Financial Analysis for Decision Making

Course code: UNINRD11

Financial analysis for decision-making

Learning Objective:
Provide foundational understanding of financial management and decision-making, track financials, assess risk, and make informed decisions

Learning Outcomes:

- Apply financial analysis techniques to assess organizational performance
- Manage cash flow, profit and loss accounts and balance sheets to monitor and control costs during a project
- Choosing and tracking key performance indicators

Focused Skills – Financial planning, control and decision-making for a program

Financial analysis for decision-making

Learning Objectives

- Basics of financial statements (Balance sheet, Income statement, Cash flow)
- Financial analysis techniques (Ratio analysis, Trend analysis)
- Understanding financial performance indicators

Application of concepts

- Example: Microsoft's Financial Resilience, Apple's Strategic Financial Management
- Case Study: Infosys' Financial Transparency and Investor Relations
- Interactive Exercise - Financial Statement Analysis

Case Study:
Infosys Annual report https://drive.google.com/file/d/1OE1DyQFskuIc_ho9xuclquCHRyZjPXMt/view?usp=sharing

Pre read for the session

1. Infosys Annual Report
   https://drive.google.com/file/d/1OE1DyQFskuIc_ho9xuclquCHRyZjPXMt/view?usp=sharing
2. Handouts summarizing key financial ratios and trend analysis methods

Required during session

3. Spreadsheet software (Excel/Google Sheets)
4. Whiteboard and markers

Relevance of Finance fundamentals for Managers

Sl.	Performance KPIs	Competency to be acquired
1	Create program budgets & oversee project budgets	Budgeting and forecasting, KPIs (RoI)
2	Monitor expenditures to control costs	Monitoring, Earned value method
3	Financial consideration of decisions Scope adjustments Resource allocation Schedule delays	Cash Flow analysis, Cost variance
4	Identify risk of operations & contingency plans	Ratio analysis, trend analysis, corrective actions, such as reallocating funds or renegotiating contracts

Session Duration: 4 hours (105 minutes + 120 minutes) + Q&A

9:30 am to 11:15 am
Presentation and Case Study (60 minutes)
Interactive Exercise (45 minutes)

Break

11:30 am to 1:30 pm
Presentation and Group discussion (75 minutes)
Interactive Exercise (45 minutes)
Open floor: Q&A and further engagement

Lunch

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Learning Objective 1

Basics of Financial Statements

Skill Sets to acquire:
Understanding Financial Statements, Financial Storytelling, Decision-Making

Reading and interpreting Financial Statements

A **balance sheet** is a financial statement that reports a company's assets, liabilities, and shareholder equity on a specific date.

- Insights on resources available and sources of finance
- investment decision for external stakeholders
- Insights on success of policy or new initiatives for internal team

An **Income statement** or Profit and loss account is a financial statement that reflects the company's income and expenditures for a defined period.

- It reflects whether a company is making profit or loss for a given period

A **Cash flow statement** states how much money a company has to distribute to investors, or reinvest, after all expenses have been covered.This is different from profit.

- Organization’s ability to operate in the short and long term
- Amount of cash different types of activities generate

The income statement, along with balance sheet and cash flow statement, helps you understand the financial health of your business

Understanding the Balance Sheet

The accounting equation: **Assets = Liabilities + Equity**

Assets	This Year	Last Year
Current Assets		
Cash and Cash Equivalents	10,000	10,000
Account Receivable	35,000	30,000
Inventory	25,000	20,000
Total current assets	**70,000**	**60,000**
Fixed assets		
Plants and machinery	20,000	20,000
Less depreciation	-12,000	-10,000
Land	8,000	8,000
Intangible assets	2,000	1,500
Total Fixed assets	**18,000**	**19,500**
Total assets	**88,000**	**79,500**
Liabilities and Shareholders' Equity		
Liabilities		
Accounts payable	20,000	15,000
Taxes payable	5,000	4,500
Long-term bonds issued	15,000	10,000
Total Liabilities	**40,000**	**29,500**
Shareholders equity		
Common stock	40,000	40,000
Retained earnings	8,000	10,000
Total Shareholders equity	**48,000**	**50,000**
Liabilities and Shareholders' Equity	**88,000**	**79,500**

Assets: Assets are items owned by your organization that will yield future benefits.

Those you can expect will become beneficial within the year are called **current assets**.

Those that are tangible and will generate longer-term income are called **fixed assets**.

Liabilities: Liabilities are expenses your organization owes other parties. Current liabilities are required to be paid off within the year, while long-term liabilities are not.

Equity: According to the Corporate Finance Institute, owners' equity refers to the portion of assets an organization can claim as its own.

Analyzing the Income or Profit and Loss (P&L) Statement

Income Statement		
Revenue	1000	100%
COGS	300	30%
Gross Profit	700	70%
Sales and Marketing	200	20%
R&D	200	20%
General and Admin	100	10%
Operating Income	200	20%
Interest and Taxes	60	6%
Net Income	140	14%

Revenue or Sales or Turnover or Top line:
Revenue is the value of all goods and services sold by a company in a given period

Expenses: Expenses are the amounts spent by an organization to produce and deliver goods and services

Depreciation: An asset that you own loses value over time due to deterioration or normal wear and tear. The amount expensed in the income statement for that period is depreciation

Income or Earnings or Net profit or Bottom line:
Income is the amount of money an organization earns by selling goods or services after accounting for the expenses incurred in selling the goods or services.

Example - Microsoft's Financial Resilience

Diversification of Revenue Streams: 2021 Microsoft revenue was $168 B, with Intelligent Cloud (Azure, server products) accounting for 36%, Productivity and Business Processes (Office, LinkedIn) 33%, and More Personal Computing (Windows, Xbox, Surface) 31%. This diversification helps Microsoft mitigate risks associated with economic downturns as weakness in one segment can be offset by strength in another.

Google (80% of total revenue) and Meta's heavy reliance on advertising revenue, making it more susceptible to economic cycles. Google's Cloud segment has been growing but is not yet as profitable as Azure.

Strong Balance Sheet Management: Microsoft had $130 B in cash and marketable securities in 2021, one of the strongest balance sheets in industry (Google $142 B, Apple $191 B). This allowed Microsoft to make strategic acquisitions, increase R&D spending during downturns, & return to shareholders through dividends & share buybacks.

In 2020, Microsoft returned $35 B in form of dividends & share repurchases.

Focus on High Growth Areas: Azure has seen revenue growth rates frequently >50% QoQ, significantly outpacing the overall market growth. Microsoft's early and aggressive investment in cloud infrastructure positioned it as the second-largest cloud services provider after Amazon, securing a substantial market share in a high-growth industry.

Mark Mahaney, a leading tech analyst notes that Microsoft's aggressive move into cloud computing and its integration with legacy products provide a competitive moat that is difficult for competitors to breach.

Decoding the Cash Flow Statement

Free cash flow indicates how much money a company has to distribute to investors, or reinvest, after all expenses have been covered.

Free cash flow is arguably the most important metric. It's a strong indicator of profitability. Analysis over long term shows that great businesses generate high return on invested capital, meaning "Free Cash Flow".

