

Business Valuations and Quality of Earnings in M&A Transactions

Association for Corporate Growth
Tennessee Chapter

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Karolina Calhoun is a Vice President at Mercer Capital, a national business valuation and financial advisory firm headquartered in Memphis, TN. Ms. Calhoun has been involved with hundreds of valuation and litigation support engagements in a diverse range of industries on local, national and international levels.

Prior to joining Mercer Capital, Karolina was a Senior Auditor at EY Memphis in their Audit and Assurance Services practice. As a member of the firm's Litigation Group, she provides valuation and forensics services for family law, gift & estate planning, commercial litigation, transactions (M&A), and further matters related to privately held businesses, dissenting shareholders, intellectual property, personal goodwill, etc. With her forensics accreditation, she provides economic and financial damages studies, asset tracing, lost profits, and lifestyle analysis.

Ms. Calhoun also provides financial reporting and valuation analyses related to mergers & acquisitions, intangible assets, private equity portfolio companies, contractual agreements, and complex capital structures. These engagements have been conducted for the purposes of mergers and acquisitions, buyouts, financial reporting, estate and gift taxes, allocation of purchase price, litigation support, shareholder dissent, buy-sell agreements, dissolutions, financing, and business planning.

Ms. Calhoun is involved with the national forensics and valuation community, serving as a member of the AICPA's Forensic and Valuation Services Conference committee. She was named one of 26 young CPAs to receive the 2018 Forensic and Valuation Services (FVS) Standing Ovation award, presented by the AICPA to professionals for significant contributions in their accounting specialty areas and in their communities. She is also the President of the Memphis Chapter of TSCPAs.

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Session Overview

Valuation vs. Quality of Earnings

- Overview & When to use each?
- What's the difference?
- How can (do) both overlap?

When & Why a Valuation Is Needed

Categories & Triggers

Valuation Triggers: 4 Basic Quadrants

Regulatory Driven

Tax

Estate & Gift Taxes	IRC 197– Allocation of Purchase Price
Charitable Gifting	
409(a) Transactions	Corporate Reorganizations & Basis Step Ups
IRC 367(d) “Toll Charge”	IRC 280G “Golden Parachute”
Transfer Pricing	

GAAP / Financial Reporting

ASC 805 - Allocation of Purchase Price	ASC 718 – Equity Based Compensation
ASC 350 & 360 Impairment	ASC 820 – Portfolio Valuation

(Generally) Not Regulatory Driven

Transactional

Sale of Business (Pricing / Negotiations)	Installment Sale
	ESOPs
Buy/Sell Agreements	Fairness Opinions
Stock Exchange / Public Co. / IPO	Incentive / Corporate Planning

Litigation

Buy/Sell Disputes	Dissenting Shareholder Disputes
Family Law	
Contract Disputes	ESOP/ERISA Disputes
Business Torts	Bankruptcy
Tax Disputes	

