Singapore Actuarial Society and Sri Lankan Actuarial Association
Joint webinar series on “Future of Insurance”

IFRS 17 and RBC :
Are synergies possible?

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pwc

Agenda

1. IFRS 17 and RBC – are they identical?
2. Finding synergies
3. IFRS 17 Distinctives
4. Brace yourself for a (long) road ahead
5. Taking the next step

Poll

1. IFRS 17 and RBC are identical.
- Yes
- No

2. Similarities are found in the following.
- Cash flow
- Discount rate
- Reinsurance

3. How long do you think IFRS 17 implementation will take?
- < 1 year
- 2 - 3 years
- 4 years or more

Did you get it right?

1. IFRS 17 and RBC are not identical.
2. Some similarities are found in cash flow, discount rate, risk margin.
3. IFRS 17 implementation can be expected to take up to 4 years.

Are they identical?

IFRS 17

- International Financial *Reporting Standard* for Insurance Contracts issued by the International Accounting Standards Board in May 2017.
- Single measurement model
- Replace IFRS 4
- Economic valuation

RBC

- A *regulatory approach* to determine an adequate amount of capital to support an insurer's operations, given its risk profile.
- Ensure solvency and meet financial obligations.
- Economic valuation

If similar, why not alignment?

- While similar in some characteristics, each serves different objectives.

IFRS 17

- Improves consistency
- Enhance transparency through disclosures

RBC

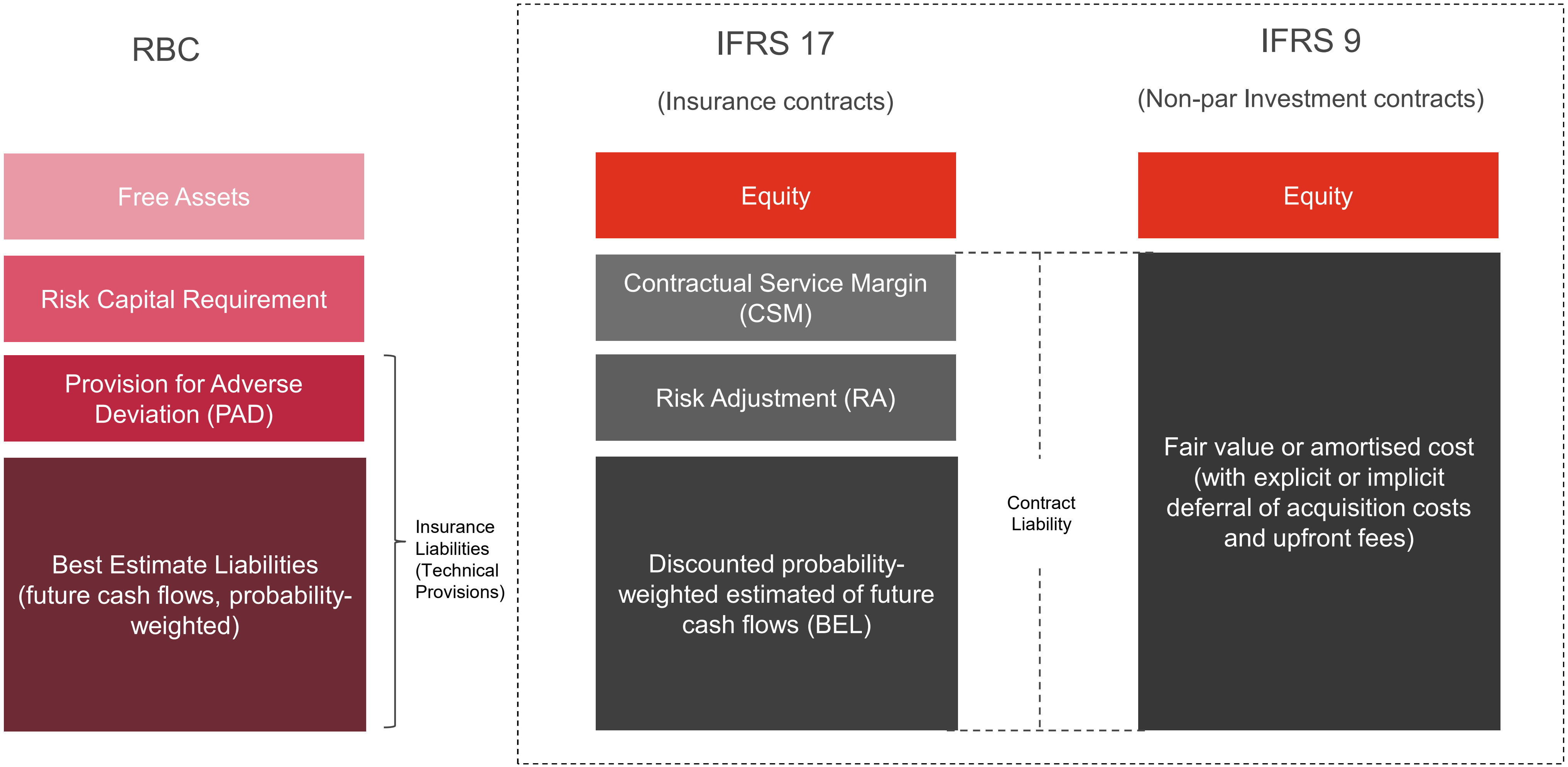
- Protect solvency
- Ensure sufficient capital to meet obligations
- Fair, safe and stable insurance markets
- Contribute to financial and economic stability

Are synergies possible? Where can we find leverage?

Both IFRS 17 and RBC require economic valuation or a probability-weighted estimate of future cashflows, discounted and allowance for risk.

