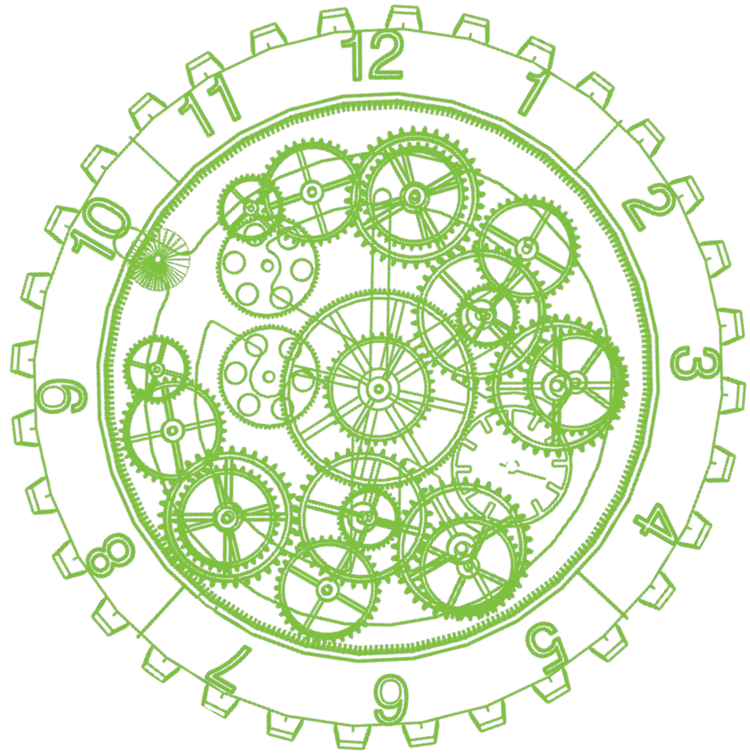
Deloitte.

Insurance M&A:
Role of Actuary in Due Diligence, Valuation, and Market Trends



Casualty Actuarial Society
Casualty Loss Reserving Seminar
Chicago

September 19, 2016

Daniel Leff, Deloitte

Doug Sweeney, Deloitte

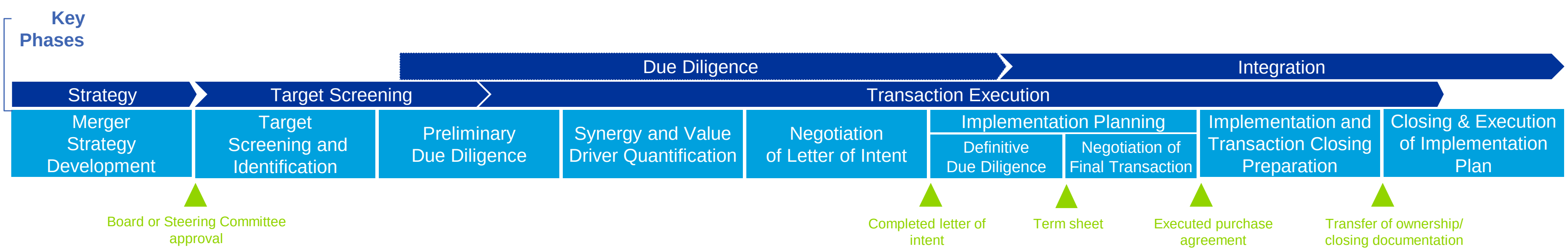
Deloitte.

Agenda

Due Diligence Keys to Success

Deloitte.

Understand the M&A lifecycle



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
- 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

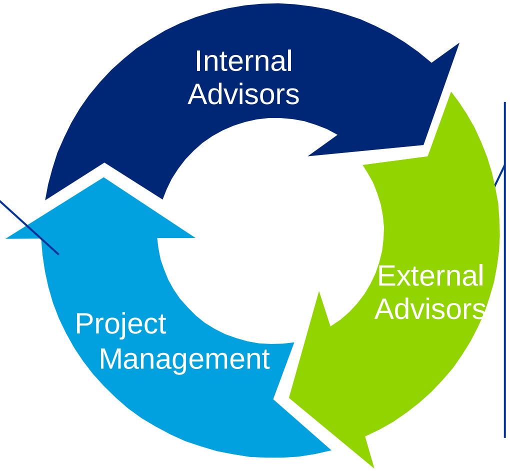
Deloitte.

Integrated team of internal and external resources

The buyer's due diligence team consists of both internal specialists and external advisors. However, it is important to note that the internal team has to "own" the due diligence process.

Internal specialists include staff with operational knowledge in the businesses to be acquired, as well as corporate functions. The operational and corporate functions represented on the internal team generally include underwriting, tax, human resources, legal, sales, marketing, accounting, actuarial, compliance, administration, claims, investments, information systems and enterprise risk management.

Due diligence (internal and external combined) often involve a large number of participants. Teams of 20-30 people are common; and teams of 50 to 80 people are not unheard of. Coordinating the work of such a large team, and producing reliable results in a short time frame is a project in itself.



External advisors are generally specialists in M&A transactions that provide a broad perspective for evaluating the Target business; in addition, they can provide a broad perspective to the buyer. Advisors generally include investment bankers, accountants, attorneys, actuaries, integration specialists, human resource specialists and information technology specialists.

Program management office best practices

Key focus areas	Best practices
Planning and process	• 80/20 rule — “must have” vs. “nice to have” • Conduct planning with key individuals in each business unit to be involved in the due diligence • Define regularly scheduled checkpoints to assess progress against milestones • Conduct thorough due diligence and link it to other M&A activities
Process efficiency	• Set deal goals and objectives focused on strategy • Focus on the most critical transaction elements • Maintain control through setting milestones, benchmarks and deadlines • Establish clear team roles, responsibilities and central command • Coordinate information gathering and sharing • One team approach with communication across teams and advisors • Complete real time problem identification and resolution • Translate due diligence findings into clear integration plans and objectives
Reporting	• Streamline reporting from internal teams and external advisors by developing deal issue tracking document where the functional and cross functional teams will track issues and code for significance and urgency • Accumulate executive summary from each functional team • Complete final report summarizing critical issues and observations • Integrate results into negotiation strategy and integration planning
Tools	• Utilize standard information request lists • Utilize standardized reporting templates
Valuation	• Establish disciplined approach to strategic decision making, including accretion/dilution analysis, quantification of diligence findings and use of standard models • Perform rigorous analysis of synergies to identify probable outcomes and the associated likelihood of achieving strategic value • Consider structuring alternatives to improve the likelihood of achieving the expected strategic objectives and value • Develop risk map • Translate value into deal terms • Avoid using the model to justify a pre-determined outcome • Perform independent read of model

Deloitte.

