

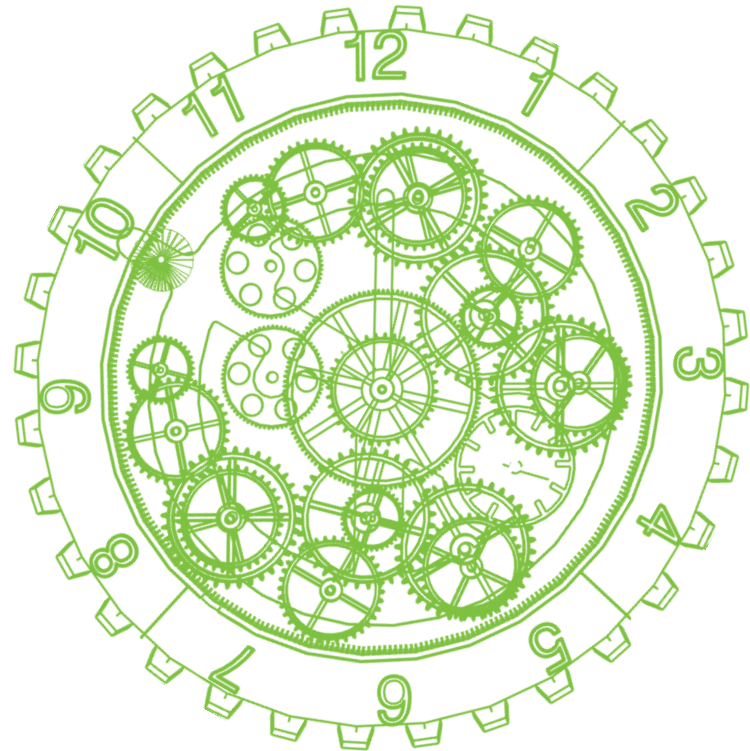
**Insurance M&A:
Purchase Accounting (PGAAP) –
from a Actuarial and Valuation
Perspective**

**CARe Seminar on Reinsurance
New York**

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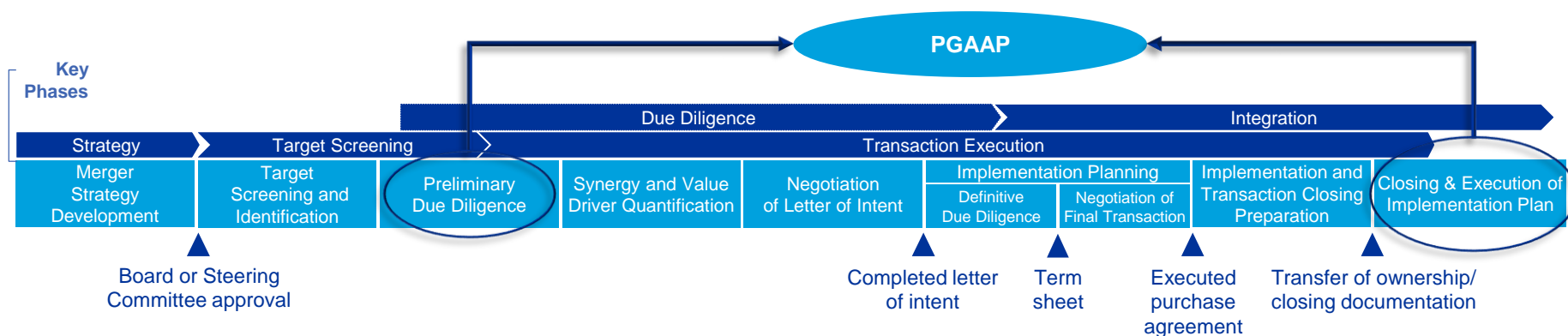
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Understand the M&A lifecycle & PGAAP



M&A Strategy & Target Screening

- Develop plan for overall corporate business unit portfolio
- Determine and develop internal M&A capability
- Develop long-term M&A goals and objectives
- Develop screening criteria; requisites for strategy
- Collect screening data to evaluate potential Targets
- Identify initial acquisition candidates
- Conduct detailed screening of potential Targets based upon business strategy, competitive strategy, and value potential

Project Management Office and Due Diligence

- Determine due diligence protocols and metrics
- **Identify synergy targets**
- Perform commercial, actuarial, accounting, tax, operational, HR, valuation and IT due diligence
- Assess potential fit of merging companies (financial, strategic, legal, cultural, etc.)
- **Assess potential risks to synergy targets and develop mitigation strategies**
- **Develop valuation of proposed deal**

