



IFRS 17 FY23 Singapore reporting analysis

For direct insurers

November 2024





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Executive summary



IFRS 17 is finally live

Following many years of significant investment by insurance companies, IFRS 17 Insurance Contracts (IFRS 17) is now live. This publication compares the disclosures made by a selection of Singaporean composite (5), life (3) and general (17) insurers in their annual financial statements for the year ended December 2023.

This publication has been prepared exclusively using publicly available financial information. Its primary objective is to present the range of approaches adopted across the industry through a comparison of a selection of companies. This publication is purely informational and does not contain any opinions or subjective interpretations.

Note:

1. Selected insurers are based on latest financial statements available on ACRA website as of 12 September 2024.
2. Both IFRS 17 and SFRS 117 are synonymous and will be referred to as (IFRS 17) for the purposes of this publication.



Variety in disclosures remains

Despite certain disclosures being required by the Standard, divergences in approaches, calibrations, and the level of granularity adopted are observed.

There is limited information on KPIs or changes to KPIs following the transition to IFRS 17 in the disclosures of the companies selected.

Some stakeholders, such as analysts, anticipated greater comparability post-IFRS 17. While there is now a consistent framework under which Singapore and other markets are required to report under IFRS 17, divergence remains among insurers within the Singaporean market.

Insurers are not expected to make wholesale changes in the short term, though some convergence in approaches or calibrations may occur over time.



What is next after IFRS 17?

From a process perspective, insurers still face many challenges with working day timetables, fully transitioning to strategic systems, and upskilling teams on the new IFRS 17 systems and to fully understand the results. This points to the need for a huge amount of remediation work in the coming months and ultimately finance transformation to unlock the long-term benefits of the significant investments made.

Insurers should continue to analyse the disclosures made by their peers to identify leading practices to be adopted and listen to what the investor and analyst communities are most interested to see under IFRS 17.

We are supporting life, general insurance, and reinsurance companies with IFRS 17 enhancements and finance transformation. Reach out to your local PwC contact to hear more.



Ang Sock Sun
Insurance Leader
PwC Singapore



“

It has been a multi-year journey for many industry players leading up to the implementation of the new accounting standard, IFRS 17. Compared to its predecessor, IFRS 4, the new standard looks to provide a more standardised, comprehensive and transparent approach to the accounting of insurance contracts. This change also brings about better comparability of financial reporting across the various insurers.

There are, however, varying interpretations of the standard amongst the many different insurers. As we progress to the next phase post-implementation, expect to see clearer industry wide practices being set and adopted between the different insurers.”

Insurance companies

We have compared the disclosures made by a selection of Singapore composite (5) and life (3) insurers in their annual financial statements for the year ended December 2023.

The presentation has been prepared exclusively using publicly available financial information. Its primary objective is to present the range of approaches adopted across the industry through the comparison of a selection of companies. This presentation is purely informational and does not contain any opinions or subjective interpretations.

Life and composite insurers included

Company name	Legend	Type of insurer
AIA Singapore Private Limited	AIA	Composite
China Taiping Insurance (Singapore) Pte. Ltd.	CTPIS	Composite
Etiqua Insurance Pte. Ltd.	Etiqua	Composite
HSBC Life (Singapore) Pte. Ltd.	HSBC Life	Composite
Manulife (Singapore) Pte Ltd	Manulife	Life
Prudential Assurance Company Singapore (Pte) Limited	Prudential	Life
Singapore Life Ltd.	Sing Life	Composite
The Great Eastern Life Assurance Company Limited	GE Life	Life

Note:

1. Selected insurers are based on latest financial statements available on ACRA website as of 12 September 2024.
2. All selected insurers listed above have a financial year end of 31 December.
3. The type of insurer stated above is based on the license held by the company stated on the Monetary Authority of Singapore (MAS) website.



Insurance companies

General insurers included

Company name	Legend	Type of insurer
AIG Asia Pacific Insurance Pte. Ltd.	AIG	General
Allianz Global Corporate and Specialty SE	AGCS	General
Allied World Assurance Company, Ltd	AWAC	General
Berkshire Hathaway Specialty Insurance Company	Berkshire	General
Chubb Insurance Singapore Limited	Chubb	General
Cigna Europe Insurance Co. S.A. - N.V. -	CIGNA	General
Great Eastern General Insurance Limited	GEG	Composite
Liberty Insurance Pte. Ltd.	Liberty Ins	General
Liberty Specialty Markets Singapore Pte. Limited	Liberty Sp	General
MS First Capital Insurance Limited	First Cap	General
MSIG Insurance (Singapore) Pte. Ltd.	MSIG	General
QBE Insurance (Singapore) Pte. Ltd.	QBE	General
Sompo Insurance Singapore Pte. Ltd.	Sompo	General
Starr International Insurance (Singapore) Pte. Ltd.	Starr	General
Tokio Marine Insurance Singapore Ltd.	TMIS	General
XL Insurance Company SE	XL	General
Zurich Insurance Company Ltd	Zurich	General

Note:

1. Selected insurers are based on latest financial statements available on ACRA website as of 12 September 2024.
2. All selected insurers listed above have a financial year end of 31 December.
3. The type of insurer stated above is based on the license held by the company stated on the Monetary Authority of Singapore ("MAS") website.



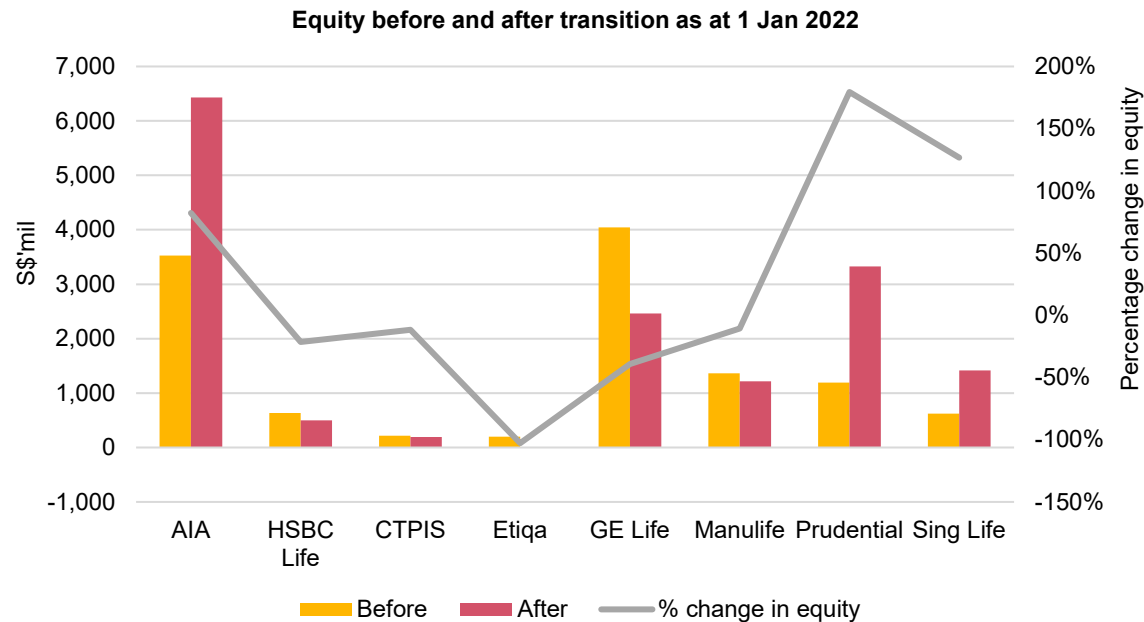
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Life and composite insurers disclosure analysis



What was the impact of adopting IFRS 17?