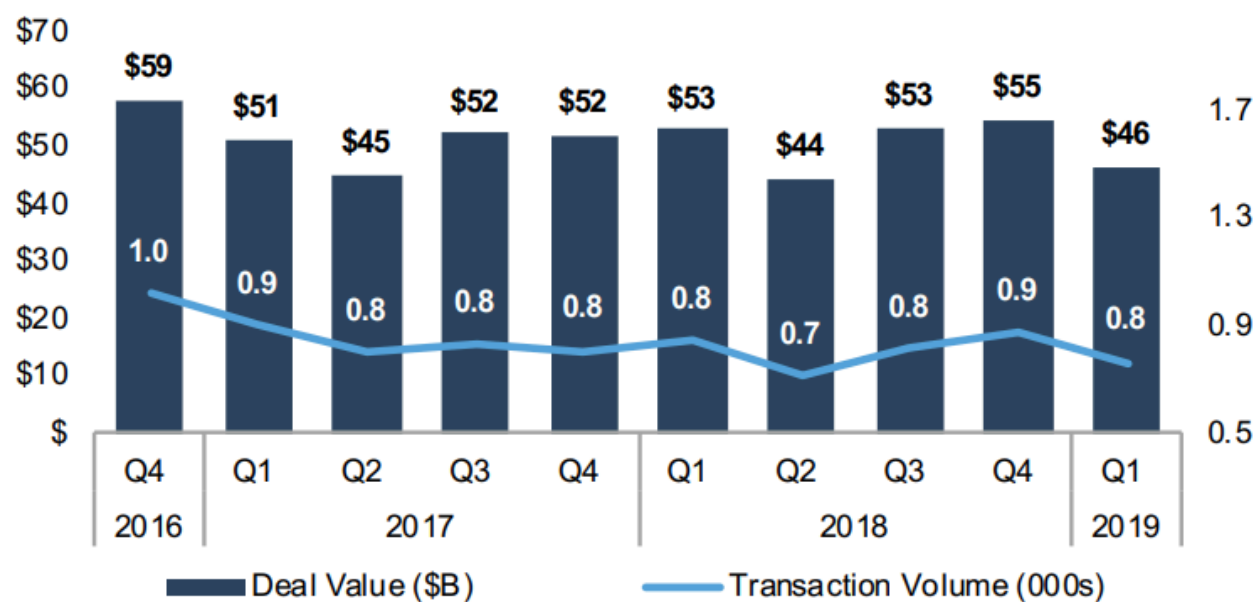
The Ownership Transfer Matrix

	Partial Sale / Transfer	Total Sale / Transfer
Things You Make Happen	<ul style="list-style-type: none"> ESOP Outside Investor(s) Sales to Insiders/Relatives Combination Merger/Cash Out Going Public 	<ul style="list-style-type: none"> Sale of Business Stock Exchange w/ Public Co. Stock Cash Sale to Public Co. Installment Sale ESOP/Management
Things That Happen to You	<ul style="list-style-type: none"> Death Divorce Forced Restructuring Shareholder Disputes 	<ul style="list-style-type: none"> Death Divorce Forced Restructuring Bankruptcy