Due Diligence – Execution Overview

Phase I
Initial "Scrub-Down"

- During the first phase of due diligence, focus on an initial "scrub-down" based on the information initially provided in the data room or CIM and discussions with the Target's management and their advisors. The objective of this phase is to attempt to identify significant issues, including potential "deal-breakers", and to use the results of this process to better determine the nature and extent of the due diligence efforts for the next phase(s), assuming that the transaction proceeds.
- Typically conducted around the letter of intent (LOI) process in an exclusive arrangement or around first round bids in an auction process.

DELIVERABLES

Phase II
Further Detailed Analysis and Inquiries

- To the extent necessary, additional due diligence will be developed largely based on the results of Phase I. The key issues identified and those which impact cash flows / future earnings are typically the focus.
- The depth of Phase II due diligence varies significantly depending on the quality and reliability of the Target's internal controls, management, and financial and tax information.
- This phase usually allows for further discussions with Target management and additional diligence/data requests.
- Typically conducted in advance of signing a definitive agreement or in conjunction with a definitive agreement with a due diligence 'out clause'.

DELIVERABLES

Phase III
Confirmatory Detailed Analysis and Inquiries

- Phase III may entail detailed confirmatory analyses and inquiries as well as site visits to Target locations in order to further consider selected Target management's representations.
- Consideration should be given to issues arising from Phase II which should be addressed via representations and warranties in the purchase or merger agreement in addition to Phase III confirmatory due diligence given the challenges in resolving Phase III issues.
- Becoming less common as sellers seek to avoid diligence 'out clauses' in definitive agreements.

A Finance

B Tax

C Actuarial

D Operations

E IT

F HR

G Valuation

Due Diligence Approach

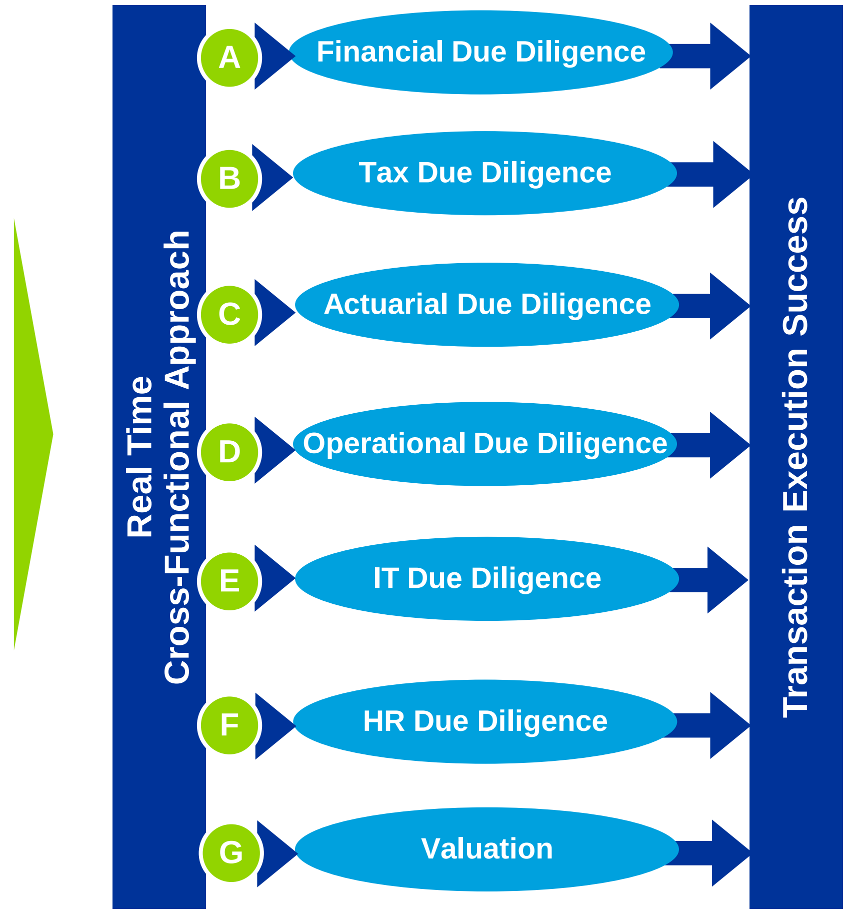
Due Diligence: Overview

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 product 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, which impacts the accretive/dilutive nature of the transaction

Solutions



Function-Specific Due Diligence Issues and Solutions: Actuarial

Recommended approach should closely integrate a thorough, multi-functional due diligence process (loss reserves, underwriting & pricing and claims) with a focus on items that should be considered in the valuation model

Typical Issues

Loss & Loss Adjustment Expense Reserves

- Inadequate reserves will impact future earnings and indicate that prior year earnings were overstated
- Difficult to forecast future loss ratios with inadequate reserves
- Current book value might be overstated
- Pricing may be inadequate

Underwriting & Pricing (U/W)

- Pricing may be misaligned with risk selection
- Soft market cycles lead to larger judgmental credits
- Price monitoring system may be non-existent or not capture new business impacting ability to understand price adequacy
- May not adequately be tracking Probable Maximum Loss (PML)
- Underwriting is not linked to broader organizational risk appetite and tolerance

Solutions

Loss & Loss Adjustment Expense Reserves

- Read publicly available information and information requested from and provided by the Target
- Read independent auditors' working papers
- Understand the Target's current and past book of business including ceded reinsurance programs
- Review Target's internal and independent actuarial loss reserve studies
- Perform independent loss reserve analysis
- Compare results to Target peer company information (if available)
- Adjust underwriting income for any unusual impact due to Loss Reserving

Underwriting & Pricing (U/W)

- Understand breakdown of premiums written and profitability by distribution channel and product
  - Proprietary
  - Agents/Brokers
  - Agreements with retailers, finance companies & financial institutions
- Evaluation of pricing methodology and development of Target loss ratios by product
- Review a sample of UW files to ensure consistency with UW manual
- Review development of manual rates and tracking of schedule credits (as well as overall pricing strategy/approach)
- Review Target's reinsurance strategy and understand frequency of internal review and challenge

