US GAAP Targeted Improvements & Disability Income Insurance

November 2019

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The changes to the measurement and reporting of long-duration insurance contracts will have a profound impact on the emergence and volatility of earnings under US GAAP.

Background

The Financial Accounting Standards Board (FASB) released Accounting Standards Update 2018-12, Targeted Improvements for Long-Duration Contracts (ASU 2018-12, or LDTI) in August 2018. It represents a fundamental change in the measurement and reporting of long-duration insurance contracts that will alter the incidence and volatility of reported income and equity.

Drawing on a recently completed research study, this paper illustrates the potential impacts of ASU 2018-12 relative to current US GAAP accounting (current accounting) with respect to products with long claim periods such as individual disability income (IDI) insurance and highlights some practical implementation challenges. We followed the income emergence over a five-year period under both accounting standards using the carryover basis approach from an assumed transition date. We replicated a valuation process a company might follow, including the random termination of individual policies, issuance of new policies, cash flow assumption updates, and movements in market yield rates.

We illustrate results on a base case scenario (i.e., the random termination of individual policies approximates expected, no update to future cash flow assumptions), and an alternative scenario (i.e., a large experience deviation from expected in year 3 followed by an update in a future cash flow assumption in year 5) to measure the impact under each accounting standard.

SUMMARY OF TARGETED IMPROVEMENTS FOR IDI CONTRACTS

Under ASU 2018-12 a policy reserve will be established for benefit payments only using a net premium method. No maintenance expense cash flows will be included. Maintenance expenses will now be recognized when incurred. The reserve will be determined using best estimate assumptions with no provisions for adverse deviation (PADs). The discount rate will be the yield on an upper-medium grade (low credit risk) fixed-income instrument. Net premiums are capped at 100% of the gross premium at the cohort level using best estimate assumptions. Contracts issued more than a year apart may not be included in the same cohort, effectively leading to reserves being calculated separately by issue year. A deferred profit liability (DPL) will be established for policies whose premium payment period is shorter than the coverage period. The DPL will not be impacted by the capitalization of deferred commissions and acquisition expenses and will represent the full difference between the gross premium and the benefit reserve established at contract inception. There will be no premium deficiency or loss recognition testing required under ASU 2018-12 for these types of contracts. ASU 2018-12 requires that reserves be calculated on a grouped basis. Deferrable commission and acquisition expenses will continue to be deferred. However, under ASU 2018-12 no amounts can be amortized until they have been incurred and capitalized. In addition, the basis of the amortization will change to be approximately straight-line over the product life and no interest will accrue on the balances. Deferred acquisition costs (DAC) will no longer be tested for premium deficiency.

Key Observations

EMERGENCE OF INCOME WHEN CONSISTENT BEST ESTIMATE ASSUMPTIONS ARE USED

For the products modeled, the reserve method under ASU 2018-12 accelerates the recognition of income versus current accounting when consistent best estimate assumptions are used. For in-force contracts, this is primarily driven by the elimination of PADs, which lowers the net premiums required to fund future policy benefits. Similarly, the impact on new business is more favorable under ASU 2018-12 due to lower reserve strain in the early years.

IMPACT OF NEW DAC AMORTIZATION METHOD

For the products modeled, income tends to be deferred due to (1) the amortization of deferred acquisition costs (DAC) on an approximate straight-line basis instead of in relation to gross profits, and (2) interest no longer accruing on the balances.

IMPACT OF UPDATING RESERVES FOR ACTUAL EXPERIENCE

The impact of actual versus expected experience differences in early years after transition (or issue) is more muted under ASU 2018-12 as a result of spreading the impact of these variances over the life of the underlying contracts through the reserve mechanism.

IMPACT OF UPDATING RESERVES FOR FUTURE CASH FLOW ASSUMPTIONS

The impact of updating future cash flow assumptions creates significant volatility in reported reserve balances under ASU 2018-12 IDI products. This is not the case under current accounting unless a loss recognition event is triggered.