Mercer Capital Middle Market Transaction Update

First Quarter 2019

U.S. Deal Value & Volume 4Q16 to 1Q19

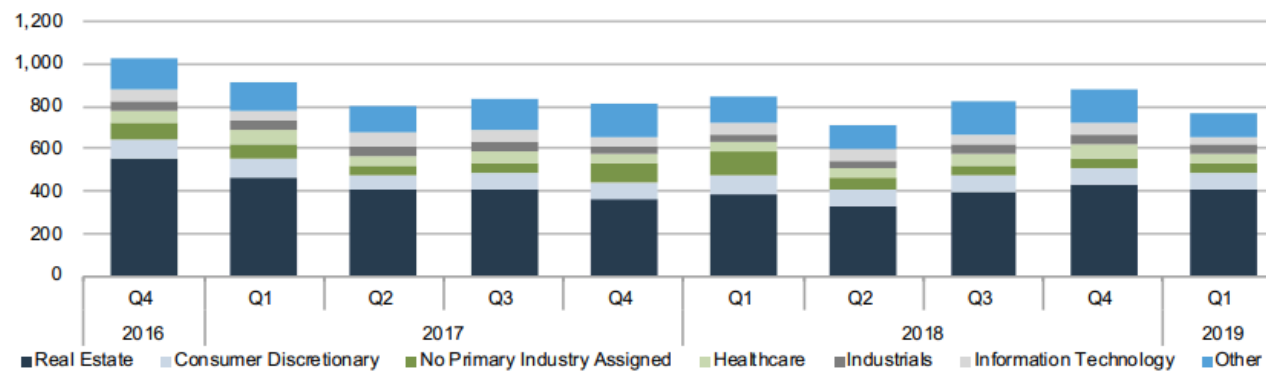


Source: Capital IQ

Mercer Capital Middle Market Transaction Update

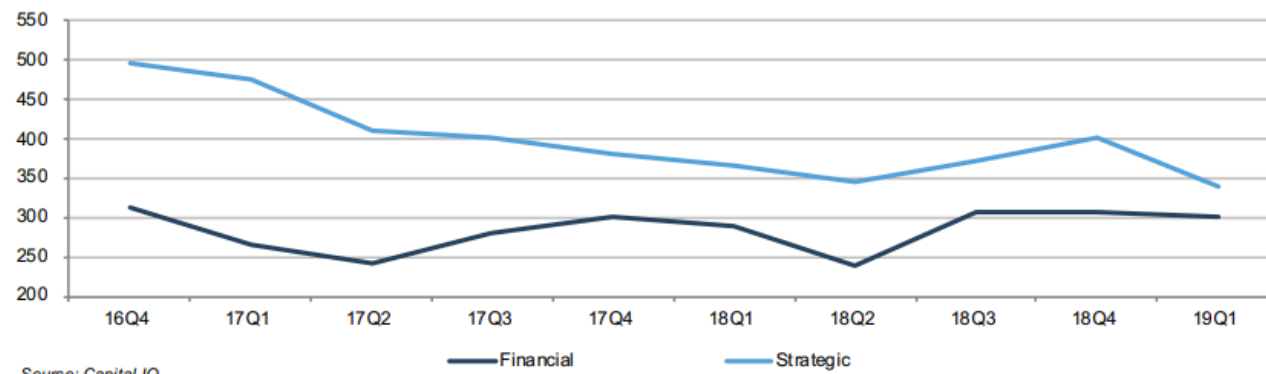
First Quarter 2019

U.S. Deal Volume by Industry
3Q16 to 4Q18



Source: Capital IQ

Number of Deals by Buyer Type
3Q16 to 4Q18



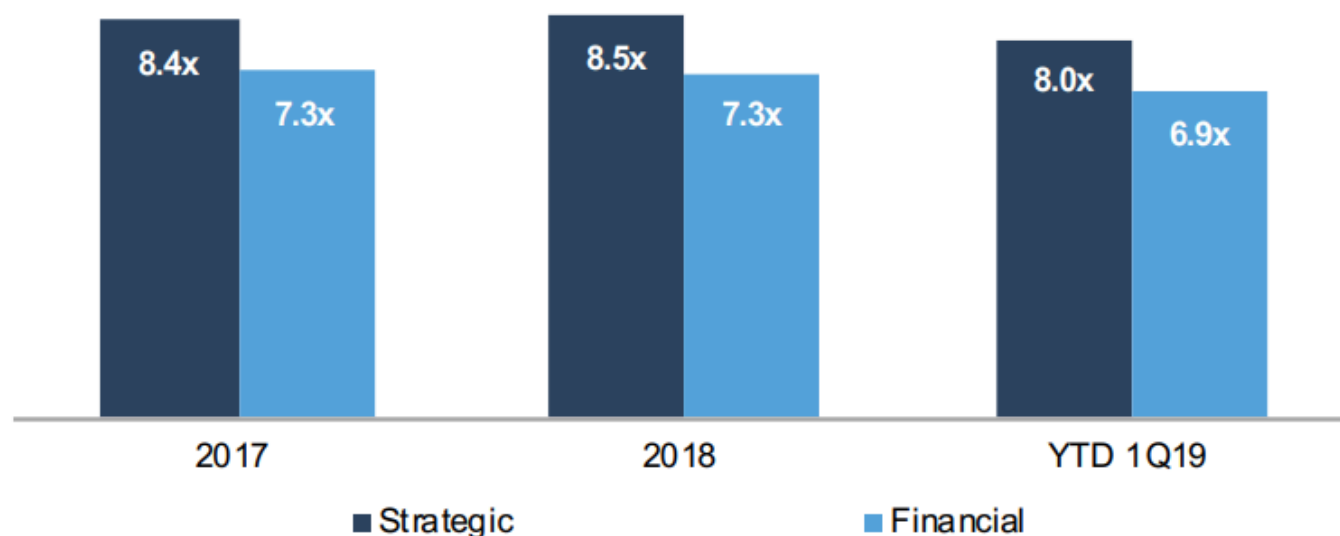
Source: Capital IQ

Mercer Capital Middle Market Transaction Update

First Quarter 2019

EBITDA Multiples by Buyer Type

2017 to 1Q19



Source: Capital IQ (strategic) and GF Data (financial)
 Strategic multiples exclude outliers (defined as EBITDA multiple > 15x)

What is Business Valuation?

What is Business Valuation?

Business valuation is the process of determining the value indication of a business, business ownership interest, security, or intangible asset.

How To Value a Business?