Function-Specific Due Diligence Issues and Solutions: Actuarial (continued)

Recommended approach should closely integrate a thorough, multi-functional due diligence process (loss reserves, underwriting & pricing and claims) with a focus on items that should be considered in the valuation model

Typical Issues	Solutions
Claims ▪ Case reserves not established in a timely manner ▪ Mismanage litigation costs ▪ Claims leakage due to settlements, S&S or lack of investigation	**Claims** ▪ Understand claims handing operations/processes/procedures ▪ Evaluation of claims department − Staffing and attrition − Individual adjuster caseloads − Case reserving philosophy − Line of Business specialization − Supervisory interaction − Claims management system / scanning technology − Customer satisfaction surveys and policy retentions − In-service training − Salvage and Subrogation − Special Investigative Unit (SIU) ▪ Sample claim files for reasonableness of case reserves, appropriate timing of reserves and adjustments as well as payment amounts
Valuation ▪ Lack of documentation for valuation and modeling assumptions ▪ Carve-out considerations	**Valuation** ▪ Valuation of Target's book of business ▪ Forecast current run rate loss and expense ratio and payout pattern ▪ Fair value of certain assets such as value of business acquired (VOBA) and renewal rights ▪ Fair Value of certain liabilities such as loss and loss adjustment expense reserves ▪ Projections (modeling) of Target's growth patterns

Actuarial Due Diligence
Deep Dive

Phase I – Identify Key Issues

Phase I serves as an introduction to the Target, where one would perform as many of the activities listed below as possible given the limited time and access to information. Follow-up questions and areas requiring attention are identified. The focus of Phase I is to quickly identify matters which would be considered ‘deal-breakers’ – those which would have a significant impact on value (for the financial model), be dilutive to earnings/EPS or result in large exposures that may make the proposed transaction either not feasible or undesirable. Typical activities in this phase may include:

Key Phase I Focus Areas		
Expected Data	**Analysis**	**Deliverable**
▪ Access to company information, sometimes contained in an electronic dataroom which includes: – Recent audited financial statements and most recent unaudited or internal financial statements – Confidential information memorandum (CIM) / offering memorandum – Analysts’ or investment reports – Publicly available information and regulatory filings (including statutory filings) – Copies of internal actuarial reserve studies – Copies of independent actuarial reserve studies	▪ Read available information to identify preliminary actuarial issues and risk areas for further consideration. ▪ Perform high level analysis on the actuarial reports provided and gain an understanding of key drivers of profitability by line of business and identify any potential areas of future exposure (asbestos, other mass torts, etc.) ▪ Identify and quantify one-time, unusual, or non-recurring items for the most recent fiscal year and for the year to date and an earlier period if permitted, that could potentially have a continuing significant impact (positive or negative) on future earnings, with a focus on: – Impact on prior year’s earnings of adverse or favorable development in reserves	▪ Based on the analysis performed, prepare the following items: – Agendas for follow-up meetings / interviews with Target management – Detailed diligence request lists, listing of the potential documents which have not been initially provided in the electronic dataroom ▪ Initial observations related to loss reserves, profitability by line of business and other factors impacting loss & loss adjustment expense ratio ▪ Prepare a bullet outline of potential “deal-breakers” and outline phase II focus areas
▪ Management presentation / meeting	▪ Based on the analysis performed above, develop key questions to ask during the management presentation / meeting - focusing on the quality of earnings related to loss reserves, normalization adjustments and results of actuarial reports performed	▪ Note inconsistencies between what was said during the management presentation / meeting and historical financial information for follow-up

Phase II – Actuarial Review of Audit Working Papers and Independent and Internal Actuaries Reports as Available

<table>
<tr><th colspan="3">Key Phase II Focus Areas</th></tr>
<tr><th>Expected Data</th><th>Analysis</th><th>Deliverable</th></tr>
<tr>
<td>▪ Access to Target's independent auditor's working papers and interview with Target's actuarial, underwriting and claims professionals
▪ Copies of internal actuarial reserve studies
▪ Copies of independent actuarial reserve studies</td>
<td>▪ Read the independent auditor's working papers with a focus on the following:
– Actuarial analyses performed and comparison of indicated results to recorded loss reserves
– Financial reporting processes and procedures with respect to loss reserves
– Reinsurance recoverables (collectability)
– Reinsurance risk-transfer
▪ Read internal/external actuarial reports
▪ Make inquires of Target management related to questions and observations identified through the general preparatory work and the actuarial working paper review, and assess such responses
▪ Conduct discussions with Target and any applicable consulting actuaries in an effort to understand the Target's business, underwriting/pricing philosophy, claims handling and current loss reserving processes</td>
<td>▪ Matters arising from the actuarial review of the audit working papers, review of internal/external actuarial reports and interviews with Target actuarial, underwriting and claims personnel should be incorporated into the historical financial statement analysis for matters related to normalized earnings and adjusted net book value and in the report</td>
</tr>
</table>

Phase II – Independent Claim File Review and Assessment of Claims Handling Operations

Key Phase II Focus Areas		
Expected Data	**Analysis**	**Deliverable**
▪ Description of claim department organizational structure and process flows ▪ Sample of selected claim files	▪ The objective of this task is to review the Target's claims handling operations to develop a baseline understanding of their claims handling capabilities. On-site interviewing, document reviews, and high-level process walk-throughs will be used to develop an understanding of the operation and organizational dynamics of the claims handling unit(s) ▪ The current state will be used as grounding information for the application of leading practices for insurance company claims operations and will provide the relevant context that helps assess the effectiveness and productivity of the claims handling operations ▪ Collect and review claim procedures, data, and documents related to the claims handling operations and systems ▪ Conduct interviews with key claims personnel to review the claims handling unit's processing functions ▪ A review of specific claim files will provide insights into the actual handling of claims by claims adjusters. This data may be used to evaluate alignment with the Target's guidelines, as well as how current practice aligns with industry leading practices for insurance companies	▪ Summary of Target's claim handling operations and management strengths and opportunities for improvement ▪ Identification of any issues with loss reserve setting process should be incorporated into independent actuarial loss reserve analysis described on the following slide

Phase II – Independent Actuarial Analysis of Loss & LAE Reserves (1/2)

