



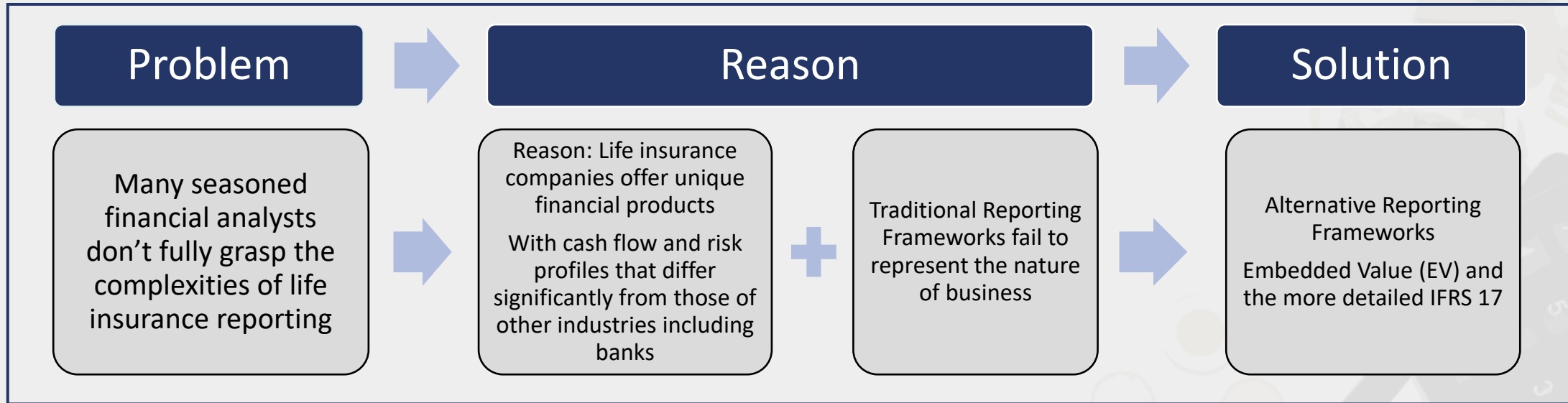
Art'o'val Advisors
True Art of Valuation
Industry Insights

Industry Insights - Vol II

Navigating the Complexities of Life Insurance Reporting



Why Should a Financial Analyst Read This?



- While IFRS 17 is now mandatory in several developed markets, Embedded Value (EV) is a non-GAAP framework that has been historically used and is still relevant in regions where IFRS 17 hasn't been adopted yet.
- **Both methods have been** designed to provide a more accurate reflection of a life insurer's financial health and profitability.
- **We will focus on the EV framework in this note.**



In this presentation, we will arrive at a relative valuation basis for life insurers, just as we have Price-Book multiple-based valuation for banks.

Issue with Traditional GAAP for Life Insurance

Understanding Life Insurance Contracts: A Long-Term Perspective

Nature of Life Insurance Products

Long-term
in nature



Cash flows tend
to be lop-sided



Policies incur deficits at the start due to selling expenses and risk reserving, while profitability emerges in later years.

This is unlike any other industry.

Problems with Traditional GAAP

Recognition Misalignment

- Future profits on policies already sold are recognized only in later years.
- Acquisition costs are expensed upfront.
- Do not consider the actuarial assumptions involved.

Key Consequences

- Excludes PVIF (Present Value of In-Force Business) from net worth (see next slides for definitions)
- Limited mark-to-market adjustments for investments.
- Fails to reflect economic fundamentals of life insurance.

Traditional GAAP falls short of representing the true value and economic reality of life insurers

Understanding Life Insurance Products

Life Insurance Product Mix

Protection



- Term Life Insurance without investment benefits.

Guaranteed Savings Products



- Combines life insurance with a guaranteed fixed return.

Unit-Linked Products



- Combines life insurance with variable returns (equity or debt investments).

Pension Products



- Corporate or personal retirement savings (with or without guaranteed returns).

Margin Comparison

- Higher margins due to lower risk.

