DECEMBER 2023

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Financial Diligence & Purchase Price Allocations

CRITICAL M&A BOOKENDS

DECEMBER 2023

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Learning Objectives

Upon completion of this session, participants will be able to:

- Discuss important elements of the M&A due diligence process.
- Describe critical factors driving successful transactions in today's deal landscape.
- Assess the impact of evolving technology on dealmaking.
- Recognize the estimation of value of a contingent consideration.
- Explain the different intangible assets valued when performing a purchase price allocation.
- Identify different intangible and tangible assets acquired during a transaction.

Agenda

U.S. PE Middle Market Observations

M&A Lifecycle and Key Considerations

Sell-Side Due Diligence Considerations

Purchase Price Allocations (ASC 805)

U.S. PE Middle Market Observations

U.S. PE Middle Market Observations

- Middle market transaction volume and values set records in 2021 with 4,300 transactions valued at $605B[1]. However, the U.S. economy has been facing headwinds since 2021's record year.
  - Inflation rose over 9% causing the Federal Reserve to increase interest rates at an unprecedented pace
    - Meanwhile, the U.S. consumer kept spending because of pandemic era government stimulus, enriching consumer and corporate balance sheets
  - While 2022 deal value and count declined 25% from 2021, it ended up being the 2nd highest year on record.[1]

- We remained cautiously opportunistic going into 2023. Unfortunately, the M&A middle markets paused, and activity collapsed to approximately 35% to 45% of its peak in Q4 2021[1].

[1]Source: PitchBook

U.S. PE Middle Market Observations

Bright Spots

- Private Equity consistently has more than $2 trillion[1] of capital to put to work and larger corporations have strong balance sheets
  - All bodes well for M&A transaction volume for at least several years
- Fundraising activity is ~25% ahead of last year and up 60% on a dollar basis, the highest since 2015[1]
- Credit is readily available below $2 billion, especially with private credit lenders with ~$1 trillion of capital[1]
- Valuations have declined to EBITDA multiples of 10.3x from 12.8x and to revenue multiples of 2.1x from 2.4x for YTD'23[1]. Continuing declines are expected and will hopefully result in increased M&A activity.
- The Technology industry is recovering; Financial Services and Infrastructure could follow

[1]Source: PitchBook

U.S. PE Middle Market Observations

- BDO saw an increasing decline in August and September activity as additional headwinds emerged including:
  - A slowing economy as higher interest rates are taking effect on consumer and commercial businesses. Consumer spending is declining, and sentiment is sinking. Union employee strikes are increasing and rising energy/oil costs are beginning to add pressure to cash flows.
  - Recession risk is increasing as strong $ is lowering profits from overseas operations and a wall of debt maturities needs to be refinanced at significantly higher interest rates from 2024 – 2027.
  - Federal Government shutdown threats are increasing, and regulatory overreach is at its height.

- PE has moved to the sidelines to ride out this market:
  - Exit activity in Q2 decreased to 33% of 2021 levels and was the weakest quarter since 2010[1].
  - The founder's wave represented 55% of the exit activity; however, the wave is waning as founders alone cannot support exit activity.
  - The Mega Fund Market (over $5B) is essentially closed.

[1]Source: PitchBook

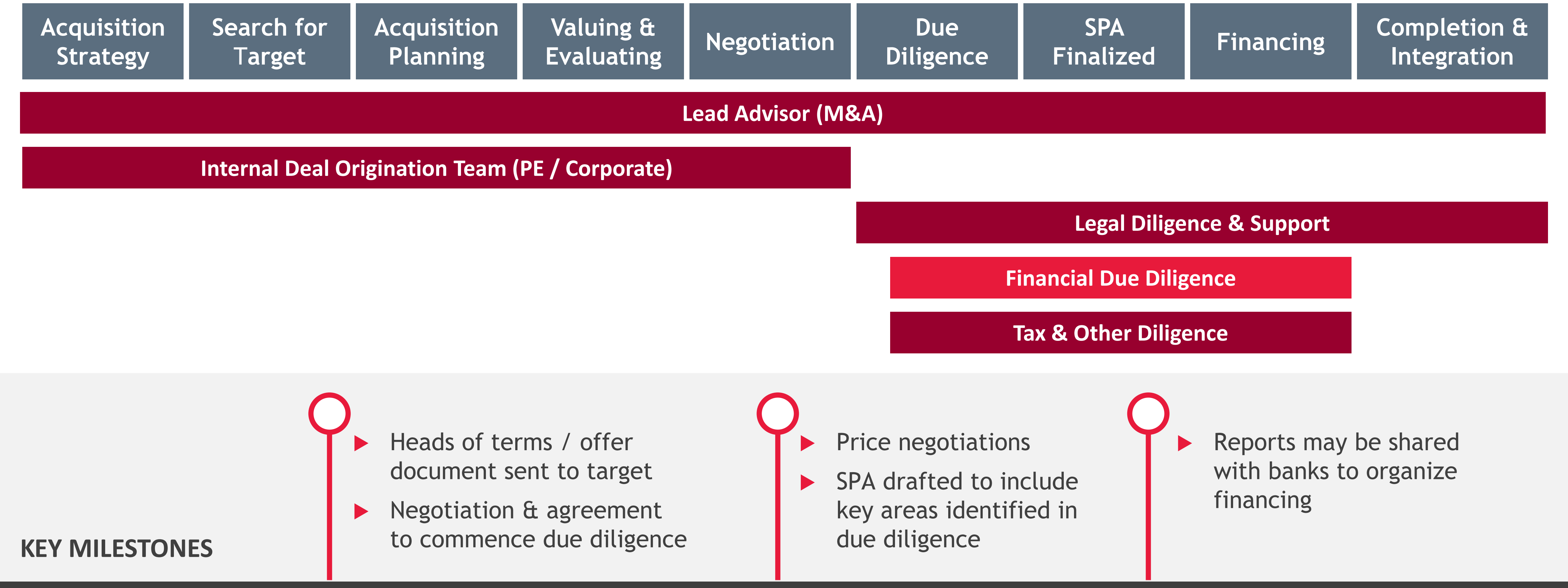
M&A Lifecycle and Key Considerations

General Overview of M&A Lifecycle

Investment Lifecycle

PRE-PURCHASE	HOLDING PERIOD			VALUE REALIZATION
Mitigate transactional and transitional risk	Identify opportunities to profitably grow the top line, reduce expenses, improve capital management, and mitigate risk to support sustainable improvements			Realize return on investment
Strategy and Deal Identification / Execution	**Post Deal Merger Integration Activities**	**Post Deal Margin Improvement Activities**	**Continued Synergy Realization**	**Exit Readiness**
▶ Quality of Earnings analysis ▶ Cash flows and balance sheet assessment ▶ Tax due diligence & structuring ▶ Workforce due diligence ▶ Investigative due diligence ▶ IT & cyber due diligence ▶ Operational & supply chain due diligence ▶ Integration planning ▶ Financial functionality review ▶ Merger synergy & carve-out/stand-up cost assessment ▶ Transition service agreements ▶ Day 1 + 100-day plan development	▶ Business plan review ▶ Interim CFO ▶ Transition project management ▶ 80/20 revenue enhancement ▶ Digital transformation ▶ Digital business ▶ Website design & development ▶ Search engine optimization ▶ Business automation ▶ Application development ▶ Mobile apps ▶ System integration	▶ Consolidation or expansion of facilities ▶ Strategic sourcing & procurement ▶ Sales & operations planning process ▶ Freight management & transportation optimization ▶ Warehouse optimization ▶ Back-office rationalization ▶ Compensation & benefits design & optimization ▶ HR & organizational change ▶ Compensation & benefits review ▶ Vendor audits ▶ Lease audits ▶ Supply chain optimization ▶ Tax automation	▶ Manufacturing effectiveness ▶ Strategic supply chain network design ▶ Working capital optimization ▶ Real estate strategy/ portfolio optimization ▶ Post-transaction disputes ▶ Crisis management ▶ Insurance recovery ▶ Regulatory compliance ▶ Cybersecurity services ▶ Data privacy ▶ PCI security ▶ State and Local Tax compliance ▶ HR compliance ▶ Insurance compliance	▶ Sell-side financial and tax due diligence ▶ Strategic growth plan ▶ Interim management ▶ Staff augmentation ▶ SOX readiness ▶ CFIUS/national security ▶ Tax liability review ▶ Tax-efficient exit strategy ▶ ESOP advisory (as potential exit strategy) ▶ Technical accounting

