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new solutions for a new world
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ACTUARIAL SOCIETY OF SOUTH AFRICA

EMBEDDED VALUE REPORTING IN A SOLVENCY ASSESSMENT AND MANAGEMENT WORLD

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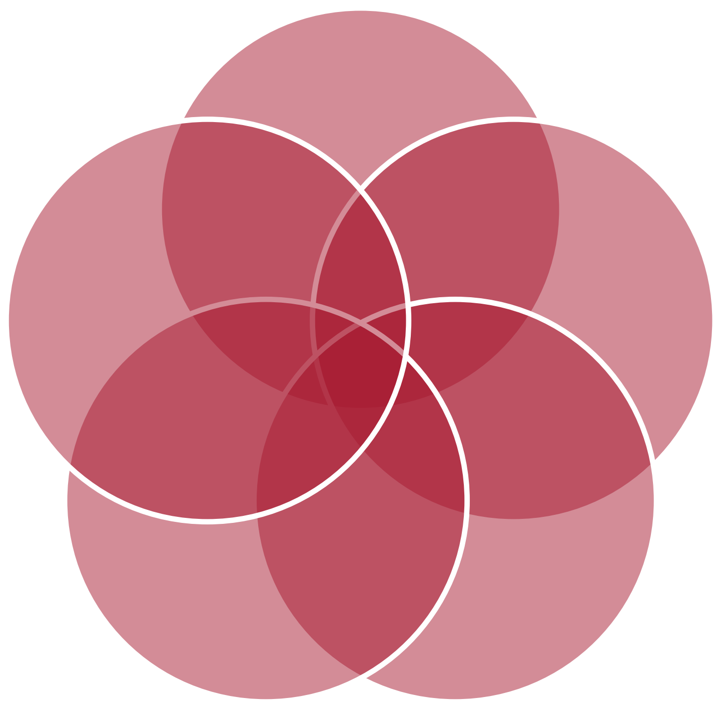
Agenda

1. The origin and evolution of Embedded Value Reporting
2. The need + opportunity for change – SAM & IFRS4 Phase2
3. Stakeholders, their views and preferences
4. Some options for EV reporting in this new world
5. An Aside: Profitability reporting

The origin and evolution of Embedded Value Reporting

Conservative valuations

Market Consistent Embedded Value



Shareholder value, demutualisation and transactions

European Embedded Value

APN107

Profit profiles under different bases

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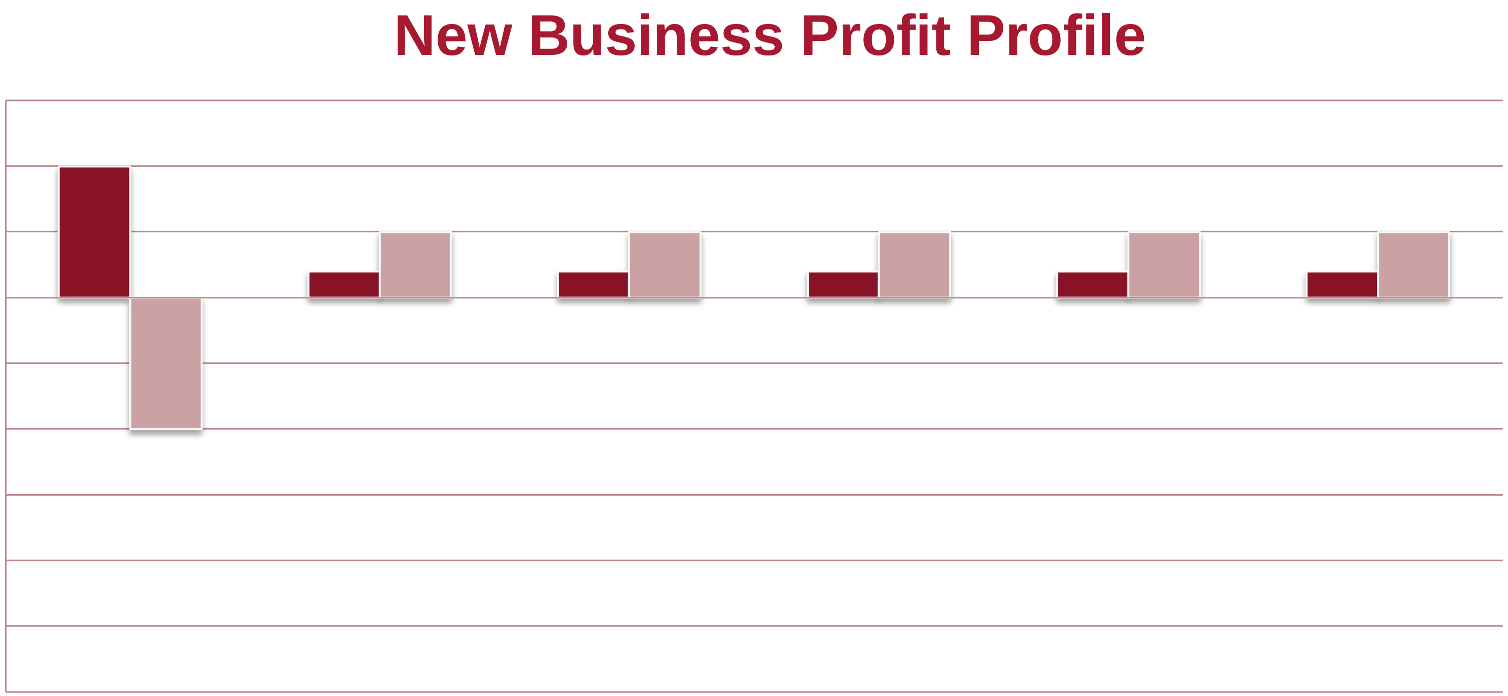
- Net Premium Valuations typically result in significant new business strain followed by profit emergence
- Overstates Liabilities, Understates NAV and shareholder value