- Depends on the spread between guaranteed rates (comparable to bank FD) and Expected returns on Investments.

- Low margins, given AUM-based business

- Depends on the spread between guaranteed rates and Expected returns on Investments

What Matters

- Pricing for Mortality accurately while being competitive

- Have to generate the “guaranteed return” at a minimum to avoid losses.

- Asset Management in nature with a smaller “term insurance” component. Scale is key.

- Similar to Guaranteed Products. Investments in long-term products to cover cash outflows.

Did you know:

Promising a high “Guaranteed” rate of returns to policyholders in a low-interest environment has caused more than one corporate disaster over the decades in Europe and the US.

Key Operating Metrics under EV Framework

Revenues: Annual Premium Equivalent (APE) = **APE** = **First Year Regular Premiums** + **1/10th Single Premiums**

- APE translates “Gross Premiums” into a standardized comparable metric by adjusting for the lumpy Single Premium
- It is the “Revenue” equivalent.
- *Ignores Renewal Premiums (2nd year onwards of regular premium)*

Profitability: Value of New Business (VNB) = **VNB**

- VNB is an actuarial estimate of the profitability of policies sold during the current period.
- *See the illustration in the next slide for an example*

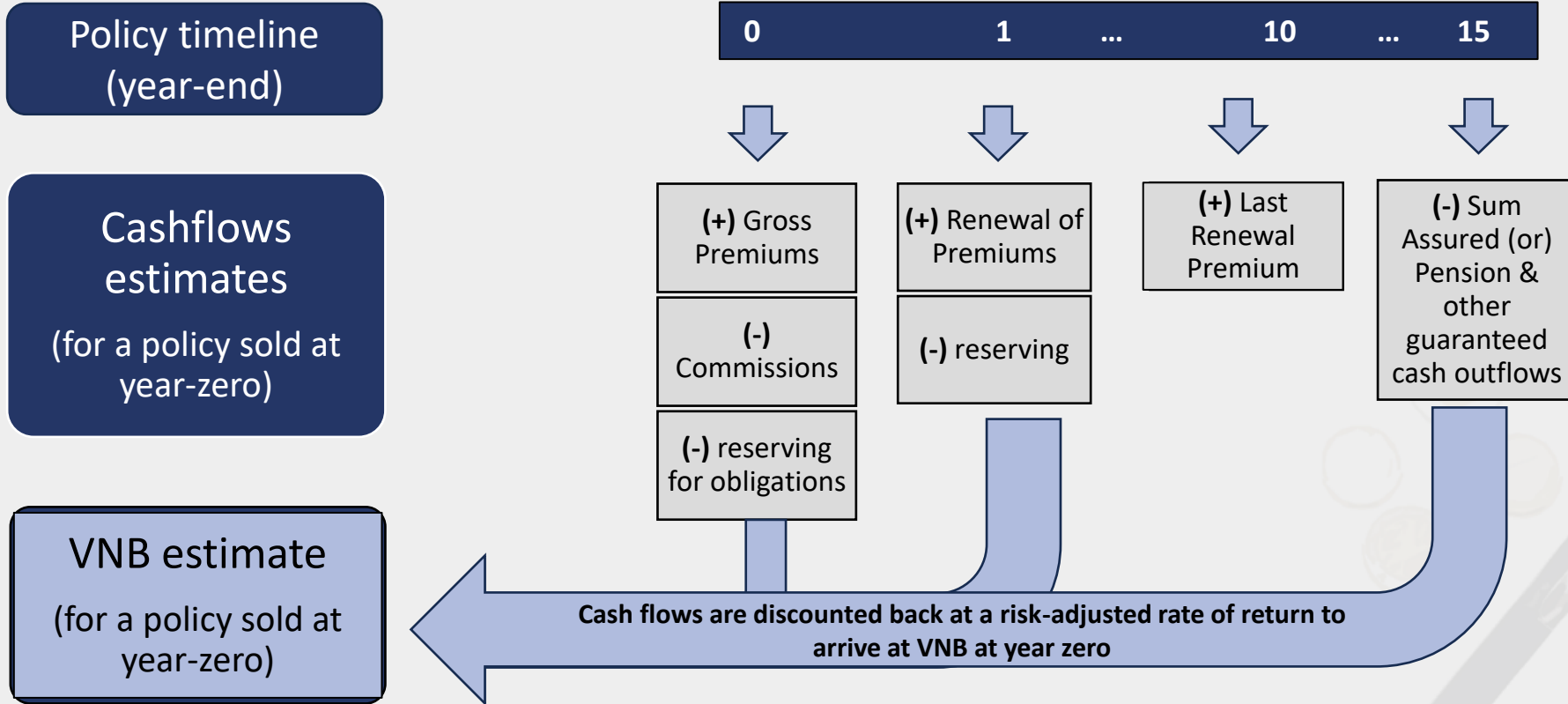
- Calculates the expected profits from new policies over their lifetime
- Actuarial assumptions in estimating future cashflows = Expected return on investments, discounting rate, policy surrender rate, interest rates, mortality rates, etc.