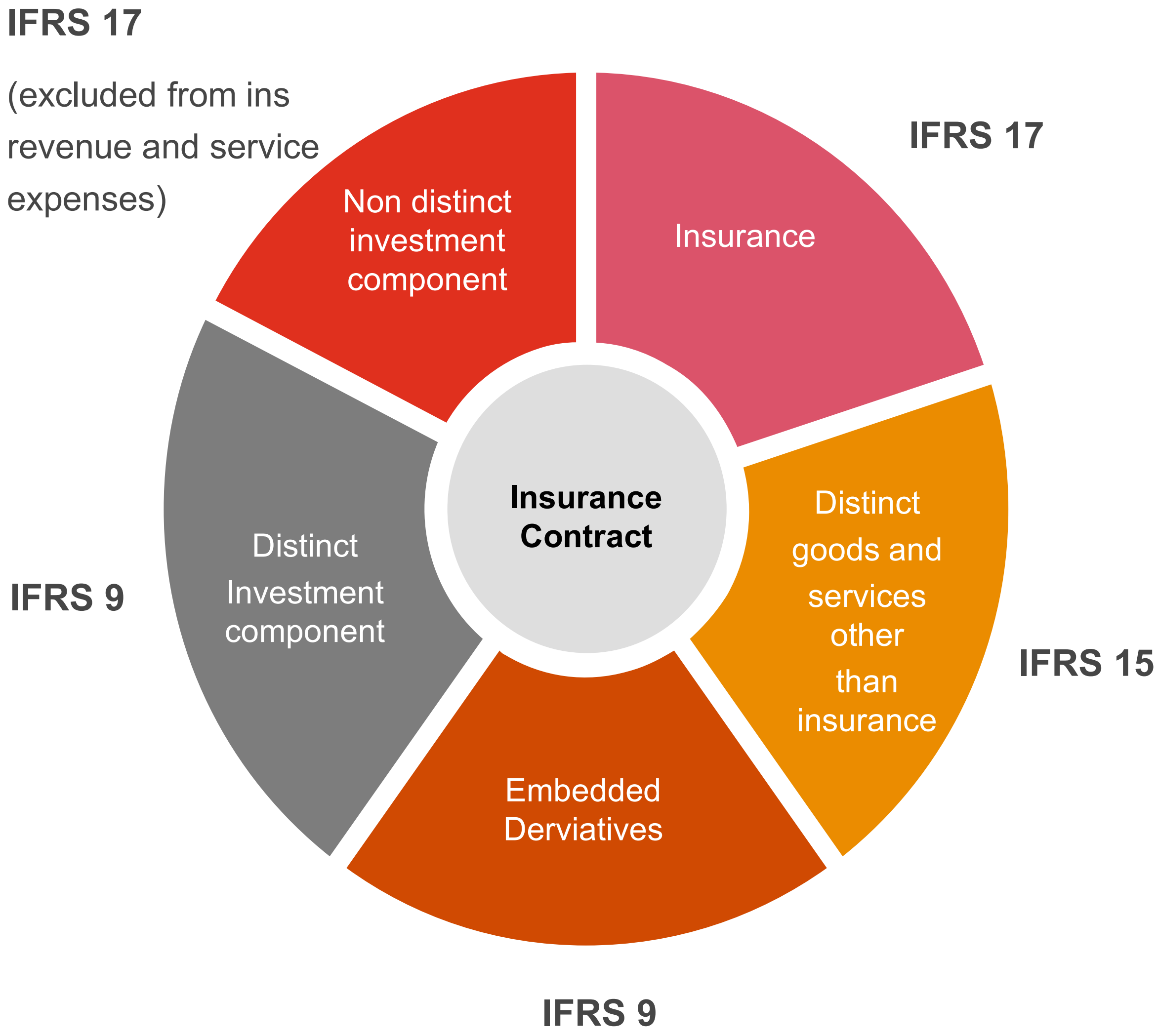
* Differences may exist between IFRS 17 and RBC

RBC vs IFRS 17



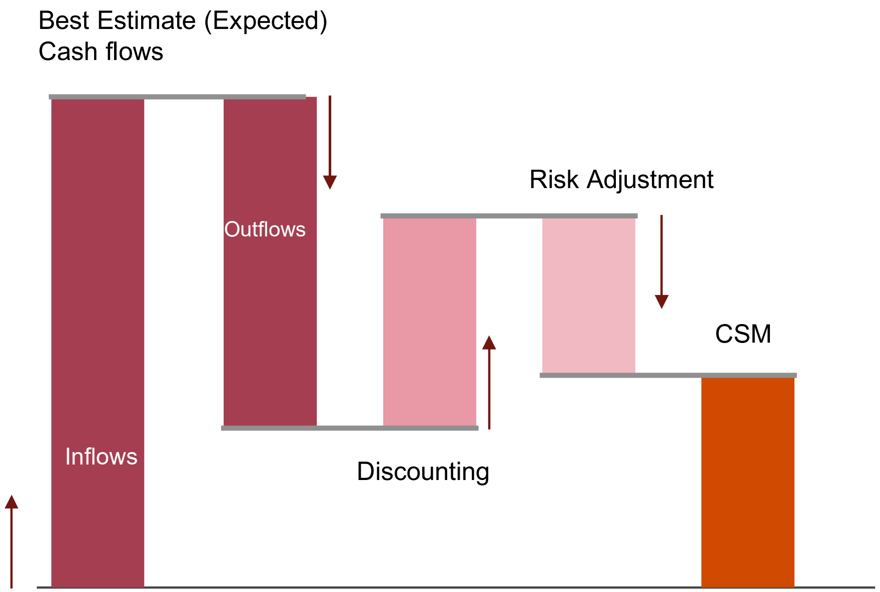
Under IFRS 17, an insurance contract may be required to be separated into various components.

Such distinction does not exist under RBC.



Cash Flows

- Largely similar but may not fully align.
- Certain cash flows not attributable to (fulfilment) of a contract excluded under IFRS 17.
- For IFRS 17, directly attributable acquisition expenses considered with implicit deferral through CSM amortisation.
- No equivalent under RBC.



