OLIVER WYMAN

Consulting Actuaries

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GETTING THE MOST OUT OF AXIS™

BRIDGING THE LDTI GAAP

Editor's words: Welcome to the Fall 2019 edition of our AXIS newsletter. This issue outlines the benefits of actuarial software modernization and provides a roadmap for implementing US GAAP long duration targeted improvements ("LDTI") in AXIS. You will find helpful tips and tricks for navigating the system and highlights of new features in recent AXIS releases. We hope you enjoy the newsletter.

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MARSH & McLENNAN COMPANIES

EXECUTIVE CORNER

ACTUARIAL SOFTWARE MODERNIZATION: MAXIMIZING THE RETURN ON YOUR INVESTMENT

AN ARGUMENT FOR CHANGE

Making the move from comfortable to unfamiliar, shifting from old to modern, and adopting the "shiny-new" can be difficult and as unnerving as it is costly. In determining whether to update from an antiquated system to a modern actuarial modeling platform, we would argue that the investment is worth it; capturing the full range of benefits will maximize the return on your investment ("ROI").

"In investing, what is comfortable is rarely profitable"

Robert Arnott

With a dated system, a lack of transparency behind calculations may lead to misunderstanding of methodologies or application of vital assumptions. Projections important in understanding financial implications may be challenging or impossible. Furthermore, as the workforce ages to retirement, so too does knowledge of existing systems. Finally, in order to keep up with developments in technology and data analytics, as well as in reserving and capital regimes, actuarial models and systems must evolve.

"The only thing we have to fear, is fear itself"

Franklin D. Roosevelt

How are we rewarded for our bravery, and investment? While taking a leap of faith into the "new" may not be easy, benefits of modernization are abundant.

THE VALUE-ADDED BENEFITS OF MODERNIZATION

At the core, modernizing your actuarial models leads to increased transparency, reduced resource effort and improved projection capabilities. With more modern systems, even if the code is "closed", review of reference documentation and model output provides insights needed to understand calculations more easily. Data and assumptions management is also enhanced. Actuaries can shift from the laborious tasks of maintaining models and understanding how results were calculated, to analyzing and acting upon results.

"Too much of a good thing can be wonderful"

Mae West

After a fully functional model is up-and-running and validated, additional enhancements can be incorporated to realize increasingly value-added benefits, as summarized in Exhibit 1 and expanded on in the text below.

Exhibit 1: Value-added benefits of modernization

1. EFFICIENCY GAINS

Efficiencies gained from modernization are numerous:

- Resource time becomes less focused on manual tasks
- Staff can complete robust analyses which provides valuable information to inform management decision making
- Important analysis and information can be obtained routinely and more frequently, with many positive implications
- Governance, controls and integration with accounting are improved, leading to time saved in the valuation cycle and close process

For example, modeling staff could be reduced by 50% and re-purposed to analyzing profit drivers, leading to an optimization of sales mix. Modeling errors, which might have previously plagued capital management when discovered, would be reduced through increased model understanding and process automation.

AXIS allows for integration of pricing, projections and valuation into a single system, creating an opportunity for significant efficiency gains

2. DATA ANALYTICS

A modernized system is necessary to work with the sizeable amounts of data required to run models and reveal trends and key metrics. This information can then be used in decision making to optimize financial and risk management outcomes.

3. ERROR ASSESSMENT

In addition to reducing future errors, the efforts undertaken to move to a modernized system will require a deep dive into all aspects of current modeling and will bubble up errors that must be addressed. Correcting some of the errors may lead to a financial gain. More importantly, with greater transparency and an infrastructure with improved controls, errors will be identified that might have remained hidden in the past.

Companies licensing AXIS benefit from the code base testing and validation performed by the hundreds of organizations and thousands of users that license the platform

"At the core, modernizing your actuarial models leads to increased transparency, reduced resource effort and improved projection capabilities"

4. PROFITABILITY ANALYSIS

A modernized system provides greater visibility into drivers of profit via sources of earnings functionality, the flexibility to analyze results at different levels of granularity and easily-implemented "what if" testing. Knowledge of the drivers of profitability can result in adjustments to in-force business performing below the company's desired return thresholds, improving overall profitability.

AXIS provides a reporting hierarchy whereby different levels of results aggregation or granularity can be achieved from a single run. It also provides sources of earnings functionality via the Earnings by Source (EBS) module

"An investment in knowledge pays the best interest"

Benjamin Franklin

5. BUSINESS PLANNING

With a modernized system, a previously "cobbled-together" annual budget can be expanded to a consolidated longer-term plan dissected into deeper and more useful levels of granularity. Variances relative to expectations can inform short- and longer-term actions to improve financial outcomes.

6. NEW BUSINESS ANALYSIS

With improved understanding of profit drivers and ease of completing projections, a modernized system strengthens pricing of existing products and awareness of financial implications of new business. Management will know better where to focus capital spending and where to adjust prices for existing products.

7. INVESTMENT STRATEGY

With a new system that allows modeling and integration of complex liabilities, assets, hedging and reinvestment strategies, the analytics needed to improve or adjust investment strategy are easily available. Current and alternative investment strategies can be analyzed, leading to investment optimization. A 1 bp improvement in annual return on $10B in assets can quickly cover the cost of implementing a modernized system.