Transition results



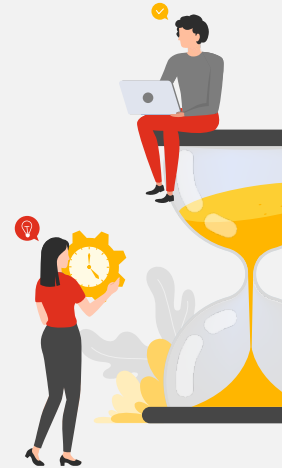
	AIA	HSBC Life	CTPIS	Etiqa	GE Life	Manulife	Prudential	Sing Life
Before	3,525	634	218	201	4,041	1,363	1,190	625
After	6,428	499	193	(6)	2,461	1,218	3,326	1,416
% change in equity	82%	-21%	-12%	-103%	-39%	-11%	179%	127%

Source: PwC analysis of financial statements published on ACRA website

Note:

Percentage change in equity above is calculated using the following formula: (Restated equity as at 1 Jan 2022 – Equity as previously reported as at 1 Jan 2022) / Equity as previously reported as at 1 Jan 2022.

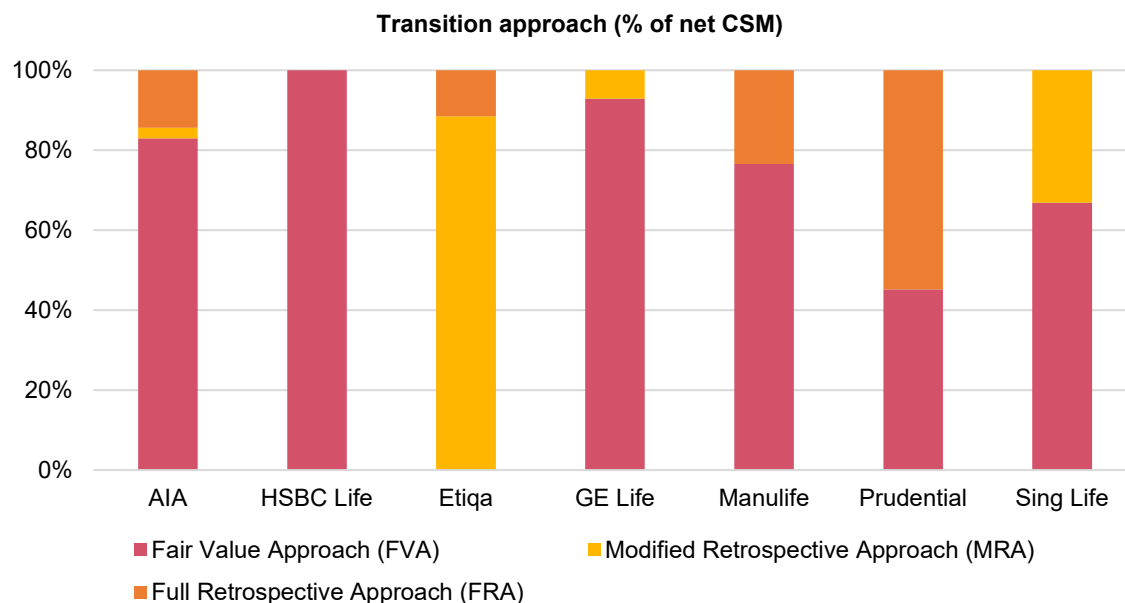
- Across the companies selected, the impact of transition to IFRS 17 on equity varies across the range of -103% to +179%.
- As the prudence margins locked under IFRS 4 reserves were released upon transition to IFRS 17 best estimate liabilities (BEL), the transition impact on shareholders' equity is driven by the size of risk adjustment (RA) and contractual service margin (CSM) recognised.
- The positive and negative impact to equity arising from transition to IFRS 17 is difficult to assess as it depends on various factors such as size and age of the business, type of contracts underwritten, organic versus acquired contracts, transition method adopted, and critical judgement (e.g. calibration of risk margin and fair value where applied).



What was the impact of adopting IFRS 17?

Application of transition approach

The selection of transition approaches and the application of judgement needed in applying the transition approaches, will affect the determination of the contractual service margin on the transition date. The transition CSM could have a long-term effect on the financial statements, particularly on the measurement of those insurance contracts and on insurance contract revenue and profit recognised in subsequent periods.



Source: PwC analysis of financial statements published on ACRA website

Note:

1. For CTPIS, the split between the transition approach effect adopted (FVA and MRA) on CSM was not disclosed quantitatively. Hence, we have not included it in the graph above.

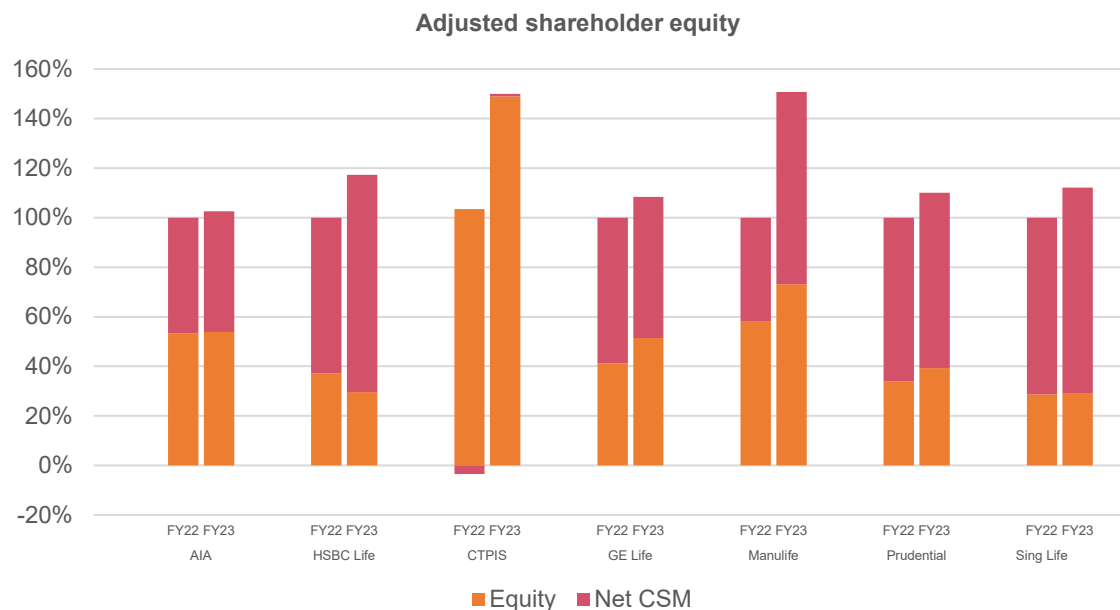


We observed a wide range in the transition approaches adopted across companies. This would likely lead to differences in the relative size of the transition CSM by insurer, however, insufficient information was disclosed by insurers to make a comparison of the CSM by transition approach relative to the size of the business, for example the BEL.