<table>
<tr><th colspan="3">Key Phase II Focus Areas</th></tr>
<tr><th>Expected Data</th><th>Analysis</th><th>Deliverable</th></tr>
<tr>
<td>

Premium, loss, exposure and claim data by line of business by country
Sample of selected underwriting files

</td>
<td>

Based on discussions with Target management, understand changes in company operations (i.e. underwriting/pricing, claims handling, catastrophe exposure, etc.) that may not be factored into actuarial loss reserve analysis
Understand the development of expected loss ratios by line of insurance/product and review selected underwriting files for each statutory entity
Prior to beginning our independent analyses and based on the review of the independent auditor’s actuarial work papers and external actuarial consultant reports, determine the reserve segments that will be independently tested and those where you can rely on the unpaid loss and LAE estimates of the external actuarial consultant or Target’s recorded reserves. This will be based on the size of the reserve segments, perceived volatility of the business and materiality relative to the Target’s total recorded loss and LAE reserves

To extent possible, rely on the loss and premium/exposure data contained in the external actuarial reports as well as any supplemental information provided by the Target to reflect activity since the last actuarial report
Major industry catastrophic events (i.e. hurricanes, earthquakes, etc.) should be reviewed separately
Determine whether reserve estimates will be presented in US$ or local currencies and understand any specific country requirements impacting establishing balance sheet provisions for loss reserves

</td>
<td>

Estimate a range of unpaid loss & LAE including a point estimate for loss & LAE and compare to the Target’s consolidated recorded loss & LAE on both a gross (direct plus assumed) and net basis
Forecast the current accident year loss ratio and ALAE ratio to assist with any valuation model. In addition, develop payout patterns to assist with the modeling
Prepare a presentation that outlines findings, observations, methodologies and key assumptions

</td>
</tr>
</table>

Phase II – Independent Actuarial Analysis of Loss & LAE Reserves (2/2)

Key Phase II Focus Areas		
Expected Data	**Analysis**	**Deliverable**
▪ Premium, loss, exposure and claim data by line of business by country ▪ Sample of selected underwriting files	▪ For each statutory entity, analyze unpaid loss and ALAE by line of insurance/product and provide a range of undiscounted unpaid loss and ALAE on a gross and net basis ▪ For each statutory entity, analyze unpaid unallocated loss adjustment expense (ULAE) and provide a range of undiscounted unpaid ULAE on a gross and net basis ▪ For each reserve segment independently analyzed, rely on the (a) Target's historical loss development experience supplemented by the applicable insurance industry development benchmarks and (b) the Target's historical loss ratios adjusted for rate/pricing changes (if available) ▪ Incorporate any findings from claim file review and assessment of claims handling operations	▪ Estimate a range of unpaid loss & LAE including a point estimate for loss & LAE and compare to the Target's consolidated recorded loss & LAE on both a gross (direct plus assumed) and net basis ▪ Forecast the current accident year loss ratio and ALAE ratio to assist with any valuation model. In addition, develop payout patterns to assist with the modeling ▪ Prepare a presentation that outlines findings, observations, methodologies and key assumptions

Phase III – Confirmatory Diligence

This phase may primarily relate to activities performed in connection with the closing. Typical activities may include:

Key Phase III Focus Areas
▪ Updating Phase 2 activities. This may include updating the report for more recent financial information, responses to Q&A, new data provided in the data room, or the findings of other work streams ▪ Perform confirmatory analyses on any items outstanding or arising from Phase II ▪ Providing comments on the transaction documents until the time of signing ▪ Analyzing carve out options based on findings, including risks, from prior phases and defined value drivers ▪ Assessing future operational efficiencies related to actuarial, underwriting or claims departments to maximize deal valuation

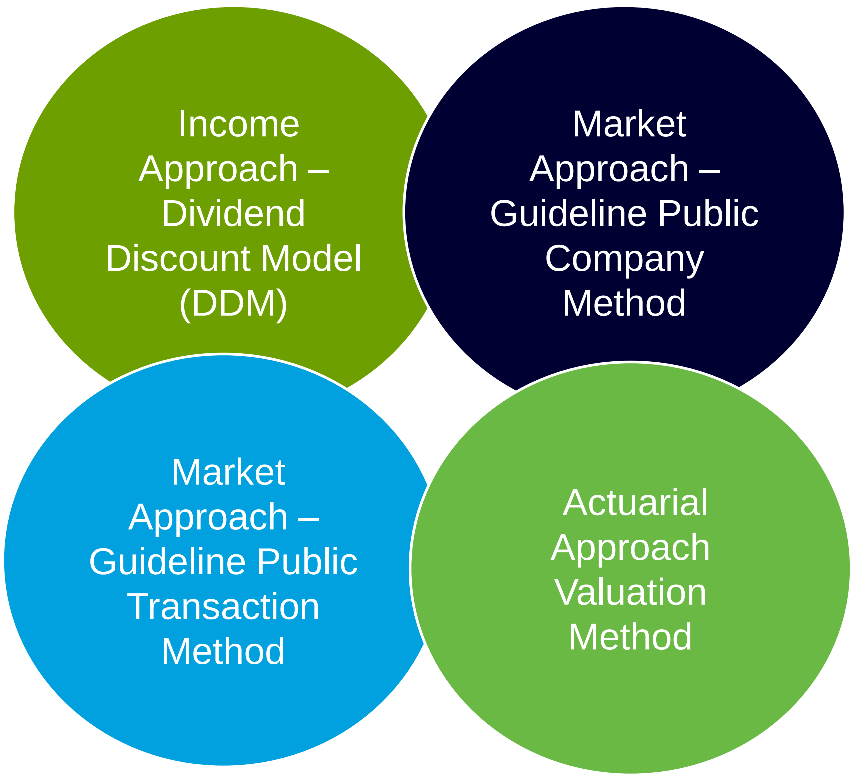
Pre deal Enterprise valuation analysis

Pre deal Enterprise valuation – Overview

Valuation of the Target on a standalone basis	• Leverage results of Financial due diligence (FDD), Tax due diligence (TDD) and Actuarial Due Diligence (ADD) reports to estimate the value of the Target • Review quality of earnings, Target's key drivers, etc. and benchmark to relevant peers • Consider key risks (customer concentration, one time attrition of clients due to merger, etc.) in the analysis • Target valuation is generally performed by company's internal team, bankers or valuation firms
Valuation of potential synergies to assist Management in its bid	• Consider a multi-disciplinary approach to vet potential expense and revenue synergies • Estimate a range of synergy values depending on type and risk/probability of achievement • Consider scenario analysis to stress purchase consideration based on potential synergies • Reconcile the value of the Target with synergies to the standalone valuation
Pre deal PGAAP analysis to test impact on financials	• Identifying Target's material intangible assets for PGAAP purposes • Conduct preliminary analysis to estimate value of the intangible assets and useful lives • Examine the accretive/dilutive impact on the company's EPS based on the specific characteristics of the intangible assets