Transaction Execution

- Determine deal structure to align with synergy targets and strategic considerations
- Formulate purchase price adjustment mechanism
- **Analyze synergies and Target valuation in terms of proposed deal structure**
- Conduct M&A negotiations and deal close
- **Develop Opening Financials which will include impact of PGAAP**
- Day One readiness and begin integration planning

Integration

- Day One and post-merger planning and management
- Synergy identification, capture, and tracking
- Integration execution support
- Legal entity design and readiness
- Organizational design and implementation including change management
- Integration planning and execution
- Accounting standards conversion (i.e., IFRS to GAAP)
- Regulatory approval support
- Provide continued support on tax structure, filings, and compliance
- Support transaction closing procedures
- Transaction service agreement implementation and exit strategy
- **Implement plan to assess Goodwill and non-amortizing intangible assets**

Due Diligence: Overview of where PGAAP comes into play

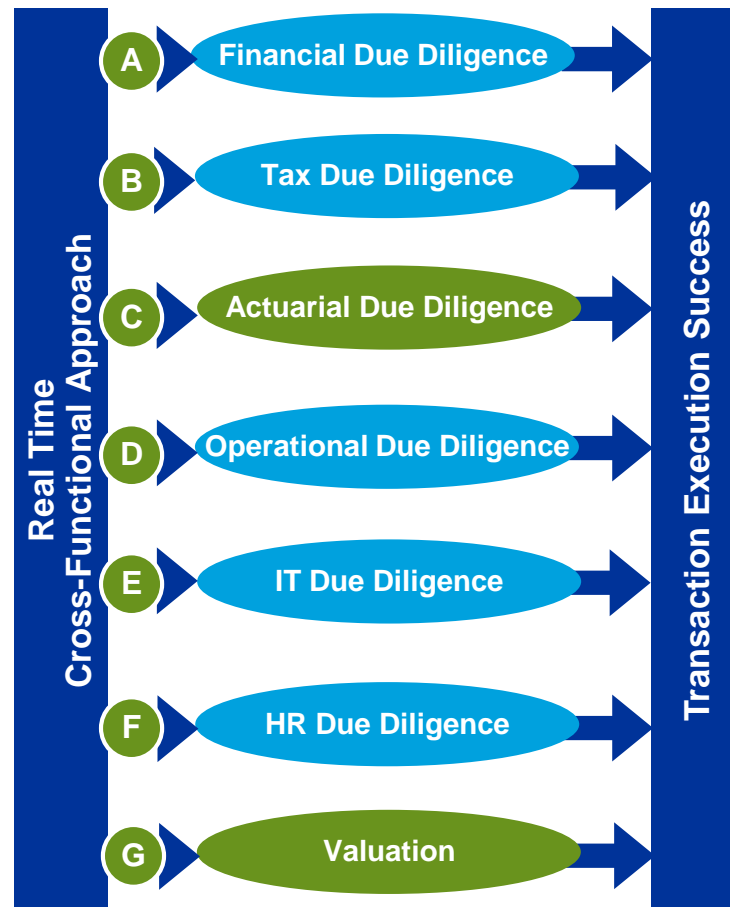
Isolating and maintaining focus on the most critical elements of the deal on a real-time basis often makes the difference between success and failure

Typical Transaction Issues

- Insurance Industry, geographic and deal-specific risks and opportunities
- Effect of regulatory matters
- **Actuarial valuation of the Target's book of business including renewals coupled with a traditional valuation approach (income/market)**
- **Target's forecasting of loss ratios by line of insurance and payout patterns**
- Accounting basis and policy differences
- Quality of earnings and cash flows -- historical and projected
- Quality of net assets and adequacy of capital
- Hidden costs, contingencies and commitments
- Internal control structure, including Sarbanes Oxley compliance
- **Synergy identification and capture**
- Tax and accounting structuring
- Identification/quantification of tax exposures; optimization of related benefits
- Development of purchase price mechanisms and other purchase agreement protections
- Identification of integration and post-transaction transition issues
- Preparation for post-transaction activities, including successful resolution of purchase price adjustments solutions
- Employee benefits, information technology systems and risk mgmt. practices
- **Purchase Accounting under GAAP (PGAAP) – allocation of purchase price to intangibles and goodwill (after fair valuing the liabilities), which impacts the accretive/dilutive nature of the transaction**