Adjusted shareholder equity

The adjusted shareholder equity is generally defined as the IFRS shareholder equity (SHE) plus the CSM (net of tax), albeit with varying adjustments and/or exclusions. This metric may provide more comparability across insurers, as it removes any differences in the equity position which may have arisen at transition to IFRS 17 from the specific transition approaches or calibrations selected.



	AIA		HSBC Life		CTPIS		GE Life		Manulife		Prudential		Sing Life	
	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23	FY22	FY23
Equity (\$\$'mil)	5,398	5,474	424	338	153	220	2,309	2,878	869	1,090	2,914	3,364	653	665
Net CSM	4,752	4,940	717	1,000	-5	2	3,289	3,190	623	1,158	5,665	6,076	1,625	1,889
Total adjusted equity	10,150	10,414	1,141	1,338	148	222	5,598	6,068	1,492	2,248	8,579	9,440	2,278	2,554

Source: PwC analysis of financial statements published on ACRA website

While there are little or no changes to key performance indicators (KPI) following the transition to IFRS 17 in the disclosures of the companies selected, several insurers have explicitly reported adjusted SHE in their disclosure.

Unlike other performance metrics (such as embedded value), the components of adjusted SHE are audited, which increased the attractiveness of adopting the adjusted SHE as a new KPI under IFRS 17.

Other IFRS 17 KPIs to measure performance that may be considered by insurers include:

- CSM (+ RA) stock value and growth in this amount over time
- "IFRS 17 new business (NB) value" = NB CSM + NB RA, net of acquisition expenses less loss component on onerous contracts
- "IFRS 17 value added" = Adjusted operating profit⁴ + Change in CSM

Also, there is greater scrutiny on the drivers of experience variance and change in the CSM estimates due to the increased granularity in the analysis of change.

The percentage for adjusted shareholder equity is calculated as follow:

- Equity = Equity as at 31 December 2023 / Total of equity and net CSM (Insurance Contract Liabilities minus Reinsurance Contract Asset) as at 31 December 2023.
- Net CSM = Net CSM as at 31 December 2023 / Total of equity and net CSM (ICL minus RCA) as at 31 December 2023.
- We have not excluded any information from the financial statements for all companies.

Note:

1. Total adjusted equity as at FY22 is set as 100% in the graph.
2. CTPIS: Negative net CSM seen above is due to the CSM amount arising from reinsurance contracts held being bigger than the CSM arising from the insurance contracts.
3. Etiqa has not been included in the chart above as the total adjusted equity increased by 1327%, which would distort the graph. The large increase was mainly due to total adjusted equity increasing from \$4.3 mil in FY22 to \$57.0 mil in FY23.
4. Adjusted Operating Profit (AOP) refers to the IFRS profit adjusted for areas such as timing of profit release, mismatches and volatility with the aim to reflect results of the business for the long run in the market.

Risk adjustment for non-financial risk

The Risk Adjustment for non-financial risk (RA) measures the compensation that an entity would require for bearing the uncertainty about the amount and timing of cash flows arising from insurance contracts for non-financial risk.

	Method	Confidence level	Confidence level calibration
AIA	Confidence level technique	75 th percentile	Not disclosed
HSBC Life	Confidence level technique	75 th percentile	One-year period
CTPIS	Confidence level technique	75 th percentile	Not disclosed
Etiqua	Confidence level technique	90 th percentile	Not disclosed
GE Life	Confidence level technique	85 th percentile	Not disclosed
Manulife	Margin Approach ²	Not disclosed	Not disclosed
Prudential	Confidence level technique	75 th percentile	One-year period
Sing Life ¹	Confidence level technique	Non-life and group business, accident and health: 75 th percentile Life: 80 th percentile	Not disclosed

Source: PwC analysis of financial statements published on ACRA website

Notes:

¹Sing Life has disclosed a separate confidence level for life and non-life contracts by contract level. They reflect the effects of diversification benefits between different lines of business, which are determined using a correlation matrix technique.

²Margin approach applies a margin of adverse deviation, typically in terms of a percentage of best estimates assumptions, where future cash flows are uncertain. The resulting cash flows are discounted at rates consistent with the best estimate cash flows to derive at the total risk adjustment. The ranges for these margins are set by Manulife and reviewed periodically.

- Apart from Manulife, the companies selected have adopted the confidence level technique in the determination of the RA and the reported corresponding confidence intervals range between 75th percentile to 85th percentile.
- The Standard requires insurers to disclose actual confidence level calibrated to reflect non-financial risk over the full contract duration. Other than HSBC Life and Prudential, it is unclear whether the companies selected have disclosed the one-year percentile or the ultimate percentile in their disclosures.
- In most cases, the disclosures did not specify whether the percentile stated is on a basis of net or gross of reinsurance as well as the diversification recognised.



Discount rates

The determination of the discount rates used to discount insurance contracts has a pervasive effect on the measurement of the contracts, the insurance finance income and expenses, and the amount of profit from insurance contract services recognised in each period. We observe a wide range of techniques used to determine the risk-free rates and the illiquidity premium (where relevant), along with significant variation in the level of disclosure between different companies.

	AIA ¹	HSBC Life ²	CTPIS ³	Etiqua ⁴	GE Life ⁵	Manulife ⁶	Prudential ⁷	Sing Life ⁷
Approach	Top down	Bottom up	Bottom up	Bottom up	Bottom up	Bottom up	Bottom up	Not disclosed
Risk-Free Rate (RFR)	2.64% - 3.53%	2.93%-3.85%	2.93% - 3.94%	Insurance contracts: 2.64% - 4.93%	2.63% - 4.44%	2.40% - 3.69%	2.67% - 4.37%	2.63% - 4.11%
Illiquidity Premium (IP)	0.74% - 1.43%			Reinsurance contracts: 2.81% - 4.06%				

Source: PwC analysis of financial statements published on ACRA website

Data presented above for the purpose of analysis are relating to the Singapore Dollar (SGD) as of 31 December 2023.