Illustrative only : size and direction may vary with different contracts.

Fulfilment Cash Flows for IFRS 17

Included*

- Premiums and related payments
- Claims and benefits, including paid in kind
- Discretionary payments and payments that vary with returns on underlying items
- Payments from embedded derivatives, including options and guarantees
- Insurance acquisition cash flows
- Claim handling costs
- Administration and maintenance costs
- Transaction-based taxes and levies
- Recoveries such as salvage and subrogation
- Fixed and variable overheads
- Other costs

Excluded

- Some not directly attributable acquisition costs, such as product development and training costs
- Assets investment returns
- Cash flows from reinsurance contracts held
- Income taxes
- Cash flows related to components separated from insurance contracts

May require different expense allocation for RBC and IFRS 17!

*** Only if directly relate to the fulfilment of the contract**

Discount Rate – how to leverage?

RBC Discount rates would be prescribed.

Leveraging for IFRS 17 is possible depending on how closely they meet IFRS 17 requirements.

Differences likely to exist, where adjustments are made from one (basis) to the other.

IFRS 17 Para 36

An entity shall adjust the estimates of future cash flows to reflect the ***time value of money and the financial risks related to those cash flows*** , to the extent that the financial risks are not included in the estimates of cash flows. The discount rates applied to the estimates of the future cash flows described in paragraph 33 shall:
a) reflect the time value of money, ***the characteristics of the cash flows*** and the liquidity characteristics of the insurance contracts;

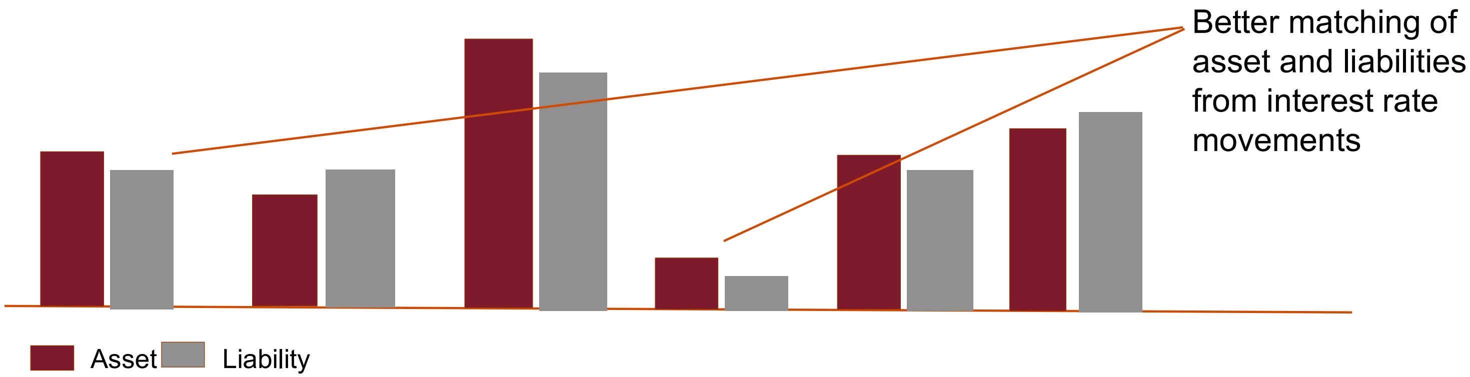
b) be ***consistent with observable current market prices*** (if any) for financial instruments with cash flows whose characteristics are consistent with those of the insurance contracts, in terms of, for example, timing, currency and liquidity; and

c) ***exclude*** the effect of ***factors*** that influence such observable market prices but ***do not affect*** the future cash flows of the insurance contracts.

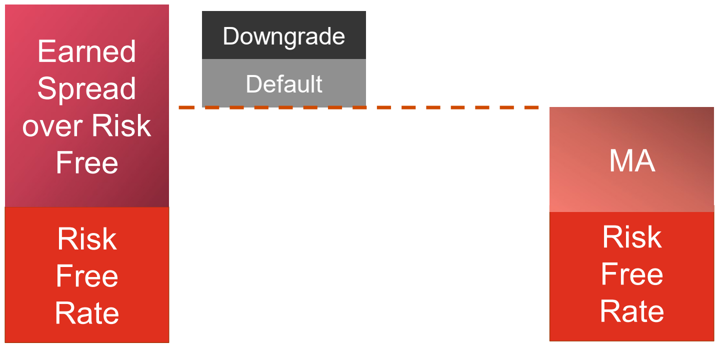
IFRS 17 Para B74

Estimates of discount rates shall be ***consistent*** with other estimates used to measure insurance contracts to avoid double counting or omissions; for example:
a) cash flows that ***do not vary based on the returns on any underlying items shall be discounted at rates that do not reflect any such variability***;
b) cash flows that ***vary based on the returns on any financial underlying items*** shall be:
i. ***discounted using rates that reflect that variability***; or
ii. adjusted for the effect of that variability and discounted at a rate that reflects the adjustment made.
c) nominal cash flows (i.e.. those that include the effect of inflation) shall be discounted at rates that include the effect of inflation; and
d) Real cash flows (i.e.. those that exclude the effect of inflation) shall be discounted at rates that exclude the effect of inflation.

Matching Adjustment for RBC



Typical MA Calibration…



- Average yield of assets backing guaranteed liabilities
- Adjusted for defaults and downgrades
- Must pass some criteria or predictability tests and cash flow matching for specified number of years e.g. first 20 years.
- Requirements on assets backing each MA portfolio.
- Regulatory approvals and annual audits.