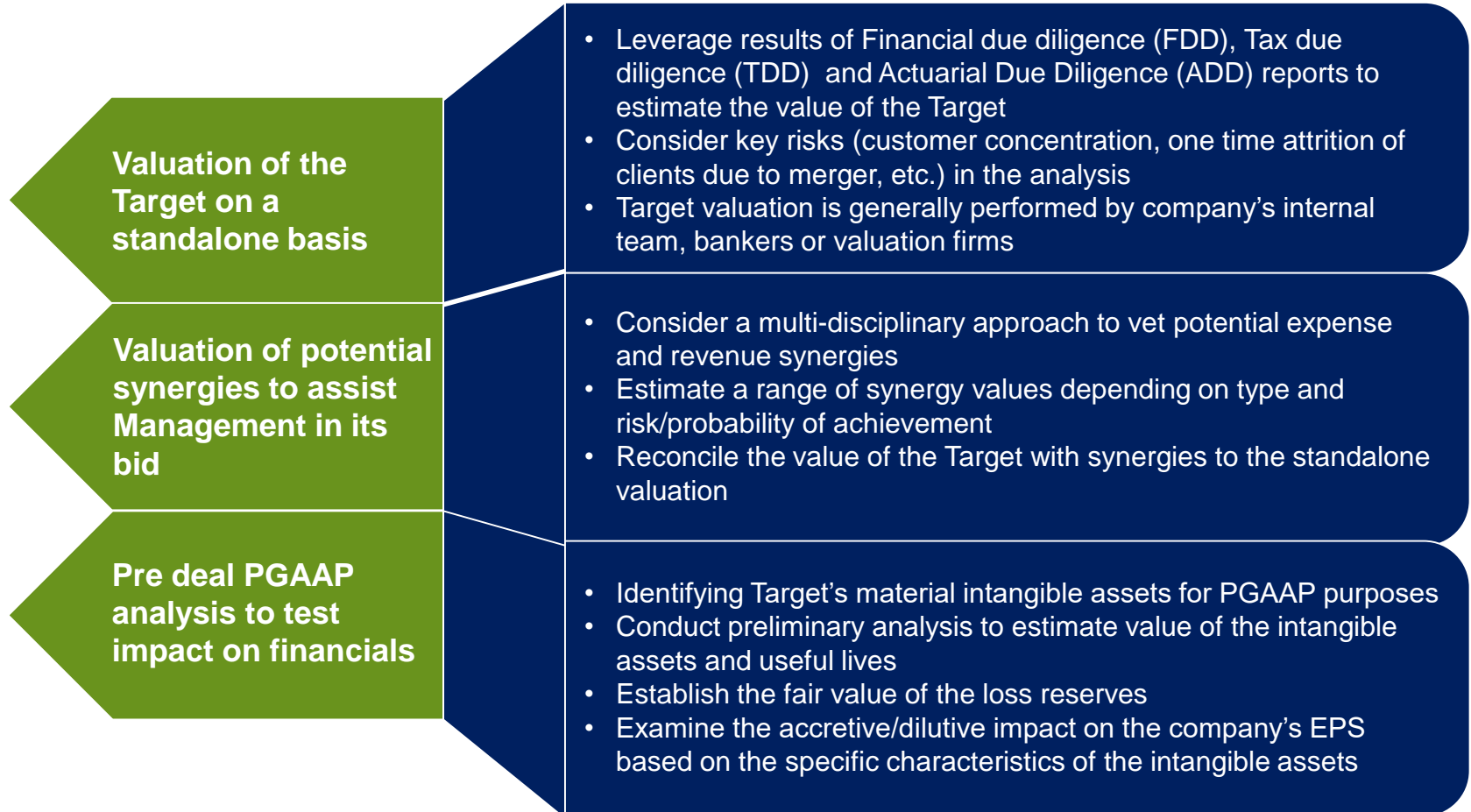


Due Diligence Focus Areas



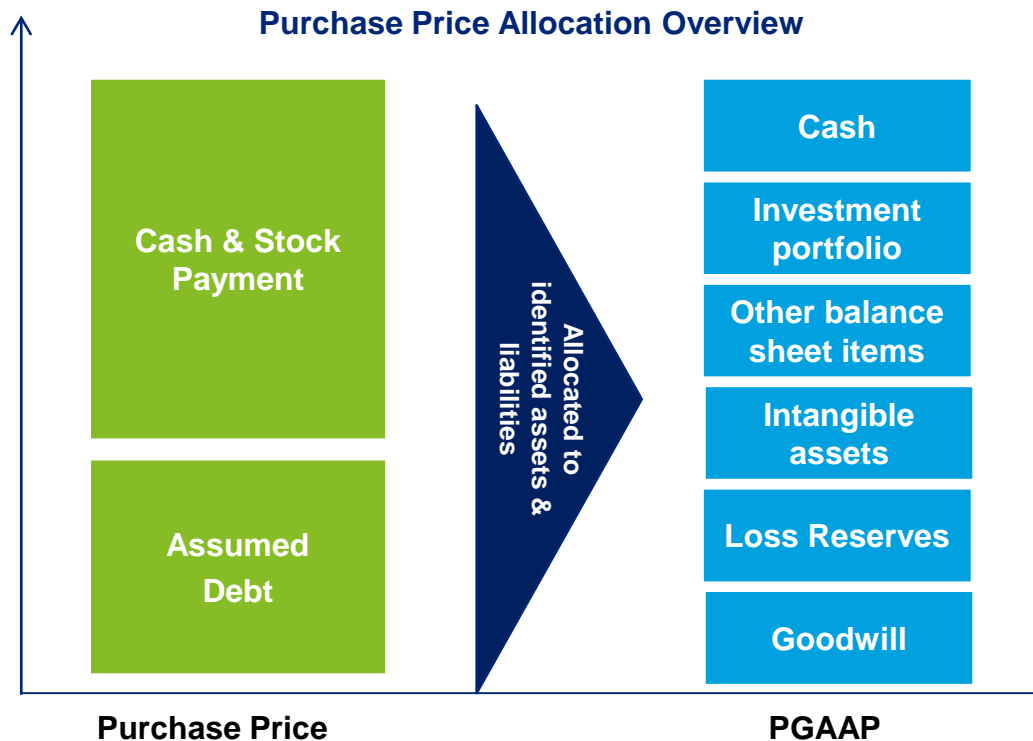
Enterprise valuation – Overview

PGAAP is essentially the allocation of the purchase consideration to the assets acquired which necessitates the first step in the process being the establishment of the fair value of the Target.



Overview of PGAAP

- The accounting requirements for PGAAP falls under US GAAP - ASC 805.
- Representative intangible assets from a transaction include:
 - ✓ Relationships
 - ✓ Renewal Rights
 - ✓ Trade name
 - ✓ Internally developed technology
 - ✓ Covenants not to compete
 - ✓ Insurance licenses
 - ✓ Value of business acquired (“VOBA”)
- Liabilities typically include the fair value of loss reserves and potentially debt
- Other considerations may include:
 - ✓ Fair value of Non Controlling Interest (“NCI”)
 - ✓ Fair value of investments kept at cost may need to be fair valued
 - ✓ Lloyd’s Syndicate Capacity
 - ✓ Asset Management Contract



PGAAP - General Financial Reporting Guidance (Definition of a Business)

- Accounting Standards Update No. 2017-01—Business Combinations (Topic 805): Clarifying the Definition of a Business
-

- A business is an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other economic benefits directly to investors or other owners, members, or participants.
-

- The three elements of a business are defined as follows:

- **Input.** Any economic resource that creates, or has the ability to contribute to the creation of, outputs when one or more processes are applied to it.
 - **Process.** Any system, standard, protocol, convention, or rule that when applied to an input or inputs, creates or has the ability to contribute to the creation of outputs. Examples include strategic management processes, operational processes, and resource management processes.
 - **Output.** The result of inputs and processes applied to those inputs that provide goods or services to customers, investment income (such as dividends or interest), or other revenues or have the ability to provide a return in the form of dividends, lower costs, or other economic benefits directly to investors or other owners, members, or participants.
-

- A business need not include all the inputs or processes that the seller used in operating that business if market participants are capable of acquiring the business and continuing to produce outputs, for example, by integrating the business.