Notes:

1. RFRs are determined using market observable rates up to the last available market data point which is reliable and also relevant in reflecting the characteristics of the insurance contracts. The market observable rates are extrapolated between this point and an ultimate forward rate (UFR) derived using long-term estimates by applying generally accepted technique such as Smith-Wilson method etc.
2. RFRs are determined based on observable market data. When information is not available, management judgement is applied to determine the appropriate risk-free yield.
3. RFRs are determined using government bonds yields of appropriate currency and term structure as the risk-free yield curve, to which an adjustment to reflect the illiquidity of insurance contracts is added for life insurance.
4. RFRs are determined using observed yield curves of government securities. IPs are derived by leveraging the matching adjustment or IP calibrated in accordance to the risk-based capital framework 2 (RBC 2) technical specifications. Smith-Wilson method is considered for extrapolation between the last liquid point and the UFR for discount rates beyond the observable data. The UFR reflects long-term real interest rate and inflation expectations which will only be expected to be updated only upon significant changes in long-term expectations being observed.
5. RFRs are derived using risk-free yield curves and UFR, references are made in particular to the Monetary Authority of Singapore RBC 2 which is also aligned with the approach taken by the International Associations of Insurance Supervisors (IAIS) on the design of the global insurance capital standards (ICS). For IPs, illiquidity buckets (illiquidity application ratio) are assigned using an objective scoring system that is based on illiquidity characteristics of products on each portfolio. Market observable IP levels are derived every quarter-end based on a credit-risk adjusted market spread of reference assets for each currency.
6. For Non-Par business, RFRs are determined using risk-free yield curves which is interpolated between the spot rate at the last observable market data point and an ultimate spot rate which reflect the long-term interest rate plus inflation expectations, whilst for Par business, it is discounted at rate reflecting the variable return of the underlying items.
7. RFRs are determined using government bond yields. Yield curves are constructed by using a market-observed curve up to a last liquid point and then extrapolating to an UFR. IPs are calculated as the yield-to-maturity on a reference portfolio of assets with similar liquidity characteristics to the insurance contracts, less the risk-free curve, and an allowance for credit risk.



- Some companies disclose the term structure of risk-free rates and the illiquidity premium separately, whereas other companies generally provide a range.
- Apart from AIA, none of the companies selected have disclosed the risk-free rates and the illiquidity premium separately.
- None of the companies selected have disclosed the risk-free rates and the illiquidity premium by contract type.

Sensitivity analysis

Non-financial risks assumption stress

From our analysis, we observed a wide range of different approaches across the companies selected in terms of the actual stresses performed, their magnitude and their direction.

Assumption change	AIA	HSBC Life	CTPIS	Etiqa	GE Life	Manulife	Prudential	Sing Life
Attributable expenses	+/- 10%	+/- 10%	+/- 10%	+10%	+30%	+5% ¹	+/- 10%	+/- 10%
Mortality/morbidity/Longevity	+/- 10%	+/- 10%	+/- 10%	+10% (adverse)	+/-25%	+2% adverse/ +5% adverse	+/- 5%	+/- 5% ²
Lapse/discontinuance	+/- 10%	+/- 10%	+/- 10%	+10% (adverse)	+/-25%	+10%	+/- 10%	+/- 10%
Loss ratio	Not disclosed	+/- 10% (other than life Par)	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Health and disability	Not disclosed	Not disclosed	Not disclosed	Not disclosed	+/-25%	Not disclosed	Not disclosed	Not disclosed

Source: PwC analysis of financial statements published on ACRA website

- There was broad consistency in the type but some variety in the magnitude of each stress. As the impacts are not necessarily linear, it is difficult to make a direct comparison.
- IFRS 17 has resulted in insurers considering new sensitivities in their disclosures.

Notes:

¹Sensitivity analysis performed is on future expense levels.

²This includes ultimate claim cost assumption change.

Impact disclosed

We also observe significant variations in disclosures around how these stresses relate to best estimate cash flows, Contractual Service Margin (CSM), profit and equity on a gross and net of reinsurance basis.

Impact disclosed	AIA	HSBC Life	CTPIS	Etiqa	GE Life	Manulife	Prudential	Sing Life
Profit ¹	✓	✓	✓	✓	✓	✓	✓	✓
Total equity ²	✓	✓	✓	✓	✓	□	✓	✓
Other comprehensive income ³	□	□	□	□	□	✓	□	□
Contractual service margin (CSM) ⁴	□	✓	□	✓	□	✓	✓	✓

Source: PwC analysis of financial statements published on ACRA website

Legend: ✓ - Impact disclosed □ - Not disclosed

Notes:

¹Impact on profit disclosed across insurers includes profit before tax (gross/net of reinsurance) and profit after tax (gross/net of reinsurance).

²Impact on total equity disclosed across insurers includes total equity (before tax), equity after tax (gross/net of reinsurance).

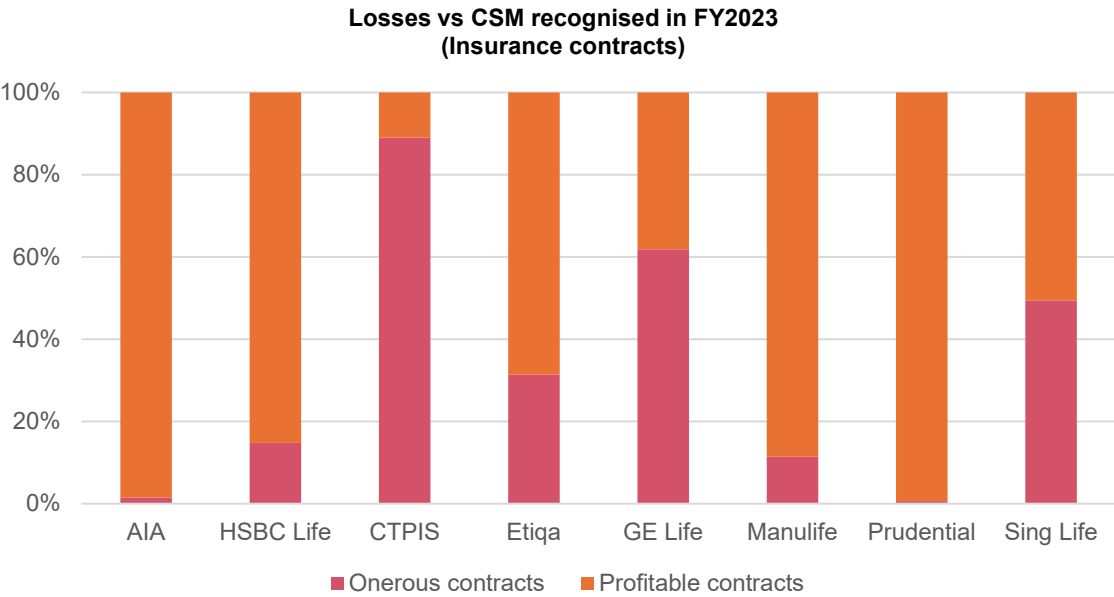
³Impact on other comprehensive income disclosed across insurers includes other comprehensive income (gross/net of reinsurance).

⁴Impact on contractual service margin (CSM) disclosed across insurers includes CSM (gross/net of reinsurance).