Profit profiles under different bases



- GPV1 – Gross Premium Valuation without additional margins
- GPV2 – GPV including significant Discretionary Margins or Zeroisation

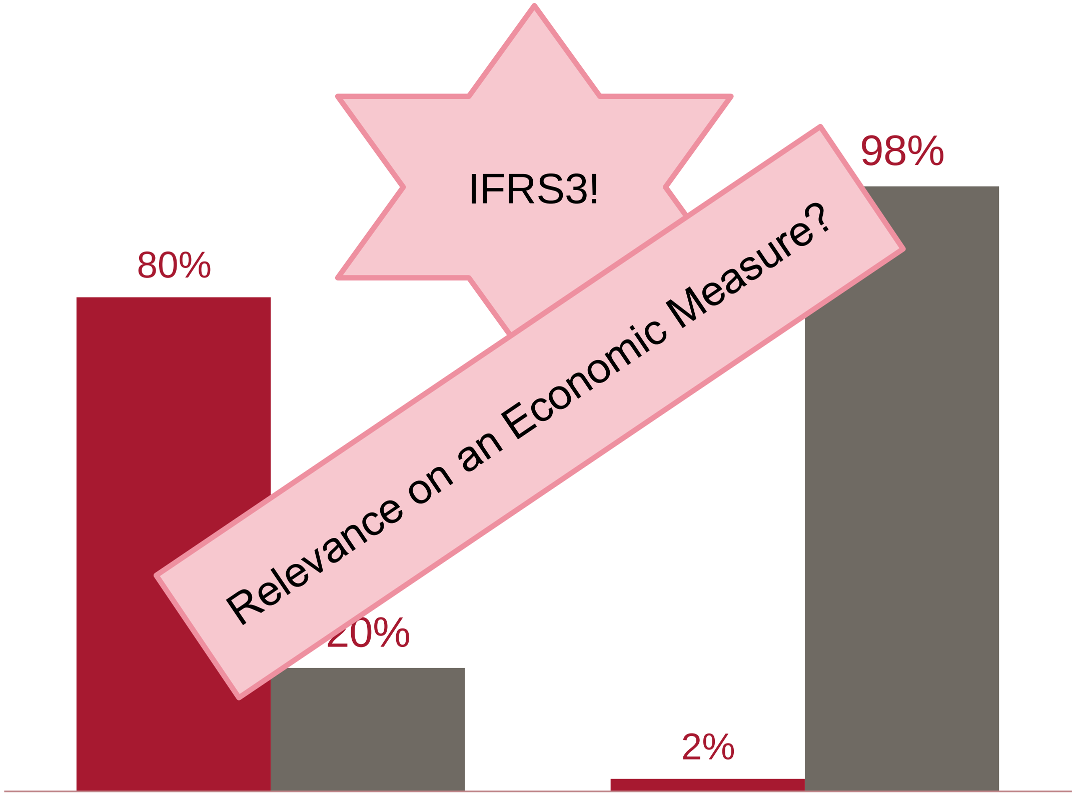
Profit profiles under different bases

New Business Profit Profile

- Embedded Values discounts Best Estimates of all cash flows under an economic boundary
- Value from Contract + Customer Relationships

What are we measuring?

