

Valuation Actuaries & Collaboration

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Session
Agenda

Evolution of Valuation
Processes

Need for cross department &
cross functional collaboration

Examples & benefits of
collaboration

Evolution of Valuation Process



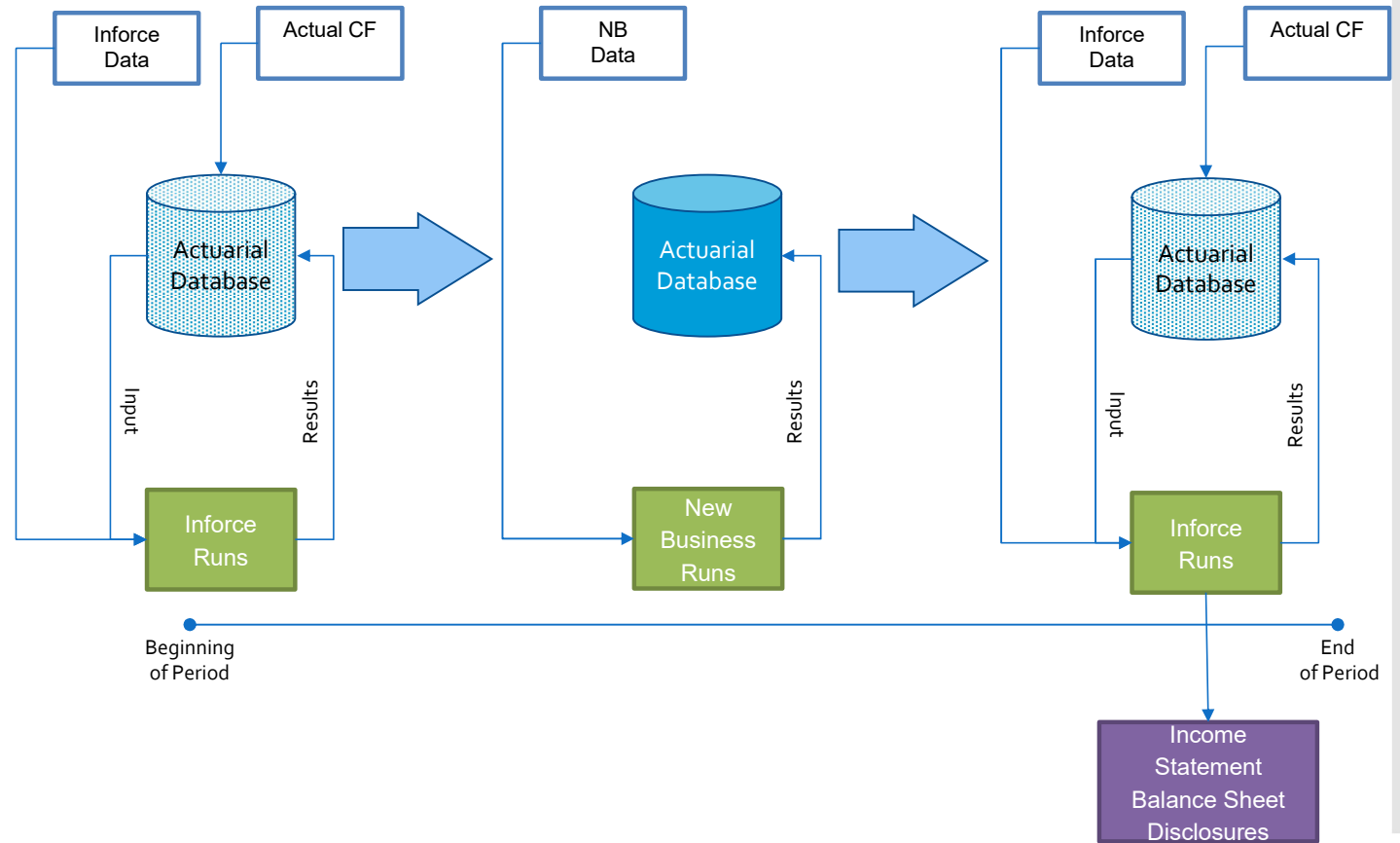
Historic Valuation Processes

- Focus was on actuarial calculations
- Simple in-force update and capture of final results on the back-end
- Balance Sheet focus

Emerging Valuation Processes

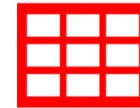
- Combine results from multiple model projections
- Dependency on results from prior periods
- Incorporate results performed at the point of sale (i.e. at issue)
- May directly incorporate accounting data
- Focus includes the production of Rollforwards and Income Statement line items

Sample IFRS 17 / LDTI Process Diagram



Collaboration Partners

- IT
- Pricing Actuaries
- Accounting
- Investments
- Budget & Expense



Collaboration Partners: IT

- Production of inforce data files
- Sourcing & Allocation of accounting data
- Actuarial Databases
- Systematic feed of prior period results to current period inputs
- Automated disclosure reporting tools

