

# IFRS 17 vs. US GAAP LDTI: Different animals?

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## Introduction

January 1, 2022, is the anticipated start of the new era for general purpose accounting of long-duration life insurance business. The first ever full-fledged International Financial Reporting Standard (IFRS) for insurance contracts, IFRS 17, will take effect on that date. At the same time, US GAAP long-duration contract targeted improvements (LDTI) will become effective. Investors and stakeholders had once hoped IFRS and US GAAP would converge for life insurance business into a common framework. Instead, the framers of these important accounting rules have chosen separate paths.

Both frameworks require a current estimate of insurance liabilities instead of following a traditional net level premium reserve approach using assumptions locked in at policy issue. However, the source of period-by-period profit, and the resulting profit signatures due to experience or assumption changes, could differ significantly between the two. This briefing note illustrates these potential differences using a traditional level premium endowment contract.

## Source of period-by-period profit

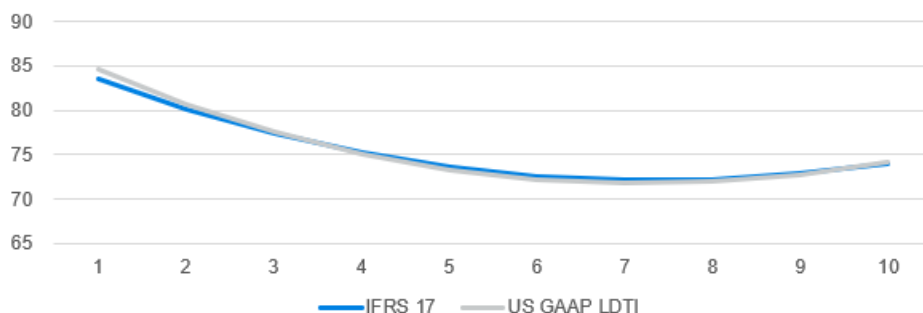
Both IFRS 17 and US GAAP LDTI require the use of a current estimate of insurance liabilities on the balance sheet, but they are based on somewhat different concepts. IFRS 17 uses a gross premium valuation (GPV) approach and has an explicit provision for risk. US GAAP LDTI continues to apply a net premium valuation (NPV) approach using best estimate assumptions, and only deferrable acquisition expenses are capitalized and amortized in order to attribute the expense burden to the entire insurance period. IFRS 17 includes the impact of all direct and directly attributable expenses in the measurement of the liability in the calculation, whereas US GAAP LDTI excludes all expenses other than claim settlement expenses from the calculation.

When actual experience is equal to best estimate assumptions, IFRS 17 profit is the sum of:

- Release of risk adjustment (RA)
- Release of contractual service margin (CSM)
- Investment gain (= Investment earnings less unwind of interest discount on reserves)

FIGURE 1: PROFIT EMERGENCE WHEN ACTUAL EQUALS EXPECTED (BEST ESTIMATE)

Year	1	2	3	4	5	6	7	8	9	10	Total
IFRS 17	84	80	77	75	74	73	72	72	73	74	754
RA release	5	5	4	4	4	3	3	3	3	3	38
CSM release	74	67	61	56	52	49	46	45	43	42	535
Investment Gain	4	9	12	15	18	20	22	25	27	29	181
US GAAP LDTI	85	81	78	75	73	72	72	72	73	74	754
GP - NP income	371	334	304	280	260	244	232	222	216	211	2,674
DAC amortization	-139	-125	-114	-105	-97	-91	-87	-83	-81	-79	-1000
Maint expense	-153	-138	-125	-115	-107	-101	-95	-92	-89	-87	-1101
Investment Gain	5	9	12	15	18	20	22	24	27	29	180



On the other hand, US GAAP LDTI profit consists of:

- Income from gross premium (GP) over net premium (NP)
- Less amortization of deferred acquisition cost (DAC)
- Less maintenance expenses incurred for the period
- Plus Investment gain

While the profit components are very different, if actual experience is equal to best estimate assumptions, then both accounting frameworks report similar year-to-year profits in our example<sup>1</sup>, as shown in Figure 1. This contrasts with the traditional statutory accounting profit pattern, where a large loss is typical in the first year due to up-front acquisition costs.

