group of insurance contracts, an entity shall apply the following approaches instead of applying paragraph C4(a):

(a) the modified retrospective approach in paragraphs C6–C19, subject to paragraph C6(a); or

(b) the fair value approach in paragraphs C20–C24.

**IFRS 17 (ED):C5A.** Notwithstanding paragraph C5, an entity may choose to apply the fair value approach in paragraphs C20–C24 for a group of insurance contracts with direct participation features to which it could apply IFRS 17 retrospectively if, and only if:

(a) the entity chooses to apply the risk mitigation option in paragraph B115 to the group of insurance contracts prospectively from the transition date; and

(b) the entity has used derivatives or reinsurance contracts held to mitigate financial risk arising from the group of insurance contracts before the transition date.

### Fair value approach

**IFRS 17:C20.** To apply the fair value approach, an entity shall determine the contractual service margin or loss component of the liability for remaining coverage at the transition date as the difference between the fair value of a group of insurance contracts at that date and the fulfilment cash flows

measured at that date. In determining that fair value, an entity shall not apply paragraph 47 of IFRS 13 Fair Value Measurement (relating to demand features).

**IFRS 17 (ED):C20A.** For a group of reinsurance contracts held to which paragraphs 66A–66B apply at the transition date, an entity shall determine the loss-recovery component of the asset for remaining coverage by multiplying:

- (a) the loss component of the liability for remaining coverage for the underlying insurance contracts at the transition date (see paragraphs C16 and C20); and
- (b) the fixed percentage of claims for the group of underlying insurance contracts the entity has a right to recover from the group of reinsurance contracts held.

**IFRS 17:C21.** In applying the fair value approach, an entity may apply paragraph C22 to determine:

- (a) how to identify groups of insurance contracts, applying paragraphs 14–24;
- (b) whether an insurance contract meets the definition of an insurance contract with direct participation features, applying paragraphs B101–B109; and
- (c) how to identify discretionary cash flows for insurance contracts without direct participation features, applying paragraphs B98–B100.

**IFRS 17:C22.** An entity may choose to determine the matters in paragraph C21 using:

- (a) reasonable and supportable information for what the entity would have determined given the terms of the contract and the market conditions at the date of inception or initial recognition, as appropriate; or
- (b) reasonable and supportable information available at the transition date.

**IFRS 17 (ED):C22A.** In applying the fair value approach, an entity may choose to classify as a liability for incurred claims a liability for settlement of claims incurred before an insurance contract was acquired.

**IFRS 17:C23.** In applying the fair value approach, an entity is not required to apply paragraph 22, and may include in a group contracts issued more than one year apart. An entity shall only divide groups into those including only contracts issued within a year (or less) if it has reasonable and supportable information to make the division. Whether or not an entity applies paragraph 22, it is permitted to determine the discount rates at the date of initial recognition of a group specified in paragraphs B72(b)–B72(e)(ii) and the discount rates at the date of the incurred claim specified in paragraph B72(e)(iii) at the transition date instead of at the date of initial recognition or incurred claim.

**IFRS 17:C24.** In applying the fair value approach, if an entity chooses to disaggregate insurance finance income or expenses between profit or loss and other comprehensive income, it is permitted to determine the cumulative amount of insurance finance income or expenses recognised in other comprehensive income at the transition date:

- (a) retrospectively—but only if it has reasonable and supportable information to do so; or
- (b) as nil—unless (c) applies; and
- (c) for insurance contracts with direct participation features to which paragraph B134 applies—as equal to the cumulative amount recognised in other comprehensive income from the underlying items.

The following are relevant extracts from ‘Basis for conclusions on IFRS 17 Insurance Contracts’

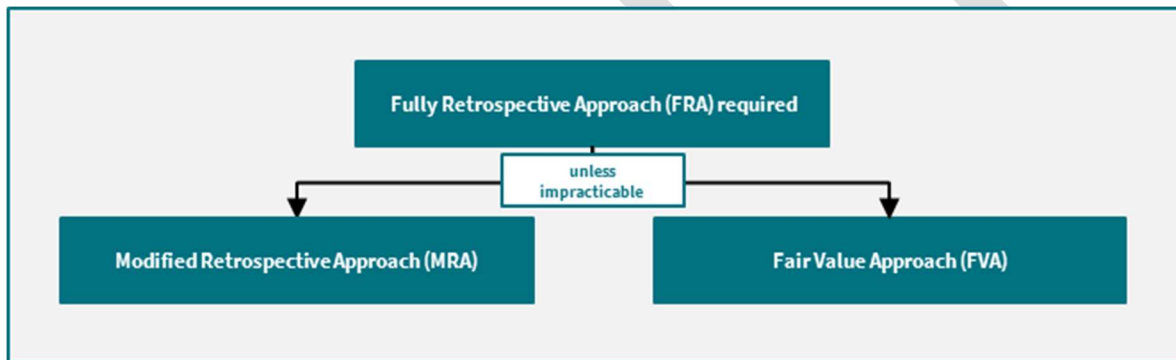
**IFRS 17:BC385.** The Board noted that in some cases an entity might not have reasonable and supportable information available without undue cost or effort to apply the modified retrospective approach. Accordingly, the Board specified that in such cases, an entity must apply a fair value approach in which the contractual service margin at the transition date is determined as the difference