Typical Deal Process for Buy Side Projects



Value Opportunities Across Diligence Areas

FINANCIAL DUE DILIGENCE

- Analyze historical earnings profile of the business
- Assess working capital components and bridge analyses of sales and earnings
- Assess the health of the company's balance sheet, including a thorough analysis of underlying cash flows
- Identify risks, disclosures, and other negotiation points impacting purchase price

OPERATIONAL DUE DILIGENCE

- Confirm plan achievability based on existing facilities/CapEx
- Analyze transaction synergies
- Highlight post-deal upsides to enhance business plan

IT DUE DILIGENCE

- Assess if the current IT platform will support the future business
- Evaluate the resilience, reliability, scalability, and security of the current IT platforms
- Identify any potential investment or remediation needs to deliver the business plan

INSURANCE & RISK DUE DILIGENCE

- Identify coverage gaps, uninsured or underinsured risks, and needed one-time insurance purchases
- Assess adequacy of self-insurance reserves, including EBITDA distortions caused by reserve movements
- Quantify potential cost take-outs and synergies

Value Opportunities Across Diligence Areas

TAX STRUCTURING & DUE DILIGENCE

- Enhance the company's tax position and manage compliance obligations
- Navigate differing stakeholder tax requirements

M&A INTEGRATIONS & CARVE-OUTS

- Develop stand-alone cost models to help lower stranded costs
- Limit disruption to the ongoing business
- Develop 100-day plan

WORKFORCE DUE DILIGENCE

- Identify key risks and potential costs and exposures of HR as well as the main compensation and benefit areas which may impact the acquisition strategy
- Understand benefit integration for post-acquisition
- Follow a holistic diligence-through-integration approach to navigate potential pitfalls and mitigate risks

INVESTIGATIVE DUE DILIGENCE

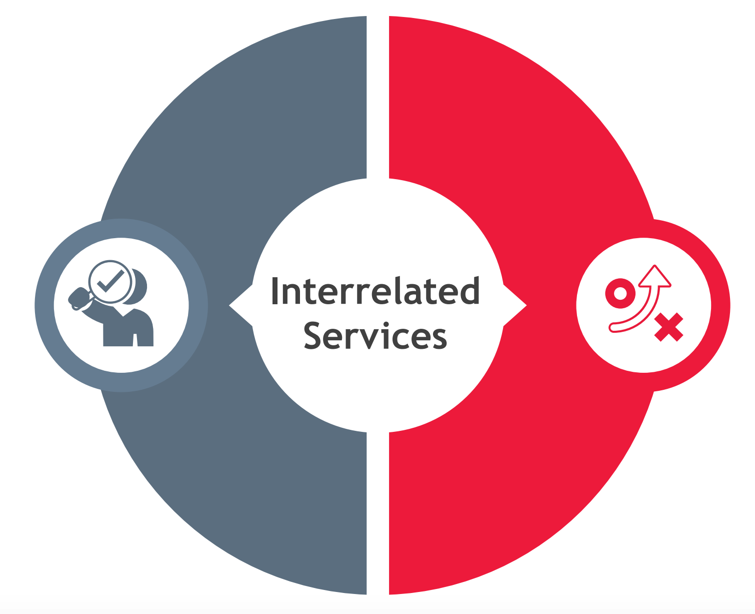
- Obtain information regarding the background, track record, and reputation of other involved parties
- Gain insightful intel into sector dynamics or geo-political issues
- Enhance risk management safeguards and mitigate operational risk by gaining insight into a counterparty's legal, regulatory, and media status

M&A FOCUS

Tax Due Diligence & Structuring Considerations

TAX DUE DILIGENCE

- Identify and communicate tax risks and the potential impact(s) on purchase price
- Work on indemnity protections in transaction documents and R&W insurance policy
- Procedures and reporting can be completed within the same timeline as financial due diligence



TAX STRUCTURING & PLANNING

- Can add significant value and increase the return on investment on the contemplated transaction for the buyer
- Validates the seller's estimates of the step-up in basis for the assets in the contemplated transaction as part of seller negotiations

AN ADVISOR'S ROLE

Phase 1

- Understand goals or transaction limitations that may exist.
- Assist in the design of a preferred or efficient tax structure.

Phase 2

- Assess the tax considerations of the structuring offer proposed by the Seller.
- Assess the tax benefits and costs to you as the Buyer and any potential offsetting impact on the Seller.

How Emerging Technology Can Impact the Deal Process

EMBEDDED CAPABILITY

- Analytics can be deeply embedded into engagement delivery

RAPID EXPLORATORY ANALYSIS

- Software should quickly parse data model outputs
- Ideal outputs would be used to identify trends and anomalies relevant to deal risks and opportunities

DATA MODEL FOUNDATION

- Traditional spreadsheets are powerful, but inadequate on a stand-alone basis for modern data analysis
- Analytics can now be built around data models — dimensional databases that enable sophisticated analysis of large, complex data sets

DEAL INSIGHTS

- Data-based decisions reduce the reliance on management anecdotes
- Properly constructed analyses allow users to ask and answer better questions

M&A FOCUS

Workforce Due Diligence Considerations

EXECUTIVES & EQUITY

- Contractual severance costs, notice periods or transaction awards, accelerated payments
- Impact of change in control on equity or incentive compensation; ‘flight risk’, 280G assessment
- Design and cost of retention/replacement arrangements as well as comparability clauses

COMP & BENEFITS

- Appropriateness of budgeted comp & benefit costs
- Opportunities for reconfiguration of rewards, modelling of associated costs
- Pension risks and deal structure impact
- Pricing for pension deficits
- Projected or replacement costs / replication challenges

WORKFORCE

- Workforce performance indicators (turnover; productivity; FTE ratios)
- Cultural integration risks
- Capability to achieve deal thesis
- Talent gaps and recruitment costs
- Right-sizing (e.g., SG&A efficiencies)

DEAL SUPPORT

- HR input on EBITDA and Net Debt adjustments
- Tax deductions and timing of HR related items
- Terms for Sales & Purchase Agreement (SPA)
- HR requirements for transitional service agreements (TSAs)

Workforce Due Diligence Considerations

HR FUNCTION

- Set-up or migration costs for HR systems
- Organizational design and size of the HR team
- Recruitment costs for HR function
- Upsides from potential efficiency improvements
- HR governance and risk management

HR COMPLIANCE

- Compliance with employment mandates such as Affordable Care Act, minimum wage or equal pay
- International assignment risks
- Employment status risks (e.g., misclassification of contractors)
- Payroll compliance