Free cash flow helps make present day decisions based on expected future payoffs, such as budgeting or hiring. It can indicate

- Rapidly growing startup or a mature and profitable org
- Org going through transition or in a state of decline
- How your department is contributing to organization's health
- basis of valuation calculations (ie. DCF method)

How does Revenue link to Free Cash Flow

Income Statement		
Revenue	1000	100%
COGS	300	30%
Gross Profit	700	70%
Sales and Marketing	200	20%
R&D	200	20%
General and Admin	100	10%
Operating Income	200	20%
Interest and Taxes	60	6%
Net Income	140	14%

Statement of Cash Flows		
Net Income	140	14%
Non- Cash Items	60	6%
Change in Working Capital	40	4%
Cash from Operations	240	24%
Capex	140	14%
Free Cash Flow	100	10%

Operating levers to convert revenue to free cash flow

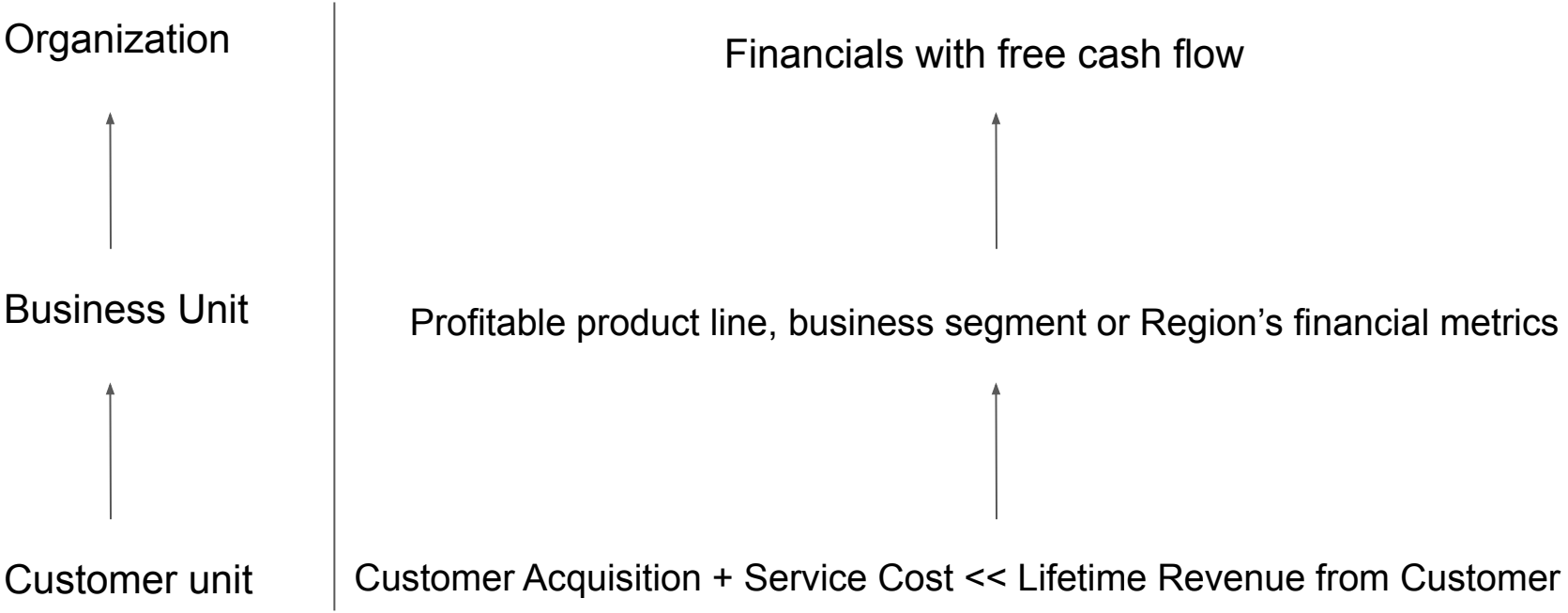
→ Gross Margin

→ Operating Margin

→ Working Capital

→ Capital Intensity

Path to Free Cash Flow



Source: Sequoia Capital presentation to portfolio Founders 2021

Examples of non-standard practices

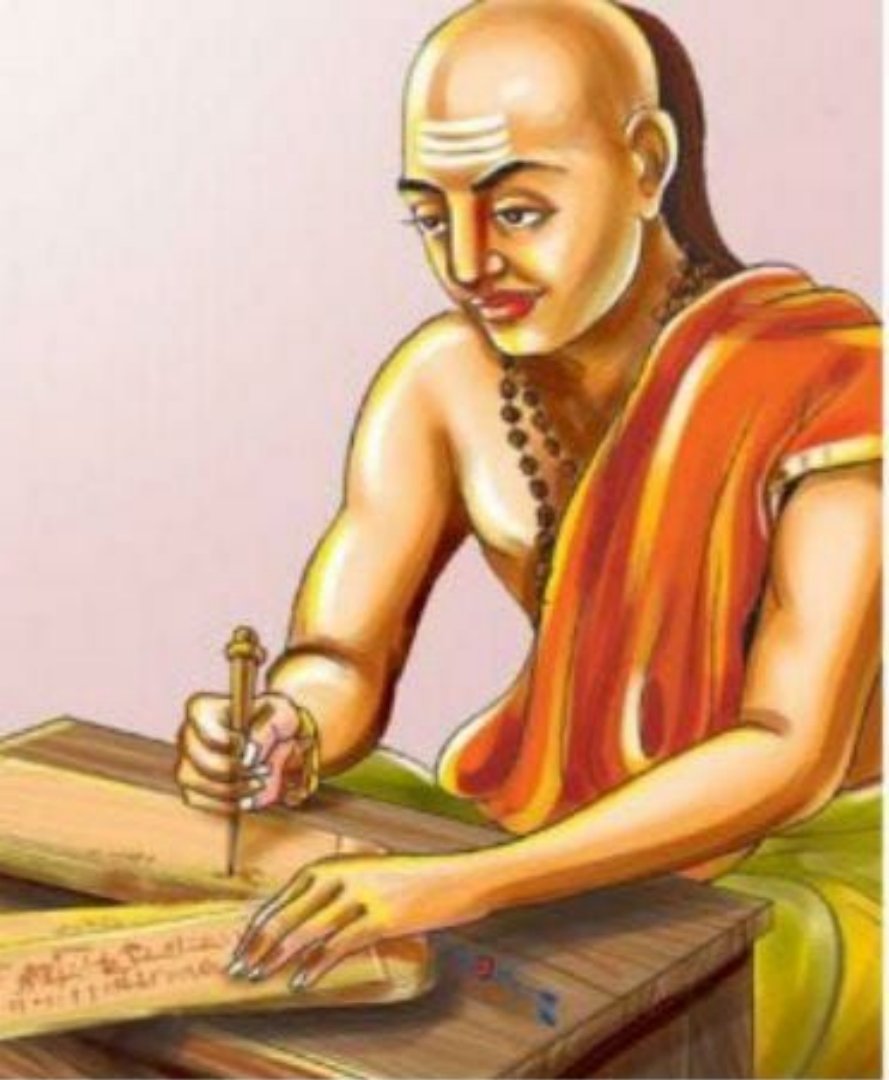
Non standard profitability metrics in WeWork IPO disclosure:
WeWork, in its initial attempt to go public in 2019, introduced a non-standard financial metric called "community-adjusted EBITDA." This metric excluded not only interest, taxes, depreciation, and amortization but also other significant costs like marketing expenses, general and administrative costs, and even some rent and tenancy expenses.

While WeWork showed positive numbers using this metric, it was masking significant losses when standard accounting measures were applied. This approach was widely criticized by investors and analysts, contributing to the company's failed IPO attempt.

Non standard revenue reporting at Groupon:
In its early years as a public company, Groupon faced scrutiny for reporting "gross revenue" instead of "net revenue." The gross figure included the total amount collected from customers, even though a significant portion was passed on to merchants. This practice inflated Groupon's perceived size and growth rate. In 2011, Groupon had to restate its financials, reducing its reported revenue by about half. This led to increased regulatory scrutiny and a loss of investor confidence.