between the fulfilment cash flows and the fair value of the group of insurance contracts, determined in accordance with IFRS 13. The Board also decided to allow the use of the fair value approach whenever retrospective application is impracticable (see paragraph BC373). The Board decided to clarify that in determining fair value of a group of insurance contracts, an entity should not apply the concept of a deposit floor (see paragraphs BC165–BC166).

**IFRS 17:BC386.** The fair value approach also permits the same modifications as the modified retrospective approach relating to: (a) assessments about insurance contracts or groups of insurance contracts that would be made at the date of inception or initial recognition; and (b) determining the discount rates and the effect of changes in discount rates necessary to determine insurance finance income and expense.

## 2. Interpretation of Standards

An entity is required to analyze and decide the transition approach at each group of contract level. An entity shall apply Fully Retrospective Approach (“FRA”) unless impracticable. If and only if it is impracticable to apply FRA, the entity shall apply Modified Retrospective Approach (“MRA”) or FVA. It is up to the entity’s preference to adopt MRA or FVA. This paper focuses on FVA.



→ No hierarchy between MRA and FVA

By adopting FVA, the CSM or loss component of the liability of remaining coverage as the difference between the fair value (“FV”) of a group of insurance contracts at transition date and the fulfilment cash flows (“FCF”) measured at transition date. In other words, there is CSM when FV *minus* FCF is positive, while there is loss component when FV *minus* FCF is negative. The loss component, on the other hand will be absorbed by Shareholder Equity. Refer to appendix for the details.

IFRS 17 does not provide guidance on determining the fair value of insurance contracts, but it mentions “an entity shall not apply paragraph 47 of IFRS 13 Fair Value Measurement” in C20. This indicates the entity can refer to IFRS 13 for determining the fair value of insurance contracts as the insurance contracts are not specifically excluded from the scope of IFRS 13.

### 3. IFRS 13

The objective of a fair value measurement is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Before determining the fair value, an entity needs to decide the level of hierarchy inputs.

#### Hierarchy of valuation inputs

Level	Description
Level 1 Inputs	<ul style="list-style-type: none"><li>• Whenever observable, quoted prices for identical assets and liabilities in the active market</li><li>• The estimate represents the price within the bid-asked spread at which marketplace participants would currently transact exchanges</li></ul>
Level 2 Inputs	<ul style="list-style-type: none"><li>• If quoted prices are not available or if directly or indirectly observed market prices are not reliable, level 2 inputs include those based on the following<ul style="list-style-type: none"><li>○ Quoted priced for similar assets or liabilities in an active market</li><li>○ Quoted prices for identical or similar assets or liabilities in markets that are not active</li><li>○ Market inputs other than quoted process such as interest rates</li><li>○ Market inputs derived principally from or corroborated by other observable market data through such techniques as analysis of correlation</li></ul></li></ul>
Level 3 Inputs	<ul style="list-style-type: none"><li>• Fair value estimates incorporate unobservable market inputs that are not able to be corroborated by observable market data</li><li>• The entity's own data can be used to develop the estimates</li><li>• The assumptions are the ones that the market participants would use to price the assets or liabilities (i.e. assumptions are adjusted to exclude factors specific to the entity)</li><li>• <b>The fair value of most insurance contract liabilities are based on level 3 inputs</b></li></ul>

IFRS 13 standards states the following three widely used valuation techniques (IFRS 13:67)

- **market approach** – uses prices and other relevant information generated by market transactions involving identical or comparable (similar) assets, liabilities, or a group of assets and liabilities (e.g. a business)
- **cost approach** – reflects the amount that would be required currently to replace the service capacity of an asset (current replacement cost)
- **income approach** – converts future amounts (cash flows or income and expenses) to a single current (discounted) amount, reflecting current market expectations about those future amounts.

In some cases, a single valuation technique will be appropriate, whereas in others multiple valuation techniques will be appropriate. [IFRS 13:63]

Market approach is not feasible for valuing the insurance liabilities because of the difficulty to obtain relevant market information that could be comparable and similar to the liabilities in Singapore. Similar to market approach, we do not have credible information in Singapore market to perform cost approach. Therefore, income approach is recommended to be used to determine the fair value of insurance liabilities.

