OLIVER WYMAN

GAAP LONG DURATION TARGETED IMPROVEMENTS
AN OVERVIEW

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Section 1 | Overview

GAAP Long Duration Targeted Improvements objectives
Revisions to simplify and enhance financial reporting

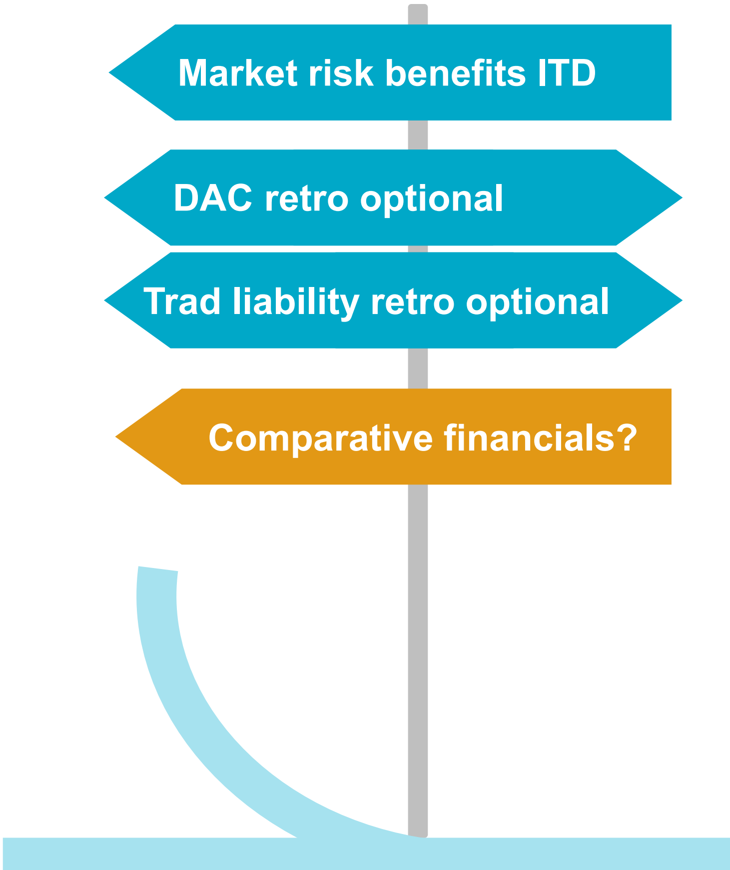
1. **Simplify amortization of deferred acquisition costs**
2. **Improve timeliness by recognizing changes in expected traditional and limited pay future liability payments**
3. **Simplify reporting of market-based guarantees through consistent fair value accounting**
4. **Enhance effectiveness of required disclosures**

What's changing?

	DAC	Traditional liabilities	Market risk benefits	Disclosures
Term, WL, and LTC/DI	✓	✓	✗	✓
SPIA and Payout	✓	✓	✗	✓
FIA, VA	✓	✗	✓	✓
UL, DA, IUL, and VUL	✓	✗	✗	✓
Participating[1]	✓	✗	✗	✗
Short-duration	✗	✗	✗	✗

1. Provision for terminal dividend changes, as well.

One key choice for transition is whether to retroactively restate DAC and traditional liabilities on the opening balance sheet



Public companies start reporting 3/2021

Market risk benefits are remeasured inception to date

- Profit of hindsight allowed if data is lacking

Default transition approach for other than market risk benefits starts with existing balances

- Adjustment made for interest rates through AOCI
- Prospective transition using current assumptions

Companies have an alternative option to retroactively restate DAC and traditional liabilities

- Retroactive true up recorded through retained earnings
- Balances also adjusted for interest rates through AOCI
- Entity-wide issue year based decision
- Actual historical data required, which will challenge many companies