8. RISK AND CAPITAL MANAGEMENT

A financial modeling system is central to understanding, monitoring, and managing risks.

Utilization of sensitivity ("what if") testing and robust scenario analysis allow a company to understand what might be most impactful to reserves and surplus. Results from such analysis allow a company to take actions and create plans to improve security against those risks.

In AXIS, Batch and Override functionality can be used to run a range of comprehensive "what if" analyses over multiple assumptions sets

9. STAKEHOLDER COMMUNICATION

With the improvements noted above, the information for – and communication to – key stakeholders (e.g., senior management, board of directors, shareholders, regulators and auditors) can greatly expand. Of great importance is the reduction in surprises and lag time relative to a dated, opaque and inflexible antiquated system.

CONCLUSION

Our advice? Modernize. Make the investment. It will be worth it.

With modern accounting, reserving and capital regimes requiring numerous projections and enhanced analyses and disclosures, robust projection capabilities are imperative.

To ensure your organization's new model remains as robust in the future as the day the modernization effort was completed, one should implement strict model governance, testing and validation protocols to maintain the "new normal".

The return on your investment will thus be maximized.

"In determining whether to update from an antiquated system to a modern actuarial modeling platform, we would argue that the investment is worth it..."

TIPS & TRICKS

Finding Cells with matching assumptions on screen

When comparing Cell level assumptions, there are a range of native AXIS functionalities in the Cell right-click menu that can be leveraged:

1. "Compare Assumptions" generates a list of differences in assumptions between selected Cells
2. "What Assumptions" summarizes assumptions in the selected Cells
3. "Export assumptions" exports assumptions from selected Cells into a database or Excel

In addition, there is a convenient way to identify whether a set of assumptions matches between Cells through the "Find all Cells with assumptions..." functionality. This can be achieved by following these steps:

1. Open the referenced Cell and apply a Cell Filter to isolate the assumptions of interest on screen
2. Under the toolbar, click "Tools" and select one of the two options:
   - "Find all Cells with assumptions matching values on screen"
   - "Find all Cells with assumptions NOT matching values on screen"
3. The user can then use the list generated to identify the applicable Cells, or even create a Subfund for further analysis

IN THE SPOTLIGHT

FASB ACCOUNTING STANDARDS UPDATE FOR LONG DURATION CONTRACTS: HANDS-ON WITH AXIS

INTRODUCTION

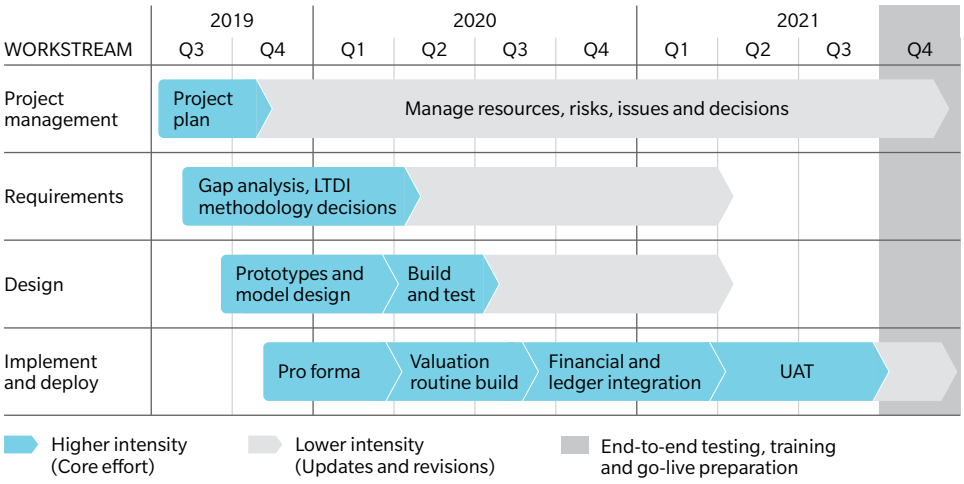
On July 17, 2019, the FASB tentatively extended the effective date for US GAAP ("GAAP") long-duration targeted improvements ("LDTI") to January 1, 2022, for most public entities. With the extension, companies have an opportunity to more thoroughly develop, test, and automate new processes associated with LDTI. This article provides a tour of available LDTI functionality in AXIS version 2020.03.01 and describes how companies can begin making practical model design and methodology decisions and leveraging AXIS for LDTI reporting needs.

LDTI ROADMAP

The one-year extension does not mean insurance carriers have the luxury to further delay plans for LDTI implementation. Well-positioned carriers are wrapping up the planning phase and getting hands-on with actuarial modeling and downstream reporting initiatives. Exhibit 1 provides a sample roadmap aimed at achieving LDTI compliance by January 1, 2022.

Several proactive companies have already benefited from requesting custom functionality from Moody's Analytics based on needs identified during gap analysis and prototyping.