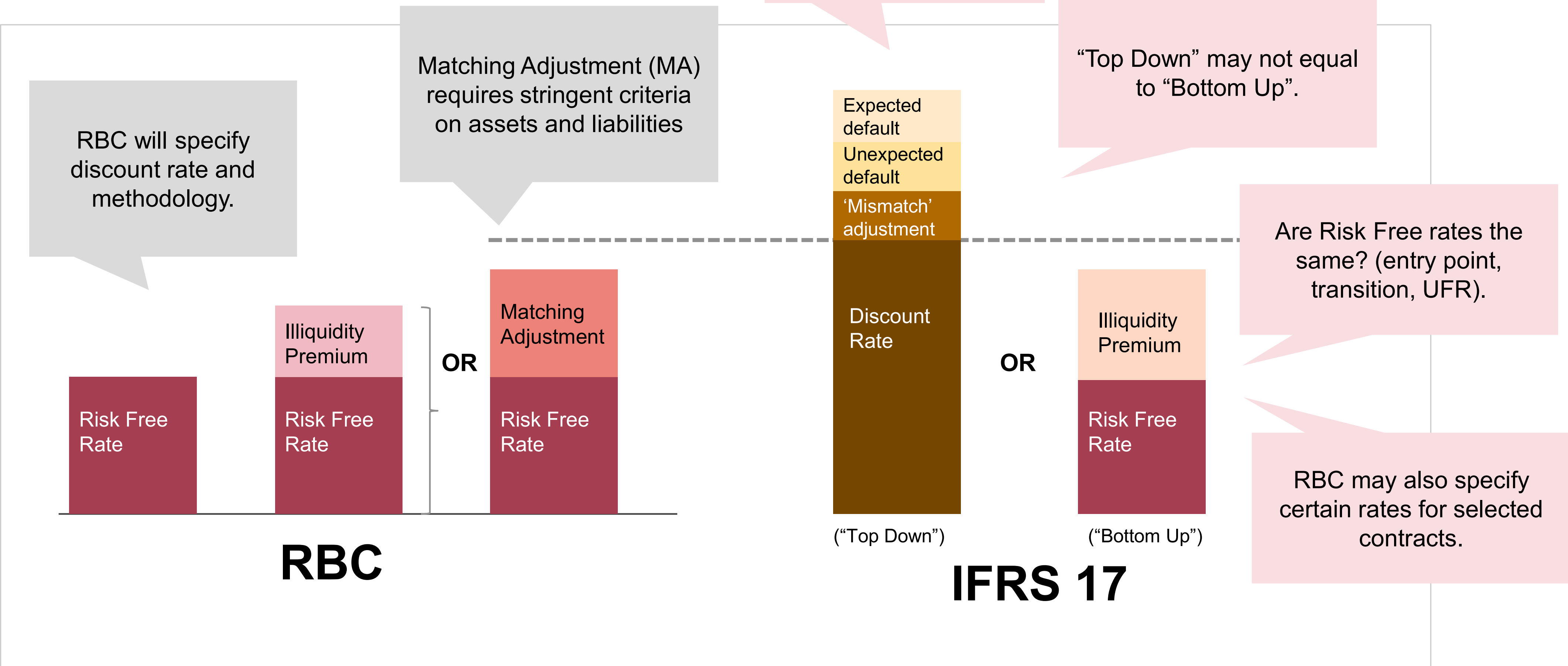
IFRS 17 Discount Rate

Top down discount rate	
Actual or expected reference portfolio rate	7.0%
Duration mismatches	0.3%
Market risk premium for expected credit losses	-1.0%
Market risk premium for unexpected credit losses	-0.6%
Insurance contract discount rate	**5.7%**

Difference between the two methods not required to be reconciled

Bottom up discount rate	
Insurance contract discount rate	**5.5%**
Liquidity premium	1.5%
Risk free rate of return	4.0%

Discount Rate



Risk Margin

- RBC PAD typically follows a ‘cost of capital’ approach with a prescribed calibration.
- IFRS 17 follows the principle: ‘the compensation that the entity requires for bearing the uncertainty about the amount and timing of the cash flows that arises from non-financial risk’.

IFRS 17 Techniques

- **Cost of Capital**
- **Value at Risk (VaR)**
- **Conditional Tail Expectation (CTE)**

Most find it appealing to use RBC’s allowance for risk models to calibrate IFRS 17 RA.

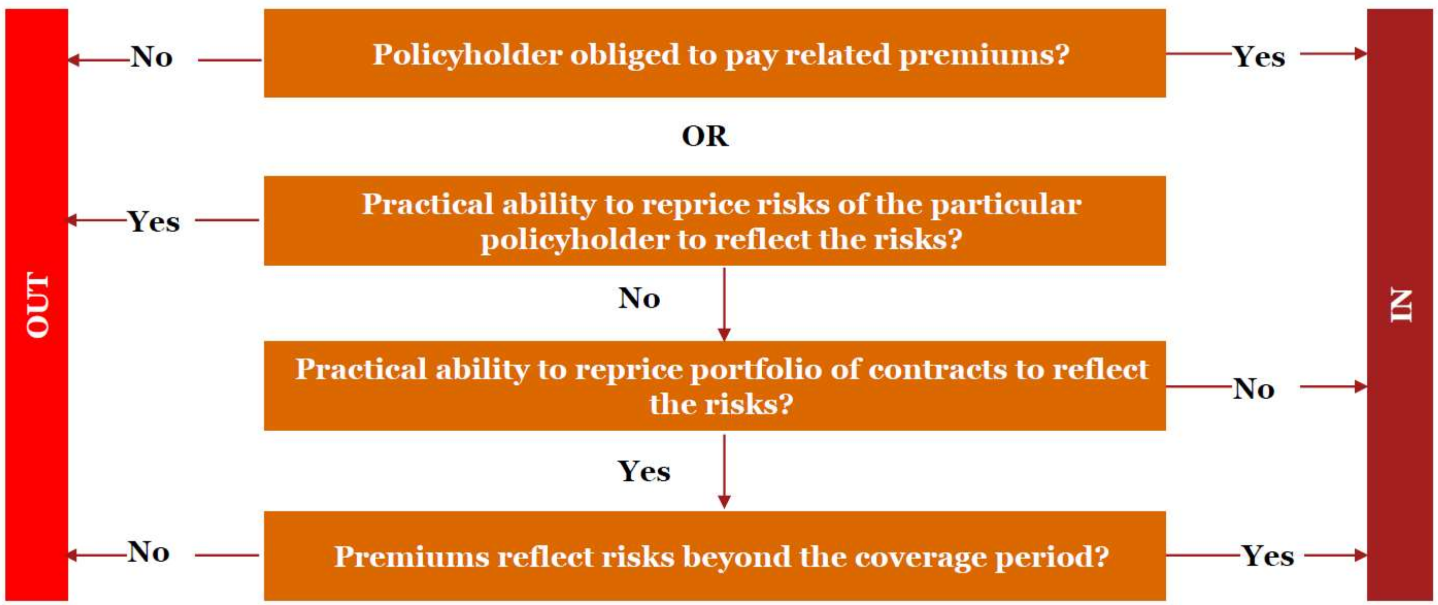
However, there is *potential to have a different calibration* from RBC.

