



TODAY'S PRESENTERS:



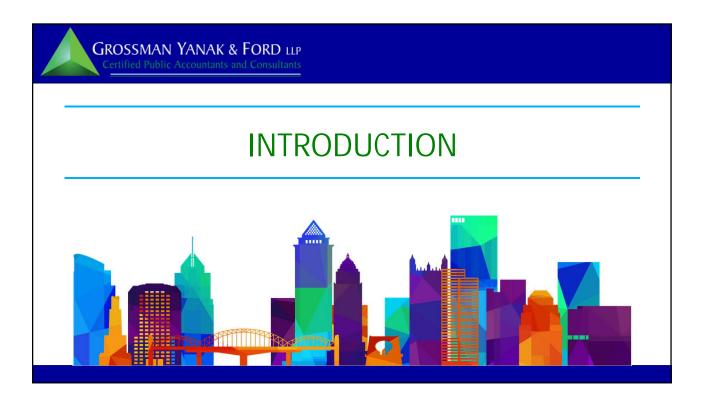
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INTRODUCTION

- Most matters subject to legal controversy involve or are resolved through the economics associated with the case
- The economics of any particular fact pattern are generally built upon a foundation of financial information set forth in financial statements



INTRODUCTION

- Much of the "real" information that might prove useful in any case is only available through an understanding of the mechanical structure of the financial statements, as well as understanding how they relate to one another
- Also, assessing how financials relate to company history and industry participants



Attorneys' Guide to Financial Analysis of a Business from a Valuation Perspective

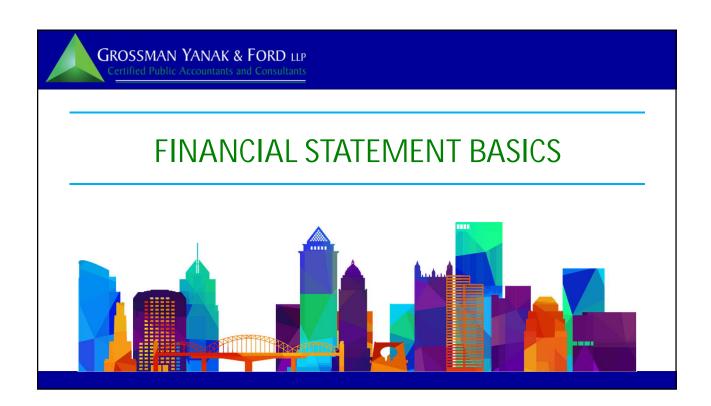
INTRODUCTION

- Today we will provide you with insight beyond the numbers on the financial statement
- A high level view of how valuation professionals assess or analyze financial statements of a company



INTRODUCTION

- Today we will cover:
 - Financial Statement Basics
 - Financial Statement Analysis
 - Financial Ratios
 - Assessing Company-Specific Risk
 - Determining the Impact on Company Value





FINANCIAL STATEMENT BASICS

- Key tool for understanding the financial health and direction of a business
- Properly prepared, financial statements can inform the reader about a company's ability to:
 - Meet its obligations
 - Generate a profit
 - Provide a return to its owners/investors



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FINANCIAL STATEMENT BASICS

- Externally prepared financial statements (that include a report rendered by an independent accountant) are designed to provide a reader with greater assurance and clarity about the information contained within the financial report
 - Generally Accepted Accounting Principles ("GAAP") = the body of rules and principles developed by the FASB for financial accounting and reporting



FINANCIAL STATEMENT BASICS

- Basic elements common to financial statements:
 - Accountant's report
 - Required financial statements
 - Required footnote disclosures
 - Other supplementary information



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FINANCIAL STATEMENT BASICS

- A complete financial statement presentation should include the following:
 - Balance sheet
 - Income statement
 - Statement of changes in equity
 - Statement of cash flows
 - Required footnote disclosures



FINANCIAL STATEMENT BASICS

■ Balance Sheet

- Presents the assets, liabilities and equity of a company as of a specific point in time
- Assets are presented in order of liquidity, with current assets listed first, followed by noncurrent assets
- Liabilities are presented in order of their expected settlement



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FINANCIAL STATEMENT BASICS

■ Income Statement

- Presents the results of the company's revenue and expense transactions
- Covers a period of time rather than a point in time