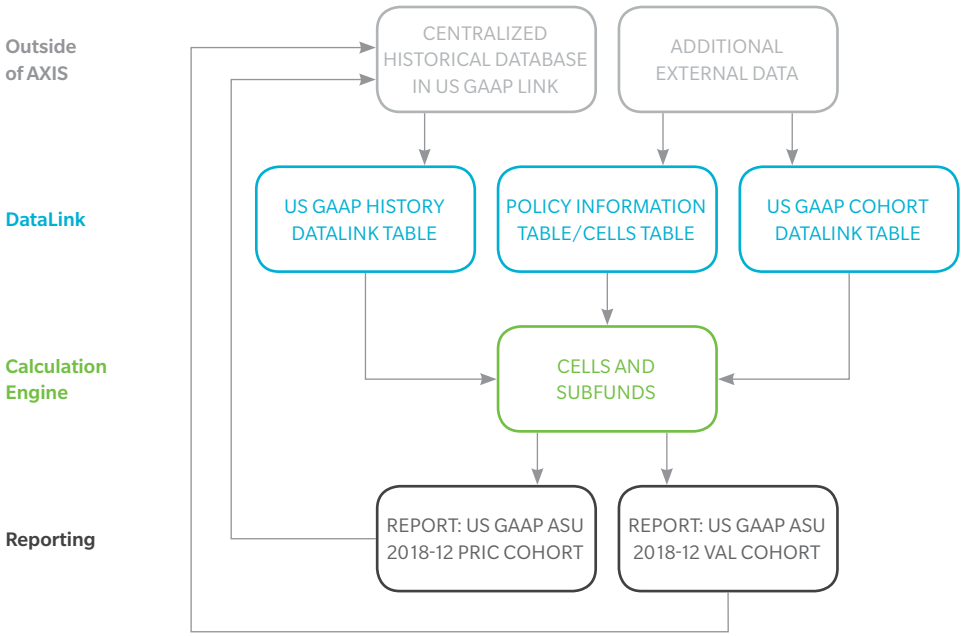
Exhibit 1: Sample LDTI roadmap



AXIS LDTI FRAMEWORK

Exhibit 2 summarizes the areas of AXIS that have been enhanced for LTDI. These key components and their usage in an LDTI implementation are examined in the following sections. In addition, due to the large number of additional model runs needed for current period reporting requiring multiple sets of assumptions and input files, Moody's Analytics introduced new US GAAP Link modules – one for each liability module – to facilitate the additional calculations in an efficient and controlled manner. To access AXIS LDTI capabilities, modelers should install the latest version of AXIS and configure Dataset Parameters to enable "Feature Code 649" for "US GAAP ASU 2018-12", as well as "Feature Code 674" for "US GAAP Link."

Exhibit 2: AXIS LDTI flowchart



POLICYHOLDER BENEFIT LIABILITY ("PBL")

Current reporting period and forecasting functionality in AXIS is currently available for the PBL for traditional-type long-duration business (e.g., term and whole life). Using the latest available balances, companies can perform cohort and pro forma analysis on PBL using AXIS, as described below.

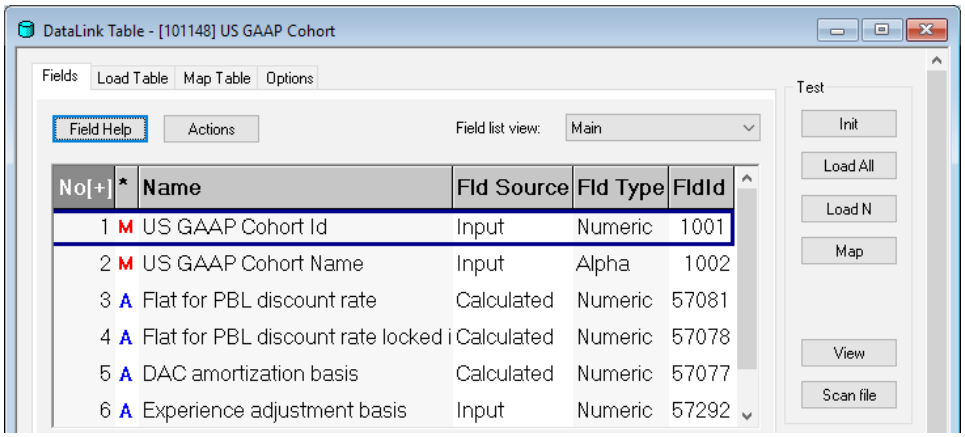
COHORT DETERMINATION

Many companies have already started thinking through the cohort setting process for PBL. In AXIS, cohort setting revolves around the use of the US GAAP Cohort DataLink Table and US GAAP Cohort objects. These are used to define LDTI methodologies and allocate

policies to specific cohorts. The FASB has mandated that the same cohorts defined for PBL must also be used for DAC calculations unless DAC is amortized on a seriatim basis.

US GAAP Cohort Datalink Table: US GAAP Cohort DataLink Table is a new addition to AXIS. Cohort-level assumptions and methods can be loaded into this table and populated into US GAAP Cohort objects through DataLink Batches. Cohorts may be assigned directly to seriatim records or through a Cohort assignment Formula Table at the Cell level.