IMPACT OF UPDATING DISCOUNT RATES

The updating of discount rates at each reporting period as required under ASU 2018-12 may result in significant volatility in the reported benefit reserves. However, the change in reported benefit reserves should be offset to some extent by the mark-to-market change of the assets classified as Available For Sale (AFS) that is already reflected in Accumulated Other Comprehensive Income (AOCI). The degree of that offset will depend on several factors, including how well the assets and liabilities are matched by duration, and the quality of assets relative to the A-rated liability discount rates. We believe there may be an opportunity for companies to use relevant observable inputs in a way that results in discount rates that align more closely with investment philosophy.

DISCLOSURE REQUIREMENTS

With much of the focus being dedicated to the changes to the reserve calculation for traditional products, the work effort required to produce the disclosures required under ASU 2018-12 may be significant and will likely challenge many insurers' ability to generate the necessary data.

ADDITIONAL CHALLENGES FROM CALCULATION CHANGES

We identified a wide range of challenges arising from the calculation changes introduced in ASU 2018-12. We have selected a few to present in this report.
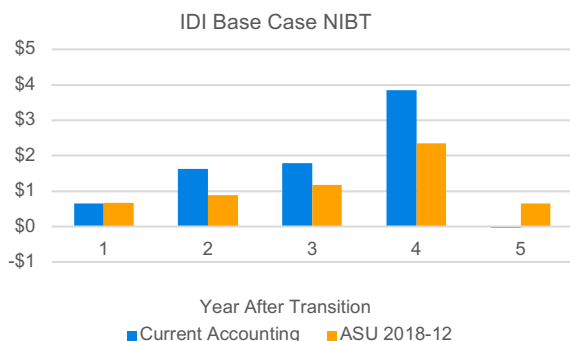
For IDI products, the benefit reserve under ASU 2018-12 requires the use of historical cash flows at the same level at which the net premium ratio (NPR) is calculated. Insurers have flexibility to combine similar products together to reduce the number of groupings but ASU 2018-12 imposes a restriction that contracts issued more than one year apart must be grouped separately. In many cases, this level of detail may be more granular than what companies are currently capable of producing.

For IDI products, insurers who follow a total lives claim cost approach to set active life reserves (ALR) under current accounting may face significant challenges as the requirements of ASU 2018-12 demand a reserve approach that identifies the expected timing of cash flows for all policies. This may accelerate the need for first principles models.

For limited-pay contracts that have an explicit deferred profit liability (DPL), the DPL can be reduced to offset potential increases in the benefit reserve within the same grouping of contracts. Companies that have taken the simplified approach of not recognizing an explicit DPL at contract issue by lowering the discount rate may be at a greater risk of having to adjust the balance of retained earnings.

Emergence of Income When Consistent Best Estimate Assumptions Are Used

The table below shows a comparison of expected net income before tax (NIBT) under ASU 2018-12 and current accounting for IDI products (amounts in millions). We include the business in force at transition only.

IDI Base Case NIBT

Year After Transition
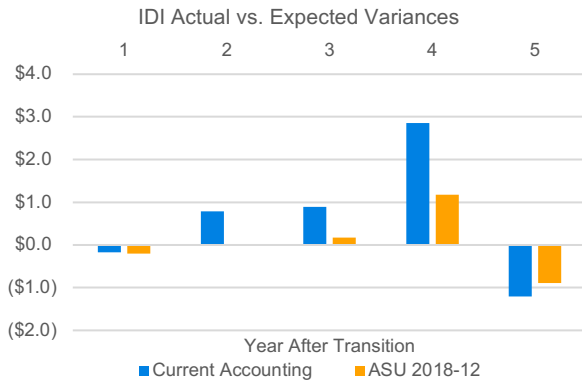■ Current Accounting ■ ASU 2018-12

For IDI products, the higher income under ASU 2018-12 is due to lower net premiums resulting from the removal of PADs and maintenance expenses from reserves. For the products modeled, the amortization of DAC is delayed due to using units of insurance as the amortization basis versus premiums.

The pattern of income will eventually reverse over time because all balances are equal at the transition date and will eventually amortize to zero under both accounting bases.

Impact of Updating Actual Experience

The random process of selecting individual policies to terminate resulted in small differences between actual and expected in-force movements. The tables below illustrate actual minus expected income differences on IDI products.