## Experience adjustment

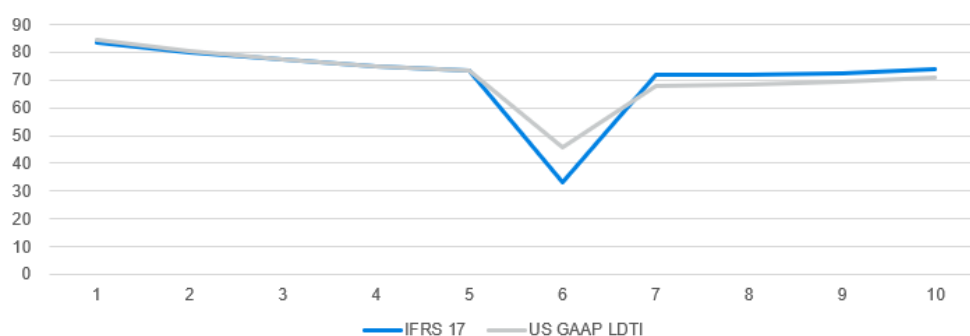
When current year insurance experience differs from expected, IFRS 17 recognizes the impact attributable to the particular reporting period in that period. The impact of current period experience on projected future cash flows is offset by an adjustment to the CSM (completely if CSM is sufficient).

On the other hand, on each valuation date, US GAAP LDTI recalculates the net premium ratio (NPR) at the contract issue date by considering actual past and expected future cash flows. The recalculation of the NPR spreads the impact of current period experience over the current and remaining future periods. The current period impact is the cumulative effect of the difference in NPR from the issue date through the valuation date.

Figure 2 shows the impact when actual mortality rates in the 6th year are significantly higher for our sample endowment contract. IFRS 17 shows lower profit than US GAAP due to the characteristics described above.

FIGURE 2: PROFIT EMERGENCE WHEN CURRENT YEAR ACTUAL MORTALITY RATES ARE HIGHER (EXPERIENCE ADJUSTMENT)

Year	1	2	3	4	5	6	7	8	9	10	Total
IFRS 17	84	80	77	75	74	33	72	72	73	74	714
RA release	5	5	4	4	4	3	3	3	3	3	38
CSM release	74	67	61	56	52	49	46	44	43	42	534
Investment Gain	4	9	12	15	18	20	22	24	27	29	181
Experience Adj	-	-	-	-	-	(39)	-	-	-	-	-39
US GAAP LDTI	85	81	78	75	73	46	68	68	69	71	714
GP - NP income	371	334	304	280	260	241	228	219	212	207	2,656
DAC amortization	-139	-125	-114	-105	-97	-91	-87	-83	-80	-79	-999
Maint expense	-153	-138	-125	-115	-107	-101	-95	-91	-88	-87	-1100
Investment Gain	5	9	12	15	18	20	22	24	26	29	180
Experience Adj	-	-	-	-	-	(23)	-	-	-	-	-23



It should be noted that this does not hold for experience adjustment of expenses. As US GAAP LDTI does not consider maintenance expenses in the reserve, it does not spread out the impact of actual emerging expense.

<sup>1</sup> In our example above initial deferred acquisition cost for US GAAP LDTI are the same as those considered for IFRS 17. US GAAP has a more restrictive definition of what is deferrable than IFRS 17. To the extent a part of the acquisition cost is not deferrable, US GAAP LDTI would incur more losses in

the first year and higher income (due to less DAC amortization) in subsequent years.

## Noneconomic assumption change

When future noneconomic assumptions are changed, the story is the opposite. Generally IFRS 17 shows a more stable profit pattern as the CSM is unlocked to absorb the impact, as long as there is CSM still available.

As with the experience adjustment, US GAAP LDTI spreads out the impact over the entire insurance period. However, the impact of the NPR change related to past reporting periods is recognized in the current reporting period.

Figure 3 shows the impact when future lapse rates are made significantly higher at the end of the 6<sup>th</sup> year in our example. US GAAP LDTI displays lower profit due to the approach described above.

## Economic assumption change

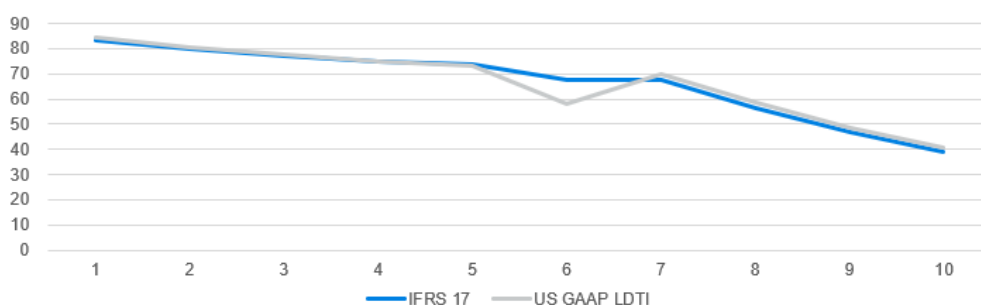
For traditional business, US GAAP LDTI requires the impact of a discount rate change to be reported in other comprehensive income (OCI).