EMPLOYEE RELATIONS

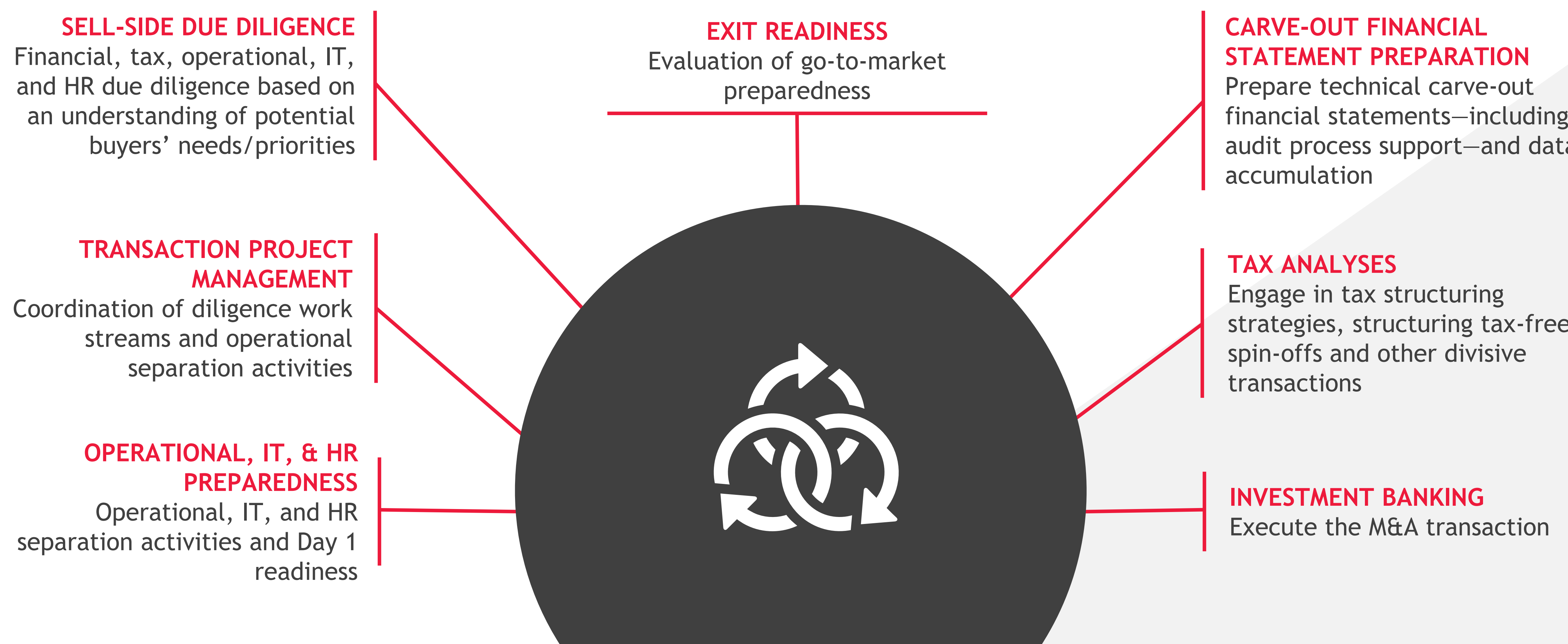
- Cost and impact of any past / planned restructuring
- Union / works council risks and timing
- Impact of employee strikes / employee litigation
- Legacy protections / collective agreements
- Challenges to change / stall the deal

CARVE OUT & SYNERGIES

- Separation complexity, assessment of stand-alone cost basis & one-time costs
- Pension, benefit and HR system separation issues
- People transfer
- Integration synergies, and restructuring costs

Sell-Side Due Diligence Considerations

Divestiture Phases and Preparation



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Challenges for Sellers

- While M&A activity has slowed during 2023 due to various macro environmental impacts, activity is expected to accelerate in 2024.
  - As the Baby Boomer generation retires, M&A activity is expected to accelerate as 2.3 million small businesses change hands, according to the U.S. Census Bureau.
  - Due to their age, many founders/owners are considering selling because they don't want to put their time, energy, or resources into rebuilding during a recession.
  - There continues to be a significant amount of dry powder in the PE market (over $1 trillion in the U.S.) that will need to ultimately be deployed to satisfy the expectations of the LP community. However, due to the current economic headwinds, there are simply not enough marketable assets for sale and those that are on the market are seeing valuation-related challenges (i.e., lower exit multiples).
- The majority of sellers are unprepared for transitioning ownership of their business.
  - According to a study by Wilmington Trust, 58% of small business owners have no succession plans.
- Value is lost in the sell-side process because sellers are unprepared.
  - Sell-side processes often take longer when sellers do not have answers to key questions prior to the process or there are surprises discovered during the process. The longer a process takes, the more time a buyer has to assess the target, and the more value that erodes from the selling price.

Exit Readiness Creates Value for Sellers

Exit readiness should be performed before marketing documents are prepared.

- Exit readiness assessments completed two to three months before preparation of marketing documents gives sellers the opportunity to shore up holes in their core value story, identify improvement opportunities to be marketed, and prepare for key deal issues.
- Performing exit readiness two to three years before preparation of marketing documents can result in the identification and realization of value creation opportunities prior to exit, completed mitigation of key business risks, and a revamp of reporting systems to meet the demands of financial and strategic buyers.
- Given the current market dynamics, it is even more imperative that sellers take the necessary time to ensure they are ready for a potential sale.

Benefits of Sell-Side Preparation

SELLER KEEPS CONTROL OF PROCESS

- Seller maintains access to outputs
- Limits purchasers driving the process
- Fewer surprises
- Prospective investors get identical information

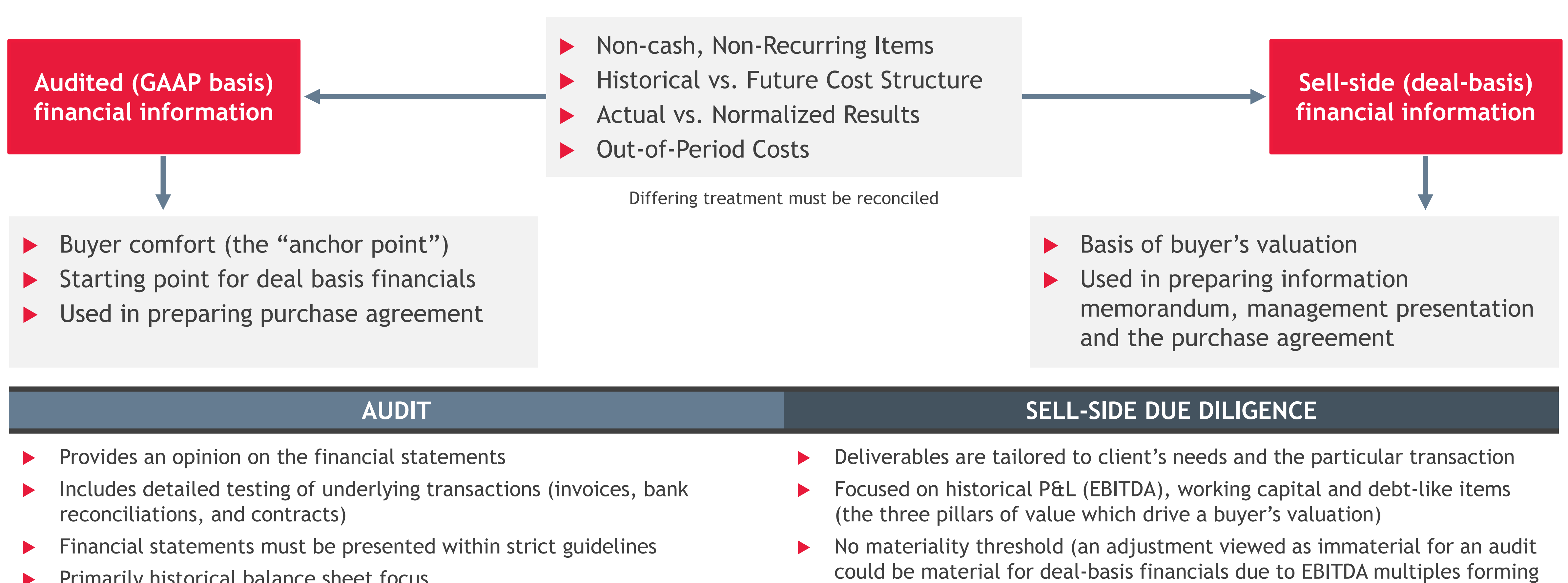
ENHANCE VALUE

- Lowers bid cost, helps increase number of bids
- Maintains competition to help maximize price
- Limits the risk of price deterioration
- Enhances deal structure