Exhibit 3: US GAAP Cohort Datalink Table



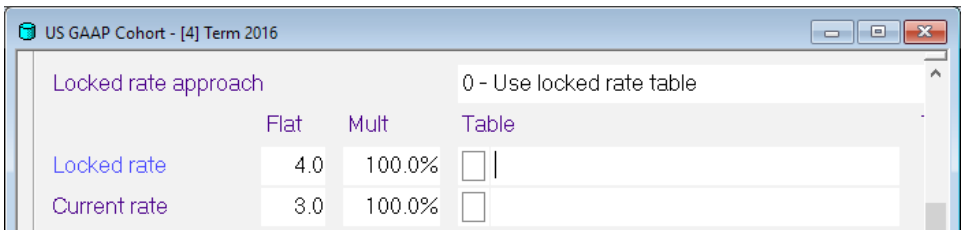
DISCOUNT RATES

LDTI requires both locked-in and current discount rates for each cohort. Companies can choose between the full yield curve method (using spot or forward rates) or a single equivalent rate based on the duration of the cashflows. The US GAAP Cohorts in AXIS support the modeling of both locked-in and current rates.

Once cohorts are defined, AXIS can be used to determine the cash flow duration and test the impact of different discount rate curves or single equivalent rates on the reserve pattern.

The following shows the discount rate section of a US GAAP Cohort object. In this view, the "Locked rate" and "Current rate" can be edited for testing.

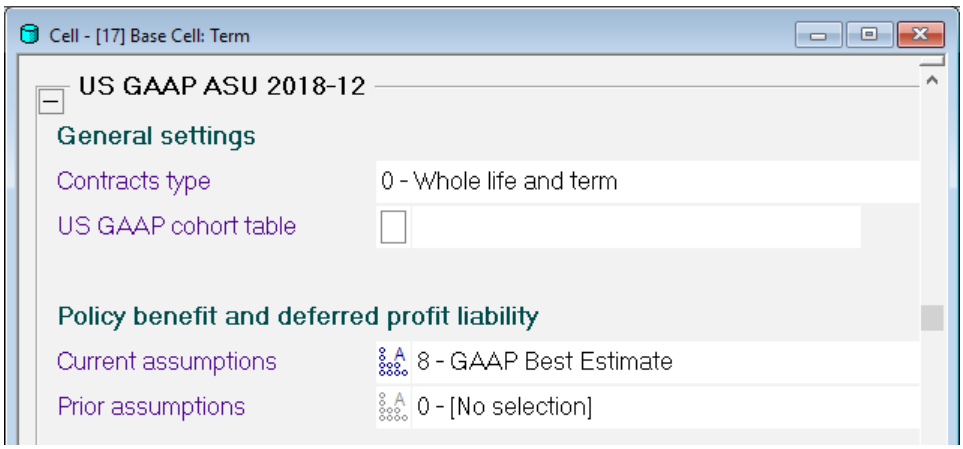
Exhibit 4: US GAAP Cohort discount rate fields



UNLOCKING ASSUMPTIONS

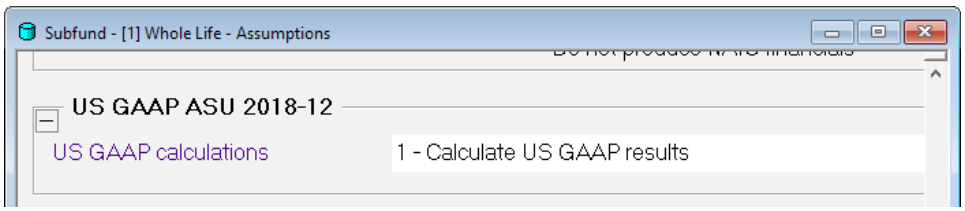
Under LDTI, assumptions must be regularly unlocked to recognize gains and losses. With US GAAP Link enabled, the new "US GAAP ASU 2018-12" section in the Cell supports the coding of Assumption Sets for both the current and prior reporting periods. This can be configured in either the Base Cell or the Cells DataLink Table.

Exhibit 5: Base Cell Assumption Set fields



After cohorts, discount rates, assumptions, and historical data (refer to Section US GAAP History DataLink Table later in this article) are coded in AXIS, GAAP calculations can be enabled via the new "US GAAP calculations" switch in the Subfunds. Running a Subfund Batch Testing Batch will produce current valuation date output by cohort using the "US GAAP ASU 2018-12 Cohort" reports.

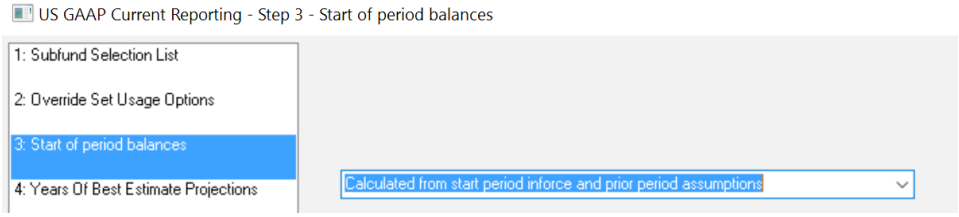
Exhibit 6: Subfund "US GAAP calculations" switch



With US GAAP Link functionality, a US GAAP Current Reporting Batch is available to support current reporting period runs. This Batch supplies projected values as of the prior reporting date via two options:

- The ability to do a "Historical Run" and process a second pivot as of prior reporting period
- The option to reuse values calculated from the prior valuation (stored in the US GAAP centralized historical database)

Exhibit 7: US GAAP Current Reporting Batch – prior reporting period values



PRO FORMA ANALYSIS

Understanding and developing tools for first-principles calculations will help set expectations for pro forma model results and ensure the model is performing as intended. Exhibit 8 outlines the approach to set up a pro forma analysis for PBL.