VNB Margin = **VNB Margins** = **VNB** ÷ **APE**

- VNB Margin measures the average VNB per APE generated.
- VNB Margin is disclosed at the company level and less often at the product category level.

Did you know:
The actual computation of VNB tends to be actuarial in nature and is “black-box” in nature to investors and analysts.

VNB Calculation for a Life Insurance Contract



- The above example assumes a policy with a 10-year premium payment term (PPT) and policy payment cash outflows at the end of year 15. The cashflows and timelines can vary drastically based on the type of policy, but the method underlying the VNB calculation remains similar.
- Discount Rate is typically the "Risk-Adjusted Required Rate" taking into account the expected probability of Cash flows over the term of the contract.
- Apart from the discount rate, other key actuarial assumptions include Expected return on investments, policy surrender rate, interest rates, mortality rates, etc.

Understanding Embedded Value (EV)

ANAV - Adjusted
Net Asset Value

- **Balance Sheet Equity**, adjusted for adjusted for mark-to-market (MTM), intangibles, etc.
- Equity = Regulatory required capital + surplus

+

PVIF

The Present Value of In-Force business (PVIF) = PV of future profits expected from the existing policies.

- **Think of it as “cumulative VNB” for all policies outstanding as of date**
- *It involves assumptions about future cashflows just like in VNB calculations illustrated above*

=

Embedded Value

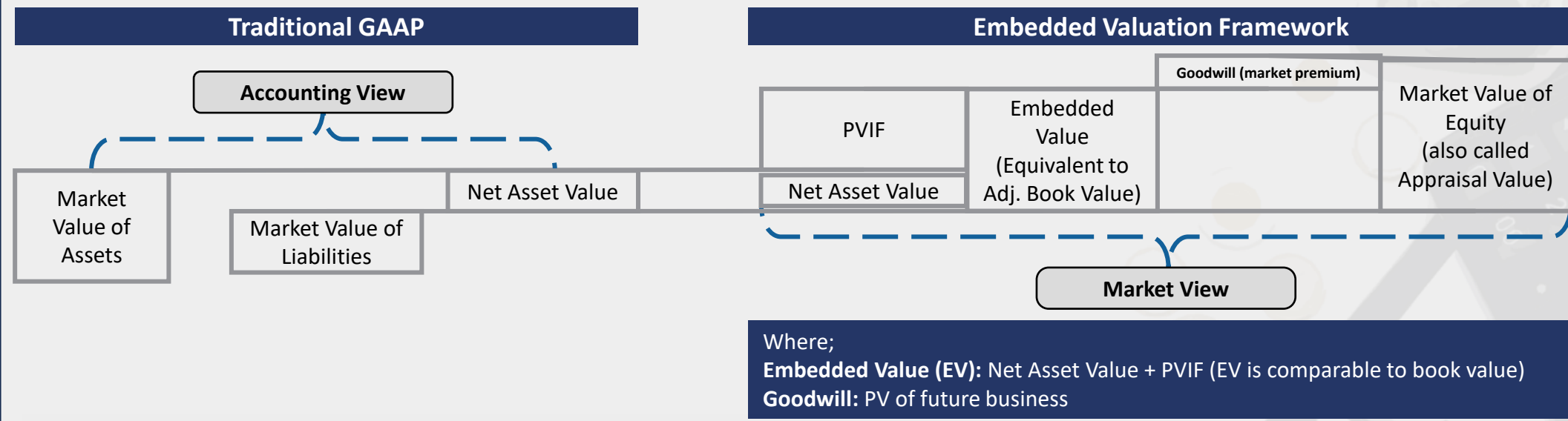
- An actuarial valuation of the above two items.
- **Can be compared to a bank's adjusted book value (ABV).**
- Hence, can be used as a strong basis for relative valuation