Pre deal Enterprise valuation – Valuation of the Target on a Standalone Basis

Approaches to valuing a Target on a standalone basis



Key Considerations:

- Multiple approaches generally considered to corroborate final value estimate or to provide range of potential values
- Consider normalized operations excluding any non-recurring items – leverage results of the due diligence reports (Financial, Tax and Actuarial)
- Consider key risks identified in due diligence and analyze impact on the Target's value, e.g. through adjustment to discount rate.
- Any improvement in margins and growth in cash flows are based on the Target's standalone capabilities
- Discount rate in the DDM reflects the risk of the Target's cash flows on a standalone basis
- Consider the potential impact of one time "shock" (loss in business as certain clients reduce exposure to the merged entity) on the Target's value
- Actuarial approach involves forecast of distributable earnings subject to regulatory restraints as well as other judgmental restraints such as maximum premium to surplus ratio

Pre deal Enterprise valuation – Assessment/Valuation of Synergies

Common Revenue Synergies	Common Expense Synergies
• Expanded marketing and cross-selling of products • Expansion of distribution channels • Access to new and niche market segments • Reduced competition • Lift from enhanced brand recognition	• Shared services • Reduced headcount and overhead • IT infrastructure modernization • Knowledge exchange to improve processes • Increased leverage when negotiating reinsurance and/or financing

Identification of relevant synergies requires thorough due diligence as type/level can vary from one transaction to another

Process

Analyze Target (standalone)

- What are the value drivers?
  - Customer base
  - Distribution channel
  - Brand
  - Technology
- What are the key operational metrics?
  - Underwriting metrics
  - Return on tangible equity
  - Capital management

Benchmark to Public Companies

- Identify Target's guideline public companies and benchmark operating metrics
- Perform gap analysis

Analyze Precedent Transactions

- Analyze precedent transactions involving strategic buyers
- Precedent transactions as well as guideline public companies can serve as governors

Analyze Synergies Specific to Acquirer

- Analyze key sources of synergies
  - Complementary customer base that would allow cross selling of products
  - Use of multiple distribution channels
  - Overlapping expenses that can be reduced
  - Greater leverage
  - Better balance sheet management
- Consider the impact of realizing synergies on the corporate cultures of the Acquirer and the Target

The process above is not a rigid step-by-step analysis

Deloitte.

Pre deal Enterprise valuation - Valuation of Target with Synergies

- Valuation of synergies involves subjectivity and, therefore, more risk
- Typically a DDM is used to value synergies as it captures the incremental cash flows, time to realize synergies, cost of implementation, etc.
- However, the market approach can also be used as a sanity check.

Income Approach - DDM

- **Revenue Synergies**
  - Higher growth rates due to cross selling
- **Expense Synergies**
  - Economies of scale
  - Consider implementation costs
- **Financial Synergies**
  - Lower cost of debt
- **Capital requirements**
  - Consider capital requirements as revenues and expenses are modelled
- **Terminal Value**
  - May be different compared to the standalone valuation
- **Discount Rate**
  - Risk of the cash flows needs to be considered in selection of discount rate
  - Discount rate associated with the identified synergies needs to be calibrated for implicit risk of achieving those synergies

Market Approach

- **Analyze implied valuation multiples with synergies**
  - P/E, P/TBV
  - Compare to standalone valuation
  - Compare the implied multiples to guideline public companies
- **Forward multiples**
  - Benchmark the forward multiples with the synergies to the guideline public companies
- **Regression analysis**
  - Derive valuation multiples for Target with improved financial metrics

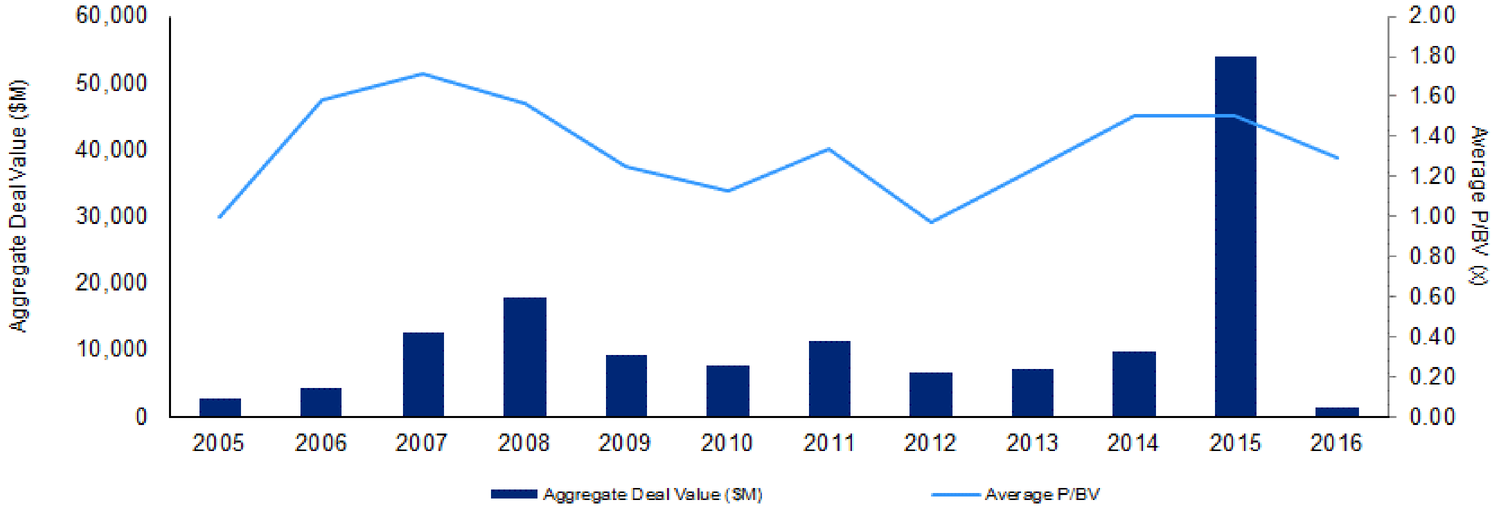
Pre deal Enterprise valuation - Other Considerations when Valuing Synergies