Other potentially misleading financial reporting:

1. **Luckin Coffee**: The Chinese coffee chain fabricated transactions and inflated its revenue & user numbers, leading to a major accounting scandal in 2020.
2. **Wirecard**: The German payment processor overstated its cash balances & revenue, resulting in one of Europe's biggest accounting frauds
3. **Theranos**: The healthtech startup exaggerated its tech capabilities & financial performance, misleading investors & partners



"अन्ते लाभो न चापत्तिर्मध्ये विघ्नानि केचन। यदि स्यादेवमन्येत व्यापारः स विशिष्यते॥"

If a business yields profit in the end, does not cause loss and there are only a few obstacles in the middle, then one should consider that business to be excellent.

Chanakya’s Arthashastra

1.15

Common follow-up questions

1. "Can you explain the primary differences between a balance sheet and an income statement?"
2. "How does the cash flow statement complement the information provided in the income statement and balance sheet?"
3. "Why is it important to analyze all three financial statements together rather than in isolation?"
4. "What are some common signs of financial health you can identify from a company's balance sheet?"

Assessment

Assignment 1

Which of the following is NOT a component of the balance sheet?

A) Assets

B) Liabilities

C) Equity

D) Revenue

Explanation Assignment 1

A) Assets:

- **Explanation:** Assets are a key component of the balance sheet. They represent what the company owns, including cash, inventory, property, and equipment. Assets are listed on the left side or top of the balance sheet.

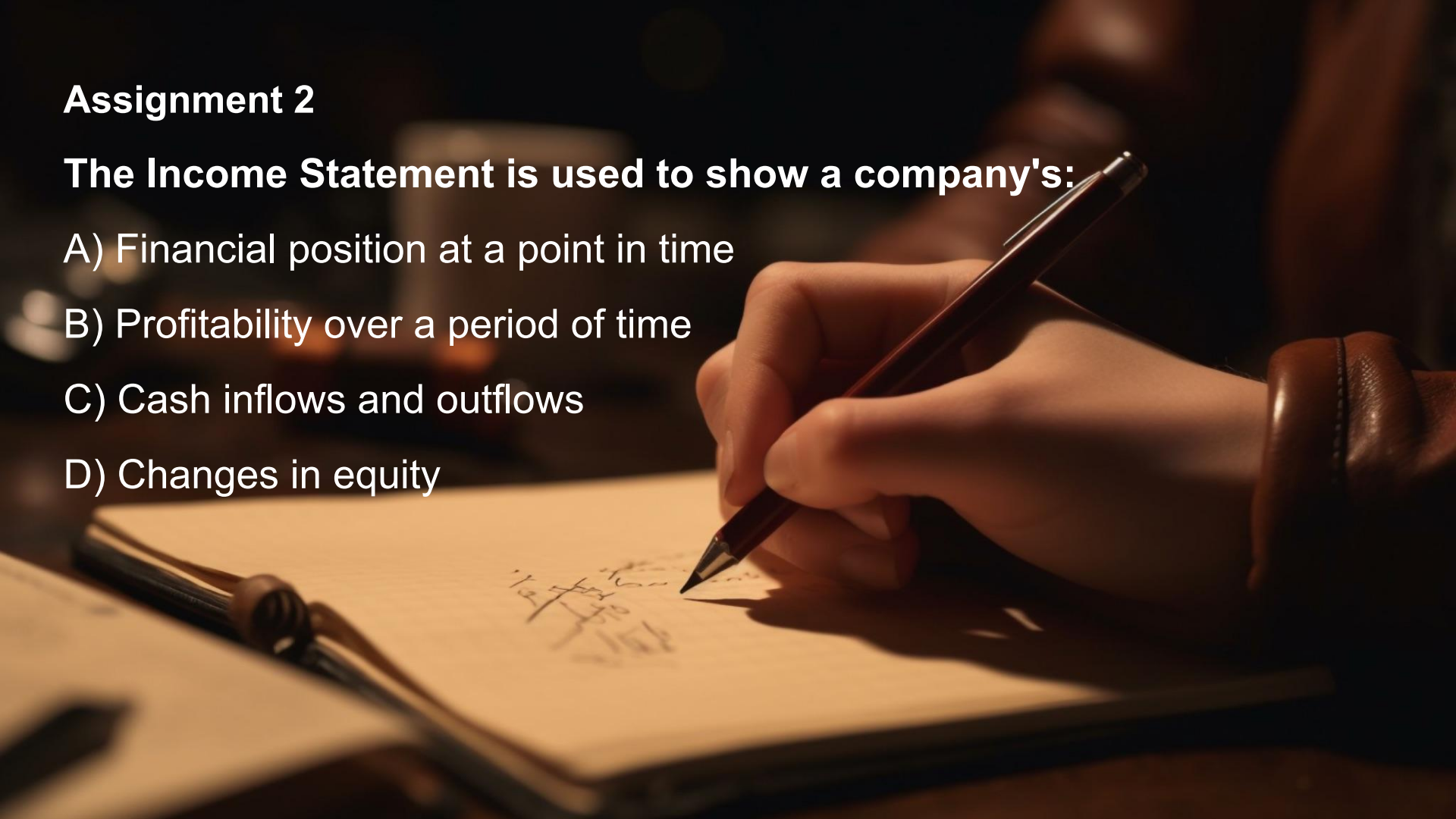
B) Liabilities:

- **Explanation:** Liabilities are another fundamental component of the balance sheet. They represent what the company owes to others, such as loans, accounts payable, and other debts. Liabilities are listed on the right side or below assets on the balance sheet.

C) Equity:

- **Explanation:** Equity, also known as shareholders' equity, is the third major component of the balance sheet. It represents the owners' claim on the company's assets after all liabilities have been paid off. Equity is calculated as Assets minus Liabilities and is listed on the balance sheet.

Revenue (Option D) is **not** a component of the balance sheet. Revenue appears on the income statement, not the balance sheet. The income statement tracks a company's financial performance over a specific period, showing how much revenue was generated and the costs associated with generating that revenue. This makes Option D the correct answer.



Assignment 2

The Income Statement is used to show a company's:

A) Financial position at a point in time

B) Profitability over a period of time

C) Cash inflows and outflows

D) Changes in equity

Explanation Assignment 2

A) Financial position at a point in time:

- **Explanation:** The financial position at a specific point in time is shown by the balance sheet, not the income statement. The balance sheet provides a snapshot of a company's assets, liabilities, and equity on a particular date, while the income statement covers a period of time.