PGAAP - General Financial Reporting Guidance (Intangible Assets)

- U.S. GAAP Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 805, Business Combinations
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- ASC 805 defines an intangible asset as an asset (other than a financial asset) that lacks physical substance (excluding goodwill). Such an asset is identifiable if it meets either of the following criteria:
 - It is separable, that is, capable of being separated or divided from the entity and sold, transferred, licensed, rented, or exchanged, either individually or together with a related contract, identifiable asset, or liability, regardless of whether the entity intends to do so.
 - It arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the acquired entity or from other rights and obligations.
-
- ASC 805 presents a representative list of common identifiable intangible assets, which includes the following categories:
 - Marketing-related
 - Customer-related
 - Artistic-based
 - Contract-related
 - Technology-based
-
- The specific, identifiable intangible assets of a business enterprise depend largely upon the nature of its operations. The approach to the valuation of each intangible asset will vary depending upon the nature of the asset, the business in which it is utilized, and the economic returns it is generating or is expected to generate.

PGAAP - General Financial Reporting Guidance (Premise of Value)

- For financial reporting purposes, the type of value is fair value. Fair value as defined in ASC 820 is the “price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.”
-
- In general, fair value is estimated based on the concept of highest and best use.
 - In general, for PGAAP, the highest and best use of a nonfinancial asset is assumed to be to use it on a standalone basis, the fair value of the asset was estimated based on the price that would be received in a current transaction to sell the asset to market participants that would use the asset on a standalone basis.
-
- The value of each asset or asset group reflects the estimated exit price at which the asset or group of assets would exchange in a hypothetical transaction occurring among market participants.

PGAAP - General Market Perspective on Amortization (for financial reporting)

- Intangibles assets considered to have finite lives will be amortized for financial reporting.
-
- The amortization period for financial reporting is typically the remaining economic useful life of the asset. This is different than the amortization period for tax which is 15 years for all intangible assets (US perspective).
-
- In general, we have observed clients using the following approaches when estimating the amortization pattern for the assets:
 - Straight-line
 - Pattern of the economic benefit of the asset being amortized
-
- The selection of amortization pattern is generally determined by the asset and the client's past accounting convention.
 - VOBA is generally amortized over two years given its short term nature (P&C perspective).
 - Relationship based intangibles including renewal rights are typically amortized over the pattern of economic benefit
 - Other intangibles assets (e.g., trade names, internally developed and used technology) are typically amortized straight-line
 - Fair value of loss reserves is amortized based on run-off of the reserves





Typical Valuation Methodologies – Intangible Assets

Below are the typical valuation methodologies considered for valuing the intangible assets

Methodology	Overview	Relationships	Renewal Rights	Lloyd's	VOBA	Trade Name	Internally Developed Technology	Covenants Not to Compete	State Insurance License
Multi-Period Excess Earnings	<ul style="list-style-type: none"> Based on the principle that the value of an intangible asset equals the present value of the incremental after-tax cash flows attributable only to the intangible asset 	✓	✓	✓					
Relief-from-royalty Method	<ul style="list-style-type: none"> Based on the premise that ownership of the asset relieves the owner of the need to pay a royalty to a third party for use of the asset 					✓			
Incremental Income	<ul style="list-style-type: none"> Based on a comparison of the prospective revenues and expenses for the asset with and without the subject intangible asset in place 							✓	
Cost Approach	<ul style="list-style-type: none"> Based on the replacement cost of an asset with another having equivalent utility 						✓		
Market Approach	<ul style="list-style-type: none"> Based on the comparable transaction method considering arms-length transactions for "clean" shell entities 								✓
Actuarial	<ul style="list-style-type: none"> Based on the estimated present value of future cash flow to be received from the acquired insurance policies (difference between the nominal value of the unearned premium reserve and the present value of the risk adjusted future loss and expenses associated with running off the UEPR) 				✓				




*Lloyd's Syndicate Capacity and State Insurance Licenses are indefinite intangible assets which are not amortized but are tested on an annual basis.

Key Valuation Considerations – Representative intangible assets

Representative Intangible Assets	Value Considerations	Contribution to Total Intangible Assets
Relationships and Renewal Rights	<ul style="list-style-type: none"> Expected retention rates for distribution channels compared to peers Impact of expected synergies – would need to differentiate between market participant and buyer specific synergies Potential for first year “shock” impact on the premiums as customers might reduce exposure to the combined entity Capital requirements compared to peers 	
Lloyds Syndicate Capacity	<ul style="list-style-type: none"> Consideration of market data for Lloyds capacity auctions Typically the syndicate capacity is classified as an indefinite life asset – would not be amortized 	
VOBA	<ul style="list-style-type: none"> Consideration of a risk margin to account for the uncertainty of the amount of future losses associated with unearned premium reserve VOBA could be impacted by the Target’s combined ratio (excluding acquisition expense ratio) compared to peers 	
Trade Name	<ul style="list-style-type: none"> Strength of brand name and combined ratio (compared to peers) Assumed continued use of the acquired trade name could lead to a perpetual life intangible asset – would not be amortized 	