Further clarified from IFRS 13 standard regarding to income approach, a fair value measurement of a liability using a present value technique captures all the following elements from the perspective of market participants at the measurement date [IFRS 13:B13]:

- a) an estimate of future cash flows for the asset or liability being measured.
- b) expectations about possible variations in the amount and timing of the cash flows representing the uncertainty inherent in the cash flows.
- c) the time value of money, represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows and pose neither uncertainty in timing nor risk of default to the holder (ie a risk-free interest rate).
- d) the price for bearing the uncertainty inherent in the cash flows (ie a risk premium).
- e) other factors that market participants would take into account in the circumstances.
- f) for a liability, the non-performance risk relating to that liability, including the entity's own credit risk.

Relating to point c), the starting point of the discount rate should indeed always be the risk free rate but a risk premium should be reflected depending on the methodology.

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#### 4. Approaches Analyzed to obtain the Fair Value under Income Approach

Approach	Description	Rationale	Comments/Limitations
Market approach	Use prices and other relevant information generated by market transactions involving identical or comparable liabilities	It is difficult to find available information that could be comparable and similar to liabilities	It is not practical in Singapore context.
Statutory reserves	Use statutory reserves as the fair value of the liabilities	The statutory reserves are not equivalent to fair value as it is from regulator point of view which is usually more conservative	This method is not compliant
Solvency 2 BEL + adjustment	Use Solvency 2 as starting point to derive the fair value of liabilities	Leverage on existing Solvency 2 framework that can be used as initial proxy to fair value of liabilities	This is the preferred method and is elaborated in section 5 below.
FCF + adjustment	Use FCF as starting point and then adjust those parameters that are different between IFRS 17 and IFRS 13	This seems to be the closest figure that can be used as initial proxy to fair value of liabilities	This is the preferred method and is elaborated in section 6 below.

#### 5. FVA by adjusting best estimate liabilities (“BEL”) in Solvency 2 (“SII”)

This suggested approach leverages on the existing Solvency 2 framework with key adjustments lie upon the differing view on expected investment return and required return on capital between market expectation and Solvency II regime.

	<b>SII best estimate liabilities (“BEL”)</b>
<b>(1)</b>	<b>Cost of set-up and release of SII risk margin</b> Reflects the discounted cost from set-up and subsequent release of the SII risk margin.
<b>(2)</b>	<b>Investment margin</b> Excess real world return earned on liabilities, this can be consistent with the expected return on capital
<b>(3)</b>	<b>Return on capital required</b> Reflects the discounted return on capital required for each year based on non-hedgeable and hedgeable SII solvency capital required (SCR). The SCR should be adjusted to reflect risk appetite and higher level of diversification.  The return on capital each year can be derived as below: Return on capital required = % Return achieved on portfolio (Fair Value Capital Return) x (Non-hedgeable SCR + hedgeable SCR) x Solvency Risk appetite x Diversification benefit between portfolios and between difference group entities
<b>=</b>	<b>Fair value of liabilities</b>

-	<b>IFRS 17 Fulfilment Cash Flows at transition</b> = IFRS 17 BEL at transition + IFRS 17 Risk Adjustment at transition
=	<b>CSM recognised at transition</b>

It is expected that some of the components will largely offset each other within the calculation, causing these components to be the key drivers of the calculation:

- Return on capital required
- Risk adjustments
- Investment margin

FVA is likely to be adopted on very old portfolios where it is impractical to apply IFRS 17 retrospectively. Under this methodology, it is proposed that an adjusted weighted average cost of capital (WACC) can be used as a starting point for return on capital required. Further adjustment can be made based on actual returns on capital achieved or evidence of external market transactions.

This abovementioned approach can also be applied for reinsurance product. However additional adjustment is required to recognize the probability of default of the reinsurer in the ceded cashflow.

## 6. FVA by adjusting FCF in IFRS 17

This proposed methodology is based on the FCF calculated according to the standard. The below steps can be used to proxy the FV of liabilities

- Use the FCF valued according to IFRS 17 as a starting point.
- Adjust those parameters that are different between IFRS 17 and IFRS 13 (discussed below)