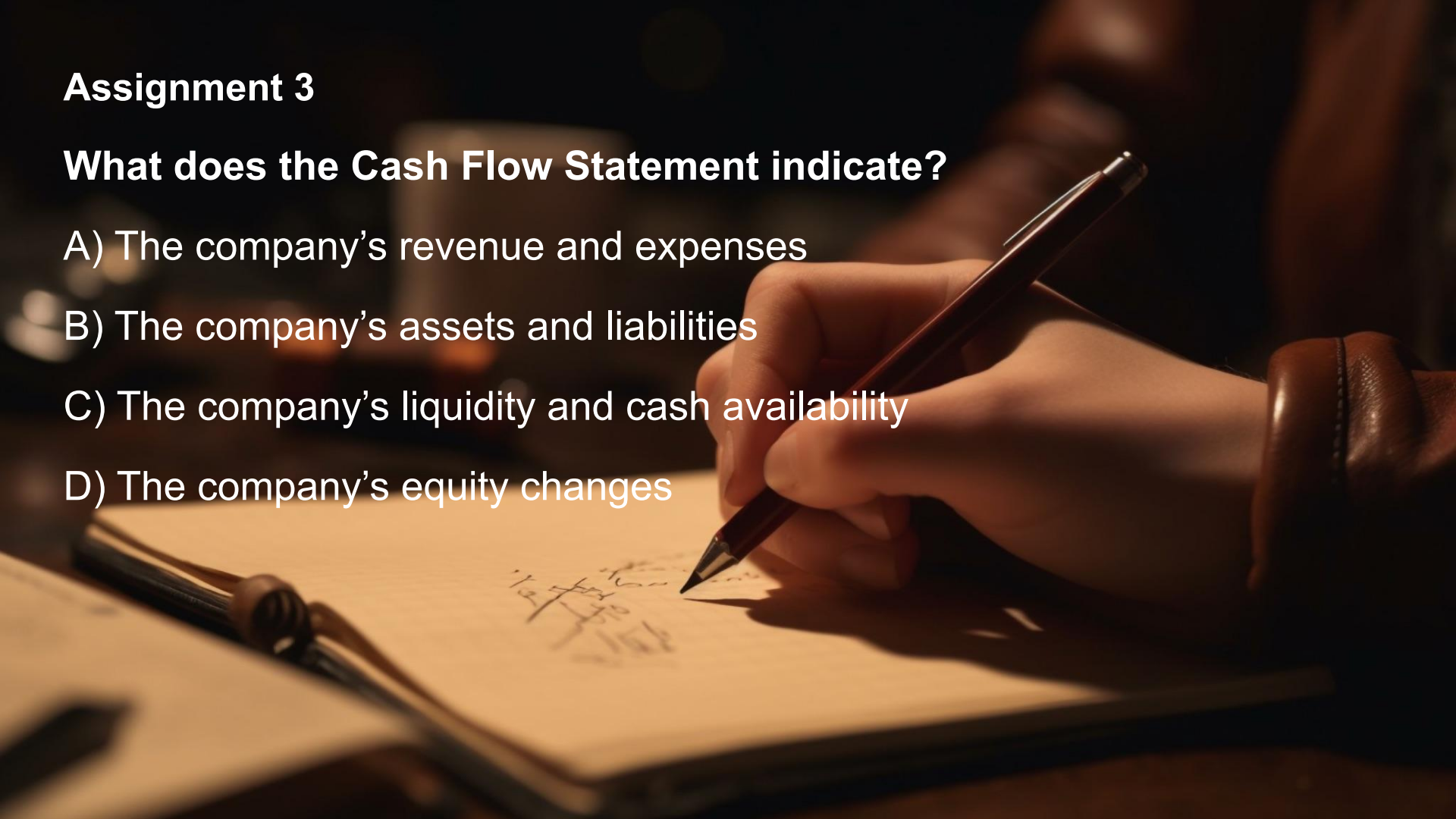
C) Cash inflows and outflows:

- **Explanation:** Cash inflows and outflows are detailed in the cash flow statement, not the income statement. The cash flow statement tracks the actual cash that enters and leaves the company, categorized into operating, investing, and financing activities. The income statement, on the other hand, focuses on revenues and expenses, not cash flow.

D) Changes in equity:

- **Explanation:** Changes in equity are shown in the statement of changes in equity (or statement of retained earnings), not the income statement. This statement outlines how the equity section of the balance sheet has changed over a period due to factors like net income, dividends, and stock issuances. The income statement is concerned with measuring profitability.

Profitability over a period of time (Option B) is what the income statement is designed to show. It provides a summary of a company's revenues, expenses, and profits (or losses) over a specific period, such as a quarter or a year. This makes Option B the correct answer.



Assignment 3

What does the Cash Flow Statement indicate?

A) The company’s revenue and expenses

B) The company’s assets and liabilities

C) The company’s liquidity and cash availability

D) The company’s equity changes

Explanation Assignment 3

A) The company’s revenue and expenses:

- **Explanation:** Revenue and expenses are reported on the income statement, not the cash flow statement. The income statement shows how much money the company earned (revenue) and spent (expenses) over a specific period, ultimately indicating profitability, but it doesn't focus on cash flow.

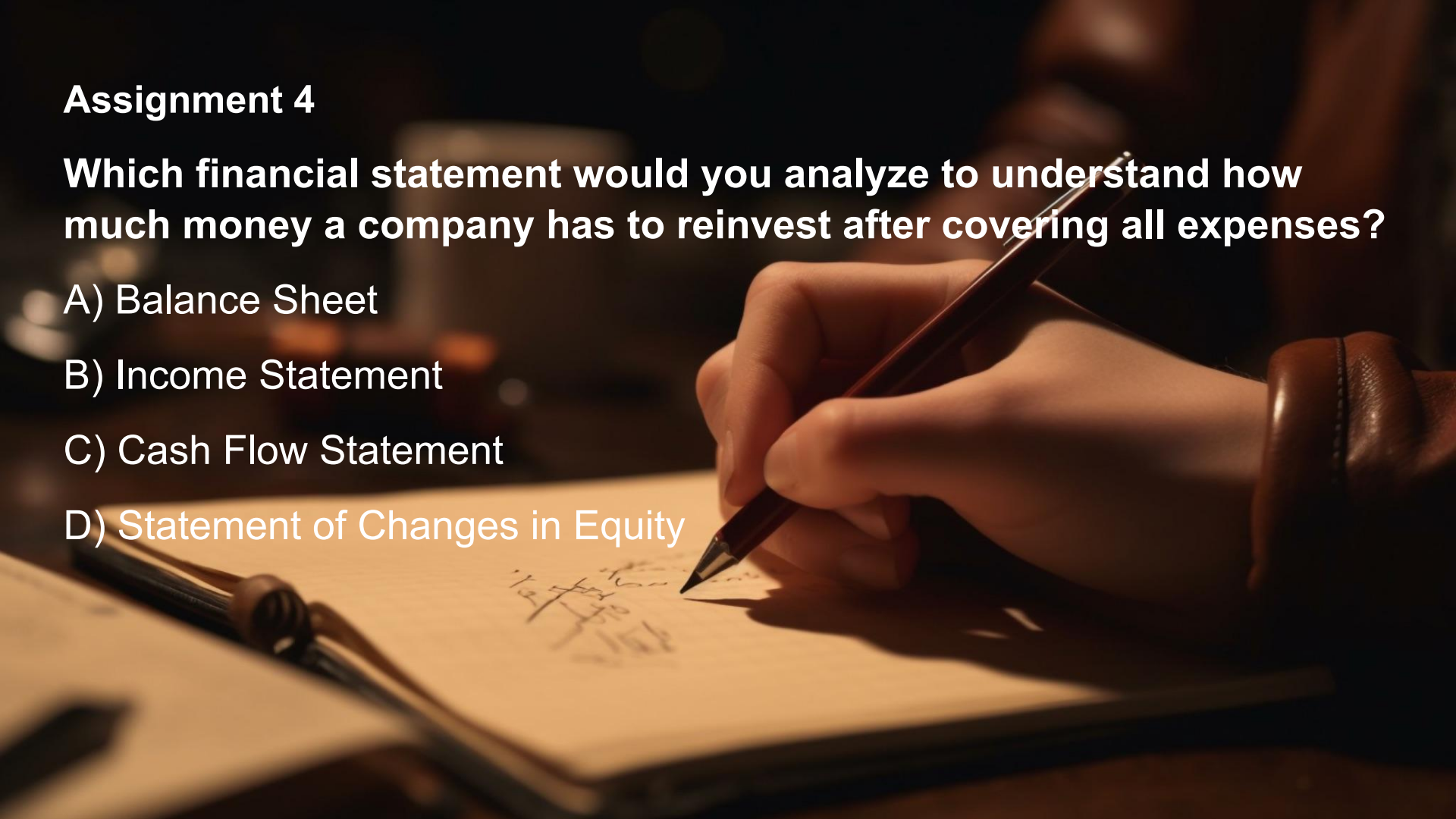
B) The company’s assets and liabilities:

- **Explanation:** Assets and liabilities are detailed on the balance sheet, not the cash flow statement. The balance sheet provides a snapshot of what the company owns (assets) and owes (liabilities) at a specific point in time, reflecting the company’s financial position.