REDUCE TIME

- Simplifies process
- Lessens the amount of time management spends with buyers and their advisors
- Speeds up the buyer’s due diligence process

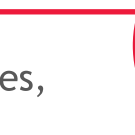
Sell-Side Due Diligence vs. an Audit



AUDIT	SELL-SIDE DUE DILIGENCE
▶ Provides an opinion on the financial statements ▶ Includes detailed testing of underlying transactions (invoices, bank reconciliations, and contracts) ▶ Financial statements must be presented within strict guidelines ▶ Primarily historical balance sheet focus ▶ Adjustments proposed based on materiality thresholds	▶ Deliverables are tailored to client’s needs and the particular transaction ▶ Focused on historical P&L (EBITDA), working capital and debt-like items (the three pillars of value which drive a buyer’s valuation) ▶ No materiality threshold (an adjustment viewed as immaterial for an audit could be material for deal-basis financials due to EBITDA multiples forming the basis of a buyer’s valuation)

Sell-Side Transaction Process

COMPLEXITY



- Complexity of operations, business lines, units, subsidiaries
- History of past transactions/restructurings
- Geographical footprint & operational inertia during the historical review period
- Internal accounting control systems and financial reporting
- Foreign exchange movements impacting reported results
- Financial and operational carve-out requirements from ParentCo

CHALLENGES

- Insufficient data to support due diligence process
- Audited vs Deal basis financials
- Management team's inexperience with transaction process and demands
- Management's continuing focus on operational performance
- Unclear synergies and quantifiable add-backs

Sell-Side Transaction Process

Both the seller and the buyer want to optimize their agendas during the due diligence process.

SELLER OBJECTIVES

- Negotiate for the highest price possible
- Minimize management's involvement during the process
- Adhere to a realistic transaction timeline
- Protect confidentiality and limit unnecessary access to privileged information
- Avoid "surprises" during the transaction

BUYER OBJECTIVES

- Uncover any potential pitfalls, liabilities, risks
- Challenge sustainability of operations and earnings
- Question the quality of forecasts and accounting treatments
- Downplay historical performance
- Use discoveries in due diligence as negotiating leverage

Typical Divestiture Roadmap for Sellers

- Identify and isolate business to be sold
- Perform exit/separation readiness assessment to determine ability for business to stand alone
- Perform preliminary value assessment
- Review upfront tax assumptions and planning strategies to achieve tax objectives
- Develop tax structuring plan
- Identify potential buyers and their needs
- Prepare U.S. GAAP carve-out financial statements and regulatory filings
- Perform financial, tax, operational, IT, and HR sell-side due diligence
  - Review quality of financial information, financial statement requirements, and accounting policies
  - Analyze robustness of operating results and forecasts
  - Review cost allocation methodology
  - Analyze standalone financials
  - Identify normalizing and pro forma adjustments
  - Determine working capital and cashflow requirements
  - Conduct a standalone cost analysis
  - Estimate one-time and stranded costs
  - Identify potential risks and upside from a seller's perspective
- Populate and manage the data room
- Define separation strategy, governance model, operational interdependencies and plan for operational separation

- Develop management pitch and prepare for buyer questions
- Create a negotiation matrix
- Refine valuation assumptions
- Price and develop Transition Services Agreement (TSA) and the commercial and reverse supply agreements
- Balance purchase price, stranded cost, and TSA pricing trade-offs
- Perform accounting and tax structuring
- Refine standalone, one-time and stranded cost assumptions
- Execute operational separation (people, processes, systems, assets, third-party obligations)
  - Work with buyer to define what Day 1 will look like
  - Change management, communications
- If project is a spin-off, complete these additional efforts:
  - Design and implement management organization and reporting structure
  - Develop standalone policies and procedures
  - Develop target operating models
  - Engage needed vendors for go-forward standalone support

- Complete all closing documentation
- Plan and manage transition execution
  - Complete operational separation
  - Implement and manage TSA
  - Prepare and execute the plan for Day 1 readiness
- Plan and manage stranded cost elimination
- Measure and monitor transaction effectiveness
- Finalize purchase price adjustment
- Migrate buyer off TSA

Typical Diligence Project Plan & Timeline

POTENTIAL TIMELINE

The illustrative timetable below is based on a typical sell side engagement.

KEY ELEMENTS OF THE PROJECT

- Immediately organizing planning meetings
- Quickly meeting current audit and tax advisors
- Continuous meetings and communication with management throughout the project
- Timely feedback on any issues for resolution

	Week 1	Week 2	Week 3	Week 4	Week 5
Planning — initial and management interviews*	Principal & Manager				
Meet with Auditor and review audit workpapers	Manager	Manager			
Perform analysis and prepare databook*	Managers and Staff – 2 to 4 FTE	Managers and Staff – 2 to 4 FTE	Managers and Staff – 2 to 4 FTE		
Prepare report			Managers and Staff	Managers and Staff	
Review report and verify findings with management				Principal & Manager	
Finalize report				Principal & Manager	
Obtain buyer releases and Q&A with prospective buyers					Principal or Manager

* Working directly with the Seller's management team.

Purchase Price Allocations

(ASC 805)

Stock vs. Asset Transaction

- Each acquisition can be defined as a stock purchase or an asset purchase, as identified in the purchase agreement.
- Stock Purchase: The buyer acquires the target company's stock directly from the selling shareholders. In a stock transaction, the buyer assumes ownership of all the assets and liabilities of the target company.
- Asset Purchase: The buyer acquires only the assets and liabilities that it agrees to acquire through negotiations with the seller.

Recognition of Assets Acquired

Recognition Criteria for Intangible Assets

ASC 805 defines intangible assets as: …*non-monetary assets without physical substance*.

According to ASC 805, a reporting entity should evaluate whether the intangible asset (or liability) meets either contractual-legal criterion or the separability criterion in determining whether an identifiable intangible asset (or liability) is to be recognized separately from goodwill.

- **Contractual-Legal Criterion**: According to ASC 805, an intangible asset shall be recognized as an asset (or liability) separable from goodwill if it arises from contractual or other legal rights or obligations, irrespective of whether those rights are transferable or separable from the acquired entity or from other rights and obligations.
- **Separability Criterion:** According to ASC 805, if an intangible asset does not arise from contractual or other legal rights, it shall be recognized as an asset apart from goodwill only if it is separable (i.e., it is capable of being separated or divided from the acquired entity and sold, transferred, licensed, rented, or exchanged) regardless of whether there is an intent to do so. An intangible asset that cannot be sold, transferred, licensed, rented or exchanged individually is still considered separable if it can be sold, transferred, licensed, rented, or exchanged in combination with a related contract, asset, or liability.

Introduction to Purchase Price Allocations

Company A acquires **Company B**. The price that Company A paid to acquire Company B must be allocated among Company B's identifiable tangible and intangible assets and liabilities, which will be reported on Company A's post-acquisition balance sheet.

