



Life Insurance Modeling and Valuation

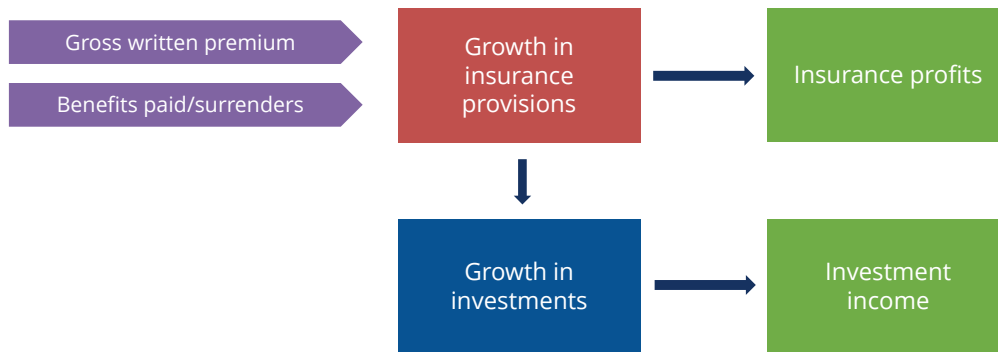
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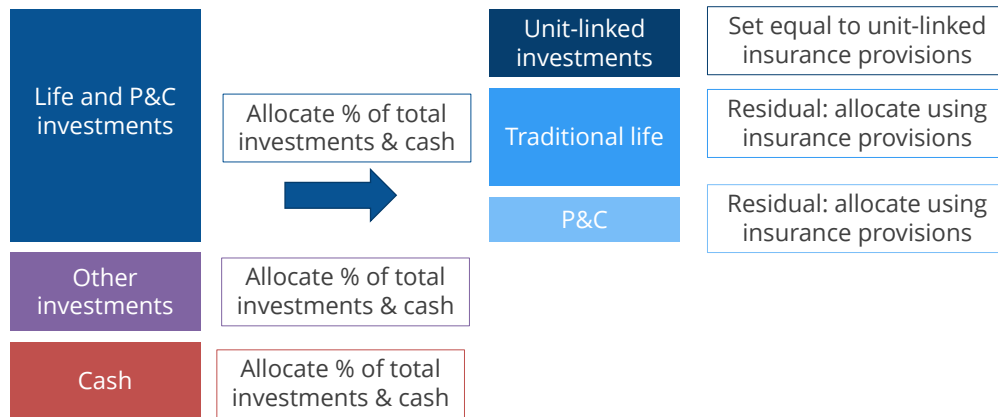
Flows in Life Insurance



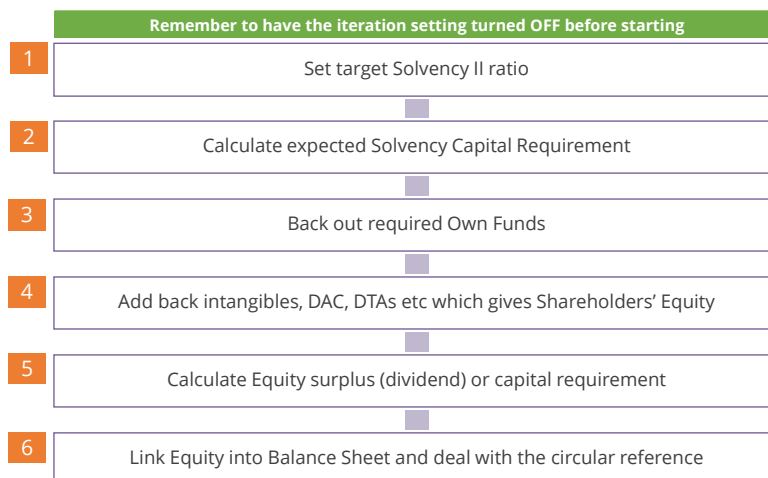
Life Insurance Modeling – Overview

- Remember to have the iteration setting turned OFF before starting
- 1 Input historical data for income statement and balance sheet
 - 2 Calculate ratios and statistics
 - 3 Decide on forecast assumptions
 - 4 Forecast GWP + balance sheet except equity, investments and cash
 - 5 Balance the balance sheet (investments and cash is buffer)
 - 6 Forecast income statement
 - 7 Forecast the capital requirement and equity
 - 8 Link equity into balance sheet and deal with the circular reference

Forecasting Allocation of Investments & Cash



Insurance Modeling- Forecasting Equity



Expected Capital Requirement

Financial risk	15
Credit risk	5
Life underwriting risk	6
Non-life underwriting risk	6
Operational risk	1
Diversification and other	(8)
Solvency Capital Requirement	25

Intangibles	50
DAC Assets	30
Deferred Tax Assets	20
Investments	450
Receivables	10
Cash and Cash Equivalents	40
Total Assets	500
Shareholders' Equity	50
Insurance Provisions	400
Financial Liabilities	40
Payables	10
Total Liabilities and Equity	500