FINANCIAL STATEMENT BASICS

■ Income Statement

- Process of reduction:
 - Gross profit = Total revenue from sales Cost of goods sold
 - Operating income = Gross profit Operating expenses
 - <u>Pre-tax income</u> = Operating income Other expenses
 - Net income = Pre-tax income Income tax expense



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FINANCIAL STATEMENT BASICS

- Statement of Changes in Equity
 - A company's components of, and changes in, its equity must also be presented in the balance sheet, in a separate statement of equity or in the footnotes
 - A separate statement of changes in equity is often preferred when there is a complex equity structure or numerous equity transactions



FINANCIAL STATEMENT BASICS

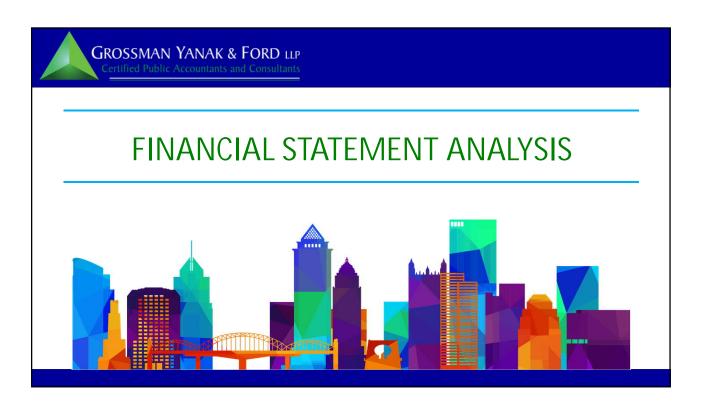
- Statement of Cash Flows
 - Provides information regarding how the company generated and utilized cash
 - Reports on a period of time



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FINANCIAL STATEMENT BASICS

- Statement of Cash Flows
 - All activities are broken down into three categories:
 - Operating relate to the company's ongoing current operations
 - <u>Investing</u> relate to use of cash for long-term investment; typically associated with the company's noncurrent assets
 - <u>Financing</u> relate to transactions involving lenders or owners; typically associated with the company's debt obligations or equity





FINANCIAL STATEMENT ANALYSIS

- A primary objective of financial statements is to assist in the decision-making process for many purposes
- One must consider the full set of financial statements, including footnote disclosures, for a complete analysis
- Accrual-based financials provide a truer economic picture



FINANCIAL STATEMENT ANALYSIS

- Financial statement users need to consider not only the amounts of assets, liabilities and earnings, but also the underlying detail of those balances to understand the imbedded strength, quality and risks
- Necessary information can often be obtained from the footnote disclosures, as well as through the use of ratio analysis and other analytical tools



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FINANCIAL STATEMENT ANALYSIS

- Assets
 - Identify assets, along with value and associated risk
 - Investors and lenders are interested in how readily a company's assets can be converted into cash
 - Footnotes should be read to determine if there are any restrictions on the use of significant cash balances or other assets
 - Assets typically only include tangible assets



FINANCIAL STATEMENT ANALYSIS

Liabilities

- Analysis should consider two primary attributes:
 - Value of outstanding debt obligations
 - Timing of the payments
- A company's financial strength generally improves to the extent that it can defer liabilities to future dates



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FINANCIAL STATEMENT ANALYSIS

Liabilities

- Greater reliance can be placed on a liability that is fixed in nature, versus one that is subject to estimation
- Reader should also consider whether there are any unrecorded liabilities that impact the financial analysis



FINANCIAL STATEMENT ANALYSIS

• Quality of Earnings

- Income statements should also be analyzed in detail by looking at the key components that drive net income
 - · Remove anomalies or one-time events
 - Impact of non-operating income and expense items
 - Impact of GAAP accounting v. economic reality



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FINANCIAI STATEMENT ANALYSIS

• Going Concern

- Readers should be alert for disclosures regarding the company's ability to continue as a going concern for a period of one year beyond the date of the balance sheet
- Information is generally in the first footnote disclosure



FINANCIAL STATEMENT ANALYSIS

Comparability

- Most financial reports presented on a dual-year basis (information for the two most recent reporting periods is presented together)
- Generally, presented side-by-side to facilitate a reader's ability to compare the two reporting periods



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FINANCIAL STATEMENT ANALYSIS