D) The company’s equity changes:

- **Explanation:** Changes in a company’s equity are shown in the statement of changes in equity, not the cash flow statement. The statement of changes in equity tracks how equity has changed over a period due to factors like net income, dividends, and stock issuances.

Liquidity and cash availability (Option C) is what the cash flow statement indicates. It shows the cash inflows and outflows during a specific period, categorized into operating, investing, and financing activities. This helps to assess the company’s ability to generate cash and meet its short-term obligations, making Option C the correct answer.



Assignment 4

Which financial statement would you analyze to understand how much money a company has to reinvest after covering all expenses?

A) Balance Sheet

B) Income Statement

C) Cash Flow Statement

D) Statement of Changes in Equity

Explanation Assignment 4

A) Balance Sheet:

- **Explanation:** The balance sheet provides a snapshot of a company's financial position at a specific point in time, showing its assets, liabilities, and equity. While it's useful for understanding the overall financial health, it does not specifically show how much money is left after covering all expenses.

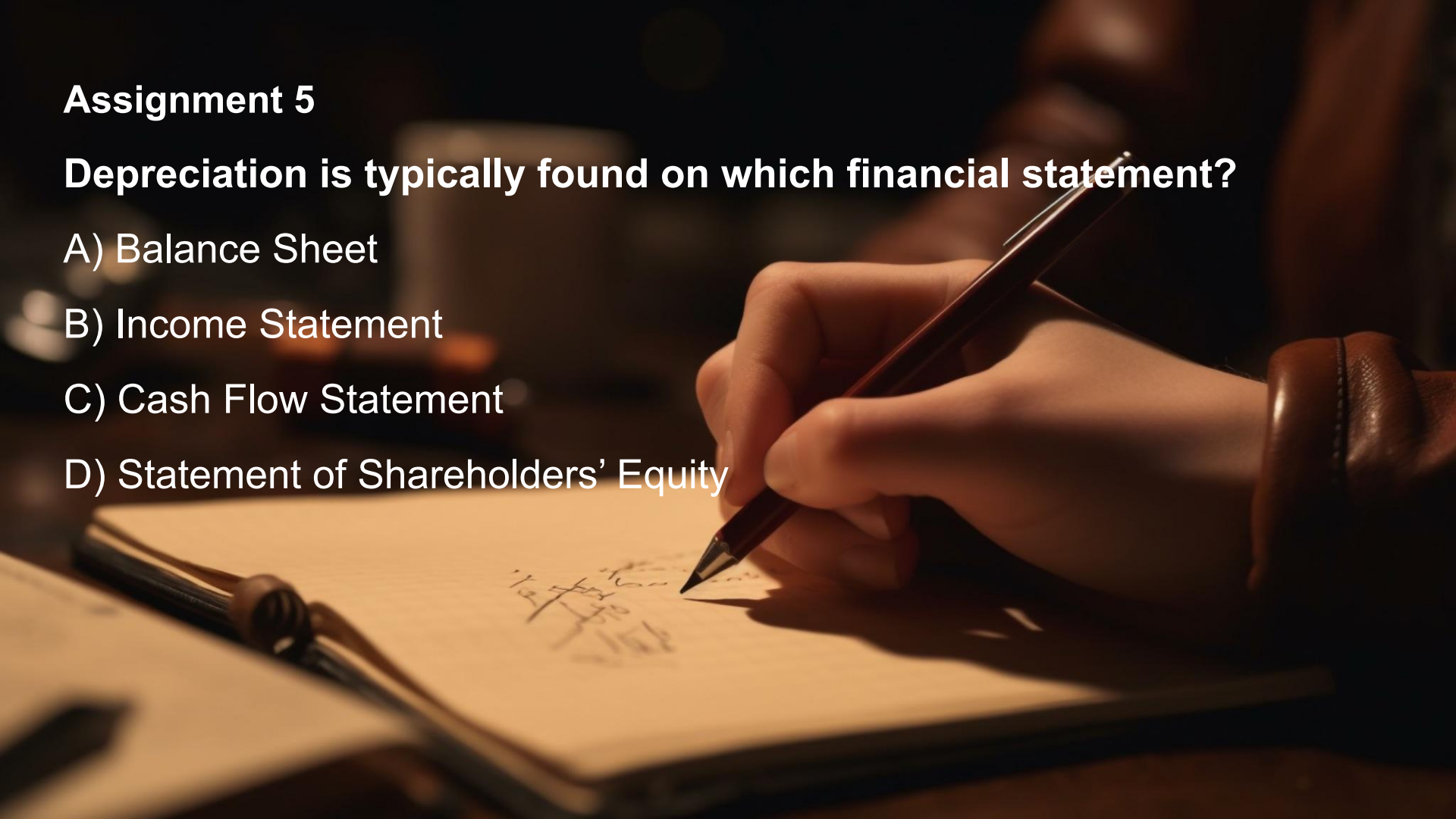
C) Cash Flow Statement:

- **Explanation:** The cash flow statement tracks the inflows and outflows of cash during a specific period, categorized into operating, investing, and financing activities. While it shows the actual cash available, it does not specifically indicate profitability or the amount left after covering all expenses.

D) Statement of Changes in Equity:

- **Explanation:** The statement of changes in equity shows how equity has changed over a period due to factors like net income, dividends, and stock issuances. It does not provide a direct insight into how much money is left after covering all expenses.

Income Statement (Option B) is the financial statement you would analyze to understand how much money a company has to reinvest after covering all expenses. The income statement shows the company's revenues, expenses, and ultimately the net income or profit, which represents the amount available for reinvestment, dividends, or other purposes. This makes Option B the correct answer.



Assignment 5

Depreciation is typically found on which financial statement?

A) Balance Sheet

B) Income Statement

C) Cash Flow Statement

D) Statement of Shareholders' Equity

Explanation Assignment 5

A) Balance Sheet:

- **Explanation:** While the balance sheet shows accumulated depreciation as a deduction from the value of fixed assets, it does not show the current period's depreciation expense. The balance sheet reflects the net book value of assets after accounting for accumulated depreciation, but it doesn't specifically list depreciation as an expense.

C) Cash Flow Statement:

- **Explanation:** The cash flow statement does include depreciation, but not in the way it's typically reported. Depreciation is added back to net income in the operating activities section because it is a non-cash expense, meaning it reduces net income but does not affect cash flow directly. However, the specific amount of depreciation expense for the period is reported on the income statement.

D) Statement of Shareholders' Equity:

- **Explanation:** The statement of shareholders' equity tracks changes in the equity section of the balance sheet, including retained earnings, dividends, and stock issuances. It does not report depreciation directly.

Depreciation (Option B) is typically found on the **Income Statement**. It is recorded as an expense that reduces the company's earnings before tax (EBT) but does not involve an actual cash outflow during the period. Depreciation represents the allocation of the cost of tangible assets over their useful lives, making Option B the correct answer.