Addressing the need for comparative financials is not mentioned in ASU 2018-12

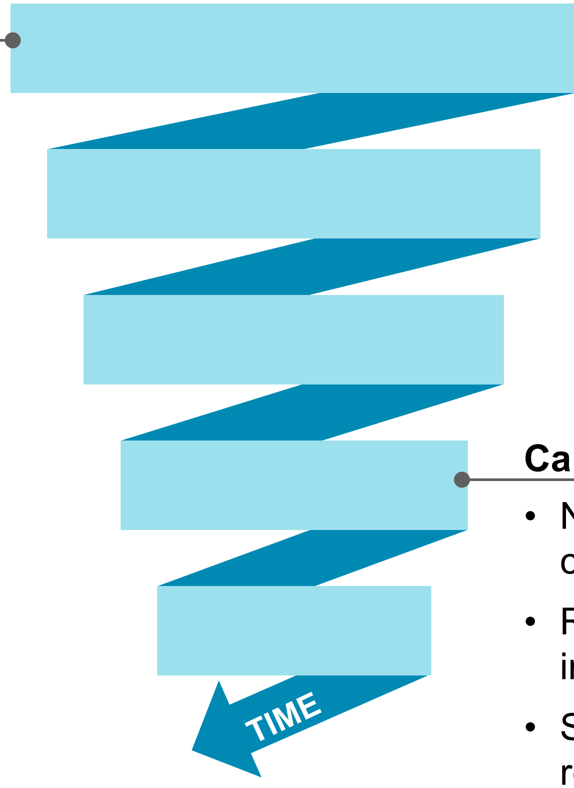
- Transition starting with the 1/1/2019 will allow for two years comparative financial data, but produces an overlap to actual reported

Some companies will find the transition balance sheet to be an opportunity to reshape financials

Capitalized costs now recognized using “straight-line amortization”

Amortization

- Amortized over expected term without interest
- Performed at individual contract level or may be grouped as long as it approximates individual
- Negative experience variance must be recognized immediately, positive are optional
- Assumption revisions recognized prospectively
- Shadow DAC no longer applies
- No longer subjected to impairment testing



Capitalization

- No change to definition of what’s capitalized
- Recognized for capitalization only after incurred
- Sales inducements and unearned revenue treated similarly except in scope for impairment testing

Grouped approach most popular and is subject to company and auditor discretion

Liability changes for traditional and limited payment contracts

	Financial line item impacted	Targeted improvements	Prior standards
1 **Assumptions**	Earnings as re-measurement	• Best estimate assumptions with no PADs • At least annual review of assumptions with unlocking	• Original assumptions with PADs locked-in at issue
2 **Discount rate**	Other Comprehensive Income	• Upper-medium grade fixed-income instrument yields updated quarterly • Original discount rate part of all future calculations	• Similar to other assumptions, locked-in at issue • Based on company's earned rate
3 **Premium sufficiency**	Earnings	• Excludes maintenance expenses • Original rate discounting • Sufficiency test at cohort level through net premium ratio 100% cap	• Includes maintenance expenses • Impairment testing performed at the aggregate block level including DAC

Impairment testing at the more granular cohort level increases likelihood of recognition event

Fair value of guarantee benefit lifecycle

Measurement phases

Fair value is simpler than the previous mixed approaches and more conducive to hedging

AT INCEPTION

Multiple market risk benefits are combined

Fair value will not always be zero

SUBSEQUENT

Can be negative (an asset) or positive (a liability)

Net profit from unused charges, behavior variances, volatility, and risk premiums

Instrument specific credit risk changes reported through other comprehensive income

DERECOGNITION

Deferred profit liabilty posted or loss recognized for market risk benefit in excess of liability

Gain results rarely for "non-performance“

Other comprehensive income is released

The new standards promote transparency and reduce conflicts between economic and GAAP priorities for ALM

Guarantee benefit classification and valuation approaches[1]

Non-option attributed fee calibration

Most often used when adjusting fees is appropriate

Quantification is fair value of guarantees less fees that are adjusted according to contract provisions (“attributed fees”)

Locked-in attributed fees calibrated to produce zero initial value

Attributed fees are capped at actual fees, which may cause a non-zero initial value