Three approaches used to determine a value indication of a business, business ownership interest, security, or intangible asset

Asset-Based Approach

- Based on the value of the assets net of liabilities

Income Approach

- Using one or more methods that convert anticipated economic benefits into a present single amount

Market Approach

- Using one or more methods that compare the subject to similar businesses, business ownership interests, securities or intangible assets that have been sold

Asset-Based Approach

Overview

The fundamental accounting equation expresses the relationship between the company's assets, liabilities, and equity



Adjusted Book Value: A method within the asset approach whereby all assets and liabilities (including off-balance sheet, intangible, and contingent) are adjusted to their fair market values.

- Cost approach
- Replacement approach
- Appraisal of fair market value

Income-Based Methods

Overview



Capitalization of Earnings Method

A method within the income approach whereby economic benefits for a representative single period are converted to value through division by a capitalization rate.

Capitalization of Cash Flow Method

The present value of future expected economic benefits is calculated using a discount rate.

Discounted Cash Flow Method

The present value of future expected net cash flows is calculated using a discount rate.

Market-Based Methods

Overview



Guideline Public Company Method

A method within the market approach whereby market multiples are derived from market prices of stocks of companies that are engaged in the same or similar lines of business, and that are actively traded on a free and open market.

Guideline Company Transactions Method (Merger and Acquisition Method)

Pricing multiples are derived from transactions of significant interests in companies engaged in the same or similar lines of business.

Transaction Method

Develops an indication of value based upon consideration of actual transactions of the subject company.

A Little Theory

Back to the Basics of Corporate Finance

Theoretical Basis

Gordon Growth Model (Gordon Dividend Model)

$$V = \frac{CF}{(r - g)} \quad \text{becomes:} \quad V = \frac{\text{Earnings}}{(r - g)}$$

$$\text{Capitalization Rate (\%)} = (r - g)$$

$$\text{Capitalization Factor} = \frac{1}{(r - g)} \quad \text{or} \quad \frac{1}{\text{Capitalization Rate (\%)}} = \text{Multiple}$$

So, Value = Earnings x Multiple

Discount Rate “r”

Cost of Equity (“k”) for a Single-Period Capitalization

Adjusted Capital Asset Pricing Model, “ACAPM,”
or the “Build-Up Method”

- = Risk-Free Rate of Return
- + Equity Risk Premium
- x Long-Term Beta
- + Small-Capitalization Stock Premium
- + Specific Company Risk Premium

Single-Period Capitalization

Build Up Method – Equity Only – Capitalization of Earnings Method

Derivation of Capitalization Factor		References and Comments
Risk-Free Rate		3.04% <i>Yield on 20-year Treasury</i>
Equity Risk Premium	5.50%	<i>Most studies suggest that the large cap ERP lies in the range of 4.0% to 7.0%</i>
x Market Beta	1.00	
Beta Adjusted Common Stock Premium		5.50%
Size Premium		3.48% <i>Per Duff & Phelps Cost of Capital Navigator</i>
Specific Company Risk Premium		6.00% <i>Size, Key-man, & Customer Concentrations</i>
Equity Discount Rate (Required Rate of Return)		18.02%
- Sustainable/Perpetual Growth Rate in Earning Power		-4.50%
Capitalization Rate		13.52%
Capitalization Factor		7.40 <i>Reciprocal of capitalization rate; 1 / (k-g)</i>
Capitalization Factor		7.40 <i>Rounded to: 0.05</i>
Determination of Value		
Ongoing Earning Power		\$750,000
Capitalization Factor		7.40
Capitalized Earnings Value		\$5,550,000
Indicated Value: Capitalization of Earnings Method		\$5,550,000 <i>Rounded to: \$1,000</i>

→ "k"
→ "g"

How Does an Analyst Determine the “Earnings” Component?



Historical Trends



Future Expectations

Financial Statement Adjustments

What's the Point?