- Value embedded in conservative valuations of contractual rights and obligations to policyholders
- Group Life? EB admin? EB investments? Health Administration? Short Term Insurance?

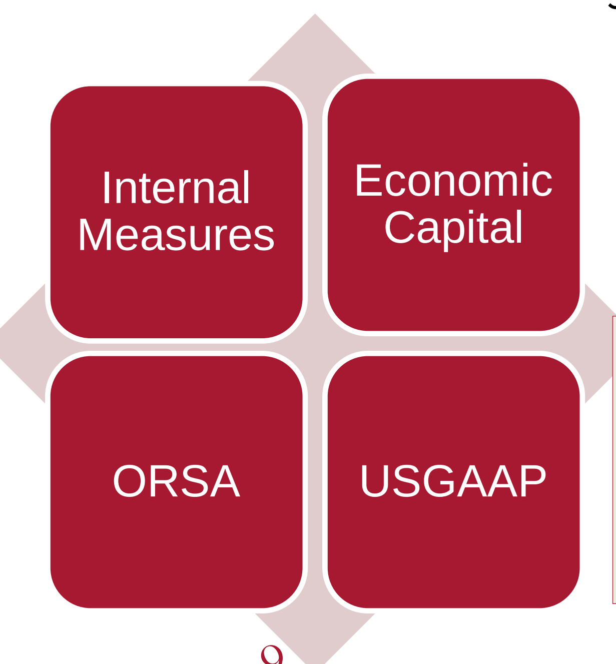


Market Consistency

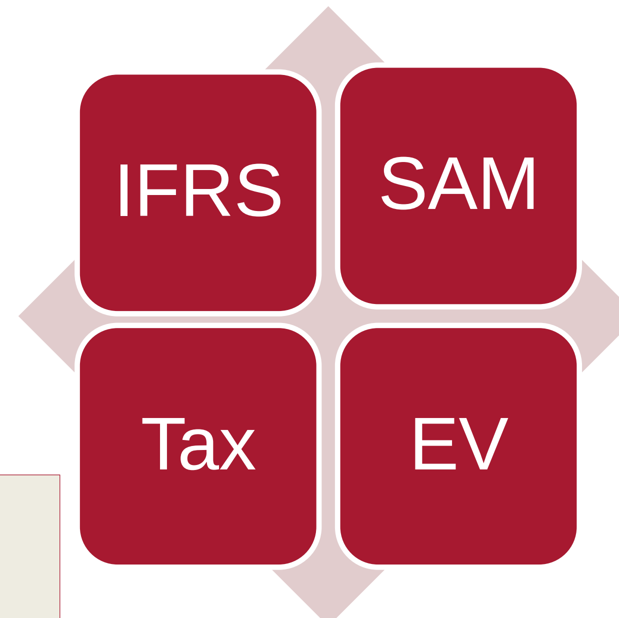
- Key criticisms of traditional Embedded Values
  - ✗ Risk Discount Rate is wrong
  - ✗ Liability valuations capitalise value from asset risk premiums
  - ✗ Not market consistent
- Key criticism of Market Consistent Embedded Values
  - ✗ They're market consistent
  - ✗ There isn't a market → fake volatility
  - ✗ Nobody understands them – not how analysts measure value
  - ✗ Adds complexity in projections and understanding results

The need + opportunity for change – SAM & IFRS4 Phase2

- New standards, new pressures
  - SAM and IFRS4 Phase 2 are changing existing measurement standards for Insurers
    - Reporting timelines are shrinking, complexities are increasing and the number of bases is potentially growing