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Learning Objective 2

Financial Analysis Techniques

Skill Sets to acquire:
Ratio analysis, Trend analysis, Comparative analysis

Financial Analysis Techniques

- Overview of ratio analysis and trend analysis
- Importance of financial benchmarks and industry comparisons

Financial Analysis:

- **Ratio Analysis**: Using financial ratios to assess a company's performance and financial health, such as liquidity ratios, profitability ratios, and efficiency ratios **(Discussed in next section LOB)**
- **Trend Analysis**: Examining financial data over time to identify patterns, trends, and potential areas for improvement
- **Variance Analysis**: Comparing actual financial results to budgeted or expected results to identify deviations and take corrective actions

Financial ratios across industries https://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html

Benchmarks & industry comparisons

Sub-Sector	Non-Financial KPI	Benchmark	Industry Comparison
Automotive	Overall Equipment Effectiveness (OEE)	85% or higher	OEE below 60% indicates significant room for improvement
	First Pass Yield (FPY)	Above 95%	Lower FPY indicates higher rework & scrap rates, impacting profitability & quality
Food & Beverage	Waste Percentage	Below 1% of total production	Waste percentage above 5% signals inefficiencies in production or inventory management.
	Cycle Time	Optimized for minimal lead times	Longer cycle times compared to industry averages affect competitiveness, especially in FMCG.
Pharmaceutical	Batch Record Review Time	Under 48 hours	Longer review times delay product release and reduce market responsiveness.
Textiles	Fabric Utilization Rate	Above 95%	Lower rates suggest inefficiencies in cutting or design processes, leading to higher costs.
	Lead Time	Under 30 days	Longer lead times result in lost sales opportunities & reduced customer satisfaction
Electronics	New Product Introduction (NPI) Time	Within 6 months	Longer NPI times indicate slow innovation cycles, impacting market competitiveness.
	Return Material Authorization (RMA) Rate	Less than 1%	Higher RMA rates indicate quality control issues or supplier-related problems.
Chemical	Process Safety Incident Rate	Zero incidents	Higher incident rates compared to peers indicate potential risks in process safety.
	Environmental Compliance	At or near 100%	Falling short of industry standards can lead to significant repercussions.

Non-financial KPIs in sub-sectors of manufacturing

Sub-Sector	Non-Financial KPIs	Description
Automotive	**First Pass Yield (FPY)**	The proportion of products that meet quality standards without rework.
	Defects Per Million Opportunities (DPMO)	The number of defects observed per million opportunities.
	Supplier Quality Index	Evaluates the quality of materials provided by suppliers.
Food & Beverage	**Waste Percentage**	Measures the amount of raw material or product that is wasted.
	Cycle Time	The time taken to complete one production cycle from start to finish.
	Yield Rate	Percentage of finished products that meet the quality standards.
Pharmaceutical	**Batch Record Review Time**	Time taken to review and approve manufacturing batch records.
	R&D Cycle Time	Time from research initiation to product development.
	Product Recall Rate	The frequency at which products need to be recalled due to defects.
Textiles	**Fabric Utilization Rate**	Percentage of fabric used efficiently in the production process.
	Lead Time	Time from order receipt to delivery of the finished product.
	Order Fulfillment Accuracy	The percentage of orders delivered correctly without errors.
Electronics	**Return Material Authorization (RMA) Rate**	The frequency at which customers return defective or unwanted products.
	Yield Per Hour	The number of units produced per hour.
	Product Lifecycle	The average duration of a product's lifecycle from launch to obsolescence.
Chemical Manufacturing	**Waste Treatment Efficiency**	Effectiveness of processes in treating waste before disposal.
	Production Throughput	Amount of chemical product produced per unit of time.
	Material Yield Variance	The difference between expected and actual material yields.

Manufacturing KPIs

Sl.	Department	KPI	Measurement
1	Quality	Defect rate	% of units produced that fail quality checks
2		Customer reject rate	% of shipped units rejected by customers
3		Cost of quality	Expenses related to reworking, repairing, and scrapping defective products
4		First pass yield	% of units passing quality tests the first time
5		Returns/failed inspections	Number of returned items or items failing incoming inspections
6	Production	Capacity utilization	Comparison of actual production output vs. maximum potential output
7		Cycle time	Total time to manufacture one unit
8		Throughput	Number of units produced over a period of time
9		Downtime	Time equipment is not operating due to failures, changeovers, etc
10		Scrap rate	% of units discarded due to errors, defects, or quality issues

Manufacturing KPIs

Sl.	Department	KPI	Measurement
1	**Operations**	Inventory turnover rate	Times per period that average inventory is sold and replaced
2		Fill rate	Percentage of orders fulfilled from current inventory on hand
3		Total maintenance costs	Expenses related to upkeep of equipment and facilities
4		Overtime rate	Percentage of total hours worked that are overtime
5		Safety incident rate	Number of employee health and safety incidents
6	**Financial**	Profit margin	Profit as a percentage of total sales revenue
7		ROA	Return on assets, or profit divided by total assets
8		Inventory turnover	Number of times inventory is replaced over a period
9		Cash flow	Net cash generated from business operations and activities
10		Days sales outstanding	Average number of days to collect payment from customers

Resources: Financial benchmarks & industry comparisons

Capital IQ: Search by company name, then click on **Ratios** under **Financials/Valuation** on left navigation bar. For industry ratios, mouse over Market tab and select the broad industry such as Energy, Industrials, or Healthcare. Then click on **Key Stats and Ratios**

Factiva. Click on **Companies/Markets**, then click **Company**. Enter the company name or ticker symbol to look up your company, then select your company from the list provided. Click the **Reports** link in the left hand menu, then select **ratio comparison report**.
For industry ratios, click on **Companies/Markets**, then click **Industry**. Select an industry from the list. Then choose **Industry Snapshot**. A list of industry ratios appears near the bottom of the Industry Snapshot page.

IBISWorld: includes ratios from *RMA Statement Studies.*

D&B Hoovers: includes company and industry ratios.

PitchBook: In the company profile, consult the financials tab.

Refinitiv Workspace

Trend Analysis

Vertical analysis: as % of base figure (ie sales), for a statement

Income Statement		
Revenue	1000	100%
COGS	300	30%
Gross Profit	700	70%
Sales and Marketing	200	20%
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Statement of Cash Flows		
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Cash from Operations	240	24%
Capex	140	14%
Free Cash Flow	100	10%

Horizontal analysis: Changes over multiple reporting periods, mostly absolute can be %

- Growth over last year (YoY) or quarter
- **Compound Annual Growth Rate** (CAGR): mean annual growth rate over specified period
- The inflation for various cost items vary ie. rent can be 10%, admin service 5%
- Increase in revenue can have a very high impact on profitability, low if org is not structured properly
- Check reasons for increase - extra manpower wrt prior periods, macro factors
- Check increase wrt competition & market

Variance Analysis

Tools and Techniques for Variance Analysis

- **Flexible Budgeting**: Adjusting budgets based on actual activity levels.
- **Trend Analysis**: Analyzing trends over time to identify patterns.
- **Variance Reports**: Regularly scheduled reports highlighting variances.
- **Key Performance Indicators (KPIs)**: Metrics that indicate performance against targets.

Common Causes of Variances

- **Price Changes**: Fluctuations in the price of raw materials or finished goods.
- **Volume Changes**: Differences in the volume of sales or production.
- **Efficiency Changes**: Variations in the efficiency of operations.
- **Economic Conditions**: Changes in the economic environment affecting costs and revenues.