- Identification of relevant synergies requires thorough due diligence and can vary significantly from one transaction to another
- Consider a range of synergy values and its impact on the internal rate of return (IRR) / purchase consideration
  - Depending on the transaction type (competitive or negotiated) and attractiveness of property, the buyer might choose to share a greater portion of the synergies with the seller
- Possible cannibalization through similar product offerings
- Substantial costs/impediments to implement changes
- Time to realize synergies
- Consider sensitivity analysis to help the buyer in estimating a range of values
- Consider potential risks of doing deals largely based on synergies
  - Failure to materially realize initially forecast synergies could impact future deals
  - Alienation of stakeholders
- Valuation of synergies involves subjectivity and, therefore, more risk

Market Data

Pre deal Enterprise valuation – P&C Historical M&A Trends

Property and Casualty Transactions
Price to Book Value Multiples

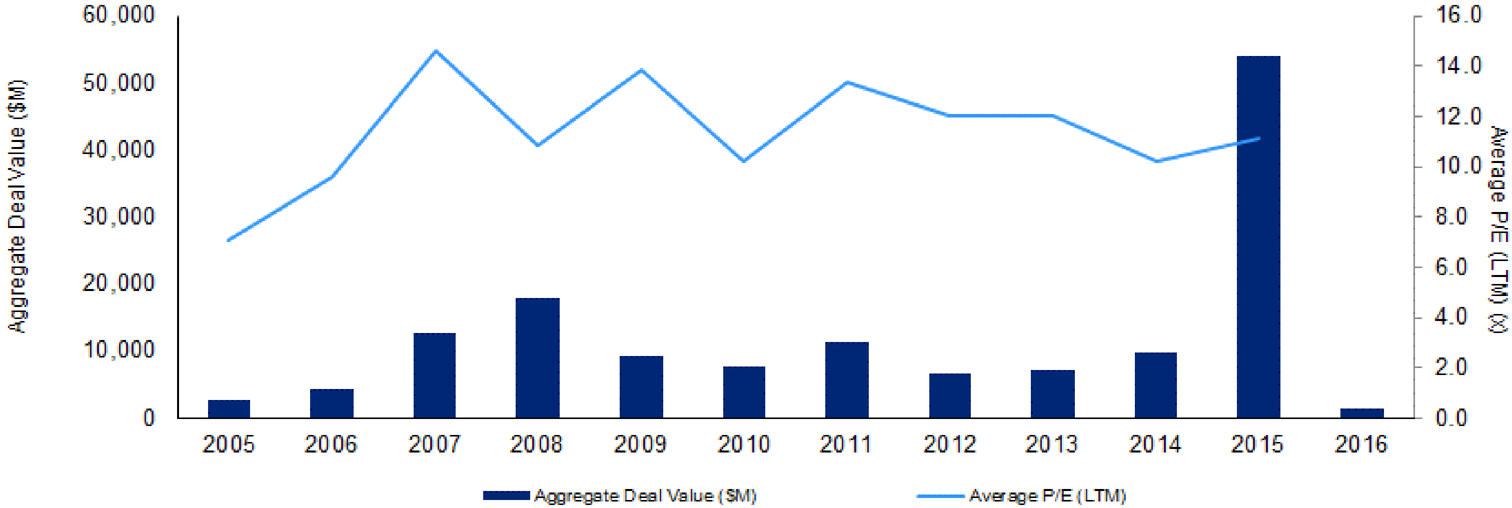


Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Deals	52	58	66	70	63	79	73	70	68	68	54	26
Size of Deals ($M)												
Low	1.2	0.4	1.0	1.8	0.0	1.20	0.5	0.8	0.4	1.2	2.2	1.0
High	825.0	1,120.9	2,744.0	6,225.0	1,900.0	1,318.5	3,534.6	3,100.2	1,845.0	1,671.3	28,240.3	450.0
Average	78.3	95.1	230.6	323.5	217.9	145.7	266.8	152.2	145.3	197.4	1,803.2	124.5
Observed P/BV Deal Multiples												
Low	0.87x	0.92x	1.23x	0.48x	0.77x	0.55x	0.73x	0.57x	0.68x	0.14x	0.99x	1.294x
High	1.15x	6.19x	2.34x	2.81x	2.98x	1.70x	2.69x	1.52x	4.11x	2.83x	2.53x	1.29x
Average	1.00x	1.58x	1.72x	1.56x	1.25x	1.13x	1.34x	0.97x	1.24x	1.50x	1.50x	1.29x
Median	0.97x	1.66x	1.73x	1.51x	0.94x	1.06x	1.16x	0.90x	1.38x	1.43x	1.29x	1.29x

Notes:
Outliers have been removed from the average deal multiples. Outliers include all deals with a P/BV multiple smaller than 0.5x or greater than 3.0x.
2016 data is YTD 6/30/2016