Parameter to adjust	Approach	Rationale	Comments/Limitations
Technical Assumptions	Use the same technical assumptions for FV valuation than FCF valuation (no changes)	Since the FCF valuation uses best estimate assumptions, we do not expect significant differences between market assumptions and that used for the calculation of the FCF	Some differences could be identified for some assumptions (i.e. mortality tables or lapses) but we do not expect they are material. For example, for the mortality table some companies might be using RI rates versus industry mortality rate (S0408) created by SAS
Financial Assumptions (yield curve)	Adjust the FCF's yield curve with the own credit risk of the entity	The own credit risk of the entity is explicitly excluded in the FCF under IFRS 17 but should be taken into account in a FV assessment of liabilities. In theory, this should lead to a difference between FV and FCF. In practice, the own credit risk to be taken into account in the FV is limited	N/A



Parameter to adjust	Approach	Rationale	Comments/Limitations
		to the risk of not fulfilling the insurance engagement	
Boundaries of contracts (BoC)	Use the same BoC for FV valuation than FCF valuations	The current assumption is that the FV of insurance contracts is to be assessed considering the same BoC as in IFRS 17. In other words, there is no difference expected in terms of BoC between FV of liabilities and FCF	In a transaction, the BoC can be seen by the stakeholders in a different manner than under IFRS 17. There are other elements (goodwill, other intangibles, etc) that could cause the difference in future profit
Expenses	Use the total expenses as market expenses under FV valuation	FCF includes only the attributable expenses while FV includes attributable and non-attributable expenses. The total expenses used for FV will be the total expenses (attributable and non-attributable expenses) used in the FCF valuations	In this approach, it is supposed that the total expenses under IFRS 17 for FCF will be equivalent to market expenses
Risk Adjustment	<p>Use the below estimates from SII</p> <ul style="list-style-type: none"> <li>risk aversion: applying a rate higher than the current CoC rate in MVM calculation</li> <li>diversification: by calculating the RA which will be computed at entity level following SII basis, the lower diversification effect will be reflected in the RA of the FV accordingly</li> <li>risks not covered in FCF: calculate the operational risk according to SII standard formula</li> </ul>	<p>Use the valuation of the AFR MVM to assess the FV RA to reflect difference between the FV RA and the IFRS 17 RM, mainly:</p> <ul style="list-style-type: none"> <li>risk aversion from the market,</li> <li>diversification: The RA under IFRS 17 is calculated based on the portfolio of contract formed referencing to the higher level of granularity compared to IFRS 13. Therefore the diversification effect under IFRS 13 (lower granularity) is lower than the IFRS 17, so the RA needs to be increased to reflect this</li> <li>risks not covered: FV should include operational risks</li> </ul>	The adjustment proposed is based on S2 information and is a proxy
Market Premium (compensation that a market participant	<p>a) Use the profit from a NB block</p> <p>b) Use information from recent transactions</p>	<p>a) Use the CSM of a similar NB block to estimate the Market Premium</p>	<p>a) This methodology does not reflect the exit price</p>

Parameter to adjust	Approach	Rationale	Comments/Limitations
would require for taking on the obligation)	The market premium will be added to adjusted FCF to reflect the additional profit that the market buyer will require	b) Use the price paid in recent transaction as a proxy to Market Premium	b) Not enough relevant data

This abovementioned approach can also be applied for reinsurance product. However additional adjustment is required to recognize the probability of default of the reinsurer in the ceded cashflow.

## 7. Appendix

Interpretations of different scenarios:

Scenario	Fair Value	-	Fulfilment Cash Flows	=	Difference	Contractual Service Margin (CSM) at transition	Loss Component (LC) at transition	Interpretation
1	12	-	10	=	2	2	0	A market participant receives \$12 to take over \$10 of obligation (liabilities). CSM of the group of contracts at transition is therefore \$2.
2	(12)	-	(10)	=	(2)	0	2	A market participant pays \$12 to take over \$10 of obligation (assets). There is a LC of \$2 absorbed by Shareholder Equity at transition.
3	(12)	-	(20)	=	8	8	0	A market participant pays \$12 to take over \$20 of obligation (assets). CSM of \$8 emerges at transition.
4	0	-	10	=	(10)	0	10	A market participant pays/receives nothing to take over \$10 of obligation (liabilities). There is a LC of \$10 absorbed by Shareholder Equity at transition.
5	12	-	(10)	=	22	22	0	A market participant receives \$12 to take over \$10 of obligation (assets). CSM of the group of contracts at transition is therefore \$22.
6	(12)	-	10	=	(22)	0	22	A market participant pays \$12 to take over \$10 of obligation (liabilities). There is a LC of \$22 absorbed by Shareholder Equity at transition.
7	(12)	-	20	=	(32)	0	32	A market participant pays \$12 to take over \$20 of obligation (liabilities). There is a LC of \$32 absorbed by Shareholder Equity at transition.
8	0	-	(10)	=	10	10	0	A market participant pays/receives nothing to take over \$10 of obligation (assets). CSM of the group of contracts at transition is therefore \$10.