IT
Collaboration
Example:
Background

Task: Setting up IFRS Groups

Company Details

Products Sold: Term, UL, VUL, Group LTD

- Stopped selling VUL in 2021
- All other products are actively sold

Legal Entities: ABC, ABC-NY

- Same products sold in both entities

Reinsurance: Active YRT Treaties on Term & UL
business

Proposed Structure by Actuarial

IFRS Group Table - ABC Legal Entity					
Group ID	Portfolio	Issue Year	IFRS Method	OCI Flag	Direct vs Reins
1	Term	2021-	GM	Y	D
2	UL	2021-	GM	Y	D
3	VUL	2021-	VFA	Y	D
4	Group LTD	2021-	PAA	Y	D
5	Term	2022	GM	Y	D
6	UL	2022	GM	Y	D
7	Group LTD	2022	PAA	Y	D
1001	Term	All	GM	Y	R
1002	UL	All	GM	Y	R

IFRS Group Table - ABCNY Legal Entity					
Group ID	Portfolio	Issue Year	IFRS Method	OCI Flag	Direct vs Reins
2001	Term	2021-	GM	N	D
2002	UL	2021-	GM	N	D
2003	VUL	2021-	VFA	N	D
2004	Group LTD	2021-	PAA	N	D
2005	Term	2022	GM	N	D
2006	UL	2022	GM	N	D
2007	Group LTD	2022	PAA	N	D
3001	Term	All	GM	N	R
3002	UL	All	GM	N	R

Legal Entity Table			
Legal Entity	OCI Flag	Transition Date	Group ID Start
ABC	Y	12/31/2021	1
ABCNY	N	12/31/2021	2001

Portfolio Table				
Portfolio	Issue Year Start	Issue Year End	IFRS Method	Reins Flag
Term	1980	9999	GM	Y
UL	2000	9999	GM	Y
VUL	2010	2021	VFA	N
Group LTD	1980	9999	PAA	N

IFRS Group Table			
Group ID	Portfolio	Issue Year	Legal Entity
1	Term	2021-	ABC
2	UL	2021-	ABC
2001	Term	2021-	ABCNY
2002	UL	2021-	ABCNY

IT
Collaboration
Example:
IFRS Groups

IT Database Structure



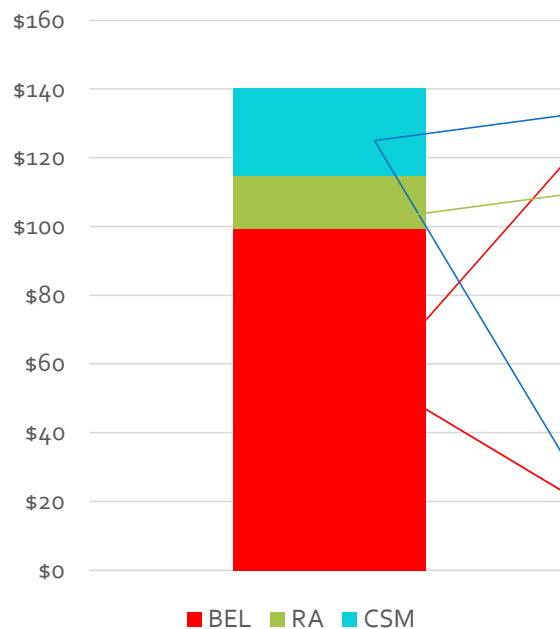
Collaboration Partners: Accounting

- Actuarial systems now take in accounting data
- Portions of the Income Statement potentially coming directly from actuarial systems
- Increased importance on alignment of accounting data and actuarial models



Accounting Collaboration Example: Background

IFRS 17 Balance Sheet Illustration



IFRS 17 Income Statement

Insurance Revenue

Expected Cashflows

Release of CSM

Release of RA

Insurance Service Expense

Actual Cashflows

Insurance Finance Income

Actual Investment Income

Insurance Finance Expense

Interest on BEL

Interest on CSM

$$\text{CSM} = \text{CSM Last Period} + \dots + \text{Premiums A vs E} + \text{Acq Exp A vs E} + \text{Investment Component A vs E}$$

Accounting Collaboration Example: Transactional data tagging



- How do ledger product mappings align with portfolio definitions?
- Does the transactional data include a policy #?
- Can the issue date be found based on policy #?
- What rules should be established for unmatched policies?
- How are rider benefits & supplemental contracts treated?

Accounting Collaboration Example: Annuitization

Annuitization Accounting Data Example					
Account_Name	Prod_Name	Policy_Num	Debit_Amt	Credit_Amt	Acct_Date
Surrender Benefits	SPDA	K123446	100,000.00	-	12/22/2015
Surrender Charges	SPDA	K123446	-	5,000.00	12/22/2015
Payments on Supp Cont	Supp Cont	SC123456	1,200.00	-	12/22/2015
Consideration for Supp Cont	Supp Cont	123456	-	95,000.00	1/8/2016
Payments on Supp Cont	Supp Cont	SC123456	1,200.00	-	1/15/2016
Payments on Supp Cont	Supp Cont	SC123456	1,200.00	-	2/16/2016
Payments on Supp Cont	Supp Cont	SC123456	1,200.00	-	3/15/2016
Payments on Supp Cont	Supp Cont	SC123456	1,200.00	-	4/15/2016



Model Variable Mapping		
Account_Name	Model_Variable	Default Rule
Surrender Benefits	Benefits_Paid_A	Oldest IY
Surrender Charges	Benefits_Paid_A	Oldest IY
Payments on Supp Cont	Benefits_Paid_A	Oldest IY
Consideration for Supp Cont	Benefits_Paid_A	Oldest IY

Key Points: Collaboration

- Increased need due to change in accounting standards
- It takes time
- There's a lot to learn
- Produces a better end product



Questions...