Practices in Variances Analysis

- **Data Segmentation**: Segment data by departments, products, regions, etc., for more granular analysis
- **Root Cause Analysis**: Use techniques like the 5 Whys or Fishbone Diagram to determine underlying causes of variances
- **Rolling Forecasts**: Use rolling forecasts to adjust budgets periodically based on the latest actuals and trends
- **Visualizations**: Use graphs and charts to visually represent variances and trends

Types of Variance

Types of Variances:

- **Favorable Variance**: when actual performance is better than expected or budgeted (e.g., higher revenue, lower costs)
- **Unfavorable Variance**: when actual performance is worse than expected or budgeted (e.g., lower revenue, higher costs).

Variance Analysis for Revenue:

- **Sales Volume Variance**: Analyzes the difference between actual sales volume and budgeted sales volume.
- **Sales Price Variance**: Evaluates the impact of changes in selling prices on total revenue.

Variance Analysis for Costs:

- **Material Cost Variance**: Assesses the difference between actual material costs and budgeted material costs.
- **Labor Cost Variance**: Compares actual labor costs to budgeted, breaking down into rate and efficiency variances.
- **Overhead Variance**: Analyzes the differences between actual and budgeted overhead costs.

Budget vs. Actual Comparison:

- **Static Budget Variance**: Compares actual results to the original, unadjusted budget.
- **Flexible Budget Variance**: Adjusts the budget based on actual activity levels to provide a more accurate variance analysis.

Examples of non-standard practices

Drawing conclusions based on one ratio without considering others at Valeant Pharma

Valeant Pharmaceuticals (now Bausch Health) reported strong profit margins and growth rates, which looked impressive in isolation. However, this masked the company's high debt levels and aggressive acquisition strategy. When these issues came to light in 2015, the stock price collapsed.

Low debt-to-equity ratio as indicator of financial health at Lehman Brothers

Lehman Brothers, before its collapse in 2008, used accounting techniques to temporarily move leverage off its balance sheet at the end of each quarter. This made its debt-to-equity ratio appear healthier than it actually was, misleading investors about its true financial risk.

Failing to consider the sustainability and quality of earnings when looking at price-to-earnings ratios at Enron

Enron famously used mark-to-market accounting to inflate its reported earnings, which made its P/E ratio look attractive. This misled investors about the company's true profitability and led to one of the most notorious accounting scandals in history.

Examples of non-standard practices

Ignoring context of cost and rebate at Tesco:

Tesco, the UK supermarket chain, in 2014-2015 faced scrutiny for its accounting practices. The company had been recognizing supplier rebates early and pushing back costs, which created favorable variances in its financial reports. This practice led to overstated profits and misled investors about the company's true performance.

Extrapolating early times, past trends indefinitely at Groupon:

Groupon's initial public offering in 2011 was based on projections that assumed its rapid early growth would continue. However, the company's growth slowed significantly after going public, leading to disappointed investors and a sharp decline in stock price.

Using inappropriate benchmarks at Theranos

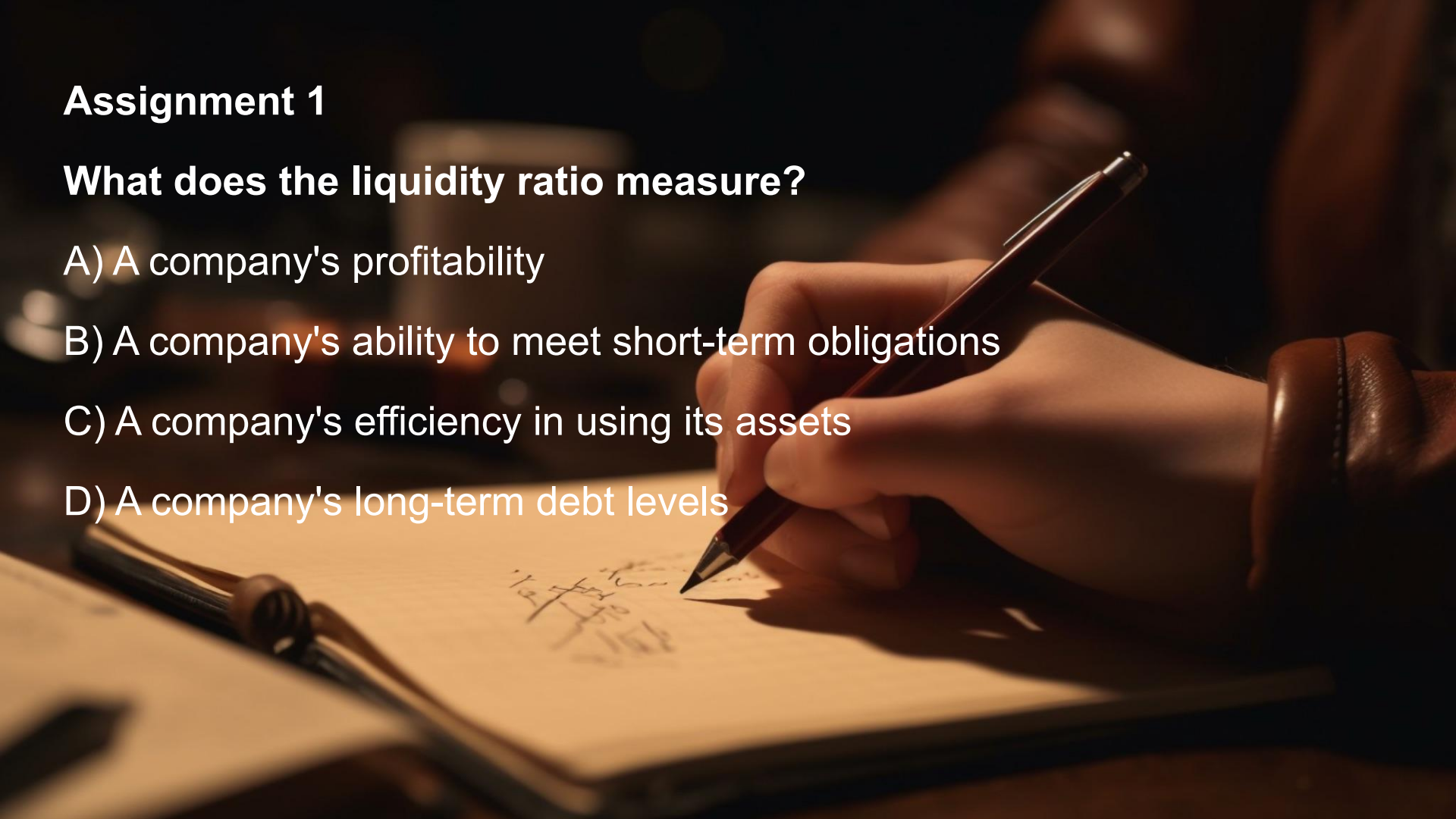
Theranos, the now-defunct blood-testing company, often compared its potential to much larger, established healthcare companies. This created unrealistic expectations and misled investors about its true market position and capabilities. Theranos selectively shared information about its blood-testing technology, highlighting successful tests while hiding failures. This misled investors and partners about the true state of its technology.

IBM has faced criticism for its use of non-GAAP adjustments, particularly around restructuring charges & pension costs. These adjustments have sometimes made IBM's earnings appear stronger than they would under standard accounting practices.

Common follow-up questions

1. "What are the most commonly used financial ratios, and what do they indicate about a company's performance?"
2. "How can trend analysis help in predicting a company's future financial performance?"
3. "Can you provide an example of how ratio analysis can identify potential financial issues?"
4. "What are the limitations of using ratio analysis and trend analysis in financial decision-making?"