E.g. differences could arise from assumed cost rate, level of diversification, types of risks (e.g. operational), reinsurance or allocation from group level. Some Par contracts have no PAD for RBC!

Contract Boundary

- IFRS 17 has its own considerations (below) which may defer from RBC.
- Depending on the nature of contracts and regulatory considerations, contract boundary for RBC may be longer.

Is the cash flow in the boundary of an insurance contract?



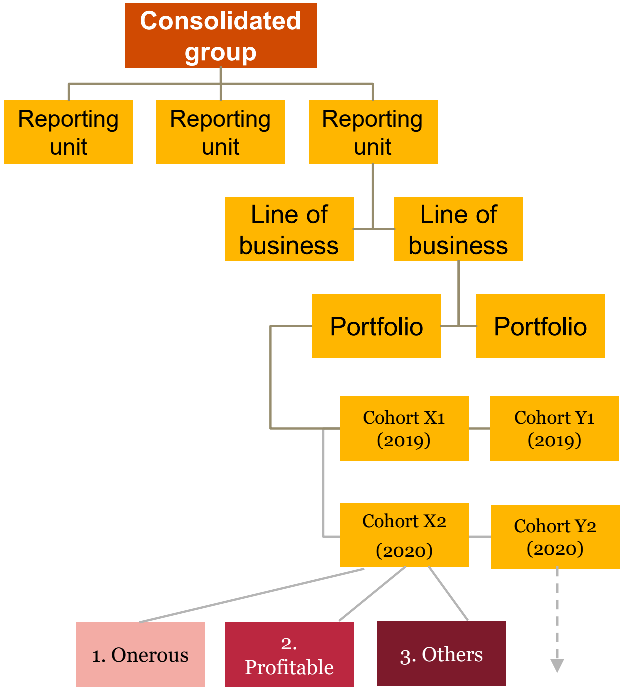
- Cash flows beyond the boundary are not recognised.
- Likely to be similar for most contracts but differences may exists.
- E.g. YRT contracts, ILP, Individual Health / Hospitalisation contracts

IFRS 17 Measurement Models

	General Measurement (GMM)	Premium Allocation Approach (PAA)	Variable Fee Approach (VFA)
Why is it needed?	Default model for all insurance contracts	To simplify for short term contracts with little variability	For contracts where payments to policyholders are linked to underlying assets
Types of contract	• Long-term whole life, term, critical illness insurance • Traditional annuities • US style universal life • Reinsurance contracts • Certain general insurance contracts	• General insurance • Short-term life/health/medical /group employee benefit contracts	• Unit-linked contracts, US variable annuities and equity index-linked contracts • Continental European 90/10 contract • UK with profits contracts
Mandatory?	Mandatory	Optional	Mandatory

Some leverage on cash flows, discount rate, RA and other assumptions set up to build up RBC and IFRS17 liabilities.

IFRS 17 Aggregation of portfolios (annual cohorts)



3 groups at inception **:
1. Onerous;
2. Profitable with no significant risk of becoming onerous; and
3. Other profitable contracts

Definition of portfolio:

"a portfolio comprises contracts subject to ***similar risks*** *and* ***managed together****" [paragraph 14]*

Requires that a group shall not include contracts issued more than one year apart

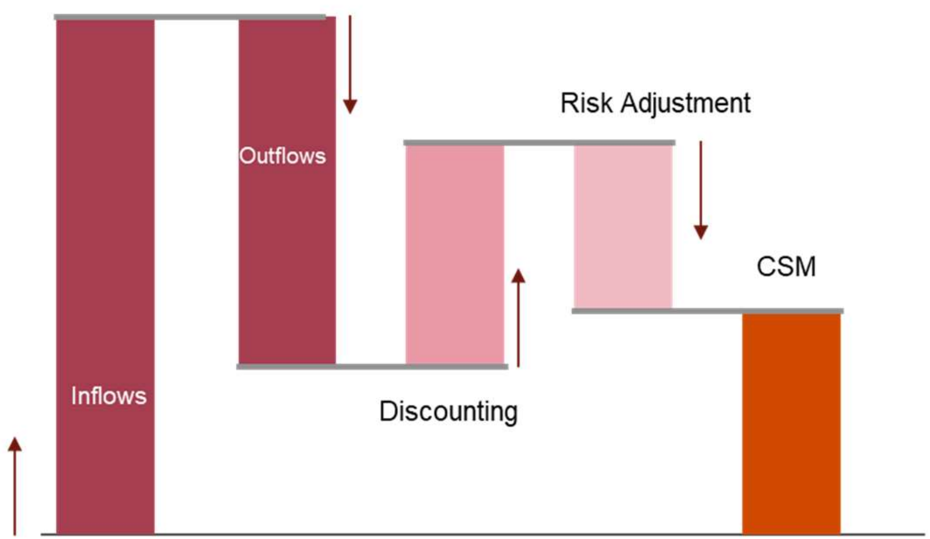
Significant impact on modelling and data requirements

Grouping into onerous/profitable prevents "loss leaders"

Expect a more granular grouping compared to RBC

May be easier to start from a granular level and aggregate upwards to meet IFRS 17 and RBC requirements.