Tangible assets and liabilities can include:

- Property, Plant and Equipment (PP&E)
- Real Property
- Inventory

Intangible assets and liabilities can include:

- Customer Relationships
- Trade Names / Trademarks
- Developed Technology
- Non-Compete Agreements
- In-Process Research & Development (IPR&D)
- Real Property Leasehold Interests
- Backlog

Introduction to Purchase Price Allocations

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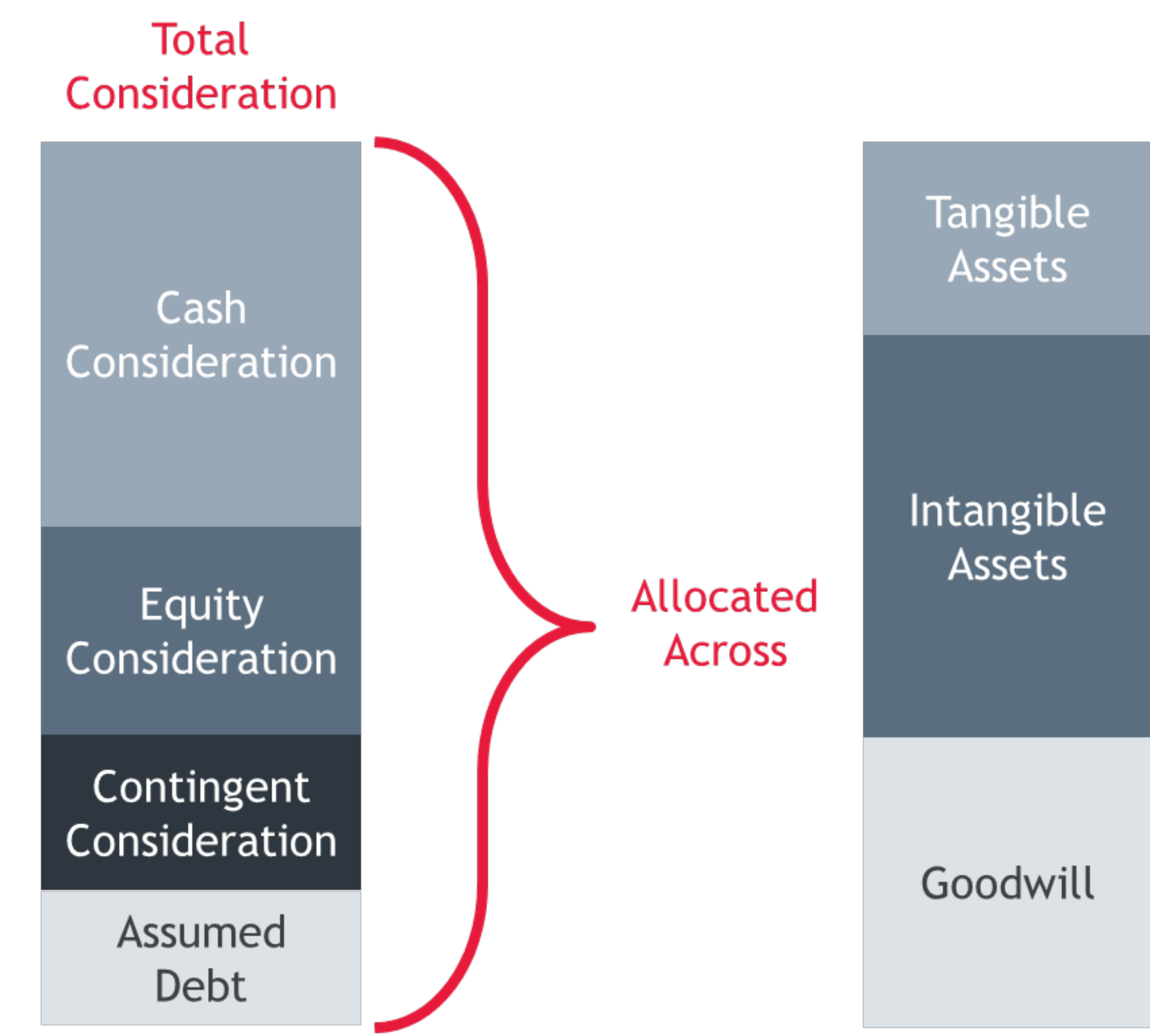


DISCOUNT RATES

Internal Rate of Return (IRR)

A company's enterprise value is equal to the present value of its expected cash flows discounted at an appropriate cost of capital.

The discount rate refers to the rate of return that a prudent investor would require in the purchase of an interest in a given company or its assets. In economic terms, it represents the opportunity cost, or expected rate of return, that an investor would have to forego by investing in a particular investment instead of in available alternative investments that are comparable in terms of their risk profiles and other pertinent characteristics.

The IRR is the calculated discount rate that reconciles the target company's financial forecasts (used as the basis for the transaction) to the total purchase consideration paid. The IRR reflects the target company's implied risk profile.

DISCOUNT RATES

Weighted Average Return on Assets (WARA)

Premise

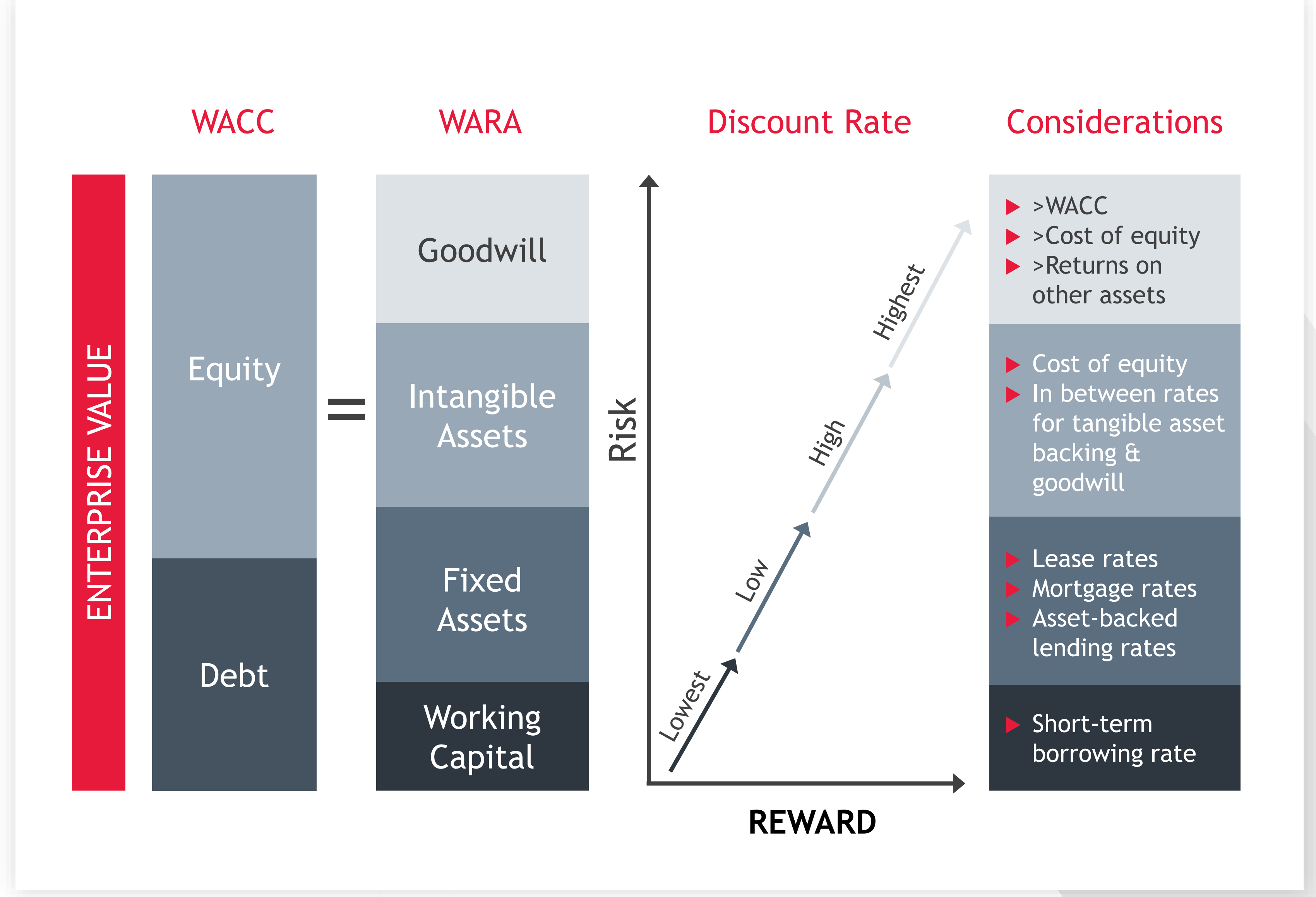
In an ASC 805, a WARA is used to assess the reasonableness of the rates of return for the operating assets and implied return on goodwill. It is a tool used to reconcile the discount rate of the individual operating assets with the purchase price and overall return of the transaction.