Extent of onerous contracts

The determination of the level of aggregation affects the extent to which losses are reported on onerous contracts. If a contract that becomes onerous is included in a group of profitable contracts, the loss would be offset against unearned profits on the other contracts, and as a result the loss will not immediately be recognised in the income statement.

The chart and table below shows the disclosed amounts for the loss component and CSM arising from new business over 2023. The figures below are shown for life business only and on a gross of reinsurance basis.



Source: PwC analysis of financial statements published on ACRA website

Losses and CSM recognised on contracts initially recognised in the year

S\$'mil	AIA	HSBC Life	CTPIS	Etiqua	GE Life	Manulife	Prudential	Sing Life
Onerous Contracts	7.75	29.80	6.92	2.12	225.70	34.93	3.71	374.73
Profitable Contracts	515.80	172.05	0.85	4.61	139.10	271.05	570.98	383.19



- New business value can now be separately analysed between profitable contracts (i.e. those with CSM) and onerous contracts (i.e. those with loss components) under IFRS 17.
- Across the companies selected, the loss component compared to CSM varies across the range of +0.65% to +814.12%.

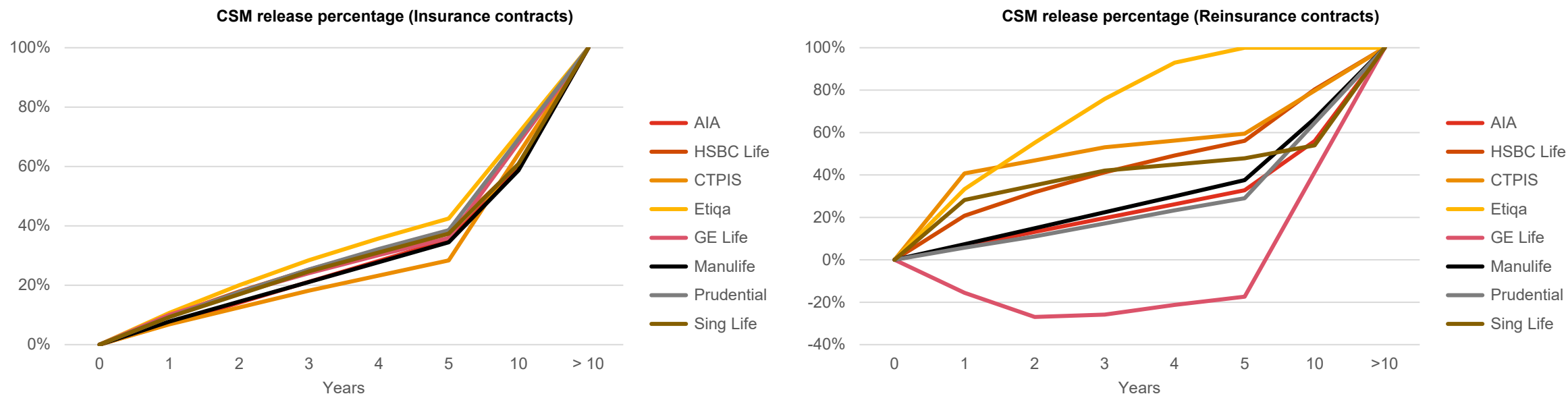


Release of contractual service margin

One of the main drivers of future income is from the amortisation of the CSM. The accounting choice over the coverage units used to amortise the CSM can alter the speed of the release of these future profits. The amortisation rate also depends on various factors other than the choice of coverage units, such as business profile, etc.

The charts below show the release of the Contractual Service Margin (CSM) over time for reinsurance contracts issued and for reinsurance contracts held as at 31 December 2023 for the companies selected.

We observe significant variation in the pattern of CSM release over time for reinsurance contracts held. We also observe a wide range of different approaches in relation to the choice of time periods disclosed for CSM emergence.



Source: PwC analysis of financial statements published on ACRA website

Note:

1. The charts above are created based on the expected recognition of the contractual service margin disclosed in the financial statements. The graphs above show CSM being released on a straight-line basis based on the available information provided in the statutory financial statement.

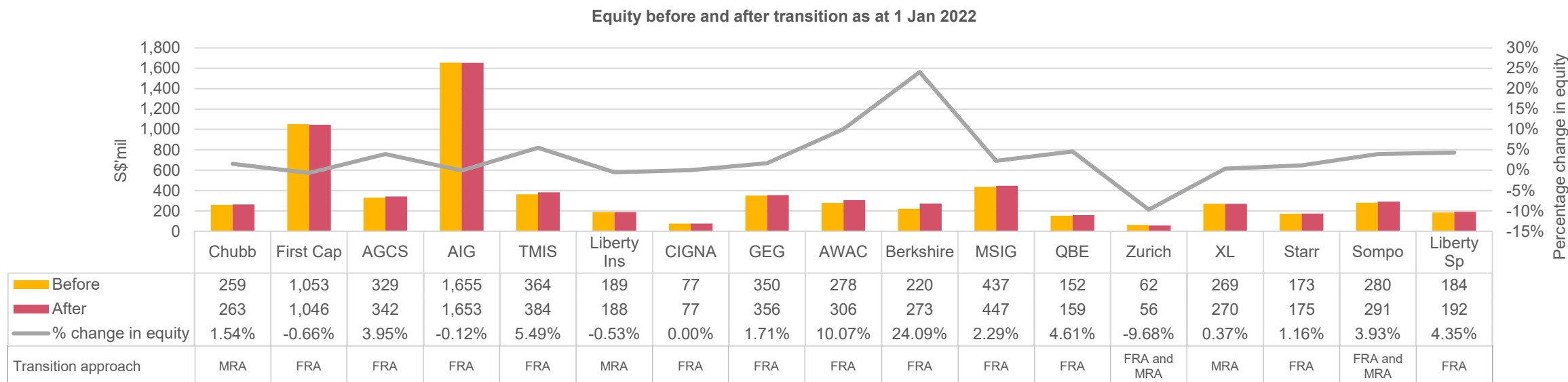
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General insurers disclosure analysis



What was the impact of adopting IFRS 17?

Transition results



Source: PwC analysis of financial statements published on ACRA website

Note:

1. All general insurers selected above adopts the Premium Allocation Approach (PAA) measurement model.

2. Percentage change in equity above is calculated using the following formula: (Restated equity as at 1 Jan 2022 – Equity as previously reported as at 1 Jan 2022)/ Equity as previously reported as at 1 Jan 2022

3. Disclosure on transition approach of general insurer who applied both FRA and MRA are extracted from the financial statements as follow:

Zurich - For accident years 2015 and prior the MRA is applied whereby the same yield curve of 2021 is used to derive the locked-in discount amounts. For all other accident years the FRA is applied where the respective discount rates of that year is used.

Sompo - It has assessed the practicability of applying the FRA to all insurance contracts that had unexpired risk prior to the transition date. Based on the assessment, FRA was applied for insurance contracts in the 2021 and 2020 cohorts. For cohort 2019 and prior, the application of FRA is impracticable, and it applied the MRA.