Contractual Service Margin (CSM)



Illustrative only : size and direction may vary with different contracts.

- Represents future unearned profits
- Unlocked for changes in fulfilment cash flows related to future services
- CSM cannot be negative, but can be reinstated
- Previous losses have to be reversed before reinstating the CSM
- Released over coverage period based on coverage units
- Locked in rates should be used (GMM) for accretion of interest and calculation of changes in cash flows that offset the CSM

Presentation and Disclosure – Statement of Financial Position

Assets (Current)	Assets (New)
Cash and cash equivalents	Cash and cash equivalents
Financial investments	Financial investments
Segregated fund assets	Segregated fund assets
Accrued investment income	Accrued investment income
Investment property	Investment property
Investments in associates	Investments in associates
Receivables from insurance business	Insurance contracts assets*
Reinsurance assets	Reinsurance contracts assets*
Deferred acquisition costs (where applicable)	…
Property and equipment	Property and equipment
Goodwill and other intangible assets	Goodwill and other intangible assets
Deferred income tax assets	Deferred income tax assets
Current income tax assets	Current income tax assets
Other assets	Other assets
Total assets	**Total assets**

* including non-distinct investment and service components

= no changes to presentation

Separate presentation of group of insurance contracts in an asset and liability position

Ceded reinsurance contracts are presented separately from insurance contracts

DAC and premium receivable are <u>not</u> separate assets but part of fulfilment cash flows in policy liability

Statement of Financial Position

Liabilities and Equity (Current)	Liabilities and Equity (New)
Insurance contract liabilities	Insurance contracts liabilities*
Insurance accounts payable	Reinsurance contracts liabilities*
Investment contract liabilities	Investment contract liabilities
Employee benefit obligations	Employee benefit liabilities
Derivative liabilities	Derivative liabilities
Deferred tax liabilities	Deferred tax liabilities
Other liabilities	Other liabilities
Senior debentures	Senior debentures
Subordinated debt	Subordinated debt
Segregated fund liabilities	Segregated fund liabilities
Total liabilities	**Total liabilities**
Issued share capital and contributed surplus**	Issued share capital and contributed surplus
Retained earnings and accumulated OCI**	Retained earnings and accumulated OCI
Total Equity	**Total Equity**
Total liabilities and equity	**Total liabilities and equity**

*including non-distinct investment and service components

= no changes to presentation

Separate presentation of insurance contracts in an asset and liability position

Ceded reinsurance contracts are presented separately from insurance contracts

Insurance payables are not separate liabilities but part of fulfilment cash flows in policy liability

Overview of financial statements Statement of comprehensive income -

Income Statement (Currently)

Revenue

Premiums gross

Less ceded

Net premiums

Net investment income (loss)

Interest and other investment income

Fair value and foreign currency changes on assets and liabilities

Net gains (losses) on available-for-sale assets

Fee income

Total revenue

Benefits and expenses

Gross claims and benefits paid

Increase (decrease) in insurance contract liabilities, reinsurance assets and investment contract liabilities

Reinsurance expenses (recoveries)

Commissions

Operating expenses

Premium taxes

Interest expense

Total benefits and expenses

Income tax expense

Net income (loss) attributable to participating policyholders

Preferred shareholders dividend

Common shareholders' net income (loss)

= no changes to presentation

Income Statement (New)*

Insurance revenue

Insurance service expenses

Insurance service result

Insurance finance income or expense

Investment income

Investment result

Profit or loss

Other comprehensive income (if elected)

Insurance finance income or expense

Changes in FVOCI (fair value through other comprehensive income)

Total other comprehensive income

RBC statements (example from Singapore)

Presentation of Assets and Liabilities still a rather "traditional view".

NAME OF INSURER ____________________

FORM A1 – STATEMENT OF FINANCIAL POSITION

AS AT ____________________

Co Code	Year	Month

Description	Annex	Row No.	Insurance Funds Established and Maintained by Insurer under the Act					
			Life Business in Singapore					
			Singapore Insurance Fund			Offshore Insurance Fund		
			Participating	Non-Participating	Investment-Linked	Participating	Non-Participating	Investment-Lir
ASSETS								
Equity securities:								
Listed collective investment schemes		1						
Unlisted collective investment schemes		2						
Other listed equity securities		3						
Other unlisted equity securities		4						
Total (1 to 4)		5						
Debt securities:								
Government debt securities		6						
Qualifying debt securities		7						
Other debt securities		8						
Total (6 to 8)		9						
Cash and deposits		10						
Other investments	A1-1	11						
Loans:								
Policy loans		12						
Other secured loans		13						
Unsecured loans		14						
Total (12 to 14)		15						
Property, plant and equipment:								
Land and buildings		16						
Other property, plant and equipment		17						
Total (16 to 17)		18						
Outstanding premiums	A1-2	19						
Deposits withheld by cedants		20						
Reinsurers' share of policy liabilities	A1-5	21						
Reinsurance recoverables on paid claims	A1-3	22						
Balances due from Head Office/ Shareholders Fund		23						
Balances due from Overseas Branches/ Related corporations		24						
Balances due from other insurance funds		25						
Other assets	A1-4	26						
Total Assets (5 + (9 to 11) + 15 + (18 to 26))		27						
LIABILITIES								
Policy liabilities (gross of reinsurance)	A1-5	28						
Outstanding claims		29						
Annuities due and unpaid		30						
Reinsurance deposits		31						

Source : MAS Notice 129 (Amendment) 2020

RBC statements (example from Singapore)

Presentation of Income statement still in the form of "Premium less outgo".