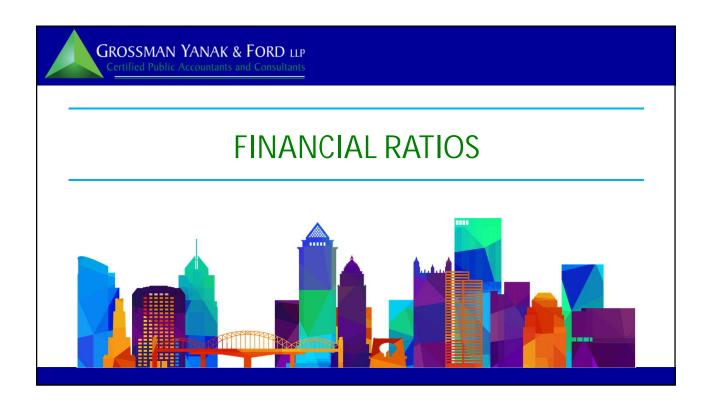
Comparability

- By comparing two (or ideally more) years against each other, financial statement users can identify positive or negative trends in the company's earnings, liquidity or other performance measures
- Reader must be aware of circumstances that may affect the comparability of multiple years' financial statements



FINANCIAL STATEMENT ANALYSIS

- Circumstances That May Affect Comparability
 - Reclassifications
 - New or discontinued operations
 - Unusual or infrequent transactions





FINANCIAL RATIOS

- Evaluation/interpretation of a company's financial data to determine its financial condition
- Numerous ratios can be calculated for a company
- Selection of appropriate ratios will depend on the purpose of the project and required analysis



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FINANCIAL RATIOS

- A ratio by itself is meaningless until it is compared to prior years' experience, projections and industry averages, as well as other ratios
- Ratio analysis is used as a benchmark to measure company performance and identify potential problems



FINANCIAL RATIOS

- 4 Basic Classifications:
 - Coverage
 - Return
 - Turnover
 - Component percentage



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FINANCIAL RATIOS

- Operating performance and the financial condition of a company can be evaluated through:
 - Liquidity ratios
 - Activity ratios
 - Leverage ratios
 - Profitability ratios



FINANCIAL RATIOS

- Liquidity Ratios: Short-Term Solvency
 - Indicate the ease of converting certain assets into cash
 - Are of interest to those extending short-term credit
 - Assets that may be converted into cash in a short time period are referred to as "liquid assets" and are listed on the financial statements as current assets
 - Net working capital = current assets current liabilities



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FINANCIAL RATIOS

- Liquidity Ratios: Current Ratio
 - Measure of the ability of a company to meet its debt requirements as they come due
 - Denominator is current liabilities represent the most urgent debts requiring payment in one year or cycle
 - Minimum acceptable current ratio is 1:1; however, this relationship does not allow much margin for safety



FINANCIAL RATIOS

■ Liquidity Ratios: Current Ratio

Current Ratio =
$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$
 = $\frac{1,796,421}{644,233}$ = 2.79



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FINANCIAL RATIOS

- Liquidity Ratios: Quick Ratio (Acid Test Ratio)
 - More rigorous test of short-term solvency
 - Eliminates inventory, which is considered the least liquid current asset and most likely source of loss
 - Acid test of 1:1 is considered satisfactory unless the majority of "quick assets" are in accounts receivable, and the pattern of collections lags behind schedule for payment of current liabilities



FINANCIAL RATIOS

• Liquidity Ratios: Quick Ration (Acid Test Ratio)

Quick Ratio =
$$\frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}} = \frac{1,004,080}{644,233} = 1.56$$



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FINANCIAL RATIOS

- Liquidity Ratios: Working Capital
 - Measured in dollars rather than as a ratio
 - Calculated by subtracting total current liabilities from total current assets
 - Bankers focus on net working capital over time to determine company's ability to weather financial crises
 - Loans often tied to working capital requirements



FINANCIAL RATIOS

• Activity Ratios

- Measures how well assets are employed
- Can be used to evaluate the benefits produced by specific assets, including AR and inventory
- The greater the turnover, the more effective a company is at producing benefits from its investment



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FINANCIAL RATIOS

- Activity Ratios: AR Turnover
 - Indicates how many times, on average, accounts receivable are collected during the year
 - Turnover represents the number of times receivables convert to cash
 - Ratio is calculated using net accounts receivable (net of the allowance for doubtful accounts) and net sales