Pre deal Enterprise valuation – P&C Historical M&A Trends

Property and Casualty Transactions
Price to LTM Earnings Multiples

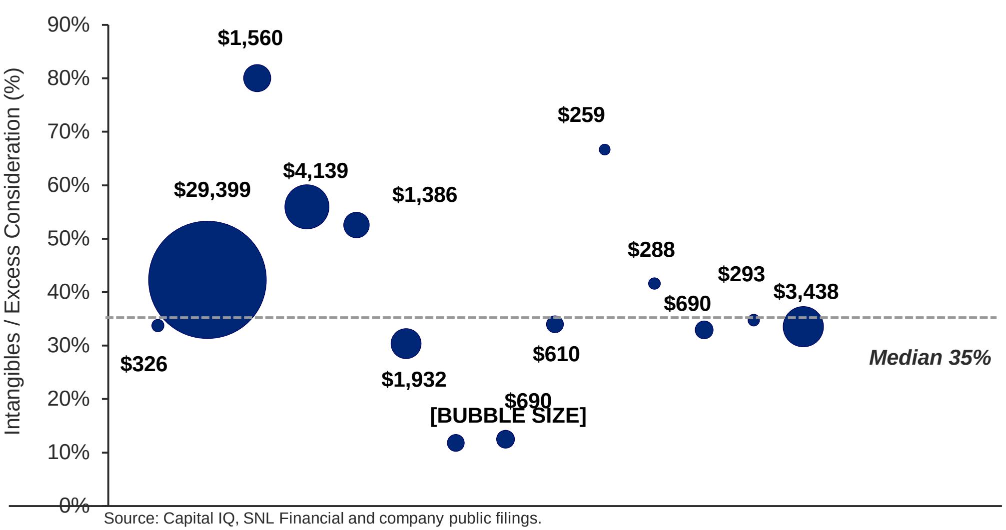


Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of Deals	52	58	66	70	63	79	73	70	68	68	54	26
Size of Deals ($M)												
Low	1.2	0.4	1.0	1.8	0.0	1.20	0.5	0.8	0.4	1.2	2.2	1.0
High	825.0	1,120.9	2,744.0	6,225.0	1,900.0	1,318.5	3,534.6	3,100.2	1,845.0	1,671.3	28,240.3	450.0
Average	78.3	95.1	230.6	323.5	217.9	145.7	266.8	152.2	145.3	197.4	1,803.2	124.5
Observed P/E (LTM) Deal Multiples												
Low	6.92x	2.00x	3.20x	5.28x	3.34x	3.17x	10.41x	10.18x	0.54x	2.63x	6.77x	NA
High	7.29x	14.36x	30.37x	21.05x	22.40x	41.76x	39.59x	23.64x	17.17x	48.06x	31.05x	NA
Average	7.11x	9.58x	14.62x	10.86x	13.88x	10.24x	13.37x	12.04x	12.03x	10.21x	11.15x	NA
Median	7.11x	8.48x	14.77x	11.91x	12.24x	10.17x	14.65x	13.89x	10.57x	12.13x	13.34x	NA

Notes:
Outliers have been removed from the average deal multiples. Outliers include all deals with a P/E multiple smaller than 5.0x or greater than 20.0x.
2016 data is YTD 6/30/2016

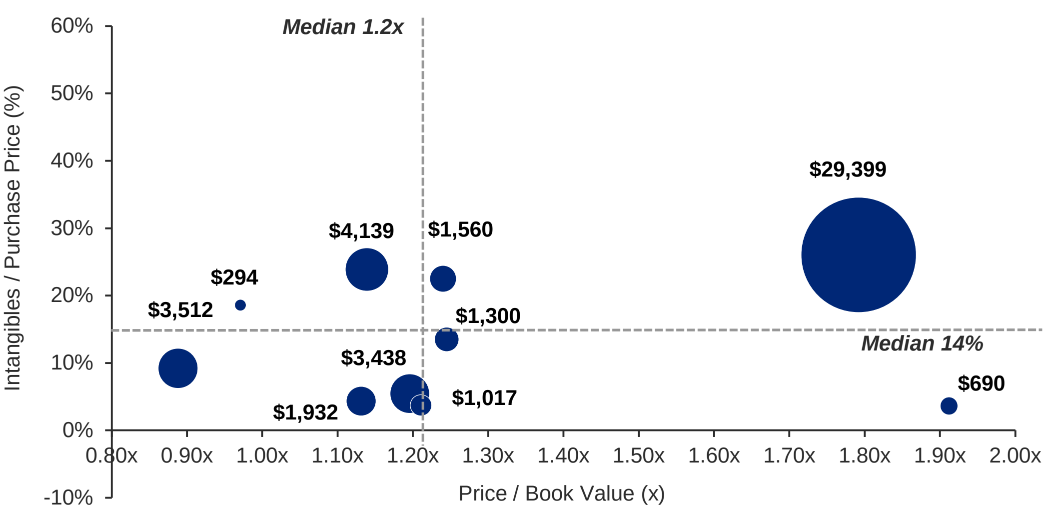
Pre deal Enterprise valuation – Market Data (P&C)

M&A Activity – Intangible assets / Excess Consideration

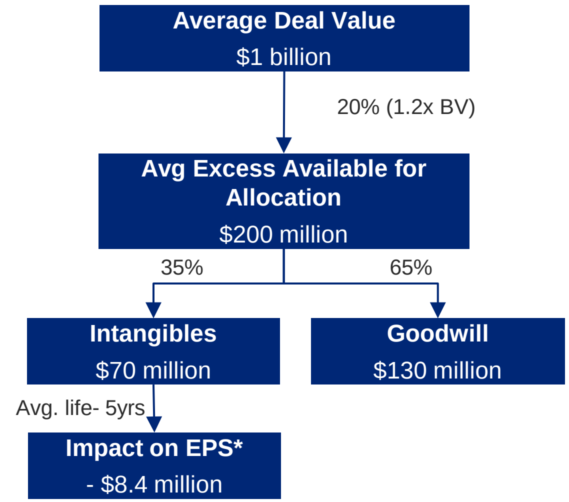


Source: Capital IQ, SNL Financial and company public filings.

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



Summary of Market Information



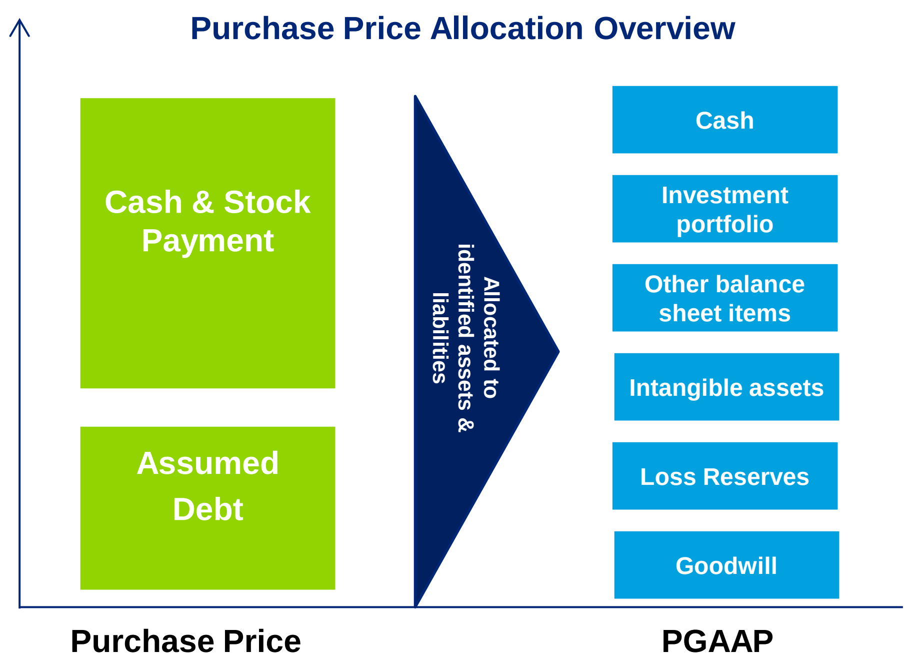
* Assumes 40% tax rate

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

Pre deal Enterprise valuation – PGAAP Assistance

- The accounting requirements for PGAAP falls under US GAAP - ASC 805.
- Common 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