Key Valuation Considerations – Representative intangible assets

Other Intangible Assets	Value Considerations	Contribution to Total Intangible Assets
Internally Developed Technology	<ul style="list-style-type: none"> Consider only internally developed and used technology Estimate the obsolescence of the acquired technology 	
Covenants Not to Compete	<ul style="list-style-type: none"> Individual's probability to compete and the impact of competition on Target's net income 	
State Insurance Licenses	<ul style="list-style-type: none"> Consider market transactions for "clean" shells Should reflect licenses of all the Target's entities, regardless of any overlapping licenses Typically state insurance licenses are classified as an indefinite life asset and would not be amortized over time. 	



Recognition and Measurement of Net Assets Acquired

Renewal Rights

Policy renewal rights are typically valued using an income based approach (multi-period excess earnings). Written premium will be forecast based on assumed retention rates and the cash flows from these renewal policies will be modeled over the life of the renewals. If applicable, contributory charges will be deducted and the resulting cash flows are discounted to present to arrive at fair value.

Key inputs for Renewal Rights	Considerations
Annual Renewal Retention Ratio	<ul style="list-style-type: none">Applied to the previous year's net written premium to calculate the expected net written premium for each calendar year period in the model.
Loss & LAE payout patterns	<ul style="list-style-type: none">To develop the payout pattern, aggregate the data by the reserve segment groupings being used in the renewal rights analysis.
Yield on Invested Assets	<ul style="list-style-type: none">A pre-tax investment yield on an annual basis is typically obtained from the Acquisition Model.
Contributory Asset Charges	<ul style="list-style-type: none">In theory, renewal rights cannot exist independently of other assets in a business. Therefore, contributory asset charges are applied to account for the cash flow contribution on various asset categories, where applicable, such as non-competition agreements, assembled workforce, and trade name.
Discount Rate	<ul style="list-style-type: none">The discount rate is equal to the weighted average cost of capital from a market participant perspective.
Capital Requirement	<ul style="list-style-type: none">The overall common equity to net written premium ratio is typically obtained from the Acquisition Model.
Loss & LAE Ratio and Underwriting Expense Ratio	<ul style="list-style-type: none">If segmentation of renewal rights analyses is at a more detailed level than Acquisition Model, the loss & LAE ratios must be developed based on Company's data and tie back to the overall loss & LAE ratio used in Acquisition Model.

Recognition and Measurement of Net Assets Acquired (continued)

Loss & Loss Adjustment Expense Reserves

Determining the fair value of loss reserves is a two step process based on the following components:

- Indicated payment patterns by reserve segment at the Transaction Date
- Recorded gross, ceded, and net undiscounted loss & LAE reserves at the Transaction Date
- Adjustment for the time value of money
- Risk margin is defined as the present value of the annual cost of holding capital to support the loss reserves for the current and all future years

1

Discount the carried reserves in the closing balance sheet

The reserves are discounted based on the expected annual loss payments using a risk-free duration-matched yield curve.

2

Calculate a Risk Margin as the present value of the Cost of Capital

Determine how much capital is required to support the loss reserves. This is calculated using a statistical approach with an assumption as to the confidence level that the capital plus loss reserves is sufficient to satisfy the obligation. This is often established at 99% over a one year time horizon.

The capital requirement will decrease each year proportionately with the loss payments. Cost of capital is net of investment yield.

The fair value of loss reserves can be either negative (i.e., lower than nominal carried reserves) or positive.