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FINANCIAL RATIOS

• Activity Ratios: AR Turnover

AR Turnover =
$$\frac{\text{Net Sales}}{\text{Average Accounts Receivable}} = \frac{6,799,900}{605,686} = 11.23$$



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FINANCIAL RATIOS

- Activity Ratios: Inventory Turnover
 - Indicates how many times inventory is created and sold during a period
 - Measures how efficiently a company manages and sells inventory
 - Generally, high turnover indicates efficient inventory management; but, other factors should be considered



FINANCIAL RATIOS

• Activity Ratios: Inventory Turnover

Inventory Turnover =
$$\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{4,483,081}{938,657} = 4.78$$



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FINANCIAL RATIOS

- Leverage Ratios: Debt Financing and Coverage
 - Companies can finance their assets through equity, debt or a mix of both
 - Financial risk is the extent that debt financing is used relative to equity the higher the proportion of debt, the greater the degree of risk
 - Leverage ratios are used to assess how much financial risk a company holds



FINANCIAL RATIOS

- Leverage Ratios: Debt Financing and Coverage
 - Component percentages compare a company's debt with its total capital (debt + equity) or its equity capital
 - Coverage ratios reflect company's ability to satisfy fixed obligations including interest, principal repayment or lease payments



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FINANCIAL RATIOS

- Leverage Ratios: Debt Ratio
 - Indicates the proportion of assets that are financed with debt (including both short-term and long-term debt)
 - Can be further refined to include only long-term debt rather than total debt
 - Debt ratios depend on the classification of long-term leases and on classification of some items as long-term debt and equity



FINANCIAL RATIOS

• Leverage Ratios: Debt Ratio

Debt Ratio =
$$\frac{\text{Total Debt}}{\text{Total Assets}} = \frac{3,121,744}{6,561,178} = 0.48$$

$$\frac{\text{Long-Term Debt}}{\text{to Total Assets}} = \frac{\text{Long-Term Debt}}{\text{Total Assets}} = \frac{3,114,416}{6,561,178} = 0.47$$



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FINANCIAL RATIOS

- Leverage Ratios: Debt-to-Equity Ratio
 - Indicates the relative uses of debt and equity as sources of capital to finance the company's assets
 - Typically evaluated using book values of the capital sources
 - Caution: there is little to no relationship between a company's book value and market value



FINANCIAL RATIOS

■ Leverage Ratios: Debt-to-Equity Ratio

Debt-to-Equity Ratio =
$$\frac{\text{Total Debt}}{\text{Total Shareholders' Equity}} = \frac{3,121,744}{2,169,196} = 1.44$$



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FINANCIAL RATIOS

- Profitability Ratios
 - Compares components of income with sales
 - Measures the success of a company to translate sales dollars into profits at different stages of measurement



FINANCIAL RATIOS

- Profitability Ratios
 - Gross profit margin
 - Operating profit margin
 - Net profit margin
 - EBITDA margin



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FINANCIAL RATIOS

- Profitability Ratios: Gross Profit Margin
 - Measures gross profits earned on sales
 - Shows relationship between sales and the cost of products sold
 - Measures ability of company to control costs and pass along price increases through sales
 - Some types of companies cannot use this calculation



FINANCIAL RATIOS

• Profitability Ratios: Gross Profit Margin

Gross Profit Margin =
$$\frac{\text{Gross Profit}}{\text{Net Sales}}$$
 = $\frac{2,316,819}{6,799,900}$ = 0.34 or 34%



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FINANCIAL RATIOS

- Profitability Ratios: Operating Profit Margin
 - Measures overall operating efficiency
 - Incorporates all expenses associated with ordinary business activity

Operating Profit Margin =
$$\frac{\text{Operating Income}}{\text{Net Sales}} = \frac{776,121}{6,799,900} = 0.11 \text{ or } 11\%$$



FINANCIAL RATIOS

- Profitability Ratios: Return on Assets (Investment)
 - Measures how effectively a company's assets are used to generate profits

Return on Assets =
$$\frac{\text{Net Earnings}}{\text{Total Assets}}$$
 = $\frac{(130,081)}{6,561,178}$ = (0.02) or -2%