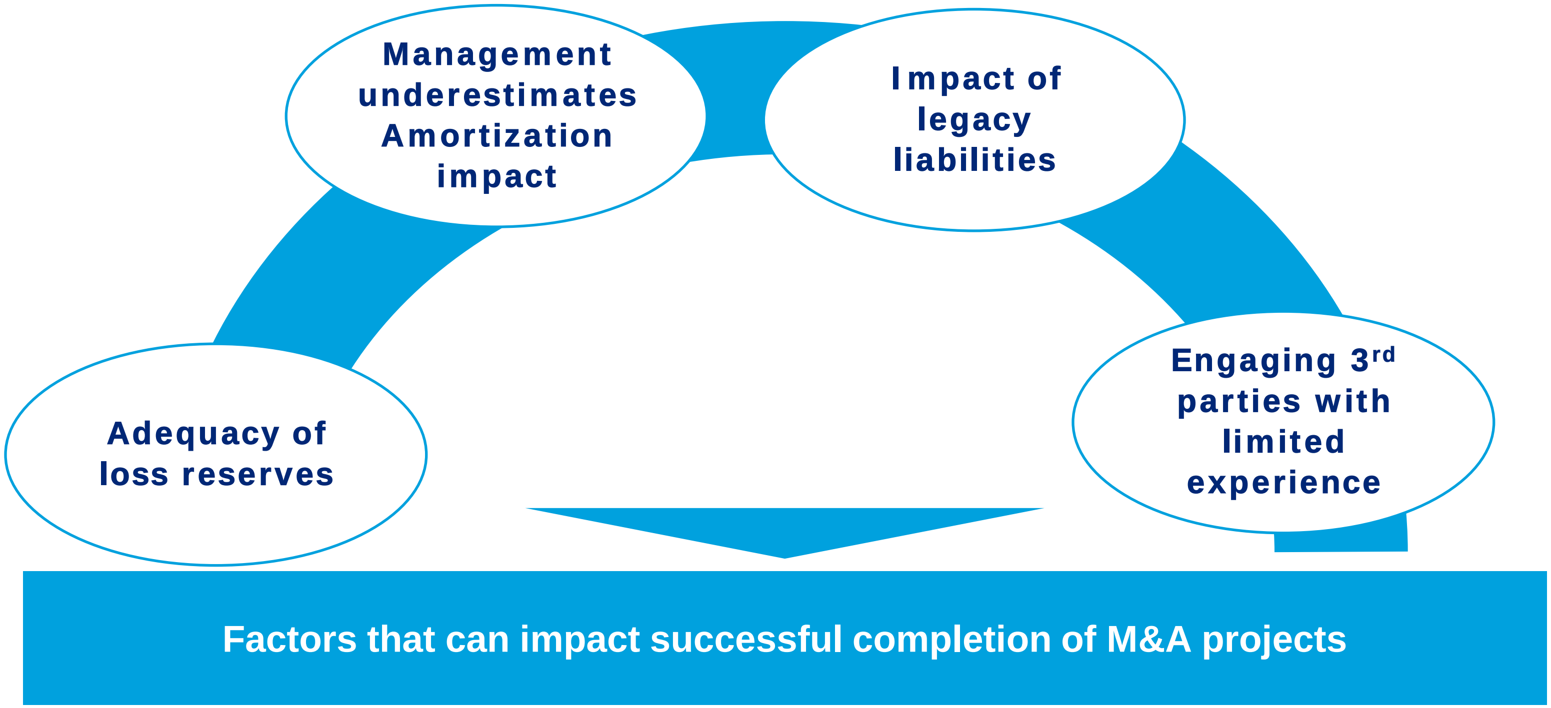
Pre deal Enterprise valuation – Valuation of Intangible Assets

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

Methodology	Overview	Relationships	Renewal Rights	Trade Name	Internally Developed Technology	Covenants Not to Compete	Insurance Licenses	VOBA
Multi-Period Excess Earnings	• 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	• 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	• Based on a comparison of the prospective revenues and expenses for the asset with and without the subject intangible asset in place					✓		
Cost Approach	• Based on the replacement cost of an asset with another having equivalent utility				✓			
Market Approach	• Based on the comparable transaction method considering arms-length transactions for “clean” shell entities						✓	
Actuarial	• 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)							✓

Discussion on M&A Case studies

Discussion on M&A Case studies



Instructor Biographies

Instructor Biographies

Doug Sweeney
Managing Director
Deloitte Advisory
Tel: +1 (212) 436-5417
dosweeney@deloitte.com

Doug is a Managing Director and the National Financial Services Insurance leader with Deloitte Transactions and Business Analytics LLP. He has more than eighteen 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
- Bachelor of Arts, Business Administration, LeMoyne College

Instructor Biographies

Daniel Leff
Specialist Leader – Actuarial, Rewards, and Analytics
Deloitte Consulting LLP
Tel: +1 (212) 618-4512
dleff@deloitte.com

Daniel Leff is a Specialist Leader at Deloitte Consulting LLP. Mr. Leff has twenty-six years of actuarial experience, including nineteen 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. At ISO, Dan worked in a variety of areas in the actuarial data management division: Personal Property, Personal Automobile and Commercial Automobile. He was also responsible for developing personal line data products for insurance and reinsurance companies and pricing ad-hoc requests (from various customers) for the statistical data that was reported to ISO.

Relevant activities include:

- Speaker, Risk Insurance Management Society – Minimizing Risk in the M&A Lifecycle
- Speaker, Engineering & Construction Conference – Use of Captives

Education and Professional Designations:

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

Antitrust Notice

- The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.

- Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.

- It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.