IFRS4 Phase 2 does not provide a shareholder value balance sheet

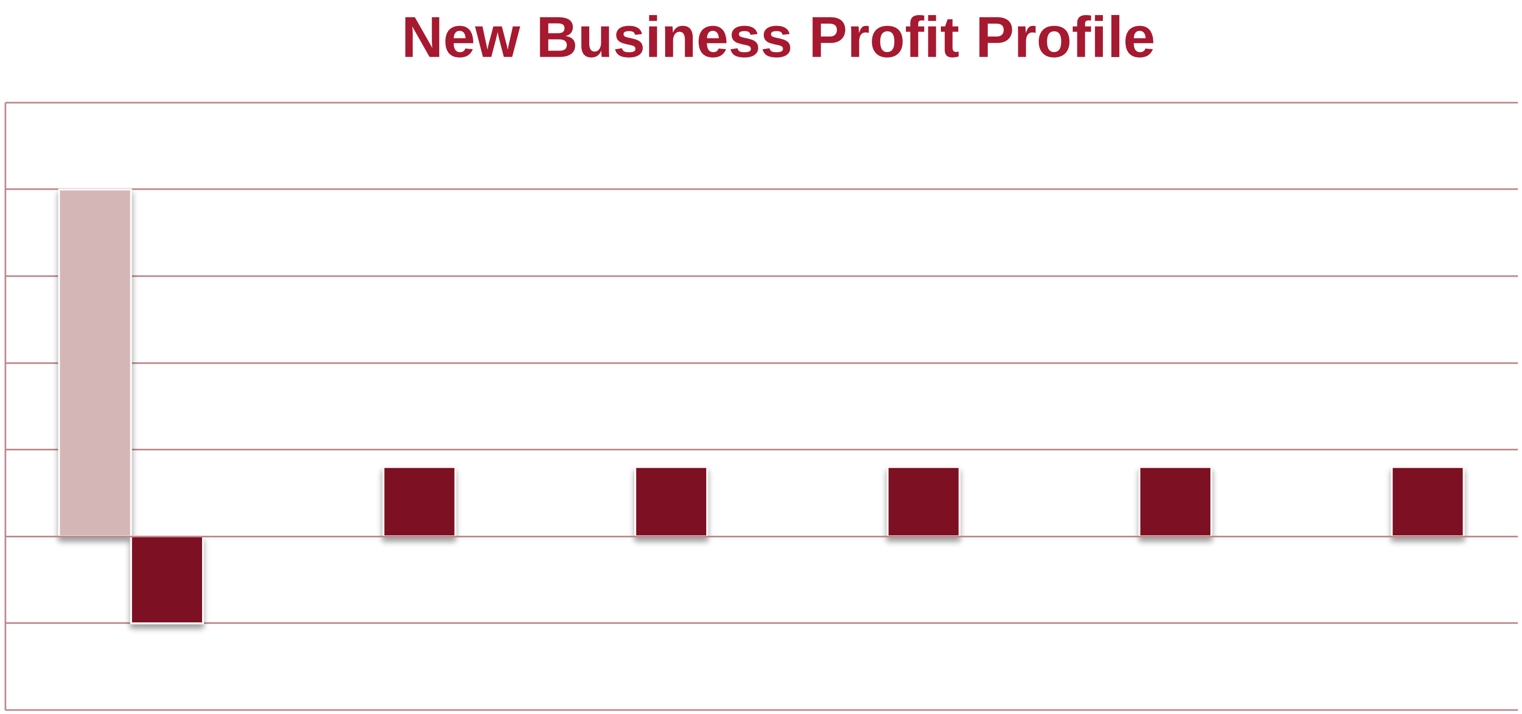


Recognising new business value

New Business Profit Profile

- SAM Technical Provision principles are best estimate and market consistent
- Key differences exist, but plenty of common principles too

Profit profiles under different bases



- IFRS4 Phase 2 results in new business strain for insurance contracts
- IAS39 / IFRS 7 can still result in new business strain for investment contracts

Stakeholders, their views and preferences

- Analysts:
  - Your RDR is too low
  - We don’t trust your assumptions (lapses, expenses)
  - There are too many one-offs and other changes
  - Your cost of capital is based on too little capital
  - It’s too hard to reconcile your EV, IFRS and SVM figures
  - Just give us the forecasted cash flows in sufficient detail so we can plug the info into our own models
  - (Highly regulated industry, mature South African market et al)

Stakeholders, their views and preferences

- CFOs and Investor Relations
  - It's too hard to reconcile our EV, IFRS and SVM figures
  - We need to get our results out quickly, but I still want to have confidence in the numbers.
  - I don't want surprises
  - Does it support my share price?
  - Should I pay this to acquire a business?