A higher EV multiple (P/EV) reflects a stronger franchise, similar to (P/BV) metric in banking.

Evolution Beyond Traditional GAAP

Embedded Value and IFRS 17: Valuation Framework

Embedded Value Valuation vs GAAP

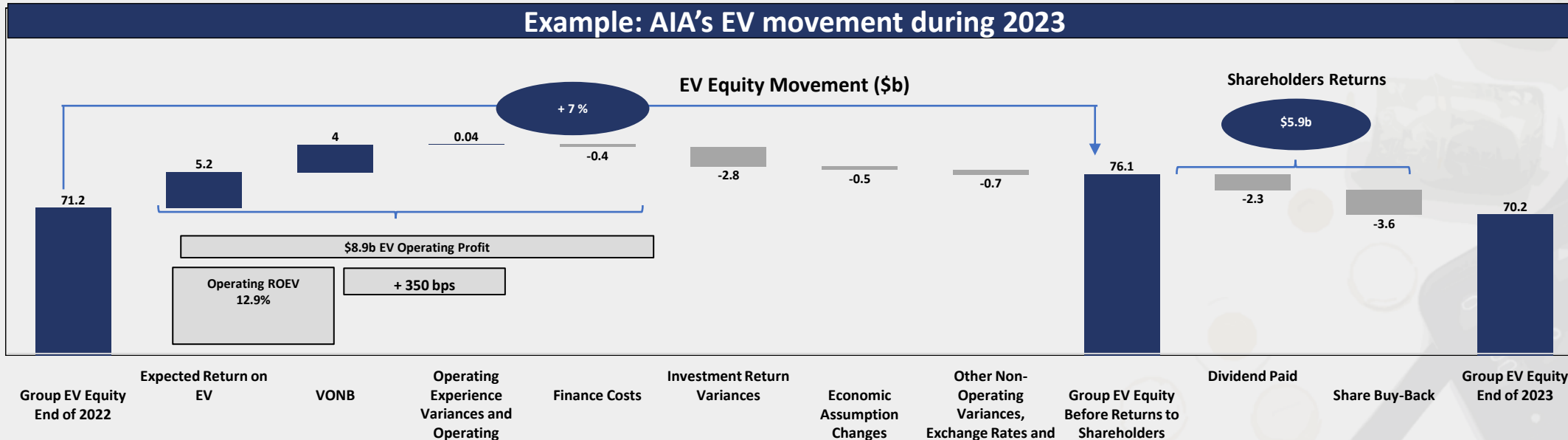


Embedded Value and IFRS 17 bring clarity, transparency, and economic accuracy to life insurance reporting.

Valuation under IFRS 17 is conceptually similar to EV illustrated above but it is already reflected in the statutory Balance Sheet and Income Statement.

Year-on-Year Embedded Value (EV) Movement

Example: AIA's EV movement during 2023



Embedded Value Operating Profit (EVOP)

EVOP: Is the operating growth in EV and used to measure the profitability generated from an insurer's in-force business during a specific period on an after-tax basis. Includes:

- **Expected Return on EV (Unwind):** Return on in-force business (opening EV) at an assumed RoI, already included in EV calculations and isn't incremental.
- **VONB (or VNB):** As discussed above

Hence RoEV (Return on Embedded Value) is Equivalent to ROE

Non-Operating Aspects

Assumption Changes & Variances: Assumption changes and variances compared to original assumptions used in EV and VNB computations.

