

Actuarial Aspects of M&A and IPO

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Agenda

- M&A and IPO Landscape in the U.S.
- Embedded Value and Appraisal Value
- Pre and Post M&A and IPO Challenges

M&A and IPO - Recent U.S. Life Transactions

M&A: Recent U.S. Life Insurance Transactions 2013-2016

Seller	Buyer	Year	Purchase Price (Billions)
ING US Operations	Initial Public Offering	2013	\$5.0
AXA – MONY Business	Protective	2013	\$1.1
Goldman Sachs Reinsurance Group	Private Offering	2013	N/A
Aviva US – Life Insurance Division	Global Atlantic	2013	N/A
Cigna – VA Blocks	Berkshire	2013	N/A
Generali USA	SCOR	2013	\$0.9
Allstate – Lincoln Benefit Life	Resolution	2013	\$0.6
CNA Life Operations	Wilton Re	2014	\$0.6
Conseco Life Insurance Company	Wilton Re	2014	\$0.2
Wilton Re	CPPIB	2014	\$1.8
Protective	Dai-ichi	2014	\$5.7
Voya – Term Block	RGA	2014	\$0.1
Swiss Re – Aurora	RGA	2014	-
Transamerica Canada	Wilton Re	2014	\$0.5
StanCorp	Meiji Yasuda	2015	\$5.0
Symetra	Sumitomo	2015	\$3.8
Mutual Trust	Pan American Life	2015	N/A
Voya – Term Block	RGA	2015	N/A
Assurant – Group Business	Sun Life	2015	\$1.0
Genworth – Term Block	Protective	2015	N/A
Phoenix Companies	Nassau Re	2015	\$0.2
Fidelity & Guaranty Life	Anbang	2015	\$1.6
Citi – Primerica Term Block	Swiss Re	2016	N/A
Citi – Primerica Canadian Block	Munich Re	2016	N/A
Jefferson National	Nationwide	2016	N/A
Genworth	China Oceanwide	2016	\$2.7

M&A and IPO - Recent U.S. Life Transactions

M&A: Recent U.S. Life Insurance Transactions 2017-2018

Seller	Buyer	Year	Purchase Price (Billions)
Transamerica – COLI / BOLI and Payout Annuity	Wilton Re	2017	N/A
Fidelity and Guarantee Life	CF Corp	2017	\$1.8
Front Street Re	CF Corp	2017	\$0.1
Resolution – Lincoln Benefit	Global Bankers	2017	N/A
Aetna Group Operations	Hartford	2017	\$1.5
Hartford – Talcott Resolutions	Atlas, Global Atlantic	2017	\$2.0
VOYA – VA and FA Annuities	Apollo, Athene	2017	\$1.1
AIG Stop Loss	Tokyo Marine - HCC	2017	\$0.3
Liberty Life	Lincoln, Protective	2018	\$3.3
Prosperity	Elliot	2018	\$N/A
CNO Financial – LTC Block	Wilton Re	2018	\$-0.8
Gerber	Western & Southern	2018	\$1.55