Stakeholders, their views and preferences

- Finance actuaries
  - It's too hard to reconcile our EV, IFRS and SVM figures
  - We need something simple and useful
  - Am I going to have to change all my models again? Will I need to rebase? What will happen to my runtimes?
  - I don't want to have to do multiple runs on multiple bases – can't we just use IFRS or SAM?
  - We should focus on cash flow, payback periods and Internal Rates of Return

Some options for EV reporting in this new world

- Discounted Free Cash Flows to Shareholders

Advantages

- Theoretically pure
- Factors in all constraints on cash (regulatory, Four Funds Tax, Companies Act, Dividend policy)
- Consistent with projecting future balance sheet positions

Problems

- Complex and new
- Not consistent with IFRS or SAM or Tax bases
- Challenges for new business value and segment measurement

Some options for EV reporting in this new world

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- Discounted Future Profits on an IFRS Basis

Advantages

- Consistent with standardised, audited Earnings
- Potential for consistency across countries
- Creates a neat “Forward P/E” ratio metric

Problems

- No theoretical base
- Value will change as accounting standards + policies change
- Adds further complexity to Contractual Service Margin modelling and run-off

Some options for EV reporting in this new world

- Adjusted SAM Balance Sheet

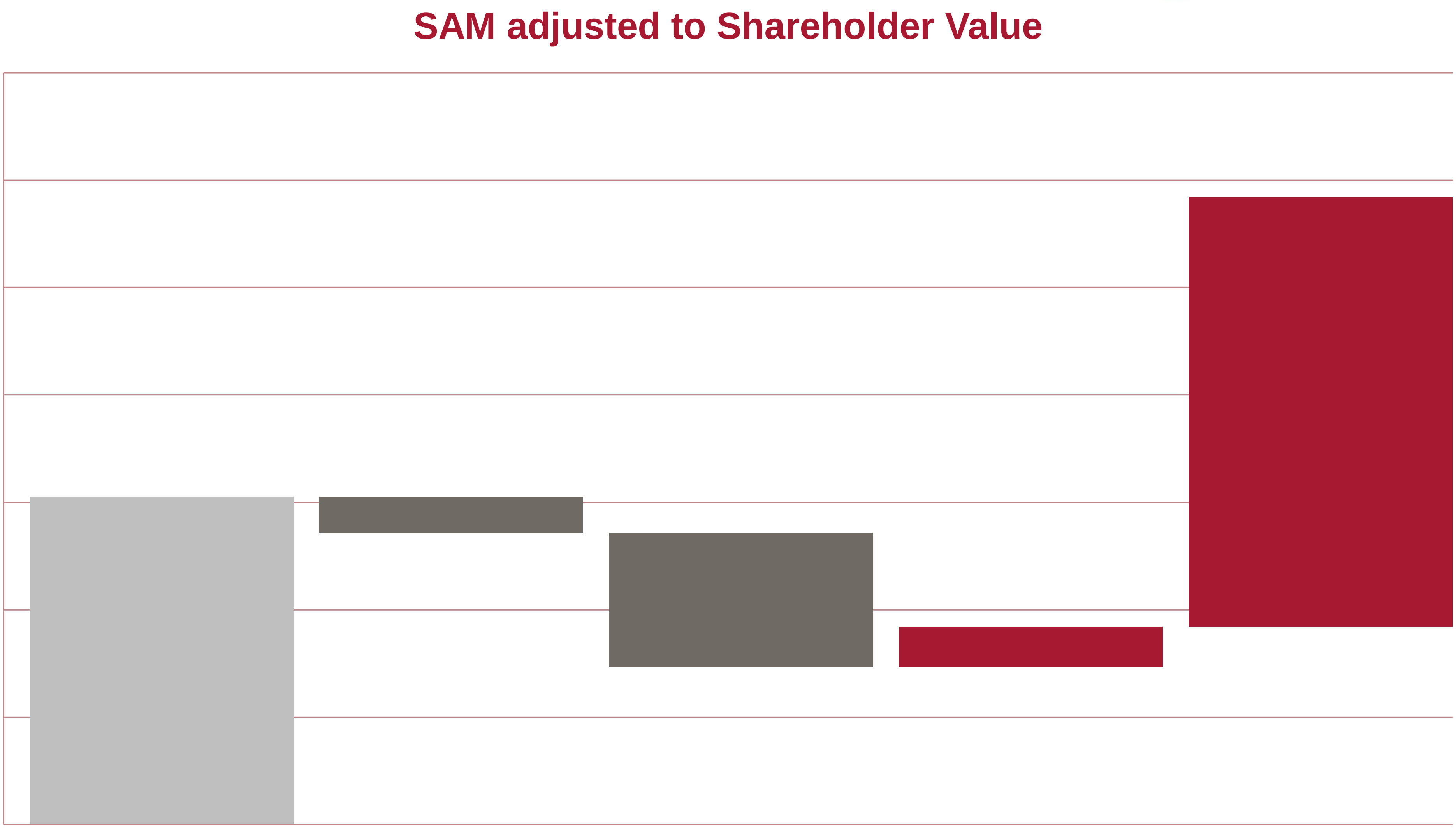
Advantages

- Market Consistent
- Builds on an existing basis
- Most adjustments trivial
- Could be internationally understood
- May simplify some hedging decisions
- Ties into ORSA
- Arguably most consistent with current EV
- Reconciliation might be requested any way

Problems

- Market Consistent