NAME OF INSURER ____________________

FORM A2 – STATEMENT OF PROFIT AND LOSS

FROM ____________ TO ____________

Co Code [ ] Year [ ] Month [ ]

Description	Annex	Row No.	Insurance Funds Established and Maintained by Insurer under the Act					
			Life Business in Singapore					
			Singapore Insurance Fund			Offshore Insurance Fund		
			Participating	Non-Participating	Investment-Linked	Participating	Non-Participating	Investment-Linked
Gross premiums		1						
Less:								
Outward reinsurance premiums		2						
Net Premiums Written (1 - 2)		3						
Gross claims settled		4						
Less:								
Reinsurance recoveries		5						
Net Claims Settled (4 - 5)		6						
Less:								
Increase/ (decrease) in policy liabilities (gross of reinsurance)		7						
Decrease/ (increase) in reinsurers' share of policy liabilities		8						
Management expenses:								
Staff costs		9						
Office rent		10						
Head office/ related corporation expenses		11						
Directors' fees		12						
Audit fees		13						
Managing agent's fees		14						
Other management expenses		15						
Total (9 to 15)		16						
Distribution expenses/ (income)		17						
Impairment loss/ (reversal of impairment loss) on receivables		18						
Other expenses	A2-1	19						
Total (7 + 8 + 16 + 17 + 18 + 19)		20						
Other income	A2-2	21						
Net investment income/ (loss)	A2-3	22						
Net Income/ (Loss) Before Tax (3 - 6 - 20 + 21 + 22)		23						
Less:								
Taxation expenses		24						
NET INCOME (23 - 24)	A2-4	25						

Source : MAS Notice 129 (Amendment) 2020

Transition

What is it?

- Determine opening balance sheet for the first year of comparative information under IFRS 17.
- Best Estimate Liability (BEL) and Risk Adjustment (RA) are measured on a current basis under IFRS 17 requirements.
- Key component is the determination of the Contractual Service Margin (CSM) of existing business.

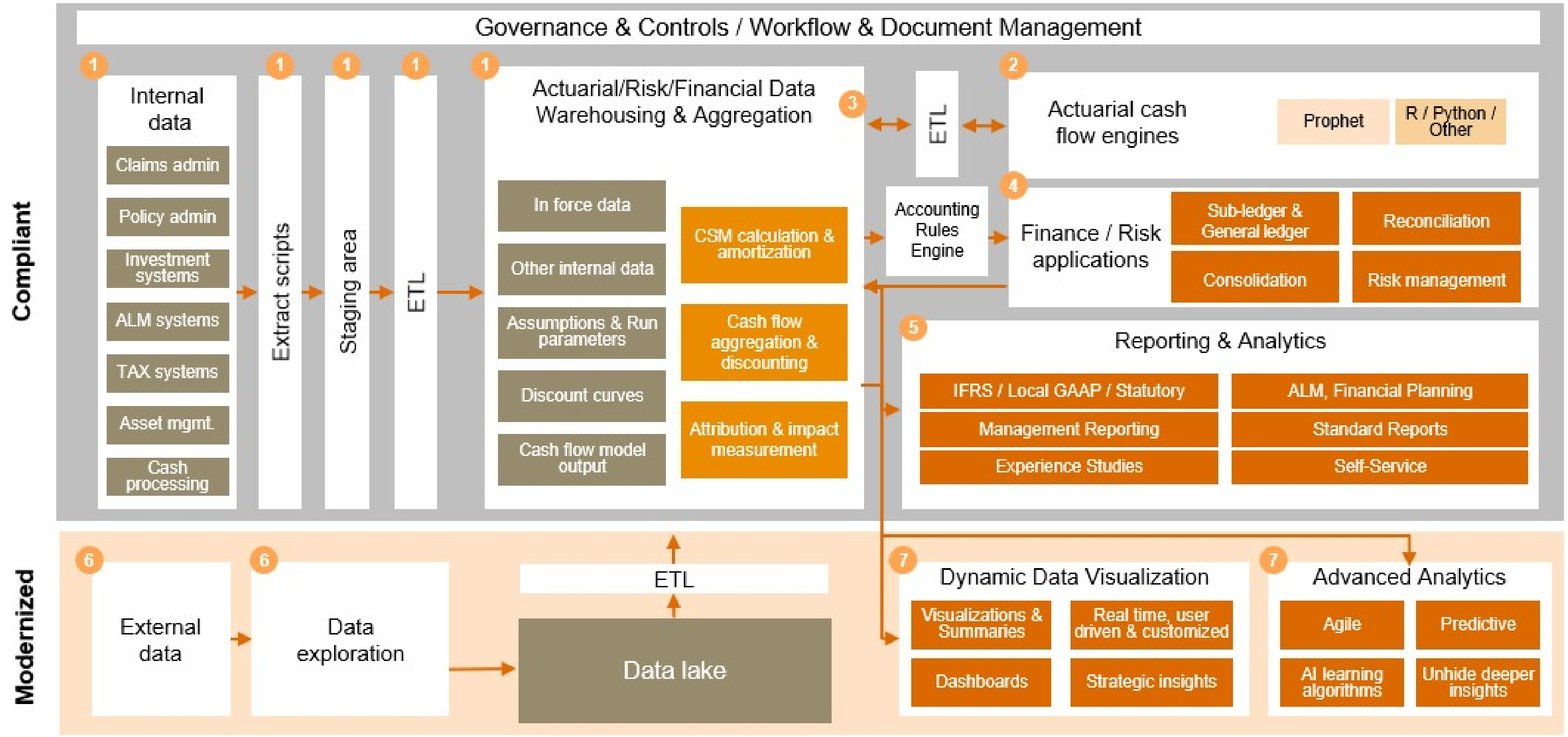
Is it important?

- CSM for existing business rolled forward post transition from which profit emergence is released from (through amortisation).
- CSM at transition will affect both retained earnings (equity) and future profits released to P/L.

What is the scope?