IFRS 17 also allows for an OCI reporting mechanism, but it is optional and not required. Companies that pursue strict asset-liability management (ALM), utilizing derivatives (e.g., to hedge interest rate risk), may choose not to use the OCI option when measuring liabilities under the general model. As derivatives must be measured at market value, companies will want economic changes to flow through profit so that both asset and liability impacts are recognized.

When the OCI option is used, the amount of OCI would be slightly different, as the US GAAP LDTI reserve does not credit interest on DAC and no reserve is held for maintenance expenses. The discount rate itself can be different between the two paradigms as they have different requirements. US GAAP LDTI requires a discount rate consistent with upper medium-quality fixed investment yields whereas IFRS 17 requires a discount rate that reflects the characteristics of the liability being measured (where no own credit risk is considered).

FIGURE 3: PROFIT EMERGENCE WHEN FUTURE LAPSE RATES BECOME HIGHER (NONECONOMIC ASSUMPTION CHANGE)

Year	1	2	3	4	5	6	7	8	9	10	Total
IFRS 17	84	80	77	75	74	68	67	56	47	39	668
RA release	5	5	4	4	4	3	3	3	2	2	35
CSM release	74	67	61	56	52	44	42	33	27	21	477
Investment Gain	4	9	12	15	18	20	22	20	18	16	156
Assumption Change	-	-	-	-	-	-	-	-	-	-	-
US GAAP LDTI	85	81	78	75	73	58	70	59	49	41	668
GP - NP income	371	334	304	280	260	250	237	189	151	121	2,498
DAC amortization	-139	-125	-114	-105	-97	-91	-94	-75	-60	-48	-947
Maint expense	-153	-138	-125	-115	-107	-101	-95	-76	-61	-49	-1020
Investment Gain	5	9	12	15	18	20	22	20	18	16	155
Assumption Change	-	-	-	-	-	(19)	-	-	-	-	-19



## Conclusion

Potentially large profit signature differences between IFRS 17 and US GAAP LDTI could have significant ramifications for investors who want to compare companies. The advent of IFRS 17 will improve consistency among companies reporting under IFRS, but the world has not become as simple as many had hoped.

In addition, insurance reserves under either of the two accounting standards do not necessarily tie to the economic reserves (market-consistent value of liabilities) that may be used to manage regulatory or internal risk and capital. For example, should insurers hold assets backing CSM to account for its interest accreditation? Or what if the right ALM strategy could lead to accounting mismatch (i.e., only hedge asset transactions are recognized in profit while corresponding liability changes are not recognized due, for example, to the use of the OCI option)? How should we digest differences due to different transition approaches (e.g., under IFRS 17, negative spread products could have both CSM and accumulated liability OCI, but they can be offset if the Fair Value approach is used).

As with the emergence of supplementary reporting such as embedded value (EV), companies will still need to explain financial performance using measures other than standard accounting measures in order to fill the gap from how insurers actually manage day-to-day business and how they report it.

## How Milliman can help

Milliman has a depth of experience and expertise in insurance liability valuation, including support to mergers and acquisitions (M&A), initial public offerings (IPOs), independent third-party EV reviews, implementation of US GAAP and IFRS accounting as well as Solvency II and Insurance Capital Standard (ICS).

With regard to IFRS 17 and US GAAP LDTI, Milliman provides a wide variety of practical actuarial solutions by leveraging deep insight obtained by having closely followed its development and client support over the past several years.

- Lease of a cloud-based tool to summarize a number of cash flow projection results for multiple purposes such as ICS, economic capital, EV, and IFRS and US GAAP, as well as to produce nicely formatted management dashboards.
- Advice, reviews, and opinions on assumption and methodology development for IFRS 17, US GAAP LDTI, and other economic (risk) valuation.
- Impact assessment on different accounting approaches, and between different regimes such as IFRS 17 versus market-consistent EV (MCEV).
- Lease of actuarial software and cloud-based solutions for insurance liability valuation, including fully end-to-end automated solutions.
- Lease of automatic model point reduction tools and economic scenario generators for stochastic valuation.
- Insurance liability valuation outsourcing including IFRS 17 and US GAAP LDTI.

If you have any questions or comments on this paper or any other aspect of insurance liability valuation, including IFRS 17 and US GAAP LDTI, please contact your usual Milliman consultant.

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