Exhibit 8: Pro forma analysis for PBL

$$\text{Net premium ratio (“NPR”)} = \frac{\text{(PV(Future benefits and related expenses) - Transition balance)}}{\text{(PV(Future gross premium))}}$$

$$\text{Net premiums} = \text{Gross premiums} * \text{Net premium ratio}$$

$$\text{PBL} = \text{PV(Future benefits and related expenses)} - \text{PV(Net premiums)}$$

Note: Net premium ratio always uses the locked-in discount rate for present values

Impairment testing must be performed at a cohort-level for PBL. If the NPR for a cohort is greater than 100%, retained earnings will be impacted at transition. Companies that analyze different cohort settings may strategically set cohorts with transition impacts in mind. Companies can also use forecasted results after the transition date to support cohort analysis. The table below summarizes the implications of cohort NPR at transition.

Exhibit 9: Transition impacts based on cohort NPR

NPR LESS THAN 100%	NPR GREATER THAN 100%
• No cumulative catch-up adjustment to earnings • Difference between carryover balance and PBL discounted at the current discount rate is recorded to AOCI	• Net premiums are capped at 100% for remeasured liability • Difference between remeasured liability with capped net premiums and carryover balance is recorded to retained earnings • Difference between carryover balance and PBL discounted at current discount rate is recorded to AOCI

DEFERRED ACQUISITION COSTS ("DAC")

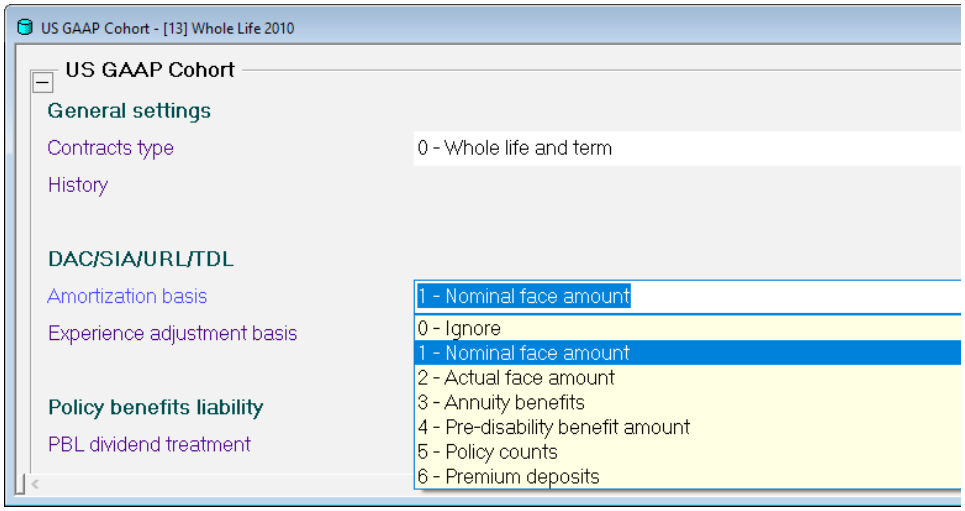
AXIS is currently able to calculate DAC following the methodology outlined by FASB guidance. Moody's Analytics also plans to release an alternate approach requested by companies (refer to Amortization Methodology: Experience Adjustment section later in this article). We recommend companies begin testing AXIS's new functionality to inform model design decisions. Key AXIS DAC-related functionality is detailed below.

AMORTIZATION BASIS

FASB guidance details that seriatim DAC should be amortized on a "straight-line basis" over the life of the contract. When policies are grouped into cohorts, a more appropriate description is a "constant-level basis," which approximates the seriatim "straight-line basis."

In AXIS, the amortization basis can be defined within the US GAAP Cohort object. The amortization basis selected may differ by product type. The following options are currently available in AXIS, but proactive companies may seek to request additional methods.