Recognition and Measurement of Net Assets Acquired (continued)

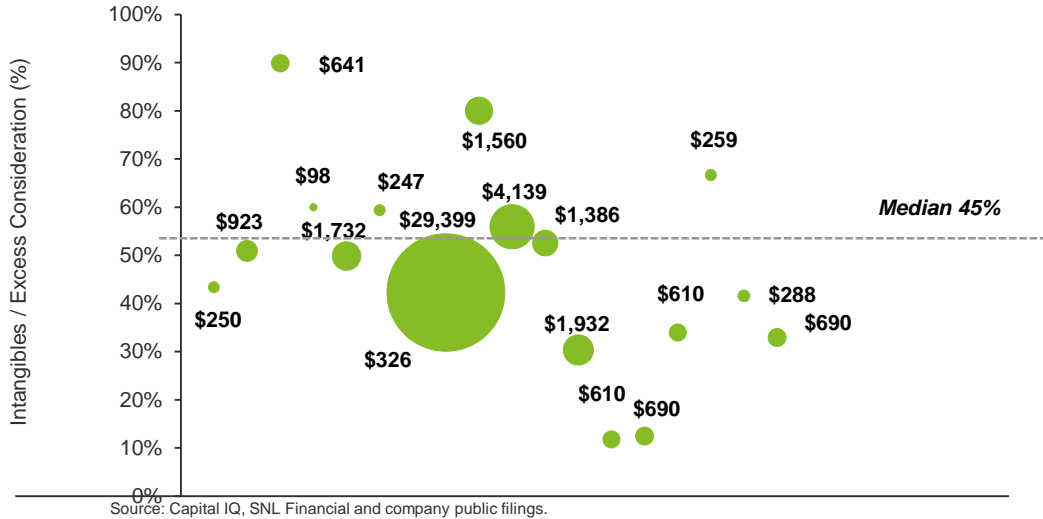
Value of Business Acquired (VOBA)

- The fair value of VOBA is estimated based on the expected future losses and expenses (policy administration, other underwriting expenses, etc.) related to the future premium remaining to be earned. A key input is the expected loss & LAE ratios for each line of insurance. We adjust for the time value of money and add a risk margin for the uncertainty of the amount of future losses. The fair value adjustment may be positive or negative.
-
- **Adjustment for the time value of money** is based on two assumptions:
 1. A payout pattern for the loss and LAE reserves associated with the unearned premium reserve.
 2. A risk free duration matched yield curve discount rate.
-
- **Risk margin** is calculated as the present value of the cost of capital in the following steps:
 1. Estimate the capital required to support the projected reserves at the beginning and end of each calendar year.
 2. The cost of capital is estimated by applying the selected cost of capital factor (net of the yield on invested assets) to the average capital required to support the reserves.
 3. The market risk load used to fair value the expected loss payments from the UPR will differ from that used to fair value the loss reserve liabilities, as the losses inherent in the UPR have not been incurred, and therefore have greater uncertainty. Therefore, the market value margin should be relatively higher.
-
- **Amortization** is on typically over a two year period since the unearned premium reserve will run-off in 2 years (3 years for reinsurance business depending on the percentage of losses occurring versus risks attaching business and the spread of the effective date of the reinsurance treaties during the year).
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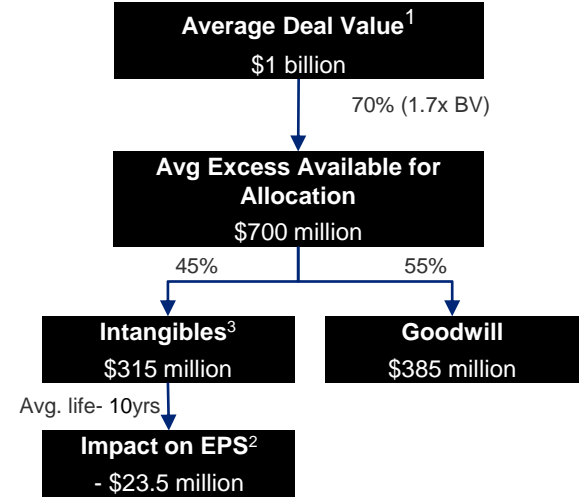
Market Data

PGAAP from a Market Perspective (P&C)