Estimating the WARA

To estimate the WARA, discount rates must be selected for each of the underlying tangible and intangible assets acquired in the acquisition, based on the relative risk profile of each asset.

DISCOUNT RATES: WARA

Discount Rate Considerations



Valuation Methodologies for Intangible Assets

1

Income Approach

- Multi-Period Excess Earnings Method (MPEEM)
- Relief from Royalty Method
- With or Without Method

2

Cost Approach

- Replacement Cost Method
- Comparative Sales Method

Multi-Period Excess Earnings Method

OVERVIEW

Definition

The Multi-Period Excess Earnings Method (MPEEM) is a form of the Income Approach where projected cash flows applicable to the asset being valued are estimated based on prospective revenue and earnings, net of taxes and Contributory Asset Charges for other assets used in generating the revenue and earnings and other adjustments, as applicable.

Assets Valued using the MPEEM

The MPEEM can only be used to value one asset, and it is always reserved for the primary asset acquired in the transaction (generally, Customer Relationships or Technology/IPR&D).

$$\text{Fair Value} = \text{Present Value}\left[\sum_{t=0}^{t}(\text{Revenue} - \text{Expenses} - \text{CACs} - \text{Taxes}) + \text{TAB}\right]$$

Customer Relationships

ATTRITION RATE

Definition

Attrition rate is the measure of the rate of decay/loss of existing customers and is utilized to help forecast the expected future cash flow resulting from the existing customer relationships.

Methods to Determine Attrition Rate

- Geometric or arithmetic averages using historical customer population revenue or customer count
- Geometric or arithmetic averages using historical customer subset or comparable population revenue or customer count
- Customer attrition estimates from third-party data sources
- Statistical techniques
- Management estimates

Multi-Period Excess Earnings Method

EXAMPLE (CUSTOMERS)

		Projected Financials FYE December 31											
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Total Revenue		$ 16,986	$ 23,624	$ 33,921	$ 45,971	$ 58,698	$ 72,866	$ 86,088	$ 95,849	$ 98,724	$ 101,686	$ 104,737	$ 107,879
Revenue - Existing Customer Revenue		16,986	22,628	31,012	40,376	49,877	60,110	69,382	76,068	78,731	81,486	84,338	87,290
Growth			33.2%	37.1%	30.2%	23.5%	20.5%	15.4%	9.6%	3.5%	3.5%	3.5%	3.5%
Customer Retention Curve	5.0%	98.3%	93.4%	88.7%	84.3%	80.1%	76.1%	72.3%	68.6%	65.2%	62.0%	58.9%	55.9%
Revenue Attributable to Existing Customers		16,697	21,132	27,513	34,030	39,936	45,722	50,136	52,220	51,345	50,485	49,639	48,808
Cost of Goods Sold		9,130	11,235	14,057	16,342	18,038	20,652	22,646	23,587	23,192	22,803	22,421	22,046
Gross Profit		7,568	9,896	13,456	17,688	21,897	25,070	27,490	28,633	28,153	27,682	27,218	26,762
Gross Margin		45.3%	46.8%	48.9%	52.0%	54.8%	54.8%	54.8%	54.8%	54.8%	54.8%	54.8%	54.8%
Operating Expenses (excluding depreciation)		8,914	11,069	15,282	16,343	17,045	17,248	18,914	19,699	19,370	19,045	18,726	18,412
EBITDA		(1,346)	(1,172)	(1,826)	1,345	4,853	7,822	8,577	8,933	8,784	8,637	8,492	8,350
EBITDA Margin		NA	NA	NA	4.0%	12.2%	17.1%	17.1%	17.1%	17.1%	17.1%	17.1%	17.1%
Less: Economic Depreciation		167	179	191	203	220	242	267	202	198	195	192	189
Addback: Selling and Marketing Related to New Customers		1,066	1,349	1,757	2,173	2,550	2,920	3,202	3,335	3,279	3,224	3,170	3,117
Pre-tax Income		(447)	(2)	(259)	3,315	7,183	10,500	11,511	12,066	11,864	11,665	11,470	11,278
Tax Expense		-	-	-	1,326	2,873	4,200	4,605	4,826	4,746	4,666	4,588	4,511
Net Income		(447)	(2)	(259)	1,989	4,310	6,300	6,907	7,240	7,118	6,999	6,882	6,767
Contributory Asset Charges													
Normalized Net Working Capital		39	49	63	78	91	104	114	118	116	114	112	111
Fixed Assets		70	65	59	54	51	49	47	52	51	50	49	49
Trade Names		50	63	83	102	120	137	150	157	154	151	149	146
Proprietary Technology		200	254	330	408	479	549	602	627	616	606	596	586
Assembled Workforce		325	296	269	245	225	208	193	180	177	174	171	169
Net Cash Flow Attributable to Existing Customer Relationships		(1,131)	(728)	(1,063)	1,102	3,344	5,254	5,801	6,106	6,004	5,903	5,804	5,707
Partial Period Adjustment		0.34											
Present Value Period		0.17	0.84	1.84	2.84	3.84	4.84	5.84	6.84	7.84	8.84	9.84	10.84
Present Value Factor @ 20.5%		0.969	0.855	0.710	0.589	0.489	0.406	0.337	0.279	0.232	0.192	0.160	0.132
Present Value of Cash Flow		(372)	(623)	(754)	649	1,634	2,131	1,952	1,705	1,392	1,135	927	756
Present Value of Cash Flows	13,646												
Tax Amortization Benefit	2,206												
Fair Value of Existing Customer Relationships	$ 15,852												

Relief from Royalty Method

OVERVIEW

Assets Valued Using This Method

In a business combination, Trade Names/Trademarks, Technology, and IPR&D are generally valued using the Relief from Royalty Method under the Income Approach (assuming they are not the primary intangible asset acquired).

Premise

The premise of the Relief from Royalty Method is that ownership of the subject asset relieves the owner of the need to license the asset from a third party. Thus, by owning the intangible asset, the owner avoids the royalty payments required to license the asset.

The Relief from Royalty Method calculates the cash flow savings that the company would otherwise pay to lease the subject asset and discounts these cash flows to present value at an appropriate discount rate. The present value of the prospective after-tax royalty payments are commonly used to approximate the fair value to the investor of owning the intangible asset.

Relief from Royalty Method

SELECTING ROYALTY RATES

Primary Methods for Royalty Rate Selection

- **Prior License Agreements**: Discuss with management if the subject asset has been previously licensed or if similar assets have been previously licensed.
- **Comparable Market Data**: Research external royalty rate databases, such as RoyaltySource or ktMINE, to find comparable royalty rate data.

Assessing Reasonableness of Selected Royalty Rate

- **Profit Split Analysis**: Check for reasonableness of the selected royalty rate by applying the Profit Split Method.
- **Trade Name Scorecard**: Evaluate the strength of the trade name through a qualitative analysis (term of existence, barriers to enter market, brand recognition, company’s market share, level of brand loyalty, etc.)
- **Return-on-Assets Method**: Calculate the total available returns to all intangible assets based on the company’s operating margin. Can be a primary method to determine royalty rate when there is no market data available.

Relief from Royalty Method

TRADE NAMES & TRADEMARKS

Definition

Trade names are intellectual property that take the form of a name, term, sign, symbol, logo, design, label, brand, or any combination thereof. They are intended to identify the goods or services of one concern and to differentiate them from those of competitors.

Identification as Intangible Assets

Trade names and trademarks are important assets in most business enterprises. Oftentimes, a key driver to the attractiveness of many target companies is the power and allure of its underlying trade names and trademarks. For this reason, we often attribute a portion of the purchase price to the acquired trade names and trademarks.

Relief from Royalty Method

MARKET-BASED ROYALTY RATES

The Market Approach is generally utilized to select an appropriate royalty rate.

Premise

This approach is predicated on the principle that license agreements for similar assets, negotiated in the open market, provide one of the best indications of an appropriate royalty rate for valuations.