Exhibit 10: US GAAP Cohort "Amortization basis" switch

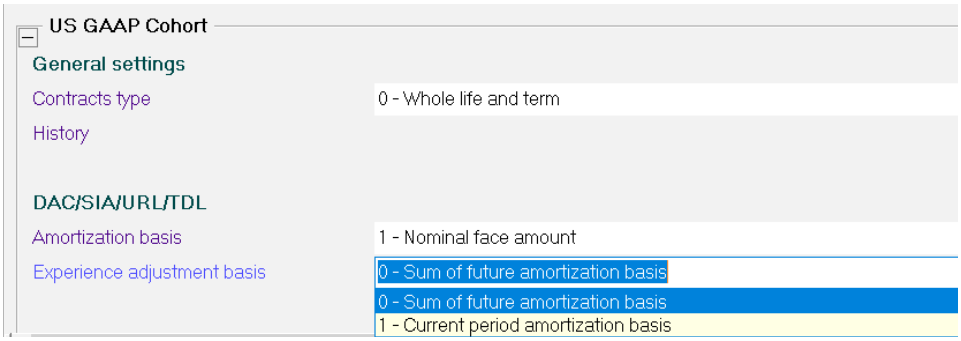


AMORTIZATION METHODOLOGY: EXPERIENCE ADJUSTMENT

Moody's Analytics has closely followed FASB guidance and both the "Current period" and "Sum of future" basis options are currently available in AXIS. The FASB only referenced a one-sided experience adjustment (i.e., it only accounts for adverse experience). However, Moody's Analytics is currently developing an additional option that implicitly calculates a two-sided adjustment using current end of period actual experience and projections. The adjustment flows through the expected amortization base, thereby eliminating the need for an explicit experience adjustment.

Within the US GAAP Cohort object, a basis must be selected to determine the experience adjustment for DAC, sales inducement asset ("SIA"), and unearned revenue liability ("URL") balances. Exhibit 11 shows the two options available in AXIS. The first option considers the total differences between the actual and expected projected amortization bases. The second option considers the difference between the actual current period amortization basis and "Expected Basis For Experience Adjustment ("EOP"), a field in US GAAP History table.

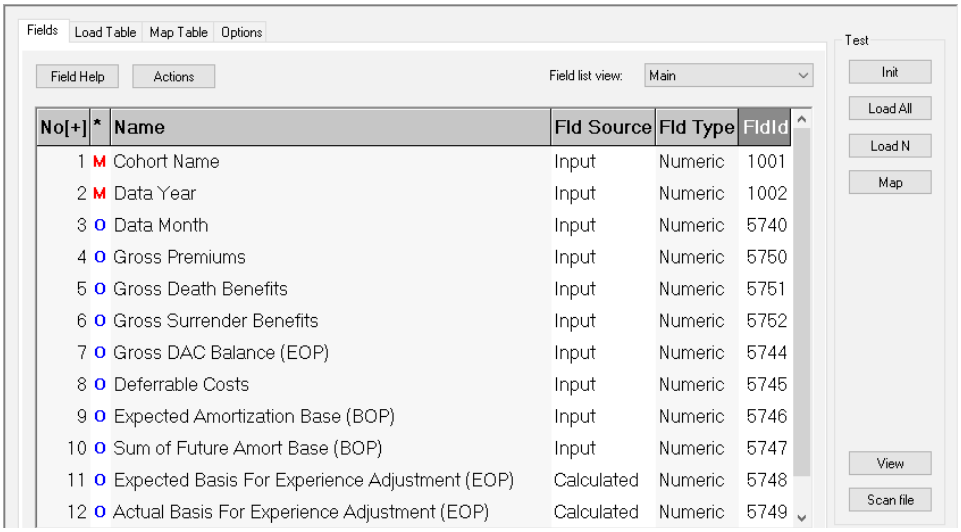
Exhibit 11: US GAAP Cohort "Experience adjustment basis" switch



US GAAP HISTORY DATALINK TABLE

US GAAP History is a new DataLink Table that holds historical cash flows and amounts required to compute DAC, SIA, and URL balances at the valuation date. Exhibit 12 details the form of this table. Field names are subject to change in future revisions of the Sample Dataset.

Exhibit 12: US GAAP History Datalink Table



No[+]	*	Name	Fld Source	Fld Type	FldId
1	M	Cohort Name	Input	Numeric	1001
2	M	Data Year	Input	Numeric	1002
3	O	Data Month	Input	Numeric	5740
4	O	Gross Premiums	Input	Numeric	5750
5	O	Gross Death Benefits	Input	Numeric	5751
6	O	Gross Surrender Benefits	Input	Numeric	5752
7	O	Gross DAC Balance (EOP)	Input	Numeric	5744
8	O	Deferrable Costs	Input	Numeric	5745
9	O	Expected Amortization Base (BOP)	Input	Numeric	5746
10	O	Sum of Future Amort Base (BOP)	Input	Numeric	5747
11	O	Expected Basis For Experience Adjustment (EOP)	Calculated	Numeric	5748
12	O	Actual Basis For Experience Adjustment (EOP)	Calculated	Numeric	5749

Items such as historical gross premium, death benefits, surrender benefits, and deferrable costs may be imported from the admin system. Other items are obtained from prior period results.

At each reporting period, values produced in the "Subfund US GAAP ASU 2018-12 Val Cohort" and "Subfund US GAAP ASU 2018-12 Pric Cohort" reports feed into the US GAAP History table for the next period's valuation. This can be automatically captured using the US GAAP Link Module.

The "Expected Amortization Base (BOP)" field in Exhibit 12 depends on values from the prior reporting period "Subfund US GAAP ASU 2018-12 Val Cohort" report, according to the "Experience adjustment basis" option selected.

The "Gross DAC Balance (EOP)" and "Sum of Future Amort Base (BOP)" fields in Exhibit 12 depends on the "Gross DAC asset" and "Sum of future amort base" values from prior reporting period "Subfund US GAAP ASU 2018-12 Pric Cohort" report shown in Exhibit 13. The report has a monthly periodicity and a valuation date of December 31, 2017.