Non-option swap calibration

Most often used when adjusting fees is not appropriate

“Swap” series of benefits (the pay leg) in return for series of fees (the receive leg)

Locked-in spread over risk free for discounting calibrated to produce zero initial value

Spread is floored at zero, which may cause a non-zero initial value

Option

Classification most often made when there are no explicit fees

Quantification is fair value of guarantees, sometimes less fees

No calibration imposed

No anticipation of zero initial value

Free standing[2]

Classification most often made when there is no host, such as assumed reinsurance of guarantees although opinions vary

Quantification is fair value of guarantees less fees

No calibration imposed

No anticipation of zero initial value

Non-zero initial values are interpreted as an off-market issued derivative with the extra pricing attributed to the host and recognized over the host’s life

1. *Classification starts by evaluating at the contract level if the benefit qualifies as a market risk benefit, if not is it an embedded derivative. Then option vs. non-option is determined.*
2. *Continued applicability of free standing valuation approach for guarantee only reinsurance may no longer apply.*

Reinsurance accounting guidance has few specific revisions

Ceded

Accounting for ceded obligations and risk continues to be separate from direct contract accounting

Recovery of direct acquisition costs included in treaties continue to be amortized similar to direct costs, now “straight-line”

Cost of reinsurance continues to be recognized over the life of the underlying direct contracts

Amortization method for cost of reinsurance may change to “straight-line” depending on accounting policy election

Assumed

Reinsurance of guarantees only may still qualify for stand-alone derivative valuation, although the new standards may require first considering market risk benefit classification based on the direct contract

Value of business acquired will continue to be subject to loss recognition testing

Amortization method for value of business acquired may change to “straight-line” depending on accounting policy election

Accounting policy elections will determine how reinsurance reporting will change

Financials will become significantly more transparent
Example: Traditional products

Quarterly disclosures

- Disaggregated year-to-date liability roll-forward reconciled to income statement
- Disaggregated year-to-date DAC roll-forward reconciled to balance sheet
- Undiscounted expected future cash flows
- Actual experience compared to expected
- Amount of revenue and interest recognized
- Related reinsurance recoverable
- Weighted average liability duration
- Weighted average interest rate and method used
- Quantitative and qualitative information about net premiums capped at gross premiums

Additional annual disclosures

- Nature of deferred costs and information about inputs, assumptions, judgement, and methods used
- Information about inputs, assumptions, judgement, and methods used to measure liabilities for policy benefits and the effect of those changes on measurement

Other reporting considerations

- Liability remeasurement is a new line in the income statement, separate from disclosures in the notes
- Disaggregated liability and DAC roll-forwards from ending balance before transition to opening balance of earliest period presented on new standards
- Elective retrospective transition effects shown separately from mandatory “modified retrospective” application
- Qualitative and quantitative information about transition adjustments to retained earnings and AOCI, net premiums exceeding gross premiums, and premium deficiencies

Expanded and auditable actuarial inputs to financials require stronger infrastructure
Additional transparency may earn the industry higher average P/E

Financials will become significantly more transparent
Example: Market risk benefits

Quarterly disclosures

- Disaggregated DAC roll-forward including capitalization, amortization, and termination
- Disaggregated account balance roll-forwards along with average credit rates, cash values, buckets by guarantee and amounts in excess of guarantee
- Disaggregated market risk benefit roll-forward similar to fair value requirements including variances in: interest, equity, market volatility, actual behavior, and projected behavior. Asset and liability positions reported separately and guarantees in excess of account value shown

Additional annual disclosures

- Nature of deferred costs and information about inputs, assumptions, judgement, and method of amortization
- Information about inputs, assumptions, judgement, and methods used to measure liabilities market risk benefits and the effect of changes on measurement

