

EMBEDDED VALUE

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Presentation Outline

- Factors Influencing the Use of EV
- Uses of EV
- EV compared to other reporting systems
- Limitations of EV
- The Future of EV

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Factors Influencing the Use of EV

- Success stories in manufacturing
- Widespread use in European, UK, Canada
- Increased interest in evaluating financial results based on economic fundamentals
 - More direct recognition of the capital markets
 - More direct recognition of risk
 - More transparent results across different countries and different users
 - More direct link between compensation & shareholder value
- Globalization of financial services
 - Convergence of products & distributors
 - Developments in international accounting toward fair value

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Factors Influencing the Use of EV (cont.)

- Resistance by US company management
 - Formulaic US reporting standards
 - Limited acceptance by US stock analysts
 - US focus on short term earnings performance
 - Limited use of using long term results in evaluating performance

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Uses of EV

- Financial Reporting & Performance Evaluation
- Mergers & Acquisition Analysis
- Analysis of Strategic Alternatives (“What if” Analysis)
- Management Compensation

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Using EV to Analyze Strategic Alternatives

- Quantify which actions could improve shareholder value
- Isolate changes in value due to management actions versus industry trends
- Analyze four basic alternatives:
 - operate more efficiently
 - invest in projects whose $ROC > COC$
 - stop investing in projects whose $ROC < COC$
 - structure capital to minimize the COC

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Using EV to Analyze Strategic Alternatives (cont.)

- Quantify possible actions on new business
 - stricter underwriting standards
 - shift investment strategy on new acquisitions
 - aggressive expense management
 - aggressive growth strategies
- Quantify possible actions on inforce business
 - improve persistency
 - restructure crediting & dividend strategies
 - rebalance asset portfolio
 - aggressive expense management

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EV Illustration New Business Alternatives

- Base Case = pricing basis for UL policies
 - 8.5% hurdle rate used in calculating EV
 - Base Pricing produces 7.81% IRR and -\$460,000 EV
- Sustain a 10% decrease in admin expenses
 - 8.28% IRR and -\$140,000 EV
- Improve mortality 1% annually years 1-10
 - 8.29% IRR and -\$150,000 EV
- Increase spreads on new assets by 50bp
 - 7.90% IRR and -\$410,000 EV
- Increase policy count by 15%
 - 7.81% IRR and -\$530,000 EV

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Using EV in Management Compensation

- Ensures that EV will be more than just another reporting system
- Turns managers into owners
- Rewards management's contribution to sustained increases in SH value
- Conflicting studies on the correlation between economic performance plans & plans based on stock & accounting profit plans

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Using EV in Management Compensation (cont.)

- Traditional bonus plans:
 - negotiated annual target & bonus
 - annual bonus = 80-120% target
 - bonus is capped
 - high performance goes unrewarded
 - poor performance only affects current year bonus
 - annual renegotiation does not tie executive's wealth to the company's sustained value
 - options are granted at fixed exercise price

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Using EV in Management Compensation (cont.)

- EV Comp plan:
 - EV bonus = % EVA
 - Bonus is not capped
 - A portion of the bonus is banked
 - absorb negative bonuses
 - assure that bonuses are tied to sustained increases in shareholder value
 - Options include an exercise price that rises each year according to the cost of equity capital
 - Executives profit only if shareholders also profit

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Insurance Accounting Systems

- US Statutory
 - For regulators
 - Focus is on solvency and the balance sheet
 - Conservative emphasis in preparing financial statements
- US GAAP
 - For shareholders
 - Focus is on the preparation of realistic income statements, where revenues and expenses are matched
 - Realistic emphasis in preparing financial statements
 - Many rules affect the recognition of expenses and emergence of profits

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Insurance Accounting Systems (cont.)

- **Embedded Value**
 - For shareholders
 - Focus is on the balance sheet and long term contributions to shareholder value
 - Realistic emphasis in preparing financial statements
 - EV and EVA based on indirect method

- **Fair Value**
 - Similar to EV, but based on direct method
 - FV earnings equal change in FVS plus distributable earnings

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EV vs. Fair Value: Definitions

- Fair value not defined yet, but FV will probably be a derivation of EV
 - Market value OR
 - Entity specific value
- MV is “The amount for which an asset could be exchanged or liability settled between knowledgeable, willing parties in an arm’s length transaction.”
- ESV is “The present value of the cost to the enterprise of running off its liability in an orderly fashion over the life of the liability.”

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Emerging Principles of Fair Value

- Consistency among all financial institutions
- Transparent financial statements
- One approach for all insurance contracts, based on market value
 - Direct method of calculating $FV = MVA - MVL$
 - Assets will be reported at market value
 - Liabilities will be reported at “market value” or fair value
 - Market value approach is consistent with exit values and a fully prospective system
 - Emphasis on risk and the balance sheet
 - Stochastic processes will be part of valuing options in liabilities

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Timing of Profits Depends on the Rules

- Type of insurance contract
- Benefit reserve calculations
 - Caps/floors placed on values
 - Determination of discount rates
- Recognition of expenses
 - Amortization of surrender charges in stat (CARVM)
 - Amortization of acquisition expenses according to the predefined revenue base – premiums, EGPs
- Recognition of changes in experience
 - Locked at issue or adjusted over time
 - GAAP 97 income spreads the impact of assumption changes over time due to unlocking
 - EV impact is immediate

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Timing of Profits Depends on the Rules (cont.)

- Assumption basis
 - Discount rates
 - Level of conservatism and level of risk recognized (cost of capital, ALM risk)
- Use of entry or exit values
 - Stat and GAAP profits based on values at issue or ENTRY values
 - EV based on current values or EXIT values

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Timing of Profits Depends on the Rules (cont.)

- Conclusions
 - EVA is more volatile than statutory or GAAP
 - EV allows for a profit or loss at issue; not concerned with matching revenues and expenses
 - Experience changes affect EVA immediately
 - does not allow for "loss recognition" or unlocking
 - no smoothing of experience
 - many assumptions will be dictated by the market
 - ALM mismatch is directly recognized in EV

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Comparison of Performance Metrics

- ROE,ROA, EPS
 - Reflect accounting anomalies & “adjustments”
 - May not be consistent with increasing SH value
- MV or MVA
 - Are not sufficient measures to evaluate contributions to SH value
- RAROC or RORAC
 - Require adjustments to accounting basis to reflect business specific risks or the degree of financial leverage

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Limitations of Embedded Value

- EV emphasizes *shareholder value* NOT *stakeholder value*
- Emphasis on longer term results is a shift in thinking for many managers accustomed to a shorter term focus
- Certain risks are not fully captured in EV
- EV implementation can be time consuming
- Insurance EV is characterized by actuarial black box

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The Future of Embedded Value

- Factors influencing the increased use of EV
 - Acceptance by US Stock analysts
 - Influence of non-US parent companies
 - Related industry initiatives requiring resources -- International Accounting Standards, UVS
- Further developments of EV theory in practice
 - Calculations based on stochastic analysis
 - Projections of EV
 - Quantification of the functional sources of contribution – which managers increased shareholder value?
 - Integration with risk management

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Is EV a fad or a worthwhile activity?

- EV is not a perfect system.
- EV is closer to fundamental economics than US statutory or GAAP.
- IASB developments with fair value reporting may provide greatest stimulus in the US
- If institutionalized completely, EV can be an effective system for
 - evaluating financial results
 - allocating capital
 - directing activities with the singular goal of increasing shareholder value.

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