Life Insurance M&A

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Actuarial Appraisals 101

Actuarial Appraisal Value ("AAV")

- Defined in Actuarial Standard Of Practice #19:

" The present value, calculated as of the appraisal date, of projected **distributable earnings** of an insurance business where the distributable earnings are based on a set of assumptions. "

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Components of AAV

I.	Adjusted Net Worth	ANW
II.	Value of Inforce	VIF
=	**Embedded Value**	**EV**
III.	Value of New Business	VNB
=	**Actuarial Appraisal Value**	**AAV**

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I. Adjusted Net Worth (ANW)

- Start with company's Statutory Capital & Surplus ("C&S")
- May adjust for certain items:
  - Statutory liabilities that can be considered surplus (e.g., AVR)
  - Items that may not have realizable value (e.g., DTA)
  - Market-to-Market on assets backing C&S (depending on how assets are modeled)

II. Value of Inforce (VIF)

- VIF = PV of Distributable Earnings ("DE") for inforce block
- DE_t = Statutory $Profit_t$ – Increase in Required $Capital_t$

Key Steps:

1. Build model of business inforce, by major product groups, incl. assets
2. Define experience assumptions (e.g., mortality, morbidity, expenses, lapses, premium persistency, interest spreads, etc.)
3. Defined required capital to operate business (e.g., % of RBC)
4. Static and dynamic validation of models performed
5. Include sensitivity tests on key assumptions

III. Value of New Business (VNB)

- Calculate the PV of Distributable Earnings on Future Sales

- Key Considerations:
  - Number of years of sales (10 is common)
  - Risk-adjusted discount rate vs IRR of new sales
  - Cross-selling opportunities

Key Drivers of AAV

- Discount Rate
- Required Capital (e.g., RBC, Economic Capital)
- Investment strategy
- Operating Expenses
- Reinsurance / Reserve Financing

AAV and Market Value

- AAV <u>does not</u> necessarily represent 'market value' of an insurance business. Can be different due to, for example:
  - Level of confidence buyer has regarding the assumptions underlying the projected earnings
  - Degree of urgency associated with the sale or acquisition
  - Significant tax or other consequences/benefits unique to a potential buyer

Typical Auction Process

1. Seller's actuaries prepare AAV report
2. Seller's bankers prepare confidential information memorandum
3. Seller's bankers prepare short list of bidders
4. Bidders sign confidentiality agreement, then receive seller's AAV report and banker's memorandum
5. Bidders hire actuaries and bankers who review and modify Seller's appraisal
6. Nonbinding expression of interest and place indicative bid
7. Due diligence; Update appraisals; Pro-forma impact

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Current Life M&A Market

Select Recent Transactions

Year	Buyer	Seller	Value (in US $)
2012	Athene	Aviva USA	1.8 billion
2012	Guggenheim	Sun Life USA	1.3 billion
2013	Axa - MONY	Protective	1.1 billion
2013	Resolution Life	Lincoln Benefit Life	0.6 billion
2014	Wilton Re	CNA Life	0.6 billion
2014	CPPIB	Wilton Re	1.8 billion
2014	Dai-ichi	Protective	5.7 billion
2015	Meiji Yasuda	StanCorp	5.0 billion
2015	Sumitomo Life	Symetra	3.8 billion
2015	Nassau Re	Phoenix	0.2 billion
2015	Anbang	Fidelity & Guaranty	1.6 billion

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Current Drivers of US Life M&A

- Low interest rates
- Divesture of non-core blocks
- Exit by non-US insurers
- Attractive valuations offered recently

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Buyers in US Life Market

- Alternative Investors
- Closed Block Operators
- Asian Insurers

Buyer: Alternative Investors

- Are primarily private equity backed insurers, e.g.,:
  - Athene (backed by Apollo) – owns the old Aviva USA
  - Delaware Life (backed by Guggenheim) – owns the old Sun Life USA
  - Nassau Re (backed by Golden Gate Capital) – owns Phoenix

- Rationale for Buyer:
  - Investment of large pool of assets
  - Optimize cost structure

- Challenges for Buyer:
  - Reputation for being ‘short-term’
  - Traditionally higher return thresholds than, for eg, Asian insurers investing in US life insurers

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Buyer: Closed Block Operators

- Given existence of a number of closed life blocks, opportunities exist for firms such as:
  - Resolution Life – owner of Lincoln Benefit Life (formerly part of Allstate)
  - Reinsurers such as Wilton Re, RGA

- Rationale for Buyer:
  - Seller willing to divest at potentially attractive prices to reduce capital strain/improve ROE/re-deploy capital elsewhere
  - Achieve economies of scale on expenses by consolidating a number of blocks

- Challenges for Buyer:
  - Growing competition
  - Traditionally higher return thresholds than, for eg, Asian insurers investing in the US

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Buyer: Asian Insurers

- Insurers from Japan and China:
  - Dai-ichi (Japan) – owner of Protective
  - Meiji Yasuda (Japan) – owner of StanCorp Financial
  - Anbang (China) – owner of Fidelity & Guaranty

- Rationale for Buyer:
  - Focus on a 'growing' market (e.g., Japan's demographics makes local growth challenging)
  - Low yields in local markets
  - Opportunity to learn 'best practices' from US operations

- Challenges for Buyer:
  - Cultural differences, retain key personnel
  - In the long-term, justify recent purchase prices paid

Thank You

- Questions?

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