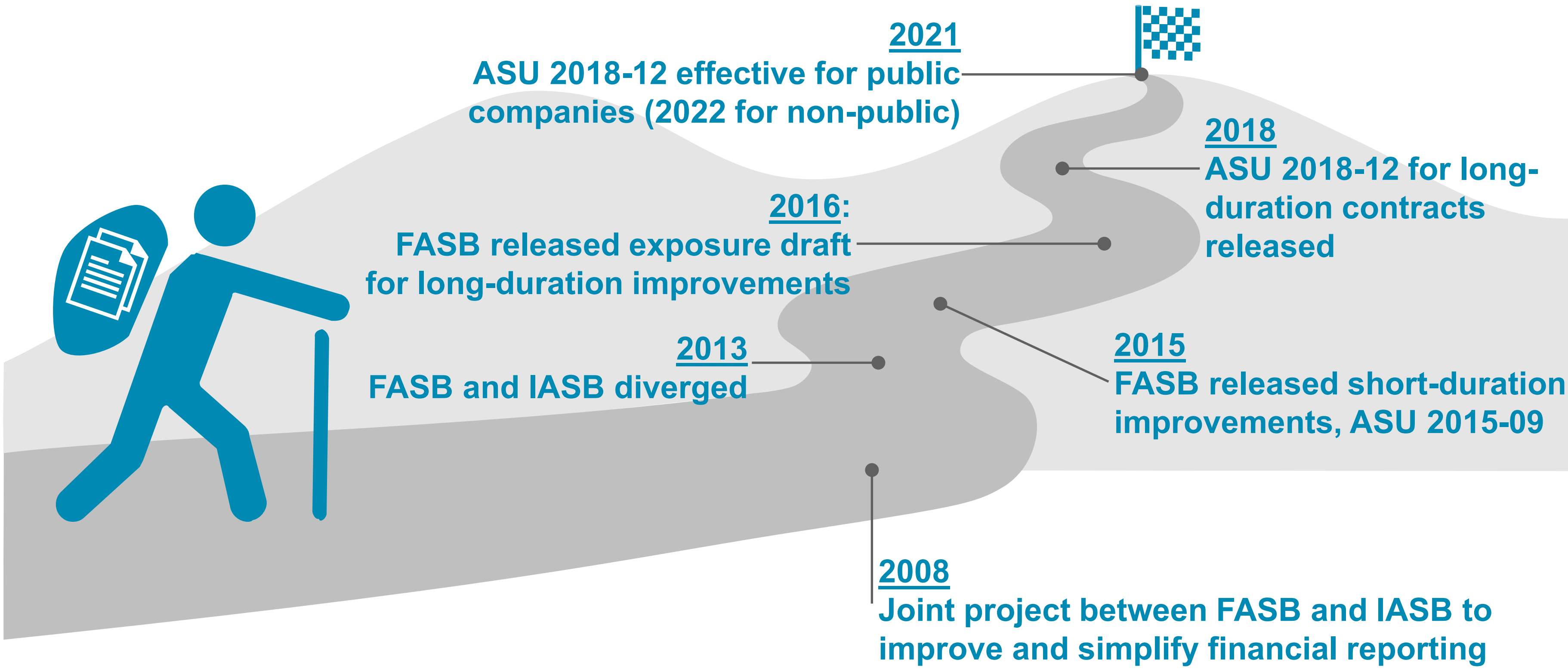
Other reporting considerations

- Market risk benefits presented separately on the balance sheet and income statement with instrument specific credit risk below the line
- Disclosures must be in a manner that allows users to understand the amount, timing and uncertainty of future cash flows arising from the liabilities
- Groupings consider how information has been presented for other purposes, do not aggregate amounts from different reportable segments, and do not make disclosures for insignificant categories except in the reconciliation

Expanded and auditable actuarial inputs to financials require stronger infrastructure
Additional transparency may earn the industry higher average P/E

Section 2 | Implementation considerations

GAAP Long Duration Targeted Improvements background and timeline



Early adoption is permitted but not expected to be common

Sample implementation timeline
Completing planning, requirements gathering, and technology design scoping as soon as possible is key to meeting the FASB deadline