Comparable License Agreements

License agreements between a company and arm's length third parties are researched and applicable royalty rates identified.

- On-line databases such as ktMINE, RoyaltySource, Markables, and others provide access to royalty agreements across industries & sectors.
- SEC filings of comparable companies can provide additional royalty data based on recent transactions.

Relief from Royalty Method

ASSESSING REASONABLENESS OF SELECTED ROYALTY RATE

Profit Split Method

- The Profit Split Method is based on the allocation (or split) of an operating margin that a hypothetical licensee would be willing to pay to a hypothetical licensor for the use of the subject asset.
- Rule of Thumb: A reasonable royalty rate would be between 25.0% (min) and 33.0% (max) of the company's profit margin.
  - The theory underlying the Rule of Thumb is that the licensor and licensee should share in the profitability of products being licensed. The assumption is that the licensee should retain a majority of the profits because it has undertaken substantial development, operational, and commercialization risk and contributions associated with the intangible asset.

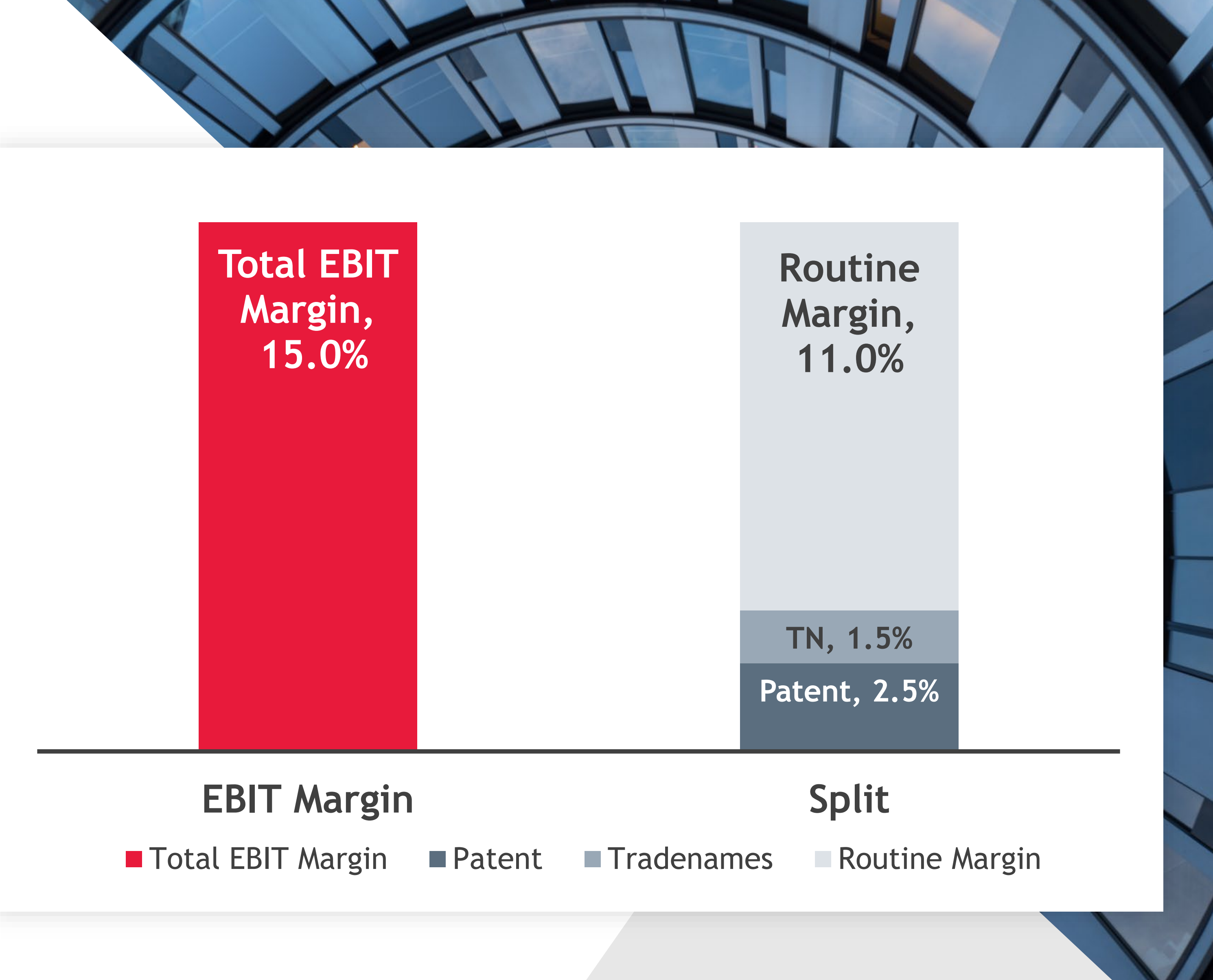
- The Profit Split Method should not be exclusively relied upon, but rather used as a sanity/reasonableness check.

Relief from Royalty Method

PROFIT SPLIT METHOD

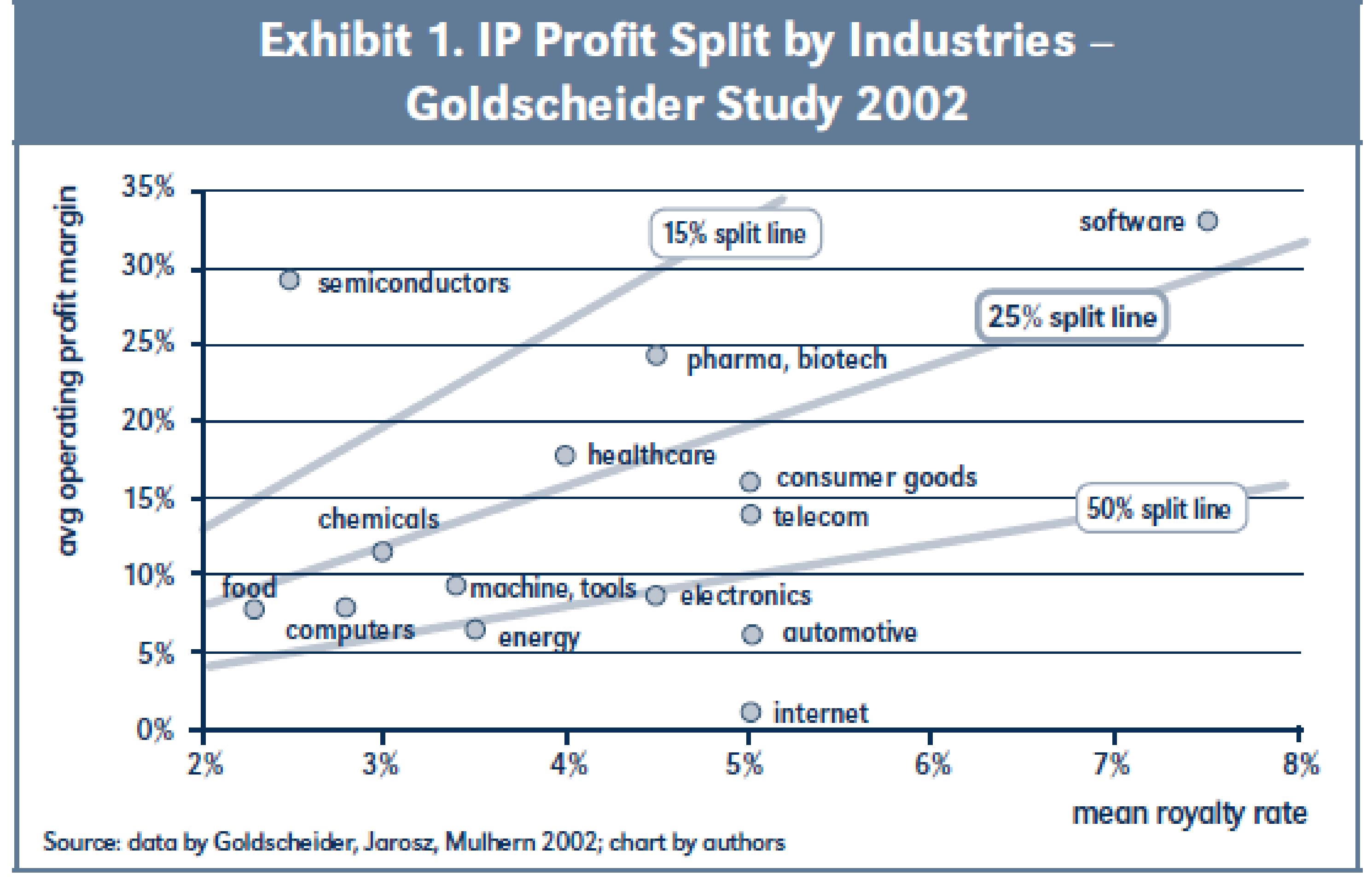
Rule of Thumb

The Rule of Thumb is referring to all assets that would hypothetically be licensed from a third-party provider. This means that the range calculated in the Profit Split analysis should be allocated to all assets valued using the Relief from Royalty Method.