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FINANCIAL RATIOS

- Profitability Ratios: Return on Equity
 - Bottom-line measure for shareholders
 - Measures profits earned for each dollar invested
 - Used by investors to gauge amount of cash generated from existing assets



FINANCIAL RATIOS

• Profitability Ratios: Return on Equity

Return on Equity =
$$\frac{\text{Net Earnings}}{\text{Shareholders' Equity}} = \frac{(130,081)}{2,169,196} = (0.06) \text{ or } -6\%$$



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FINANCIAL RATIOS

- Z-Scores
 - Utilized to predict corporate defaults
 - Uses multiple income and balance sheet values to measure company's financial health
 - Weights five ratios and sums the amounts to determine score
 - Each ratio captures a different aspect of operations
 - Manufacturing companies have different weightings



FINANCIAL RATIOS

• Growth Rates

- Measures change in a line item over a period of time
 - Annual growth rate growth from one year to the next
 - Compound annual growth rate (CAGR) year-over-year growth over a specified period of time



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FINANCIAL RATIOS

• Common Mistakes in Application

- Failing to use an average or weighted average when applicable can distort ratios
- Failure to recognize differences in accounting methods and business-specific factors can affect comparability
- Misinterpretation of certain trends and performance measures due to insufficient historical analysis





ASSESSING COMPANY-SPECIFIC RISKS

- Represent unsystematic risk has four primary sources:
 - Size
 - Macroenvironment
 - Industry
 - Company-specific attributes



ASSESSING COMPANY-SPECIFIC RISKS

• Company-Specific Risk Factors

- Dependence upon a key person
- Dependence upon a key supplier
- Concentration of the customer base
- Financial forecasts or projections are biased high
- Abnormal present or pending competition
- Pending lawsuits
- Pending regulatory changes



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ASSESSING COMPANY-SPECIFIC RISKS

Challenges

- Privately-held companies may have less information available than public companies
- Quantifying company-specific risk can be difficult and controversial



ASSESSING COMPANY-SPECIFIC RISKS

Quantification

- Guidance for determining risk in a systematic way:
 - Compare subject company to guideline companies or other industry information
 - Identify potential risk factors and apply adjustments
 - Thoughtful, well-developed analysis to support conclusions
 - Create rate of return based on benchmark and compare to risk attributes of subject to determine any adjustments



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ASSESSING COMPANY-SPECIFIC RISKS

• Concluding Thoughts

- Valuation determines to what extent company-specific risks will affect value
- Conclusions should be presented in an organized, well-documented manner





DETERMINING THE IMPACT ON COMPANY VALUE

■ To discern the impact of financial statements or matters of value, it is important to first understand the role of "stakeholders" and how they are rewarded for risk



DETERMINING THE IMPACT ON COMPANY VALUE

- Stakeholders... in any enterprise
 - Customers
 - Employees
 - Vendors/suppliers
 - Lenders
 - Government
 - Shareholders



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DETERMINING THE IMPACT ON COMPANY VALUE

- Common Equity Investors
 - All other stakeholders must be accommodated before any return is paid to equity investors
 - When all stakeholders are optimized, remaining net free cash flow is key determinant of company's value



DETERMINING THE IMPACT ON COMPANY VALUE

- Stakeholder Risk and Reward
 - Ratios and analysis can be used to identify and quantify risk associated with various operational and financial aspect of the business
 - Important to understand the mechanics of the calculation of value to appreciate the risks



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DETERMINING THE IMPACT ON COMPANY VALUE

- To understand how these analyses interplay with one another, it is important to consider each in the context of the business valuation process
- Three foundational valuation approaches:
 - Income
 - Market
 - Cost/Asset



DETERMINING THE IMPACT ON COMPANY VALUE

- Income approach
 - Capitalized Cash Flow Method
 - Discounted Future Cash Flow Method



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DETERMINING THE IMPACT ON COMPANY VALUE

- Capitalized Future Economic Benefit Model
 - Numerator = expected future economic benefits (often defined as net free cash flows)
 - Denominator = investment risk associated with future expected net free cash flows
 - <u>Risk rate</u> = capitalization rate (includes expected long-term growth in future economic benefits)



DETERMINING THE IMPACT ON COMPANY VALUE

- Capitalized Future Economic Benefit Model
 - Economic benefit = \$10,000
 - Risk rate = 23%
 - Growth rate = 3%
 - Capitalization rate = 20%
 - Value = \$50,000 (\$10,000/.20)