Develop a “public equivalent” for comparability purposes

Identify significant nonrecurring or unusual expenses
(or potentially sources of income)

Reveal a reasonable earning power of the Company

Types of Earnings Adjustments

	Description	Examples
Type 1: Non-recurring, unusual items	One-time gains or losses, unusual or non-recurring items, discontinued operations, run-rate adjustments, etc...	<ul style="list-style-type: none"> • Sell a building; remove gain on sale • Settle a lawsuit; remove settlement expense • Adjust ongoing revenue and expenses for a mid-year acquisition
Type 2: Discretionary items	Normalizing officer/owner compensation and discretionary expenses that would not exist in a well-run, publicly traded company	<ul style="list-style-type: none"> • Owner takes distributions in lieu of comp or takes all profit in form of salary; normalize comp • Treat owner's condo as non-operating asset; remove related expenses

See Integrated Theory, 2nd Ed. (pp. 110-114)

Common Adjustments

Balance Sheet

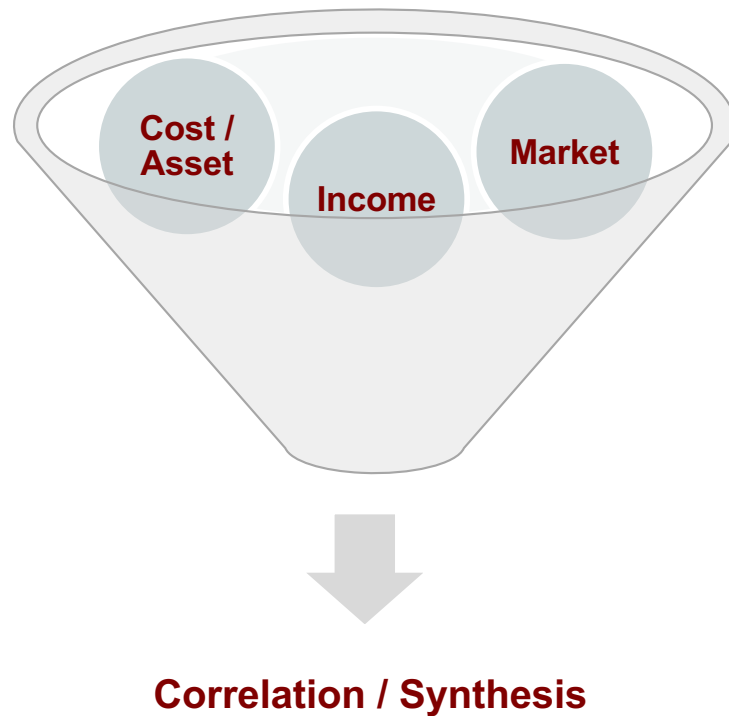
- Inventory valuation method (LIFO v. FIFO)
- Depreciation method (accelerated v. straight line)
- Market value of fixed assets or investments (appraisals)
- Unrealized gains (losses) on securities
- Goodwill
- Other intangible assets
- Unrecorded year-to-date earnings (losses)
- ESOP debt not recorded on balance sheet (or not classed as equity)
- Other contingent liabilities

Common Adjustments

Income Statement

- Inventory valuation method (LIFO v. FIFO)
- Depreciation method (accelerated v. straight line)
- Excess compensation for key people (salary, bonus, dividends)
- Fringe benefits (excess)
- Excess bad debts
- Profit (loss) from discontinued operations
- Start-up costs
- Acquisition/divestiture costs
- Extraordinary legal/accounting/consulting costs
- Inventory write-downs
- Related party loans or leases not at market rates
- Other non-recurring revenue or expense

Synthesis of Valuation Approaches



A proper valuation will factor, to varying degrees, the indications of value developed utilizing the three approaches outlined.

A valuation is much more than the calculations that result in the final answer. It is the underlying analysis of a business and its unique characteristics that provide relevance and credibility to these calculations.

Levels of Value: Illustrative Chart



What is a Quality of Earnings?

Quality of Earnings – “Q of E”

How Does the Marketplace Define Q of E?

The primary purpose of the Quality of Earnings (“Q of E”) is to normalize EBITDA to assist clients with valuation, financing and establishing the purchase price.

The quality of earnings is difficult to define and, although there are no definitive criteria by which to evaluate it, there are many factors that can be considered in assessing the quality of earnings. Taken as a whole, the quality of earnings can generally be summarized as the degree to which earnings are cash or noncash, recurring or nonrecurring, and based on precise measurement or estimates that are subject to change. Evaluating the quality of earnings will help the financial statement user make judgments about the “certainty” of current income and the prospects for the future.

Assess the financial and operational performance of an entity, whether you are a strategic buyer, financial investor, or lender.