	6/30/2019 – 9/30/2019	9/30/2019 – 6/30/2020		6/30/2020 – 12/31/2020 (Go live)
	Planning and requirements	**Implementation**		**Test, transition and go live**
	Q3 2019	**Q4 2019**	**Q1 to Q2 2020**	**Q3 to Q4 2020**

Activity Timeline	• Scope overall technology and modeling effort / allocation of resources
	• Make methodology decisions (e.g. transition, DAC)
	• Document requirements
	  • Input data / assumptions
	  • Model / calculation updates
	  • Disclosures and reporting
	  • Sub / general ledger updates
	• Design technology architecture
	• Kickoff implementation effort
		• Update models
		  • Liability for future policy benefits
		  • MRBs
		  • DAC
		  • Disclosures
		• Update assumption inputs and in force data (including additional data needs)
		• Implement sub / general ledger data feed changes
		• Plan for 2019 / 2020 comparable reporting
			• Complete model and data implementation
			• Develop expanded disclosure reporting processes
			• Update sub / general ledger including B/S and I/S changes
			• Prepare 2019 / 2020 comparable financial reports
			• Prepare test strategy / unit test
			  • Data feeds / assumptions
			  • Liability / projection models
			  • Disclosures reports
			  • Sub / general ledger
				• Test integration of pre and post model processes
				• Perform UAT for expanded disclosures, financial reports, financial statements
				• Implement transition methodology and create transition financial statements
				• Train resources and complete business readiness
				• Go live with task calendar (all hands on deck)

Milestones and deliverables

9/30/2019:
- Project plan & decisions
- Business requirements
- Technology architecture

6/30/2020:
- Model updates approved
- Integrated system feeds
- Financial systems updated
- Testing strategy and test case documented
- Attribution of GTI impacts

12/31/2020:
- Transition plan and method
- Testing approved
- Training complete
- Procedures documented

Data Impacts under GAAP Long Duration Targeted Improvements
Traditional products and inception to date market risk benefits require the most effort

	Traditional liabilities	DAC	Market risk benefits
Model input data and assumptions	• Update data feeds to incorporate actual experience to date • Update assumptions to reflect current best estimates with annual revisions • Eliminate PAD from traditional-type product assumptions • Update discount rate to upper medium grade bond yields • Set expense assumption to account for claims maintenance costs only	• Update data feeds and assumptions to include actual and projected persistency experience • Make similar updates for unearned revenue and sales inducements	• Update in-force feeds to include required market data for newly classified MRB / fair value benefits • Gather inception to date fair value data and produce valuations • Make required updates to scenario generation process for stochastic fair value calculations
Disclosures, output data processes and financial systems	• Update model output, reporting processes and systems for reserve rollforwards • Update of model output data processes to capture OCI update for discount rate differences	• Update model output, reporting processes and systems for DAC/UREV/DSI rollforwards • Remove shadow DAC AOCI related adjustments from ledger / sub ledger feeds	• Update subledger / ledger feeds to reflect Instrument specific credit risk in AOCI • Update model output data and reporting process and systems for MRB rollforwards • Update process and systems to show MRB liability and changes separately on B/S and I/S
	Other disclosures that apply across pillars • Additional disclosures including crediting rates, NAR and methodology / judgements used for measuring liabilities • Prepare disclosures on transition adjustments • Create a separate presentation of remeasurement gains / losses required in I/S		

Modeling considerations
Changes intimately affect all elements of actuarial models

	Modeling component	Considerations
1	Model inputs	• Add new fields to in-force files in support of new calculations • Enhance assumption update process to accommodate more frequent updates, especially for blocks where assumption updates were not previously required • Create a stochastic scenario generation process for MRBs

2	Calculation engine	• Implement revised guidance
		  • Unlocked / unpadded traditional & limited pay contracts
		  • Fair valued MRBs
		  • Simplified DAC amortization
		• Capture quarterly discount rate update