Relief from Royalty Method

PROFIT SPLIT METHOD



Relief from Royalty Method

EXAMPLE: TRADE NAMES & TRADEMARKS

	Projected Financials FYE December 31														
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenue	$ 58,532	$ 64,592	$ 71,384	$ 79,015	$ 87,611	$ 90,239	$ 92,947	$ 95,735	$ 98,607	$ 101,565	$ 104,612	$ 107,750	$ 110,983	$ 114,312	$ 117,742
Percent of Revenue Attributable to TMs	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Adjusted Revenue	58,532	64,592	71,384	79,015	87,611	90,239	92,947	95,735	98,607	101,565	104,612	107,750	110,983	114,312	117,742
Revenue Growth		*10.4%*	*10.5%*	*10.7%*	*10.9%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
Relief from Gross Royalty @ 2.0%	1,171	1,292	1,428	1,580	1,752	1,805	1,859	1,915	1,972	2,031	2,092	2,155	2,220	2,286	2,355
Less: Taxes @ 27.2%	319	352	389	430	477	492	506	522	537	553	570	587	605	623	641
After-Tax Royalty Savings	852	940	1,039	1,150	1,275	1,313	1,353	1,393	1,435	1,478	1,522	1,568	1,615	1,663	1,713
Partial Period Adjustment	0.65														
Present Value Period	0.32	1.15	2.15	3.15	4.15	5.15	6.15	7.15	8.15	9.15	10.15	11.15	12.15	13.15	14.15
Present Value Factor @ 17.5%	0.949	0.831	0.707	0.602	0.512	0.436	0.371	0.316	0.269	0.229	0.195	0.166	0.141	0.120	0.102
Present Value of Cash Flow	$ 524	$ 781	$ 735	$ 692	$ 653	$ 572	$ 502	$ 440	$ 386	$ 338	$ 296	$ 260	$ 228	$ 200	$ 175

Sum of Present Value of Cash Flows	6,781
Tax Amortization Benefit	811
Fair Value of Trademarks (Rounded)	**$ 7,600**

Assumptions	
TMs Royalty Rate	2.0%
Tax Rate	27.2%
TMs Discount Rate	17.5%

$$Fair\ Value = Present\ Value \left\{ \sum_{t=0}^{t} [Revenue\ \times Royalty\ Rate\ (1\ - Tax\ Rate)] + TAB \right\}$$

With and Without Method

OVERVIEW

Assets Valued Using With and Without Method

Non-Compete Agreements, License Agreements, and Customer Relationships (if not recognized as the primary asset) can be valued using the With and Without Method.

Non-Compete Agreements

- A Non-Compete Agreement (NCA) is a covenant to the purchase and sale agreement that restricts the seller or other key executives (the “Covenantors”) from competing with the business.
- Such covenants typically specify a finite time period (e.g., five years) and, in some cases, apply to specific geographic areas and/or business lines.
- NCAs provide buyers with comfort that the expected stream of earnings from the business acquired will not be disrupted by competition from the Covenantors.

With and Without Method

WHEN TO INCLUDE NON-COMPETE AGREEMENTS

Language in the accounting for business combinations (ASC 805) creates some diversity in practice when determining whether a Non-Compete Agreement is part of a business combination, or whether it represents a separate transaction.

View

The Non-Compete Agreement was not an asset prior to the sale of the business and, because it was brought into existence through the sale, it represents a separate transaction.

Counterview

However, the Non-Compete Agreement exists intangibly because it allows the selling shareholder to sell their business, so it represents an intangible benefit to the selling shareholder.

With and Without Method

UNDERSTANDING THE “WITH” AND “WITHOUT” SCENARIOS

This method involves estimating future cash flows under two distinct scenarios:

“With” The Intangible Asset (Non-Compete Agreement)

- First, in the absence of any competition from the Covenantors, cash flows are estimated over the covenant's term (and any additional time period to reflect residual benefits that might accrue beyond this term).

“Without” The Intangible Asset (Non-Compete Agreement)

- Second, future cash flows are estimated under a hypothetical scenario involving competition in the absence of the covenant.
- This latter scenario considers the **probability** of the Covenantor competing, along with the potential **financial impact** on the business from competition.

INTANGIBLE ASSET VALUE

The value of the intangible asset is represented by the difference in the present value of the cash flows between the two distinct scenarios.

With and Without Method

VALUING NON-COMPETE AGREEMENTS

Items to Consider When Valuing Non-Compete Agreements:

1

Obtain and review the provisions of the Non-Compete Agreement

- Determine the stated term of the Non-Compete Agreement
- Determine whether the restrictions represent a complete or limited covenant

2

Obtain the financial forecast used to price the deal

- Hold discussions with management regarding fixed vs. variable costs

3

Interview the Covenantors and management

- Assess the Covenantors' likelihood of competing
- Assess the Covenantors' impact due to competing

Cost Approach

OVERVIEW

Premise

The Cost Approach measures the benefits related to an asset by the cost to reconstruct or replace it with another of like utility. The rationale is that by acquiring the subject intangible asset in the transaction, the buyer avoids the costs to develop the subject intangible asset independently.

Examples

- For assembled workforce, avoided costs would include time spent recruiting and training newly-hired staff members, as well as costs related to lower efficiency of newly-hired staff.
- For technology, avoided costs would include time spent researching, building, and testing the underlying technology, plus any fixed costs (developers' licenses, etc.), as well as any opportunity costs associated with the developers' time. To the extent that recreated technology would provide more utility than the existing technology, an appropriate adjustment would be made to reflect the existing technology's obsolescence.

Cost Approach

ASSEMBLED WORKFORCE

Position/ Category	Number of Employees	Average Base Salary	Average Estimated Recruiting Cost	Average Estimated Training Cost	Average Recruiting Cost	Average Estimated Training Cost	Avoided Recruiting/ Training Cost
Sales	17	$ 85,879	13.6%	34.7%	11,711	29,821	41,531
G&A	10	92,036	18.0%	11.3%	16,611	10,437	27,048
IT	1	90,000	0.6%	21.8%	584	19,627	20,211
BD & Operations	19	84,388	6.1%	24.0%	5,159	20,279	25,437
Total	**47**						

Position/ Category	Benefit Load	Average Starting Efficiency	Average Months to Full Productivity	Avoided Productivity Costs	Total Avoided Costs Per Person	Total Avoided Costs
Sales	39.1%	75.0%	6.0	7,467	48,998	832,971
G&A	55.0%	90.0%	2.0	1,189	28,237	282,369
IT	35.0%	80.0%	4.0	4,050	24,261	24,261
BD & Operations	33.9%	80.8%	4.3	3,934	29,372	558,060
Total Avoided Costs						1,697,662
Fair Value of Assembled Workforce (Rounded)						**$ 1,697,700**

Thank You

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