A quality of earnings report helps to establish the value of a business by analyzing and reporting on detailed aspects that may not be readily identifiable to a seller, buyer or investor in reviewing the financial statements.

Analyzing the historical profitability of the business with the intent of assessing the normalized and sustainable future profitability of the business.

Quality of Earnings – “Q of E”

Analysis of financial information

Due diligence

Detailed financial analysis with valuation implications

Adjustments

Definition and scope is set per client/individual need

Set of procedures is set per client

Quality of Earnings – “Q of E”

Examples

Revenue

- Revenue recognition- accounting method?
- Rebates? Volume pricing? Timing?
- Trends?
- Customer concentration?
 - Recurring/Repeat?
- Related parties?
- Budgets/forecasts reasonableness

Assets

- Trends in capital expenditures?
- Asset efficiency?

Receivables

- Indication of rising sales?
- Indication of slow collections?
- Acceleration of future sales?
- Aging report of receivables?

Inventories

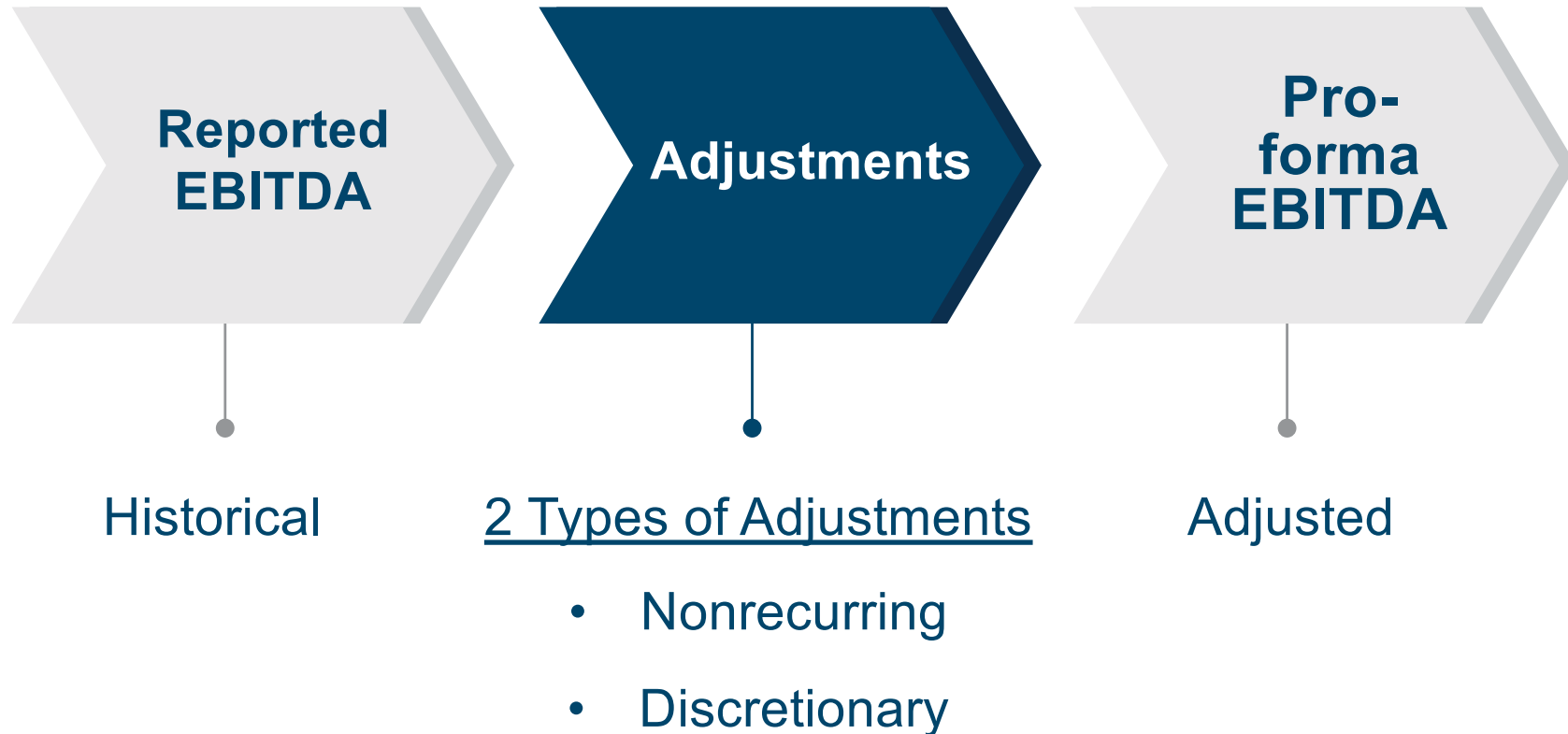
- Increase in levels due to sales growth?
- Excess/obsolete inventory?
- Production at capacity, under capacity, or over capacity?
- Supplier concentration?