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DETERMINING THE IMPACT ON COMPANY VALUE

- Capitalized Future Economic Benefit Model
 - Intent is to evaluate the credibility and propriety of both elements in the calculation
 - All risk inherent in the business must be identified and quantified in one of the elements
 - Value drivers are identified in the process



DETERMINING THE IMPACT ON COMPANY VALUE

Value Drivers

- Specific aspects of the business that have the greatest effect on valuation
- Vary widely from one business to the next
- If effects of value drivers are understood, can be incorporated into calculations



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DETERMINING THE IMPACT ON COMPANY VALUE

Example

- Technology Business A develops Product X
- Company's most important value driver
- Annual growth averaging 18% over three years



DETERMINING THE IMPACT ON COMPANY VALUE

• Example

- Must assess if sales can continue at this rate and/or if there is potential for competitors to displace sales
- Compare Technology Business A's performance against historical, industry and competitors' results
- Specific attention paid to R&D costs



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DETERMINING THE IMPACT ON COMPANY VALUE

• Example

- Adjustments must be made in calculation of value to account for any potential changes to value drivers
- Modifications can be made to the numerator or denominator to reflect change
 - Numerator: expected future benefit stream
 - Denominator: risk associated with the receipt of the benefit stream



DETERMINING THE IMPACT ON COMPANY VALUE

- Market approach
 - Guideline Completed Transaction Method
 - Guideline Public Company Method



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DETERMINING THE IMPACT ON COMPANY VALUE

- Market approach
 - Financial analysis utilized to determine necessary adjustments to subject company's earnings stream
 - Adjustments made prior to application of market multiple
 - Indicated value further adjusted for balance sheet specific items



DETERMINING THE IMPACT ON COMPANY VALUE

- Cost/Asset approach
 - Balance sheet driven approach
 - Financial analysis of balance sheet utilized to determine if carrying value approximates market value



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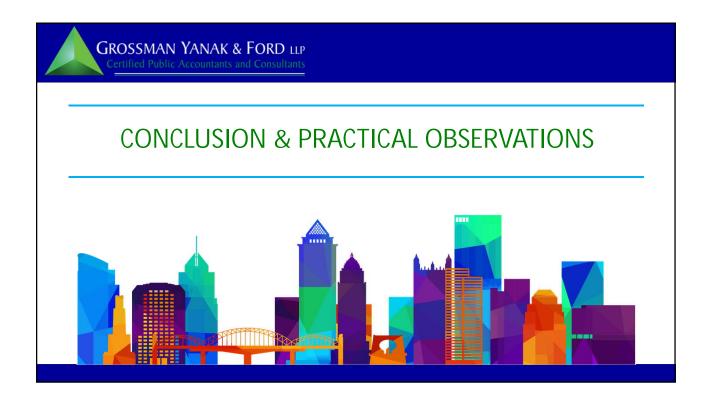
DETERMINING THE IMPACT ON COMPANY VALUE

- Interpreting the Results
 - Process of financial and ratio analysis attempts to identify strengths and weaknesses of subject company
 - Results should be compared against the company's historical company (trend analysis), as well as to competitor and industry data



DETERMINING THE IMPACT ON COMPANY VALUE

- Interpreting the Results
 - Discrepancies with competitor results should be understood and effects considered
 - Failure to align with industry data can be cause for greater concern (additional investment risk)





CONCLUSION & PRACTICAL OBSERVATIONS

- Absolute numbers in financial statements are of little use for analysis on their own
- Must be transformed into meaningful relationships to assess company's financial performance and condition
- Footnotes to the financial statements are also essential to proper analysis of financial statements



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CONCLUSION & PRACTICAL OBSERVATIONS

- Financial statement users, including members of the legal community, must have a basic understanding of how to deconstruct the statements and focus in on relevant performance indicators
- Financial statements reflect a summary of real world events (transactions), as well as certain estimates and judgments on the part of management



CONCLUSION & PRACTICAL OBSERVATIONS

- Awareness of the underlying realities, including what the company does (its products and/or services), the status of the industry in which it operates, and how the economy impacts performance, will result in a more meaningful process
- Analysis of the financial statements provides a basis for valuation calculations undertaken and the application of valuation discounts



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THANK YOU FOR ATTENDING!