



Life Insurance Valuation

Discussion on the MCEV Concept

ARAB Summer School – VUB & ULB

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www.actuarisk.be



Agenda

1. Origins of Embedded Value
2. The CFO Forum
3. Link with Financial Statements
4. Conclusion

Origins of Embedded Value

- The embedded value methodology was devised and developed in the nineteen eighties, mainly in Anglo-Saxon countries. The reason for such development was the increasing demand from shareholders and investors for more accurate and reliable information about the value generated by life insurance companies.
- Traditional accounting is not forward looking and does not allow answering key questions such as:
 - How much value is locked up in the company?
 - How sensitive is the value to changes in key assumptions?

Origins of EV

CFO Forum

MCEV Concept

- According to the CFO Forum:

Free Surplus

+

Required Capital

+

**Value of In-Force
Covered Business**

=

MCEV

- The value of in-force covered business consists of the following components:
 - present value of expected future profits (where profits are post taxation shareholder cash flows from the in-force covered business and the assets backing the associated liabilities) (PVFP);
 - time value of financial options and guarantees;
 - frictional costs of required capital;
 - cost of residual non hedgeable risks.

Determining the VIF

- A simple example:

	Year 1	Year 2	Year 3	Year 4	Year 5
Premium	1000	1000	1000	1000	1000
ΔReserves	(700)	(700)	(700)	(700)	2800
Assets amortisation	(200)	(200)	(200)	(200)	(200)
Payments	0	0	0	0	(3500)
Commissions	(100)	(100)	(100)	(100)	(100)
Profit before taxes	0	0	0	0	0
Taxes	0	0	0	0	0
Net profit	0	0	0	0	0

- According to the CFO Forum definition, the VIF of this business is 0. But is it really true???

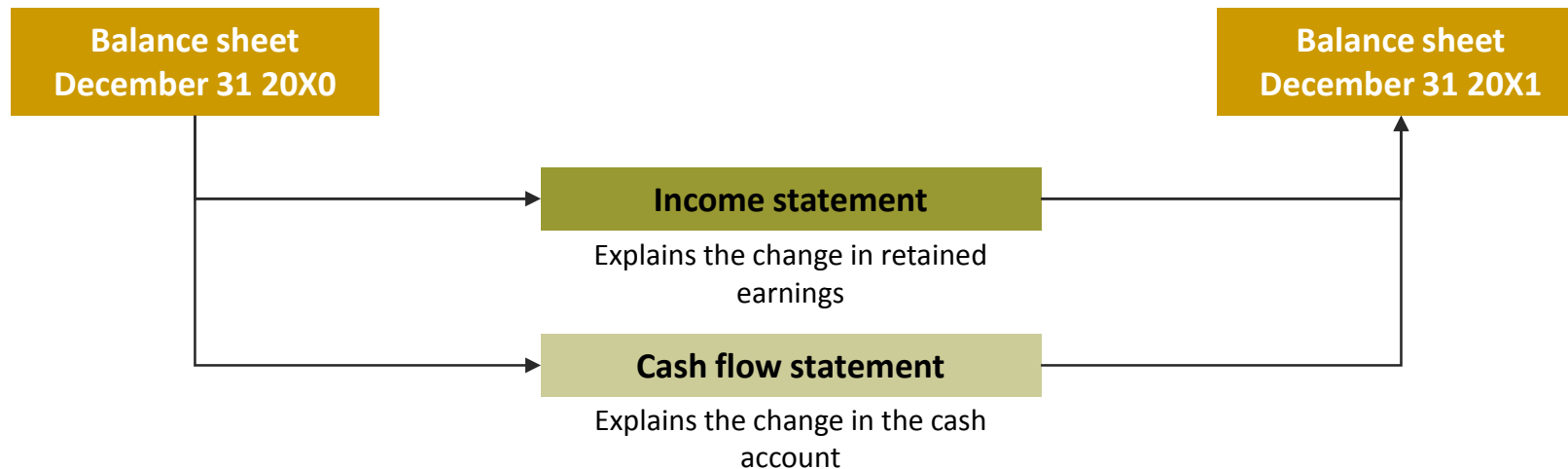
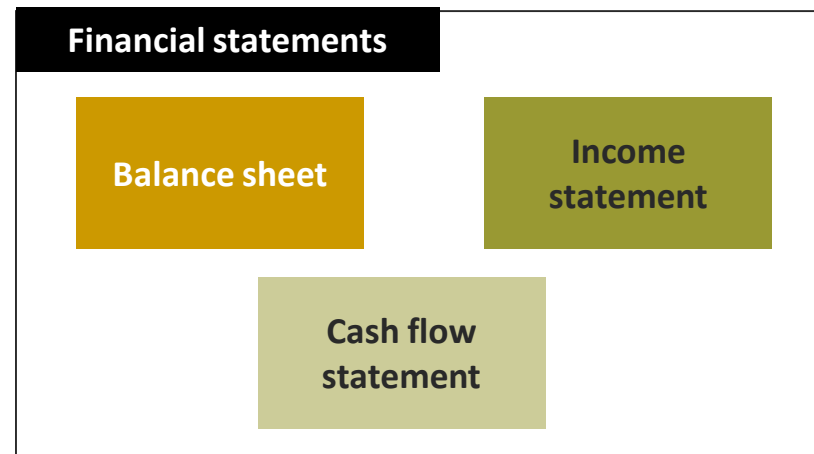
Origins of EV

CFO Forum

Financial Statements

Financial Statements

- There are three main financial statements:



Origins of EV

CFO Forum

Financial
Statements

Adjusting profits to cash flows

- Adjustments to reconcile net profit (NP) to cash provided by operating activities:
 - + Depreciation of tangible assets (D)
 - + Amortisation of intangible assets (A)
 - + Δ Policyholder reserves (PR)
 - + Δ Provisions (P)
 - Δ Net working capital (NWC)
 - Losses/gains on sales of long-lived assets (LG)
- Cash provided by operations =
 $NI + D + A + PR + P - NWC - LG$
- To determine the free cash flow, it is necessary to calculate the cash provided by investing transactions.

Origins of EV

CFO Forum

Financial Statements

Determining the VIF (Previous example)

- From net profits to distributable cash flows:

	Year 1	Year 2	Year 3	Year 4	Year 5
Net profit	0	0	0	0	0
ΔReserves	700	700	700	700	(2800)
Assets amortisation	200	200	200	200	200
Operating CF	900	900	900	900	(2600)
<i>Retained CF</i>	<i>650</i>	<i>650</i>	<i>650</i>	<i>650</i>	<i>0</i>
<i>CF to shareholders</i>	<i>250</i>	<i>250</i>	<i>250</i>	<i>250</i>	<i>0</i>

- By discounting the line “CF to shareholders”, we get the VIF!

Origins of EV

CFO Forum

Financial
Statements

Conclusion

Conclusion

- As the objective of the CFO forum is to create greater transparency for investors, we do not think that this can be achieved if well-known concepts such as profits are redefined in the context of MCEV.
- Therefore, the CFO forum should avoid defining profits as post taxation shareholder cash flows because, by doing this, confusion is created.
- There is no reason why the definition of well-known concepts used in finance and accounting should be changed in an insurance context.
- According to us, all reference to earnings and profits should be removed from the definition of the MCEV and should be replaced by cash flows.