EBITDA is the Focus

Example



EBITDA is the Focus



Examples of Defined Procedures

Quality of Earnings Example

Assignment 1—Proof of Cash

- 1) Obtaining the monthly bank statements of Target for the previous 3 to 6 months (as determined by you)
- 2) Detail the deposits and disbursements per bank statements
- 3) Interview management on their cash receipt, bank statement reconciliation and payment process (if needed)
- 4) Receive the trial balances for the corresponding periods and reconcile to the bank statements
- 5) Note any discrepancies

Assignment 2—Financial Due Diligence

Financial Due Diligence (Quality of Earnings) will be performed on the 2018 calendar period :

- 1) General Procedures
 - Management interviews
 - EBITDA Analysis
 - Management Add-back
 - Non-recurring items
 - Pro-forma adjustments
- 2) Income Statement Procedures
 - Inquire as to the revenue recognition policies;
 - Revenue and Product Analysis
 - Profitability / Margin Analysis
 - SG&A Expense Analysis

3) Balance Sheet Procedures

- Working Capital Analysis
 - A/R and A/P Analysis
 - Billing and collection policies
- ### 4) Cash Flow Procedures
- Cash Analysis

Valuation Report vs. QoE Report

What's the Difference?



Valuation Engagement vs. Q of E Engagement

What's the Difference?

Procedure	Valuation	Quality of Earnings
Project Timeline	Month(s) (estimate)	Week(s) (estimate)
View Point	Forward Looking	Back or Forward or Both
Level of Documentation	Lighter, except for key areas	High
Economic Section	Yes	Varies, generally no
Industry Section	Yes	Varies, generally no
Valuation Section	Yes	Varies, generally no
Materiality Threshold	Higher	Low

Questions?

About Mercer Capital

Mercer Capital is a national business valuation and financial advisory firm.

We offer a broad range of services, including corporate valuation, financial institution valuation, financial reporting valuation, gift and estate tax valuation, M&A advisory, fairness opinions, ESOP and ERISA valuation services, and litigation and expert testimony consulting.

We have provided thousands of valuation opinions for corporations of all sizes in a wide variety of industries. Our valuation opinions are well-reasoned and thoroughly documented, providing critical support for any potential engagement.

Our work has been reviewed and accepted by the major agencies of the federal government charged with regulating business transactions, as well as the largest accounting and law firms in the nation in connection with engagements involving their clients.

For over 35 years, Mercer Capital has been bringing uncommon professionalism, intellectual rigor, technical expertise, and superior client service to a broad range of public and private companies and financial institutions located throughout the world. Feel confident in our experience and expertise.

Mercer Capital's Core Services

Valuation & Financial Opinions

- Litigation Related Expert Witness Opinions
- Succession & Shareholder Planning
- Valuations for Corporate Tax Planning
- Valuations for Gift & Estate Tax Planning
- Fairness Opinions
- ESOP & ERISA Advisory Services
- Bankruptcy-Related Valuation Services
- Valuations for Buy-Sell Agreements

Transaction Advisory Services

- M&A and Investment Banking Services
- Fairness Opinions
- Solvency Opinions
- Quality of Earnings

Litigation Support Services

- Statutory Fair Value
- Business Damages & Lost Profits
- Valuation, Labor & Contract Disputes
- Family Law & Divorce
- Tax-Related Controversies
- Corporate Restructuring & Dissolution
- Initial Consultation & Analysis
- Testimony & Trial Support

Financial Reporting Valuation Services

- Purchase Price Allocation Services
- Impairment Testing Services
- Portfolio Valuation Services
- Equity-Based Compensation Valuation Services

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