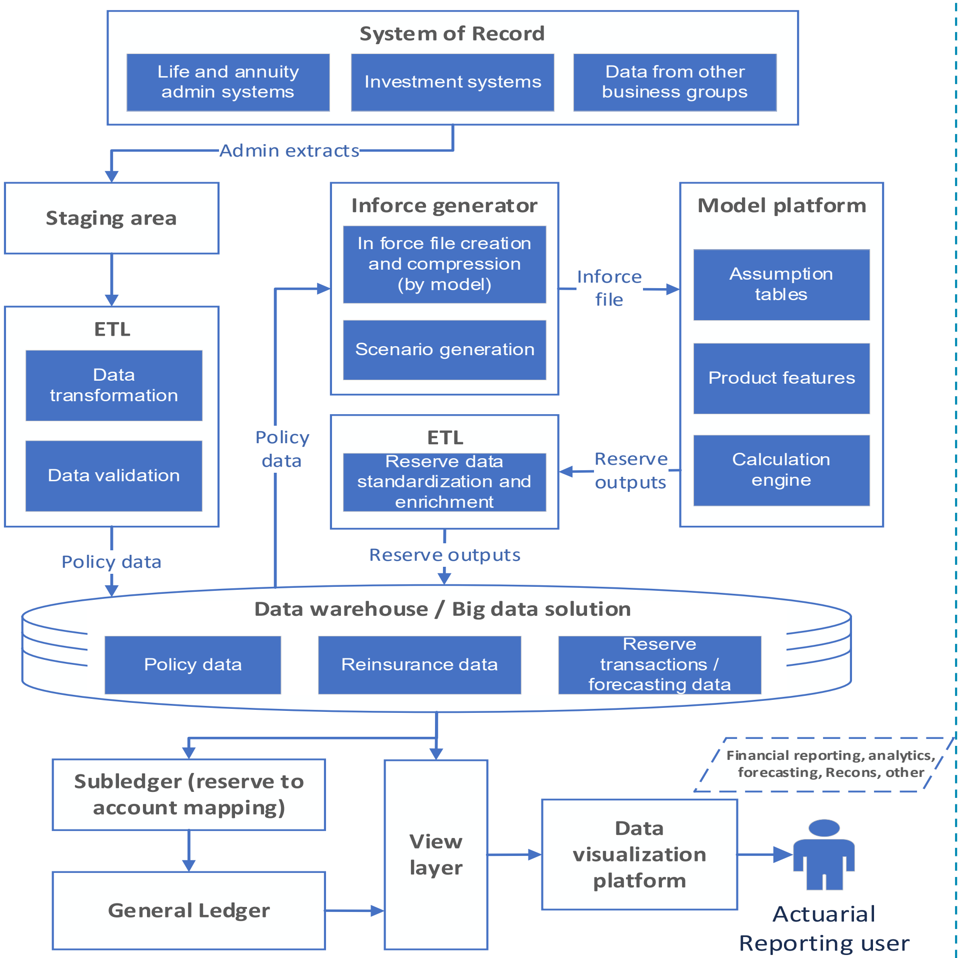
3	Model outputs	• Revamp model outputs and downstream back-ends for new regime • Prepare for issue year cohort reporting • Perform regular attribution and waterfalls (e.g. discount rate in OCI) • Support disaggregated roll-forwards with enhanced analysis and insight

GTI provides companies with an opportunity to execute a larger valuation overhaul

Improvement areas

Tactical and immediate improvements in data processes could lay the foundation for a mature target state under the new GAAP standards

Reference actuarial architecture



Improvement opportunities

Tactical

Integration

- Rectify and automate uncovered data issues in conversion
- Move access database processes to a more IT controlled environment

Reporting

- Select a new modern data visualization solution and Pilot key reports using existing data sources

Strategic

Integration

- Implement a new data warehouse
- Centralize all master data and transformation business rules in the new data warehouse solution
- Potentially convert admin systems / outsource their administration to improve efficiencies

Reporting

- Implement a new central visualization platform, fed by a view layer sourcing data from multiple areas

Accounting

- Implement a subledger solution to host business rules for all journal entries