The majority of general insurers in Singapore have adopted the full retrospective approach when transitioning to IFRS 17. This trend is noticeable across the Singapore market, reflecting a preference for this method over the other alternative methods such as the modified retrospective approach or the fair value approach. The general insurance business generally consists of short term contracts, whereby the liability for remaining coverage as at transition date consists of the unearned exposures from contracts that were recently underwritten. Consequently, the liability for remaining coverage can be reliably calculated using recent data and insurers are not likely to face significant data extraction issues in its application of the full retrospective approach.

Across the companies selected, we observed a less significant transitional impact on equity on the general insurer's balance sheet, which varies across a narrow range of -10% to +24% with majority being an increase likely due to the impact from discounting. This is broadly consistent with the common expectation that the implementation of IFRS 17 is less significant for the general business where a large majority of non-life players will be expected to adopt the PAA model, which is largely similar to the requirements of IFRS 4.

Measurement models

General insurers									
	Chubb	First Cap	AGCS	AIG	TMIS	Liberty Ins	Starr	GEG	XL
Line of business	Financial lines, general liabilities, accident and health, fire and others	Marine cargo, marine hull and aviation, property, motor, engineering, employer's liability, miscellaneous others	Marine, property, engineering, liability and others	Commercial lines: Aviation, financial lines, marine, energy, credit lines, commercial property, small medium enterprises, employee liability, general liability, excess casualty Consumer lines: Accident and health, auto, individual travel, personal property, personal service, warranty	Motor, work injury compensation policies, others	Motor, accident and health, property and casualty	Accident and health, liability, property, engineering, marine, other	Fire, motor, marine and aviation, workmen's compensation, personal accident and health, surety, engineering, miscellaneous	Property, casualty, marine, specialty
Measurement model	PAA	PAA	PAA	PAA	PAA	PAA	PAA	PAA	PAA
	AWAC	Berkshire	MSIG	QBE	Zurich	CIGNA	Sompo	Liberty Sp	
Line of business	Casualty, professional liability, property, assumed reinsurance	Marine cargo, marine hull, property, engineering, motor, work injury compensation, personal accident, casualty and others	Personal motor, personal property, personal other, commercial motor, commercial property, commercial employer's liability, commercial public liability, marine cargo and hull, health care, commercial other	Fire, general accident, householders, marine, engineering, accident and health, public liability, professional indemnity, motor, workers' compensation, trade credit and surety, energy and political violence	Accident and health, marine, credit and political risk, financial lines, work compensation, motor, miscellaneous, property, global energy onshore and offshore, engineering, liability (excluding global energy), global energy casualty, MGA fusion	Health	Motor, other specialty, property, health (group and individual), professional lines, marine, casualty, credit and surety, others	Casualty, first party, fronting, global products, specialty casualty, whole of account, other	
Measurement model	PAA	PAA	PAA	PAA	PAA	PAA	PAA	PAA	

Source: PwC analysis of financial statements published on ACRA website



All companies within our sample group adopt the PAA. Due to the short term nature of general insurance contracts (i.e. having a coverage period of one year or less), most group of contracts automatically qualify for the adoption of PAA. For those group of contracts which did not automatically qualify due to a coverage period of more than one year, we observed that all companies within our sample group strives to adopt the PAA by performing the PAA eligibility test in accordance with paragraph 53(a) to demonstrate eligibility.

Risk adjustment for non-financial risk

General insurers								
	Chubb	First Cap	AGCS	AIG	TMIS	Liberty Ins	Starr	GEG
Method	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach
Confidence interval	75%	75%	75%	75%	90%	75%	75%	75%
	AWAC	Berkshire	MSIG	QBE	Zurich	XL	Sompo	Liberty Sp
Method	Confidence level approach	Confidence level approach	Confidence level approach	Cost of capital approach	Confidence level approach	Confidence level approach	Confidence level approach	Confidence level approach
Confidence interval	75%	LIC: 75% LRC: 65%	75%	76.6%	75%	75%	75%	75%

Source: PwC analysis of financial statements published on ACRA website

Note:

CIGNA is excluded from the chart above as there is no disclosure of risk adjustment for non-financial risk in CIGNA's financial statement.



While different approaches can be taken to calculate the risk adjustment under IFRS 17, we have observed that the general insurers in Singapore favours the confidence level approach. Almost all companies within our sample group adopts this approach, with a majority of players calibrated its probability of sufficiency at 75% or close to 75%. It is possible that such convergence within the industry stems from the fact that insurers in Singapore have been managing the insurance reserves at such level due to the local regulatory requirement, which mandates that the insurance reserves to be held at a minimum of a 75th percentile level. As such, insurers have been viewing and managing its risk at such level.

Discount rate

	General insurers								
	Chubb ³	First Cap ⁴	AGCS ⁵	AIG ⁶	TMIS ⁷	Liberty Ins ⁸	AWAC ⁹	GEG ¹⁰	XL ¹¹
Approach	Not disclosed	Bottom up	Bottom up	Bottom up	Not disclosed	Bottom up	Bottom up	Bottom up	Bottom up
Base Risk-Free Rate (RFR) ¹	2.68% to 3.77%	2.68% to 3.75%	3.20% to 3.80%	2.80% to 3.43%	2.47% to 4.24%	2.68% to 3.65%	4.04% to 4.56%	2.46% to 3.56%	2.563% to 3.215%
Illiquidity Premium (IP) ²	0%	0%			0%				

Source: PwC analysis of financial statements published on ACRA website

Data presented above for the purpose of analysis are relating to the Singapore Dollar (SGD) as of 31 December 2023.

Note:

¹ All insurers above disclosed RFR for SGD, except for Liberty Ins and AWAC which did not specify the corresponding currency of the discount rate.

² General insurers with 0% IP have either set the IP as zero or elect not to hold an IP.

³ RFRs are determined by reference to the yields of government bonds. The illiquidity premium adjustment is set as zero.

⁴ Discount rate is derived using government bond curves which match the cashflows in terms of both duration and timing. First Cap has elected to not hold an illiquidity premium.

⁵ RFRs are derived from swap rates or government yields for the specific currency and adjusted for remaining credit risk. These risk-free liquid yield curves are then adjusted to reflect illiquidity of the underlying insurance liabilities based on reference portfolios.

⁶ RFRs are derived based on government bond yield curve. For unobservable periods, the yield curves are interpolated using the cubic spline interpolation method.

⁷ RFRs are determined by reference to the yields of highly liquid government securities.

⁸ RFRs are determined by reference to the yields of highly liquid AAA-rated sovereign securities in the currency of the insurance contract liabilities.

⁹ RFRs are determined using commercially available currency-specific rates and illiquidity premium.

¹⁰ RFRs are determined by reference to the observable market yields of government securities in the currency of the insurance contract liabilities.