Exhibit 13: Sample "Subfund US GAAP ASU 2018-12 Pric Cohort" report

(AXIS3_25664) View table [Exported Subfund US GAAP ASU 2018-12 Pric Cohort]

Id	Name	Row	RowNo	Y31Dec2017	Jan 2018
1	Whole Life	Term 2016 - Gross policy benefit liability	133	44460.863281	59952.261719
1	Whole Life	Term 2016 - Gross deferred profit liability	134	0.000000	0.000000
1	Whole Life	Term 2016 - Gross DAC asset	135	7442.000000	7389.727539
1	Whole Life	Term 2016 - Gross accumulated OCI	136	-44460.863281	-56895.113281
1	Whole Life	Term 2016 - Deferrable costs	137	0.000000	0.000000
1	Whole Life	Term 2016 - Sum of future amort base	138	481066304.000000	477687328.000000

Between reporting periods, new business may arise in existing cohorts. Companies currently have the flexibility to handle these new policies outside of AXIS by adjusting inputs to the US GAAP History DataLink Table. Moody's Analytics is currently developing support for DAC, SIA, and URL for new business and this functionality will be available in a future AXIS release.

PRO FORMA ANALYSIS

Under the updated timeline, a transition date of January 1, 2020, will support two years of comparative financial statements leading up to the January 1, 2022 effective date. However, companies can use their latest available balances to set expectations of transition and future earnings impacts.

Transition Impact: The current shadow DAC adjustment has been eliminated under LTDI; thus, the AOCI adjustment previously recorded for shadow DAC will need to be deducted from the DAC balance immediately prior to transition. The remaining DAC balance will then be the starting point for the new amortization basis and methodology. Companies can use this balance to establish a starting point in the US GAAP History Table for pro forma analysis of future earnings impact.

Future Earnings Impact: Companies can produce and analyze different sets of projected DAC balances by selecting different options for the amortization basis and methodology in AXIS. Companies can then assess how the different sets of DAC forecasts impact earnings over time and select an optimal DAC amortization basis and methodology. Once Moody's Analytics releases an AXIS version with the seriatim level DAC approach, companies should benchmark those results against their optimal cohort-level DAC approach to finalize their decision.

TIPS & TRICKS

Leveraging table builders to standardize model development and facilitate audits

In an ideal world, production model changes involve developers, testers and a model steward. First, a developer implements the proposed change into a copy (i.e., "sandboxed" or "side" version) of the production model, with small scale unit testing to confirm the change functions as intended. Then, a tester independently performs detailed testing on a broader scale, incorporating additional test cases. Finally, the model steward implements the change into the master version of the production model. Along the way, each modeler or tester summarizes and documents his or her analysis and testing.

However, issues may arise when multiple model changes need to be implemented within a constrained timeframe. It can be challenging to streamline model updates while applying rigorous controls when multiple developers are creating different side models in parallel. In addition, it can be time consuming to create detailed change documentation that is adequate for both internal and external audit purposes.

A potential solution to overcome the challenges above is to leverage table builders. A table builder is a Microsoft Excel or Microsoft Access tool that reads data in various formats and applies formulas and macros to generate outputs that can be imported directly into AXIS.

Table builders can add value and increase efficiency in the following ways:

1. After performing one-time setup during the development stage, table builders can be leveraged for future model updates. A streamlined process is especially valuable when multiple model changes need to be implemented simultaneously by the model steward
2. Document input sources and maintain large sets of AXIS Tables outside the Dataset
3. Supplement model documentation and create an audit trail directly from the source values to the final AXIS tables
4. Standardize the model development process and reduce model operational risk

MARKET RISK BENEFIT ("MRB")

MRB is a new GAAP accounting concept introduced by LDTI. When a benefit provides protection for more than nominal capital market risk, it is a Market Risk Benefit. FASB guidance for MRBs has yet to be finalized and – as of the time of writing – Moody's Analytics has only released partial functionality to support companies which are proactive in setting preliminary expectations on MRBs. The following describes functionality available as of AXIS version 2020.03.01, which includes calculating MRBs at the current spread. MRB functionality using the locked spread is expected to follow in AXIS 2020.04.01.

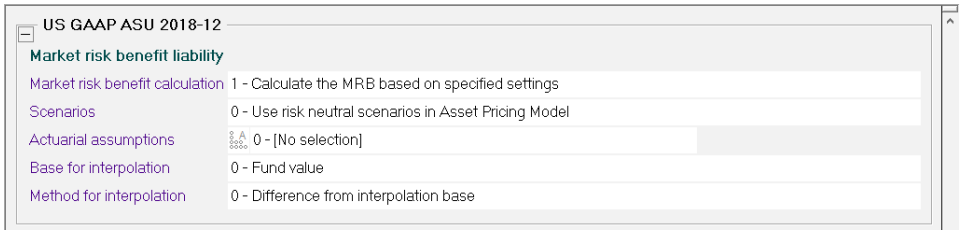
"FASB guidance for MRBs has yet to be finalized and ... Moody's Analytics has only released partial functionality to support companies which are proactive in setting preliminary expectations on MRBs"

CURRENT MRB CAPABILITIES

Companies should focus on deciding between Attributed Premium ("AP") and Interest Spread methods. AXIS functionality currently supports the determination of which fees will be part of the MRB and calculates an AP factor to achieve a zero-reserve value at contract inception.