Key Motivation

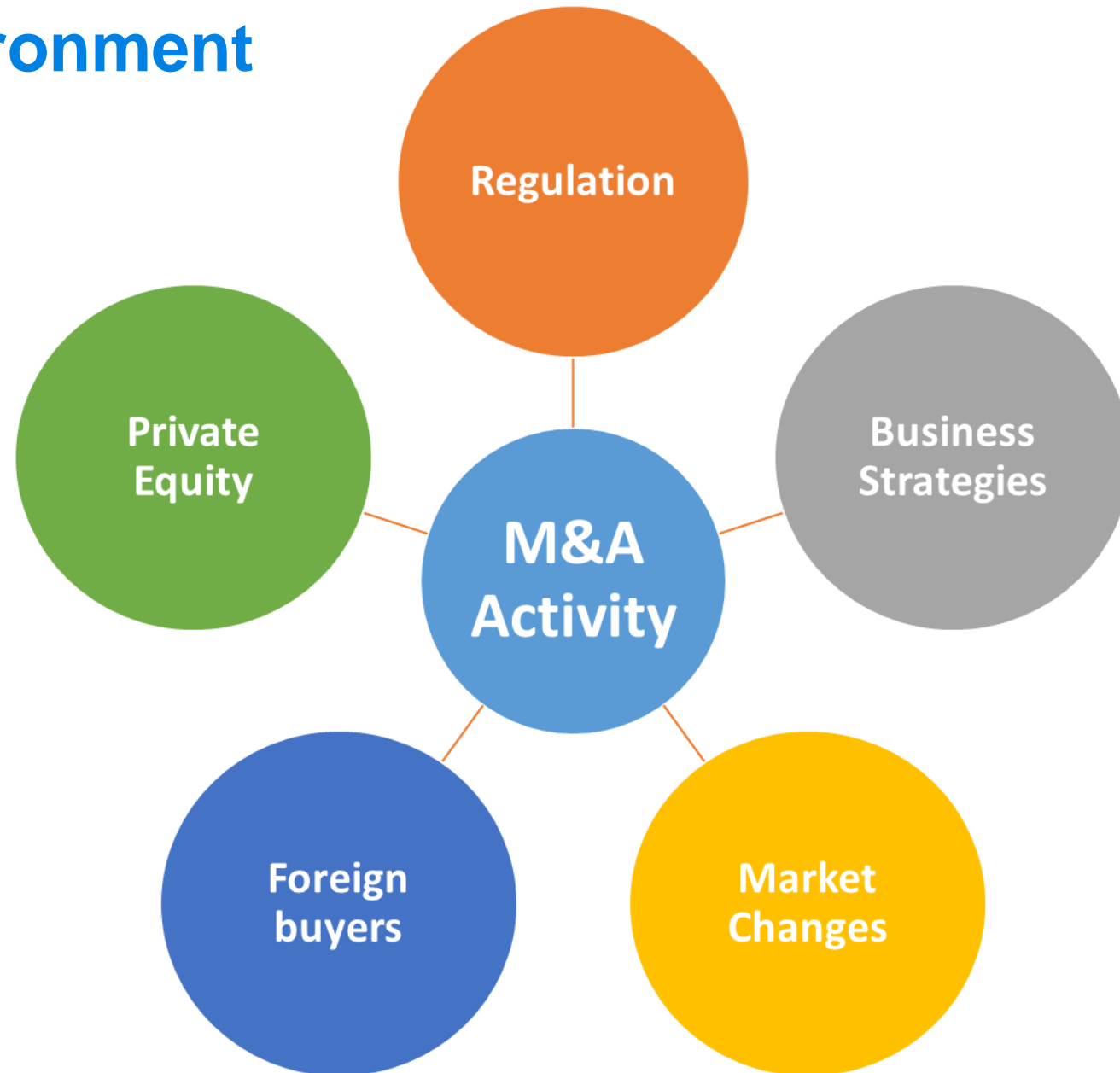
Sellers

- Dispose of underperforming or distressed blocks
- Raise capital and invest in better opportunities
- Divest run-off blocks to achieve expense efficiency

Buyers

- Looking for growth opportunities
- Cross border opportunities
- Achieve mix of business and risk

Recent Environment



Fixed Index Annuities

- Equity linked crediting
- Asset intensive
- Reserves and capital
- GLBs - volatility cost and emerging experience

Variable Annuities

- Complex and volatile long term guarantees / put options
- Policy holder behavior – emerging experience
- Regulatory Changes – NAIC VA Reforms
- Hedging – In light of 2008 Financial crisis and regulatory changes