IDI Actual vs. Expected Variances

The impact of actual to expected differences is smaller under ASU 2018-12 than current accounting because of the respective reserve calculations. In general, reserves per unit and DPL do not change under current accounting as assumptions are locked in; the impact of the different mix of business is reflected by applying a different volume of units to the locked-in reserves per unit. Under ASU 2018-12, per unit reserves and DPL are recalculated retrospectively to reflect actual experience, resulting in spreading a portion of the impact to the remaining life of the contracts.

Impact of Updating Future Cash Flow Assumptions

Under the alternative scenario, actual experience is significantly worse than expected in year 3 and a future cash flow assumption is updated at the end of the fifth projection year. In the charts below, we compare the IDI net income before tax between the base case and the alternative scenario for both current accounting and ASU 2018-12 (amounts in millions).
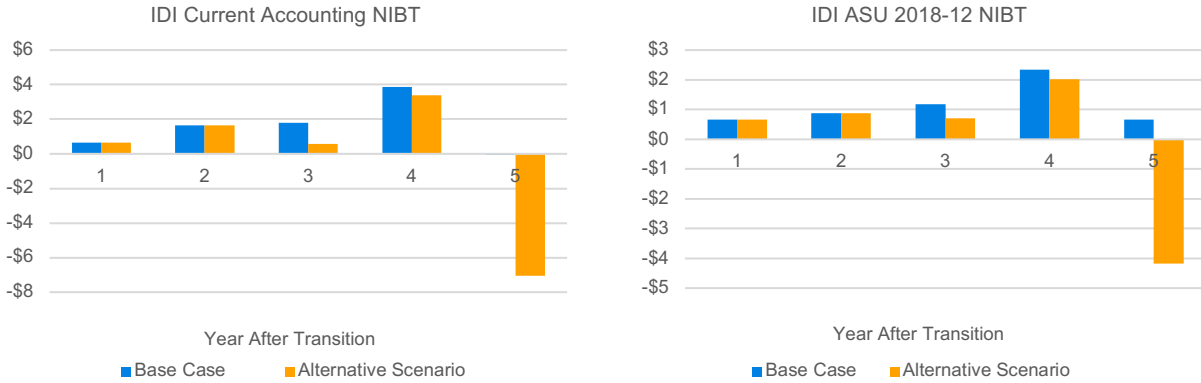
Under current accounting, the additional claims in year 3 reduce income without much change in the reserve or DAC. The change in best estimate future mortality assumption at the end of year 5 does not affect income as the reserve assumptions are locked in and the change in assumption is assumed to not generate a loss recognition event.

Under ASU 2018-12, the additional claims in year 3 are partially offset by a reduction in the benefit reserve caused by the increase in the NPR. The additional claims also result in excess DAC write-off in that year but the amount is small. The impact on the reserve is larger than the effect on DAC and results in a smaller impact to income compared to current accounting. The change in best estimate future mortality assumption at the end of the fifth projection year has a large effect on net income as the ending reserve balance reflects current best estimate assumptions.

Impact of Updating Discount Rates

For the base case scenario, we also illustrated the impact that changes in the market yields on assets would have on the ASU 2018-12 liability for future policy benefits reported on the balance sheet. Specifically, we assumed parallel basis points (bps) shifts in the Treasury yield curve of +40bps, +10bps, -30bps, -30bps, and -10bps at each of the valuation dates after transition.

This resulted in significant volatility in the reported benefit reserves. In the table below we show the impact for IDI products but the magnitude and direction of the effect are similar for the other blocks (amounts in millions).

ASU 2018-12 IDI ALR AT ORIGINAL AND CURRENT DISCOUNT RATES

	AT TRANSITION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Reserves at original discount rates	$122.1	$125.0	$125.7	$124.0	$120.3	$113.9
Reserves at current discount rates	126.3	122.6	123.1	127.5	128.7	122.9
Difference = pretax AOCI	(4.2)	2.4	2.7	(3.6)	(8.4)	(9.1)
Pre-tax OCI = change in pre-tax AOCI		6.6	0.2	(6.2)	(4.8)	(0.7)

While this is not illustrated, the change in the reported benefit reserves should mitigate the impact on AOCI caused by similar movements in the mark-to-market of the assets classified as AFS. Basis mismatch is still likely to emerge due to differences between a single liability exposure to an upper medium grade fixed income credit risk versus a portfolio of various asset types and quality. This mismatch would introduce volatility in AOCI and the resulting impact on equity returns may be potentially significant and challenging to explain.