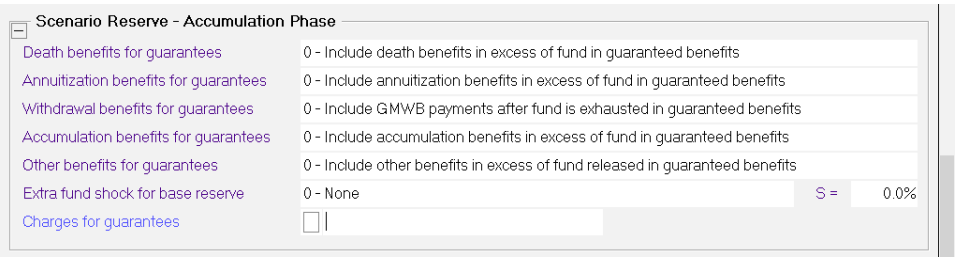
AXIS can produce the PV of benefits and fees as of the issue date using hindsight and historical market conditions. These results can then be used to calculate the AP factor for each policy. The AP factors can be used to calculate the fair value at the transition date. The Annuity Cell "US GAAP ASU 2018-12" section is used to select an assumption set for calculating MRBs.

Exhibit 14: Annuity Cell MRB switches



In the Annuity Cell Assumption Set selected for MRB, applicable benefits can be included in the MRB calculation. The fees supporting the benefits can also be defined in the "Charges For Guarantees" field.

Exhibit 15: Annuity Cell MRB switches



CONCLUSION

Insurance carriers that begin assessing AXIS's LDTI functionality earlier will be better positioned to request for potential enhancements to achieve their desired methodology in a timely manner. Furthermore, in some cases, transition requirements may lead to setting or reconstructing assumptions that were applied at policy issue.

We recommend that companies get comfortable with new AXIS functionality and methodologies to identify any gaps in current processes. Companies that have yet to finalize their implementation plan are falling behind and run the risk of non-compliance at the effective date. Given the complexity and demanding timeline, promptly securing bandwidth with internal or external resources should be of top priority.

Regardless of the chosen approach, the implementation of LDTI is a significant undertaking. Companies should seize the opportunity to get ahead to ensure a smooth transition.

"Companies that have yet to finalize their implementation plan are falling behind and run the risk of non-compliance at the effective date"

WHAT'S NEW IN AXIS

GAAP TI LINK: CURRENT PERIOD REPORTING PROJECTIONS IN REGULAR LIFE AND PAR MODULES

Description

- The multiple projections required for current period reporting for whole life, term and limited pay contracts may now be performed by the new US GAAP Link "Historical" run button in Cells or the "US GAAP current reporting"' Batch
- Results from the multiple projections are captured into separate instances of the "US GAAP ASU 2018-12 pricing cohort - Policy benefit liability details" report

Details

- Version 20192801

Learn more

- https://www.ggy.com/bugenhance/updatedetail/27149

VM-21 NAIC QIS - WITHDRAWAL COHORT ASSUMPTION TABLE IN EMBEDDED BLOCK

Description

- For the Annuity module, a new switch "Withdrawal behavior distribution usage" and a new table "Withdrawal behavior distribution" have been added to facilitate the modeling of multiple withdrawal behavior patterns for stochastic Embedded Block runs under VM-21
- An Optional Field has also been added to DataLink to allow the user to override "Withdrawal behavior distribution usage" at a seriatim level

Details

- Version 20192701

Learn more

- https://www.ggy.com/bugenhance/updatedetail/27095

ACTIVE LIFE RESERVE REVALUATION WITH ACTUAL DISABLED LIVES

Description

- A new active life reserve revaluation method, referred to as "ALR revaluation using actual disabled lives", has been added to the Disability module. This new method calculates active life reserves based on actual disabled lives at each pivot date
- This approach provides a more accurate first principles calculation relative to legacy functionality. The legacy approach calculates reserves with assumed disabled lives based on projections from issue using valuation assumptions

Details

- Version 20191801

Learn more

- https://www.ggy.com/bugenhance/updatedetail/26620

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Oliver Wyman is a global leader in management consulting. With offices in 60 cities across 29 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. The firm has more than 5,000 professionals around the world who work with clients to optimize their business, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC].

Marsh & McLennan Companies is the world's leading professional services firm in the areas of risk, strategy and people. The company's 75,000 colleagues advise clients in over 130 countries. With 2018 revenue of $15 billion, Marsh & McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading firms. Marsh advises individual and commercial clients of all sizes on insurance broking and innovative risk management solutions. Guy Carpenter develops advanced risk, reinsurance and capital strategies that help clients grow profitably and pursue emerging opportunities. Mercer delivers advice and technology-driven solutions that help organizations meet the health, wealth and career needs of a changing workforce. Oliver Wyman serves as a critical strategic, economic and brand advisor to private sector and governmental clients.

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