M&A Activity – Intangible assets / Excess Consideration



Summary of Market Information

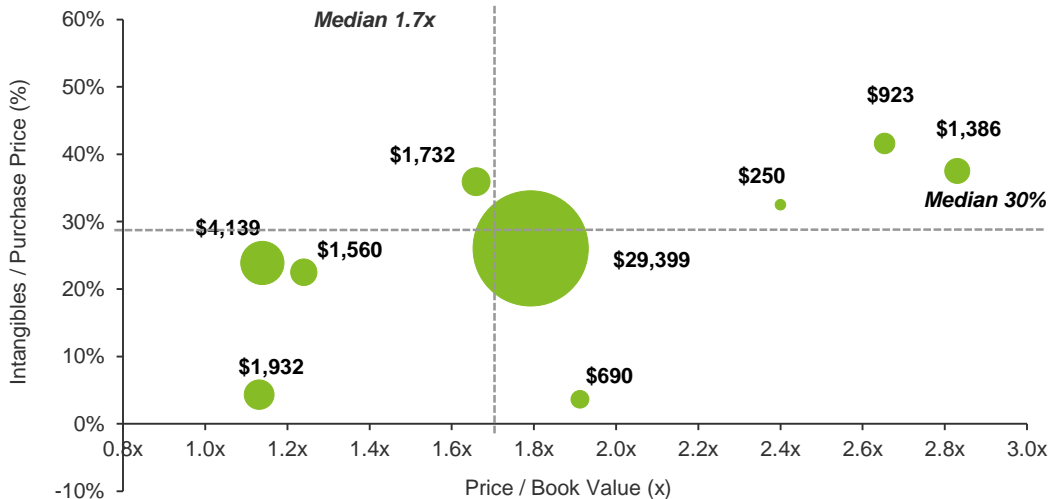


1. Excludes largest transaction
 2. Assumes 25% tax rate
 3. Indefinite life assets are generally less than 10 percent of total intangible assets. However if the transaction includes Lloyd's syndicate capacity, this percentage could be greater.

Factors which may impact the allocation of intangible assets:

- The Transaction P/BV multiple - all else equal, a higher multiple will result in a lower percentage allocation to the intangible assets
- The Target's combined ratio - all else equal, a lower combined ratio will result in a higher percentage allocation to the intangible assets
- Indefinite life assets could contribute to a higher intangible asset value, but will not amortize

M&A Activity – Intangible asset allocation and P/BV multiple



Instructor Biographies

Instructor Biographies



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Doug is a Managing Director and the National Financial Services Insurance leader with Deloitte Transactions and Business Analytics LLP. He has more than 20 years of experience in providing a wide range of valuation and financial consulting services to leading global financial companies, specifically insurance companies. He has substantial experience in the valuation of business enterprises, business interests, and intangible and tangible assets. Doug has provided services both on a domestic and global basis for a wide range of valuation purposes including: mergers and acquisitions analyses, tax and regulatory compliance, dispute resolution, financial structuring advice, strategic financial planning and lease financing.

Prior to joining Deloitte, Doug was a senior underwriter at an international property and casualty insurance company. During his six year underwriting career, Doug's responsibilities included developing/expanding the book of business by fostering relationships with insurance brokers as well as analyzing the insurance risk profiles of multinational corporations. Included in his analysis was the evaluation of a company's cash reserves, loss/reserve ratios, and risk diversification techniques.

Education and Professional Designations:

- Master of Business Administration, Finance, Accounting, and International Business, Stern Business School, New York University
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Instructor Biographies



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Daniel Leff is a Specialist Leader at Deloitte Consulting LLP. Mr. Leff has twenty-seven years of actuarial experience, including twenty years in consulting and has passed five of the Casualty Actuarial Society exams.

Dan specializes in performing insurance due diligence in merger & acquisition engagements for strategic buyers and private equity clients across multiple industries. Dan has also provided valuation services for insurance company transactions including intangible assets such as renewal rights, value of business acquired and fair value of loss reserves.

His actuarial experience includes analysis of loss reserves for all major personal and commercial lines of business for insurance/reinsurance companies, captives, state workers compensation funds and public and private sector self-insurance programs. He has also provided independent actuarial consulting services and support for different types of engagements such as predictive underwriting models, pricing, state insurance department financial exams, statistical and statutory data reporting, captive feasibility studies, litigation support and Sarbanes-Oxley.

Prior to joining Deloitte & Touche LLP in July 1997, Dan had been employed by Insurance Services Office, Inc. (ISO) since August 1990.

Relevant activities include:

- Speaker, Risk Insurance Management Society – Minimizing Risk in the M&A Lifecycle
- Speaker, Engineering & Construction Conference – Use of Captives
- Speaker, Casualty Actuarial Society Loss Reserving Seminar, Insurance M&A: Role of Actuary in Due Diligence, Valuation, and Market Trends

Education and Professional Designations:

- BS in Economics with a Concentration in Finance, University of Pennsylvania, 1990
- BA in Biology, University of Pennsylvania, 1990



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