¹¹ Discount rate is determined by using a Basic Risk-Free Rate (RFR), which based on swaps for most currencies and government bonds for others, adjusted by adding on a liquidity premium (LP) allowance to reflect the remuneration of illiquidity observed on traded assets until the Last Liquid Point (LLP), meaning the longest maturity for which there are enough traded bonds. An Ultimate Forward Rate (UFR) macro-economically defined as the sum of the average of past real interest rates and central bank's target inflation is also considered. Discount rates between the LLP and the UFR maturities are obtained extrapolation.

Discount rate

	General insurers							
	Starr ³	Berkshire ⁴	MSIG ⁵	QBE ⁶	Zurich ⁷	CIGNA	Sompo ⁸	Liberty Sp ⁹
Approach	Bottom up	Bottom up	Bottom up	Bottom up	Bottom up	Not disclosed	Bottom up	Bottom up
Base Risk-Free Rate (RFR) ¹	SGD discount rate not disclosed	3.65% to 4.80% Single equivalent Discount rate LIC: 7.11% Single equivalent Discount rate LRC: 12.2%	2.68% to 3.75%	3.0% to 4.2%	2.7% to 3.7%		Not disclosed	3.98% to 4.81% ⁸
Illiquidity Premium (IP) ²			0%		Not disclosed			

Source: PwC analysis of financial statements published on ACRA website

Data presented above for the purpose of analysis are relating to the Singapore Dollar (SGD) as of 31 December 2023.

Note:

¹ All insurers above disclosed RFR for SGD, except Liberty Sp which did not specify the corresponding currency of the discount rate.

² General insurers with 0% IP have either set the IP as zero or elect not to hold an IP.

³ RFRs are determined using the observed mid-price swap yield curves for AA-rated banks (adjusted for the bank's credit risk). The yield curve is interpolated between the last available market data point and an ultimate forward rate, which reflects long-term real interest rate and inflation expectations. For markets in which there is no reliable swap yield curve, government bond yields are used.

⁴ RFRs are determined based on the country-specific government yield curves.

⁵ RFRs are determined using government bond risk free yield curve. MSIG has elected to not hold an illiquidity premium.

⁶ IP within discount rates is derived based on the long-term weighted average credit spread of a reference portfolio of assets with a similar currency mix and weighted average duration as the related insurance liabilities over the longer term. The effect of credit risk and other factors that are not relevant to the illiquidity characteristics of insurance contracts is eliminated to estimate the portion of the spread that reflects the IP.

⁷ RFRs are determined by reference to the market interest spot rates in SGD.

⁸ RFRs are obtained from European Insurance and Occupational Pensions Authority (EIOPA), whereas liquidity premiums are obtained from the Bermuda Monetary Authority (BMA).

⁹ RFRs are determined by reference to the yields of highly liquid AAA-rated sovereign securities in the currency of the insurance contract liabilities.



When determining the discount rate, IFRS 17 permits a choice between bottom-up and top-down approach. We have observed that most companies within our selected group adopts the bottom-up approach. It is possible that the bottom-up approach is a more favourable approach among general insurers compared to its alternative, the top-down approach, due to its relative simplicity of application in the context of the general insurance business (short run-off duration of insurance reserves). Information relating to illiquidity premium (a component of the bottom-up approach) is sparse, however, its contribution to the overall IFRS 17 discount rate is expected to be minimal due to the relatively high degree of liquidity within the future cash flows of the general insurance business and the short run-off duration of insurance reserves.

Sensitivity analysis – Non-financial risks

Assumption change	Chubb	First Cap	AGCS	AIG	TMIS	Liberty Ins	CIGNA	GEG	AWAC
Claims run-off stresses ¹	+/-0.5%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Speed up/slow down by 1 quarter
Frequency/Severity stresses ²	+/-10%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Loss ratio ³	+/-10%	+/-15%	Not disclosed	+/-5%	+/-5%	Not disclosed	+/-5%	+/-20%	+/-10%
Discount rate	+/-1%	Not disclosed	+/-0.5%	+/-1%	Not disclosed	+/-5%	Not disclosed	+/-1%	Not disclosed
FX rates	Not disclosed	Not disclosed	+/-10%	+/-1%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed
Risk adjustment	+/-20%	Not disclosed	Not disclosed	Not disclosed	+/-5%	+/-5%	Not disclosed	+/-20%	+/-5%
Claims-related stresses ⁴	Not disclosed	Not disclosed	+/-10%	Not disclosed	Not disclosed	+/-5%	Not disclosed	Not disclosed	Not disclosed
Expense-related stresses ⁵	+/-1%	Not disclosed	Not disclosed	+/-5%	+/-5%	Not disclosed	+/-2.5%	Not disclosed	Not disclosed
	Berkshire	MSIG	QBE	Zurich	XL	Starr	Sompo	Liberty Sp	
Claims run-off stresses ¹	Not disclosed	Not disclosed	+/-10%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	+/-5%	
Frequency/Severity stresses ²	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	+/-5%	Not disclosed	Not disclosed	
Loss ratio ³	3%	+/-15%	+/-5%	+/-10%	+/-5%	Not disclosed	+/-5%	Not disclosed	
Discount rate	0.30%	+/-1%	+/-1%	+/-1%	Not disclosed	+/-0.5%	+/-0.5%	+/-20%	
FX rates	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	+/-5%	Not disclosed	
Risk adjustment	Not disclosed	Not disclosed	+/-5%	Not disclosed	+/-5%	Not disclosed	+/-5%	+/-5%	
Expense-related stresses ⁵	Not disclosed	Not disclosed	Not disclosed	Not disclosed	+/-2%	Not disclosed	+/-5%	+/-5%	
Inflation rate	Not disclosed	Not disclosed	+/-1%	Not disclosed	Not disclosed	Not disclosed	Not disclosed	Not disclosed	

Source: PwC analysis of financial statements published on ACRA website

The assumption change presented by general insurers in the sensitivity analysis disclosure are classified into several groups as follows:

¹ Claims run-off stresses includes discounted average weighted term to settlement, weighted average term to settlement and first incurred development factor.

² Frequency/Severity stresses includes ultimate claims number and average claim size.

³ Loss ratio includes initial expected loss ratio on current accident year, initial expected loss ratio (IELR) for accident/underwriting year 2023, selected ultimate loss ratio (ULR) for accident/underwriting year 2023, initial expected loss ratio/ first incurred development factor, projected ultimate loss ratio, unpaid claims and expenses, ultimate loss ratio, assumed ultimate loss ratio, assumed expected loss ratio and liability for incurred claims.

⁴ Claims-related stresses includes expected loss.

⁵ Expense-related stresses includes unallocated claim expense rate, claim handling expense, management expense ratio and expense rate.



We have observed broad consistency in the stresses applied as insurers continue to stress the typical parameters under IFRS 4 such as loss ratio, expense-related and claims run-off stresses. As all companies within our sample group adopts the PAA, there were no significant differences between how reserves were derived after transitioning to IFRS 17. However, IFRS 17 has resulted in general insurers considering new sensitivities in their disclosures such as discount rate and inflation rate, which were previously less of a focus for general insurers.