- Structural assumption changes can significantly impact EV over time.

Capital Movements: Includes dividends and other capital adjustments.

- Capital return depends on statutory Solvency requirements as much as reinvestment requirements. It is common for life insurers in mature markets to give away majority of surplus cashflows as dividends given low growth opportunities and stable regulatory regimes.

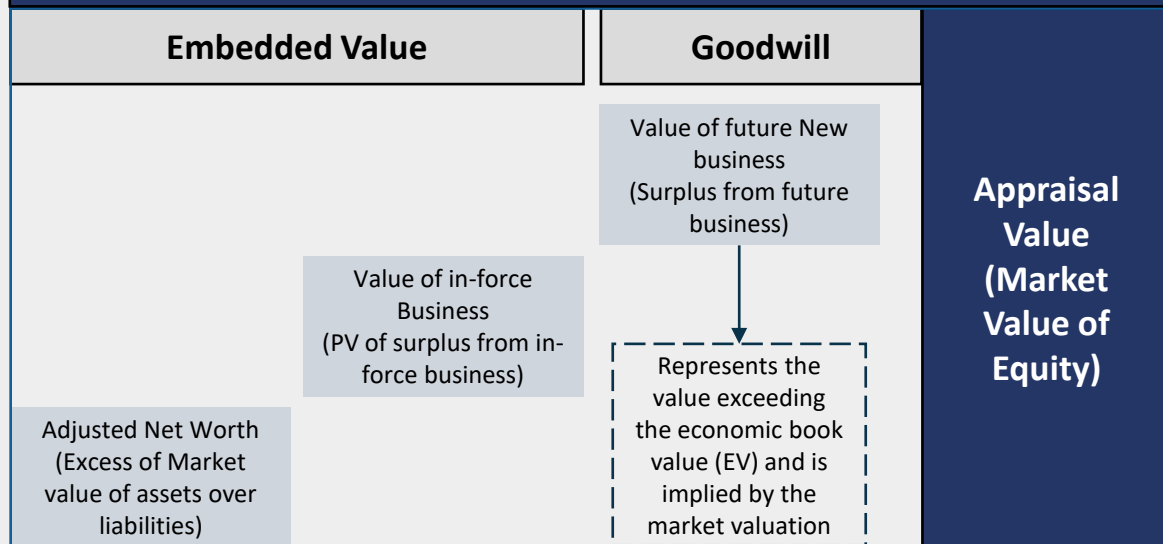
Did you know:

P/VNB is similar in nature to P/E multiple valuations for life insurers. Goes without saying the VNB Growth and VNB margins are the bottom line during quarterly results.

Market Valuation of Life Insurance Companies

Conceptually, the relevant way to value life insurers is by using the Residual Income framework where the fair (market) value of a life insurance company is sum of (i) Embedded Value, and (ii) market premium for growth of future VNB. This market valuation is referred to as the **Appraisal Value**.

Market Valuation Framework of a Life Insurance Company



Best represented by the **Price-to-Embedded Value (P/EV)** ratio, similar to P/BV. P/VNB is the earnings-based valuation metric

- Represents the market's estimate of VNB and ROEV growth.
- Similar to a bank's higher P/BV valuation based on expected EPS growth.

Growth Companies: Trade well **above the baseline 1x P/EV**. Reflects strong growth outlook and market confidence in future VNB.

Mature Companies: Trade around 1x P/EV and will be less volatile. P/VNB is the **benchmark valuation metric** in such cases.

Did you know:

Under IFRS 17, the balance sheet and income statement do represent the economic reality of business, like EV above. However, the terminology can be tricky to start with.

Hence, we can simply use P/BV and P/E for relative valuation under IFRS17 with the comfort of knowing that it is economically accurate.



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Thank You



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