Looking Forward

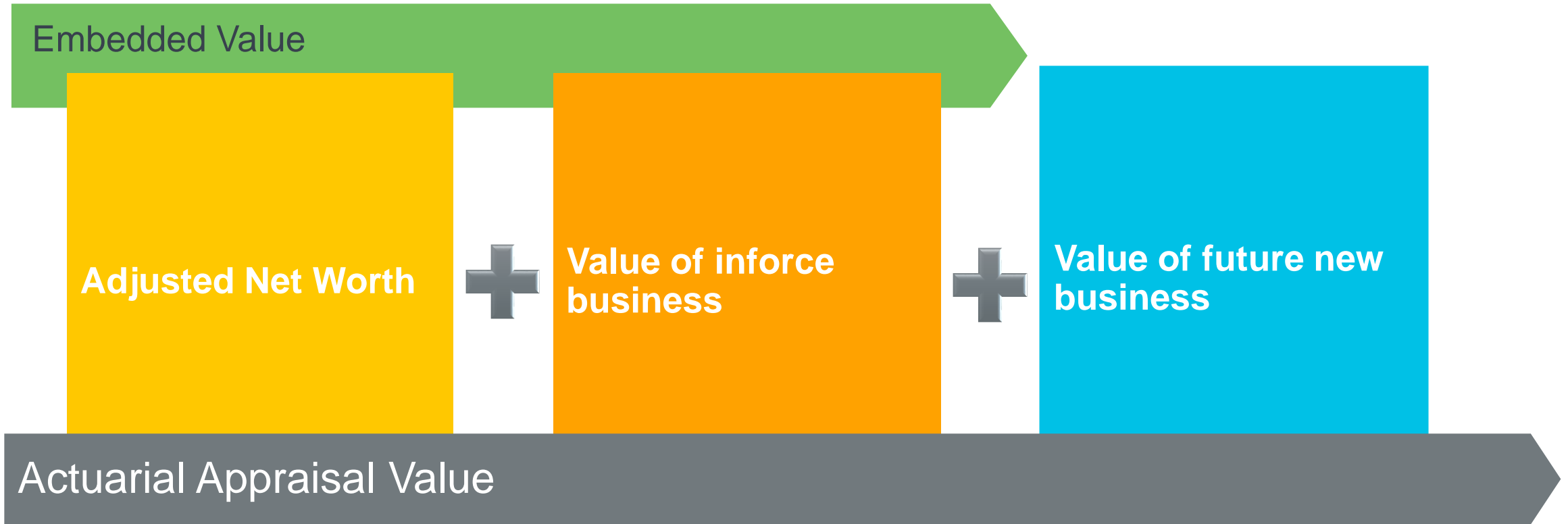


- Platform plays
- Strategic growth acquisitions
- Deconsolidation
- De-risk balance sheet

What is Actuarial Appraisal Value?

- Defined in Actuarial Standards of Practice No. 19 as
 - “The projection of expected future distributable earnings, discounted to present value at appropriate risk-adjusted rates of return.”
- Statutory earnings form the basis for determining distributable earnings.

Components of AAV



Adjusted Net Worth (ANW)

Statutory Capital
& Surplus (C&S)



- Any statutory liabilities considered to be allocations of surplus (e.g. AVR)
- Any statutory non-admitted assets with realizable market value
- Mark-to-market the value of assets which are in support of the ANW

Value of In-force (“VIF”)

- VIF = Present value of Distributable Earnings (“DE”) attributable to business inforce at appraisal date.
 - Use “cash flow” projection techniques to get the present value of after-tax statutory profits arising from the existing policies.
 - Needs ‘realistic’/’best estimate’ assumptions to project the cash flows (i.e. mortality, morbidity, lapses, expenses, bonus rates etc.).
 - Define required solvency capital to operate business.
 - Provision for cost of capital.
 - Perform sensitivity testing on key assumptions.

Value of New Business (“VNB”)

- VNB = Present value of Distributable Earnings (“DE”) attributable to business issued after appraisal date.
- Considerations:
 - Vary by product line and/or distribution channels
 - Number of years of new business
 - Growth rate of new business
 - Level of maturity of the distribution channels
 - Profit margin of new sales
 - Cross-selling opportunities

Other Key Items to Consider for AAV

- Deterministic vs Stochastic modelling
- Risk adjusted discount rate
- Investment strategy
- Operating expense and synergy
- Reinsurance (including reserve financing)

AAV = Market Value?

- AAV reflects the value of the business to the appraiser (e.g. prospective buyer/seller or regulator) under a specified set of assumptions.
- This can be different from the market value due to:
 - Level of synergies expected to be realized from the merger
 - Tax or capital benefits unique to potential buyer
 - Urgency of sale
 - Level of confidence regarding underlying assumptions

Pre and Post M&A and IPO Challenges

Pre-M&A and IPO Challenges

- Sound Financial Reporting System
- Expense Management
- Preparing for investor roadshow
- Buy side M&A due diligence

Post-M&A and IPO Challenges

- Incompatible cultures
- Synergy non-existent or overestimated
- Clash of management styles
- Acquired firm too unhealthy
- VNB not realized



Questions

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