- All existing insurance contracts under the scope of IFRS 17.
- Insurance contracts that have expired/lapsed before the transition date are excluded.

Significant changes in systems and data required



1. Internal data available for valuation, modeling, and finance uses
2. Actuarial engines produce cash flows and feed back to the ARFDW
3. ARFDW leveraged to manage all data elements and perform data-intensive, non-actuarial calculations
4. ARFDW serves Finance and Risk applications
5. Standard and self-service reporting capabilities
6. Adding external data sources can unlock new analytical capabilities
7. Data visualization and advanced analytics can provide new insights

Other than systems, IFRS 17 and RBC would also require you to address many commercial challenges on methodology, data, etc…

How are insurers progressing across APAC?

What we have found…

Key findings

IFRS 17 implementation is taking longer than expected

The expected duration of IFRS 17 implementation programmes has increased over the past year, from 3.5 to 3.8 years, especially for life insurers.

Proactive communication with stakeholders is necessary

The survey found that 75% of respondents have started communicating with external auditors on IFRS 17.

IFRS 17 KPIs are not yet well-defined and understood

Companies are expected to use a combination of new and existing KPIs to evaluate their business performance and make their management decisions under IFRS 17.

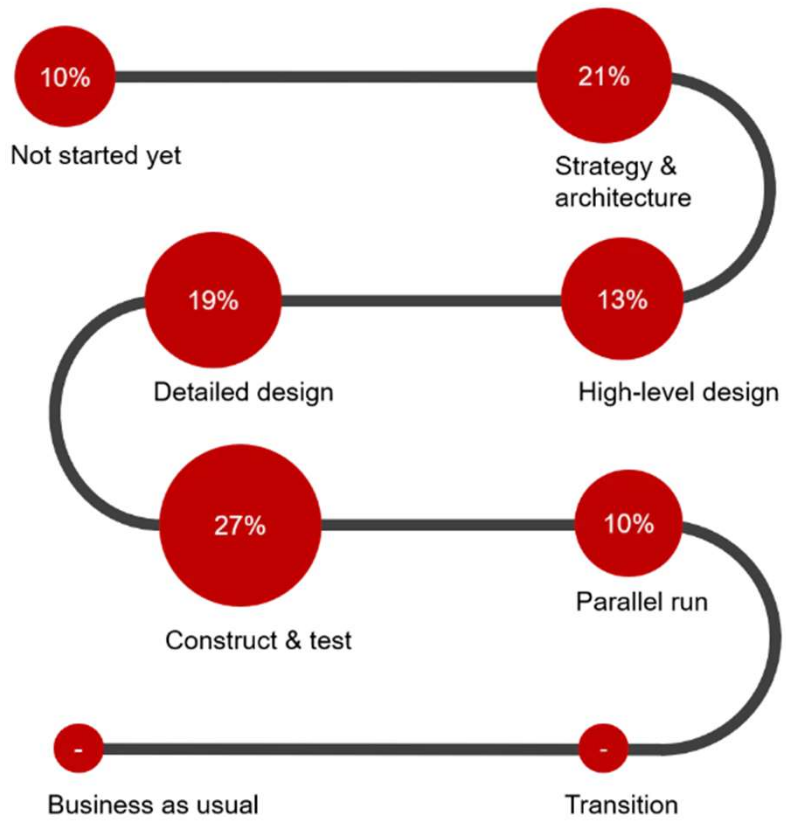
Source: PwC's IFRS 17 Health Check Survey 2021: Asia Pacific

It's a long journey ahead…

IFRS 17 implementation is a long and challenging journey

44% of respondents have not started with detailed design activities. Top concerns include time, budget, skill constraints and technical challenges.

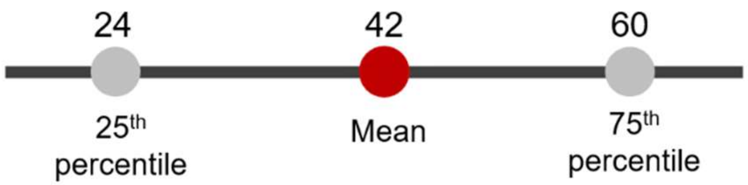
How far have you progressed through your IFRS 17 programme?



Source: PwC APAC IFRS 17 Health Check Survey
May 21, 2020: base of 68

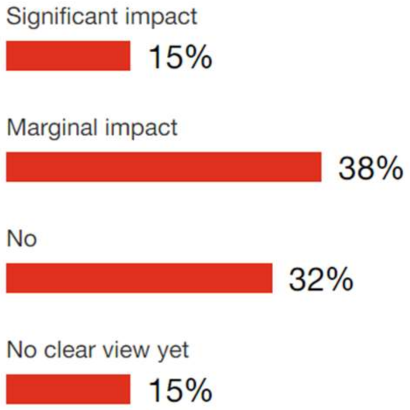
Covid-19 has dampened efforts somewhat...

What is the expected duration of your end-to-end IFRS 17 programme? (months)



Source: PwC APAC IFRS 17 Health Check Survey
May 21, 2020: base of 68

Do you expect the COVID-19 pandemic to have a detrimental impact on your IFRS 17 project timelines?



Source: PwC APAC IFRS 17 Health Check Survey
May 21, 2020: base of 68

COVID-19 is impacting project timelines

Insurers that have implemented the necessary technology to allow their workforce to work remotely are able to continue with their IFRS 17 programmes without much disruption.

Insurers that don't have the technology in place are increasing their focus on digital transformation to limit disruption to their business.

Latest Survey Results

Scan me!

Next Steps

1. Training & understanding new requirements
2. Set up Technical Basis, System design
3. Analyse financial and operational impact and changes
4. System implementation and Process recalibration
5. Assess commercial challenges

✓ IFRS 17 vs Solvency II https://www.youtube.com/watch?v=YAMVnHc_XvI

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Thank you

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Questions & Feedback?

Use the chat box!