It is worth monitoring whether a market will emerge for companies to use published discount curves rather than creating their own, similar to the discount curves that are often used today to calculate pension liabilities.

Disclosure Requirements

Under ASU 2018-12, various disclosures will be required, such as disaggregated liability roll-forwards, significant inputs, assumptions, etc. These requirements are not trivial and the undertaking necessary to produce them may be substantial. For example, the figure below illustrates how separate roll-forwards for the ALR and claim reserve (DLR) may be presented for IDI products in order to meet the disclosure requirements of ASU 2018-12. The base case is illustrated (amounts in millions).

LIABILITY ROLL-FORWARD FOR FIRST YEAR AFTER TRANSITION

RESERVE COMPONENT	ALR	DLR	TOTAL
Reserve, beginning of period	$126.3	$23.2	$149.5
Reserve, beginning of period (original discount rates)	122.1	23.2	145.3
+ Impact of updating actual experience	(9.2)	9.4	0.2
+ Impact of updating future cash flow assumptions	0.0	0.0	0.0
Reserve, beginning of period (adjusted)	113.0	32.6	145.5
+ Net premiums	8.3	0.0	8.3
+ Interest credited to reserve	5.6	0.9	6.5
- Reserve released for benefits	1.5	6.1	7.7
- Reserve released for expenses	0.4	0.0	0.4
Reserve, end of period (original discount rates)	125.0	27.3	152.3
+ Cumulative impact of updating discount rates	(2.4)	0.0	(2.4)
Reserve, end of period	$122.6	$27.3	$149.9

The actual adjustment includes the impact of status changes within the year. In this case, more people went on claim than recovered from being on claim, resulting in a net transfer from ALR to DLR.

Additional Challenges From Calculation Changes

The use of actual experience in the reserve calculation for traditional products under ASU 2018-12 represents a significant departure from current accounting. Tracking of actual experience for IDI products by groupings of policies will likely pose significant challenges for insurers as actual cash flows typically reside in policy administration systems while the data in general ledgers is typically not available at the level of granularity required to update the NPR. A top-down approach to allocate actual cash flows to groupings may not be adequate as ASU 2018-12 dictates that estimates of historical experience may not be substituted for actual historical experience.

In this research, we observed that IDI insurers who use a total lives claim cost approach to set the ALR under current accounting most likely would conclude they have significant gaps in terms of modeling capabilities. Under this approach, the timing of claims is implicit due to the incidence, persistency, and recovery assumptions being based on expectations of the block as a whole rather than being reflective of the current status of each policy. ASU 2018-12 requires the NPR to be recalculated at least annually in order to reflect actual experience and current best estimate assumptions as to future experience. This requirement raises several questions that are unique to products with long claim periods such as IDI. For example:

1. What should be included in the liability for future benefits—where the NPR is updated—given that the claim reserve requirements are not changing under ASU 2018-12?

2. What constitutes actual experience for purposes of calculating the NPR?

3. How should changes in status (e.g., going on claim, recovering from being on claim) be handled in the liability for future benefits?

We found that using a first principles IDI model to determine the ALR was the most straightforward way to address the requirements of ASU 2018-12 and ensure that the NPR remains stable under the base case scenario.

Conclusion

ASU 2018-12 represents fundamental changes to the accounting of long-duration insurance contracts. Key decisions need to be made well in advance of the January 1, 2021, implementation date, such as defining the level of aggregation for policy groupings, selecting product-specific amortization bases for DAC, and discount rates. These decisions need to be made using accurate information, which for many insurers may not currently be available due to data and system limitations.

While we generally observed from this research that earnings emerge more favorably in the nearer term under ASU 2018-12 when consistent best estimate assumptions are used, increased earnings volatility is expected going forward, particularly as cash flow assumptions and discount rates are updated. This will require increased attribution analysis in order to clearly explain results from one reporting period to the next.

As the impact of ASU 2018-12 on balance sheet items comes under scrutiny, the work effort to implement the new disclosure requirements and associated data demands will be material.

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