- Not consistent with IFRS earnings
- Some adjustments complex
- Non-SA Subsidiaries won't necessarily have SAM starting point
- Adjustments may be too fundamental
- Still complex

SAM adjusted to Shareholder Value



Adjusted SAM Balance Sheet

- Forward projections / Analysis of Change from
  - (New business)
  - Ex Boundary New Business
  - (Real world expected returns)
  - (Transfers from Ex Boundary Business)
  - Unwind on Ex Boundary Business
  - Unwind of different risk margin
  - Unwind of different illiquidity premiums

How different is this from current AoEV?

Adjusted SAM Balance Sheet

	SAM NAV	Ex Boundary	CoC	Illiquidity Premium	Total
Opening	610.0	800.0	-316.7	75.0	**1 168.3**
New Business	50.0	35.0	5.0	3.0	**83.0**
Risk Neutral expected return	42.7	56.0	-22.2	5.3	**81.8**
Real world Adjustment	24.4	32.0	-12.7	3.0	**46.7**
Transfers	120.0	-120.0	-	-	**-**
Unwind of CoC + LP	-	-	20.0	10.0	**30.0**
Closing	**847.1**	**803.0**	**-336.5**	**96.3**	**1 409.9**

An Aside: Profitability reporting

Is a 4% New Business Margin good?

No way to tell.

- Is it VNB / APE or VNB / PVNBP?
- Is it Risk Business or Savings Business?

Introducing New Business Margin on Revenue

- NBMR = VNB / PVFR
- PVFR= Present Value of Future Revenue

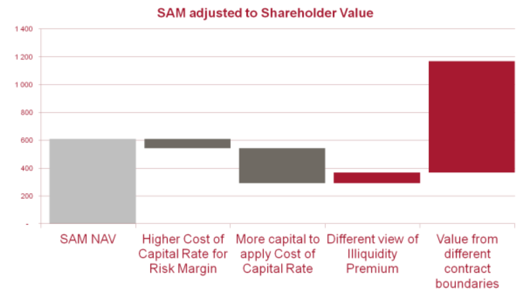
  = PV of [Risk Premiums + Fees + Charges]
- NBMR = What percentage of each future component of income to shareholders is profit

VNB = APE x [PVNBP/APE] * [PVFR/PBNBP] * [VNB/PVFR]

VNB = APE * DPT * RPP * NBMR

What's Next?

- In Progress…
  - A full paper
  - More detailed analyst / stakeholder views
  - **Working in your input**



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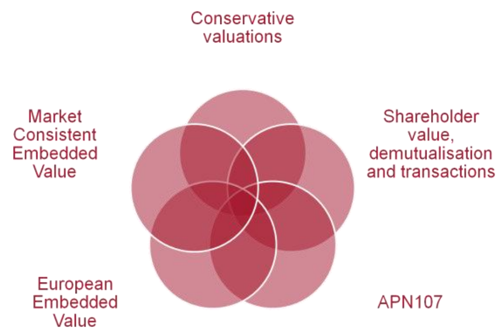

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