Sensitivity analysis – Impact disclosed

Impact disclosed	Chubb	First Cap	AGCS	AIG	TMIS	Liberty Ins	CIGNA	GEG	AWAC
Profit ¹	✓	□	✓	✓	✓	✓	✓	✓	✓
Equity ²	✓	□	✓	✓	□	✓	✓	✓	✓
Liability for remaining coverage (LRC)	□	✓	□	□	✓	□	□	✓	□
Liability for incurred claims (LIC)	□	✓	✓	✓	□	□	□	□	□
Change in liabilities ³	✓	□	□	□	✓	□	□	□	□
	Berkshire	MSIG	QBE	Zurich	XL	Starr	Sompo	Liberty Sp	
Profit ¹	✓	□	✓	✓	✓	✓	✓	✓	
Equity ²	✓	□	✓	✓	✓	✓	✓	✓	
Liability for remaining coverage (LRC)	□	✓	□	□	□	□	□	□	
Liability for incurred claims (LIC)	✓	✓	□	□	□	□	□	□	
Change in liabilities ³	□	□	□	□	□	□	□	□	

Source: PwC analysis of financial statements published on ACRA website

Legend: ✓ - Impact disclosed □ - Not disclosed

Notes:

¹Impact on profit disclosed across insurers includes profit or loss (gross/net of reinsurance), profit before tax (gross/net of reinsurance) and profit after tax (gross/net of reinsurance).

²Impact on equity disclosed across insurers includes equity (gross/net of reinsurance) and head office account (gross/net of reinsurance) for branches.

³Impact on change in liabilities disclosed across insurers includes change in liabilities (gross/net of reinsurance).



We also observed significant variations in disclosures around how these stresses relate to changes in liabilities (including LIC and LRC), profit and equity on a gross and net of reinsurance basis.

3

Overall analysis



Other matters

Extent of disclosure

Our analysis shows divergent practices in terms of the disclosure included in their annual financial statements, and the level of details and granularity included within these disclosures. Notably, most insurers have opted to disclose the minimum information required by the IFRS 17 disclosures. This is within expectations, as the priority is to get over the line.

As insurers work towards aligning more closely with its peers over time and to evolve with the needs of users of the financial statements, it is likely that some convergence to the comparability and transparency of entities' performance reporting will occur over time.



Key Performance Indicators (KPI) disclosures

There is limited information on KPIs or changes to KPIs following the transition to IFRS 17 in the disclosures of the companies selected. For example, internationally, there's a shift from GWP-based metrics to insurance revenue metrics under IFRS 17, however this isn't clear in the Singapore disclosures compared for this publication. In this regard, combined operating ratio (COR) is not a required IFRS 17 disclosure, however almost all general insurers in the UK market has disclosed this ratio, whereas all the selected Singapore general insurers who uses this as a key metric, have not.

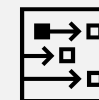
Insurers with long-term contracts can identify KPIs such as adjusted shareholders equity or IFRS 17 value added that is more aligned to embedded value and value of new business.



Measurement model

All general insurance companies selected have used PAA for the groups of contracts held. Under the PAA, IFRS 17 requires insurers to adjust the liability for remaining coverage to reflect the time value of money and the effect of financial risk if a significant financing component is determined to exist.

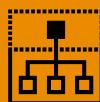
However, majority of the general insurers selected have not reflected the time value of money and the effect of financial risk, implying that no significant financing component exists within remaining coverage for most of the insurers selected.



Disclosure on choice of coverage units

The determination of the services provided, and their pattern of delivery, affects the profit recognised by the insurer in each period. These determinations are particularly judgemental for long duration contracts or contracts that provide multiple services (for example, insurance coverage and investment-related service, or more than one insurance service).

However, most companies did not explicitly include a narrative around the measure of coverage units used for each contract type, let alone, the specific aspects of the weighting approach for contracts that provide multiple services.



Transition disclosure

Where companies have adopted the fair value approach for determining the CSM at transition, a fair value of the (re)insurance contracts needs to be determined in line with the IFRS 13 requirements (excluding the deposit floor). Given quoted market prices are not readily available, there are several judgements that companies need to make to arrive at an estimate.

There was limited disclosure on the assumptions and sensitivities adopted to derive the fair value approach (FVA) CSM. In addition, there is just not enough information to assess the strength of calibration.

Having said that, the CSM recognised on transition will flow through profit or loss over time as the experience develops.



Transformation of systems

Life and composite insurers have invested significantly in new systems for financial reporting under IFRS 17. The next step is to consider strategic transformation in processes and technology to utilise IFRS 17 results for budgeting and projections, once appropriate KPIs have been determined.

General insurers, on the other hand, should consider shifting away from short term "tactical solutions", to longer-term investments in systems, and reducing reliance on external consultants for cost efficiencies.

This will be crucial to achieving a sustainable balance between cost efficiency and effective financial reporting.



Closing thoughts on IFRS 17 disclosure

Under IFRS 17 significantly more disclosures are required compared to current IFRS 4 ...

Amounts



- Open to closing reconciliations with prescribed components:
 - Liability for remaining coverage, loss component and incurred claims.
 - Fulfilment cash flows, risk adjustment and CSM.
 - Revenue.(Split: ins/reins and asset/liability).
- New business impact on future cash in/out flows, risk adjustment and CSM.
- (Split: transfers/bus coms and onerous).
- Quantitative (time bands) or qualitative on expected release of CSM to profit and loss.
- Certain direct participating contract requirements (e.g. fair value, risk mitigation, other comprehensive income (OCI) method).

Judgements



- Measurement methods.
- Processes for estimating the inputs.
- Changes in methods and processes.
- Methods used to calculate finance income/expense if OCI option is used.
- Confidence level for risk adjustment measurement.
- Yield curves (discount rates).

Risks

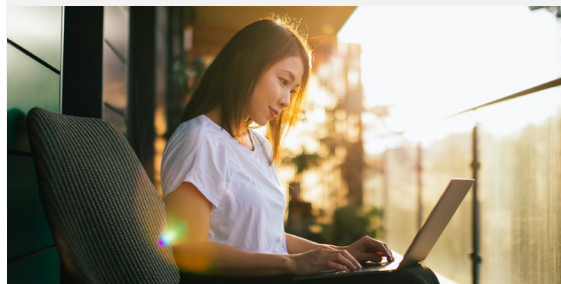


- Nature and extent of risks.
- Exposure.
- Procedures used to manage risks.
- Concentration of risks.
- Insurance and market risk: Sensitivity analysis and insurance claims development.
- Credit risk: Exposure and reinsurance quality.
- Liquidity risk: Maturity analysis by estimated timing of cash flows.

Transition



- Where modified retrospective and fair value approaches adopted:
 - CSM and revenue reconciliation (under 'amounts') separately for each.
 - How the transition CSM was determined for each.
 - Open to closing reconciliation (where applicable) of the cumulative OCI for financial assets measured at FVOCI relating to the groups of insurance contracts.



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