Assessment



Assignment 1

What does the liquidity ratio measure?

A) A company's profitability

B) A company's ability to meet short-term obligations

C) A company's efficiency in using its assets

D) A company's long-term debt levels

Explanation Assignment 1

A) A company's profitability:

- **Explanation:** Profitability is measured by ratios like the net profit margin, return on assets (ROA), and return on equity (ROE). These ratios indicate how well a company is generating profit relative to its revenue, assets, or equity, but they do not measure liquidity.

C) A company's efficiency in using its assets:

- **Explanation:** Asset efficiency is measured by ratios like asset turnover or inventory turnover. These ratios show how effectively a company is using its assets to generate revenue, but they are not directly related to the company's ability to meet short-term obligations.

D) A company's long-term debt levels:

- **Explanation:** Long-term debt levels are assessed by ratios like the debt-to-equity ratio or the long-term debt-to-total assets ratio. These ratios focus on the company's financial structure and leverage but do not measure liquidity.

Liquidity ratio (Option B) measures a company's ability to meet its short-term obligations, such as paying off its current liabilities with its current assets. Common liquidity ratios include the current ratio and the quick ratio, both of which are crucial in assessing whether a company can cover its short-term debts without facing financial difficulties. This makes Option B the correct answer.

Assignment 2

Trend Analysis is used to:

A) Compare a company’s performance with industry benchmarks

B) Identify patterns over time

C) Assess financial health using ratios

D) Monitor daily transactions

Explanation Assignment 2

A) Compare a company's performance with industry benchmarks:

- **Explanation:** Comparing a company's performance with industry benchmarks is typically done through benchmarking, not trend analysis. Benchmarking involves comparing key performance indicators (KPIs) of a company against those of its peers in the industry to assess relative performance.

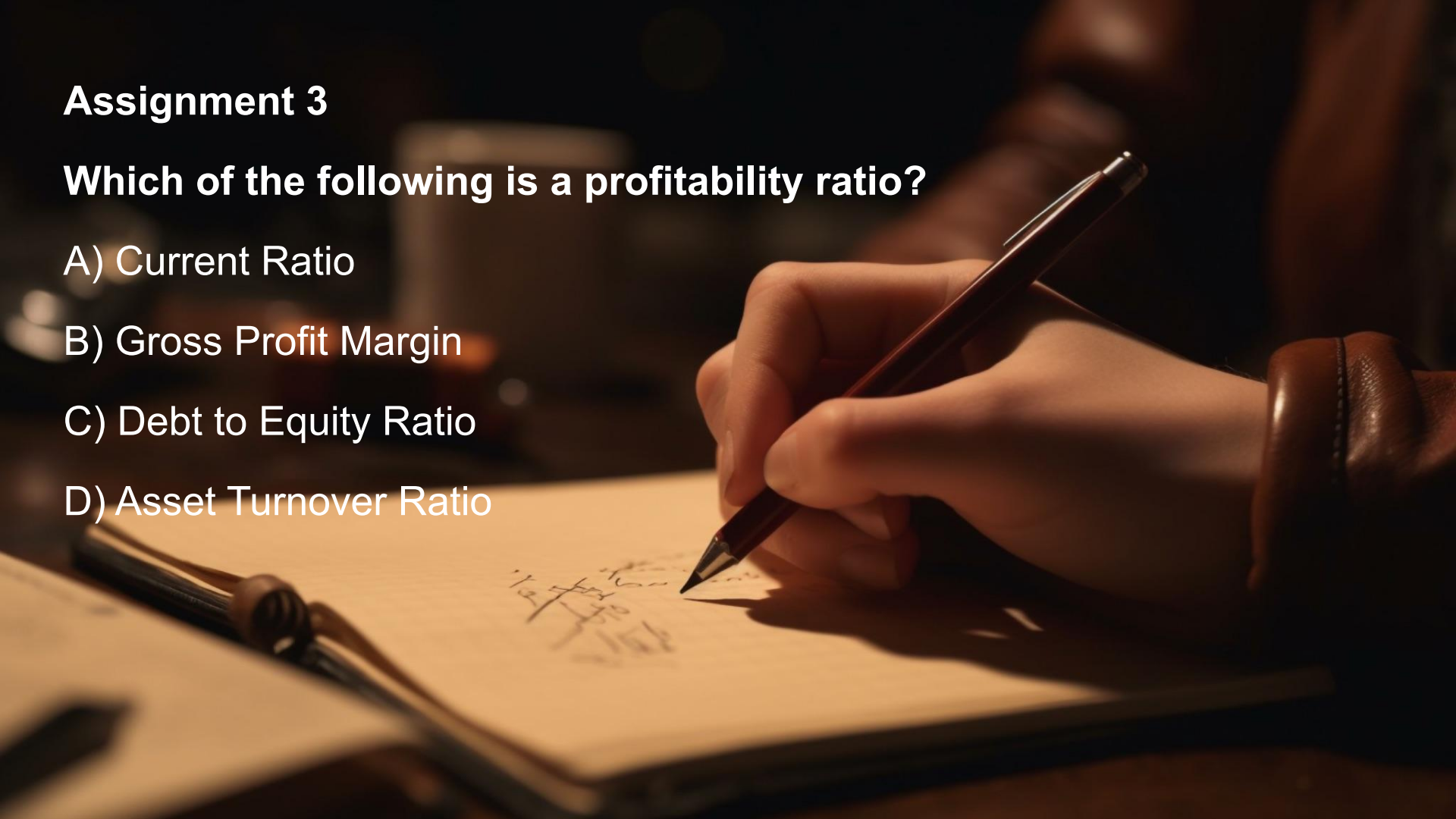
C) Assess financial health using ratios:

- **Explanation:** Assessing financial health using ratios is the domain of ratio analysis, not trend analysis. Ratio analysis involves calculating and interpreting various financial ratios to understand aspects like profitability, liquidity, and solvency.

D) Monitor daily transactions:

- **Explanation:** Monitoring daily transactions is a function of transaction processing systems or daily operational accounting, not trend analysis. Trend analysis looks at data over a period of time rather than focusing on day-to-day operations.

Trend Analysis (Option B) is used to **identify patterns over time** by examining historical data to detect long-term trends in a company's performance. This method helps in forecasting future performance by understanding how certain metrics have evolved over time, making Option B the correct answer.



Assignment 3

Which of the following is a profitability ratio?

A) Current Ratio

B) Gross Profit Margin

C) Debt to Equity Ratio

D) Asset Turnover Ratio

Explanation Assignment 3

A) Current Ratio:

- **Explanation:** The current ratio is a liquidity ratio, not a profitability ratio. It measures a company’s ability to pay off its short-term liabilities with its short-term assets. It is calculated as current assets divided by current liabilities.

C) Debt to Equity Ratio:

- **Explanation:** The debt to equity ratio is a solvency or leverage ratio, not a profitability ratio. It measures the proportion of debt relative to shareholders' equity in a company's capital structure, indicating how much of the company is financed by debt versus equity.

D) Asset Turnover Ratio:

- **Explanation:** The asset turnover ratio is an efficiency or activity ratio, not a profitability ratio. It measures how efficiently a company uses its assets to generate sales, calculated as net sales divided by average total assets.

Gross Profit Margin (Option B) is a profitability ratio that measures the percentage of revenue that exceeds the cost of goods sold (COGS). It is calculated as (Gross Profit / Revenue) × 100 and provides insight into how efficiently a company is producing and selling its products. This makes Option B the correct answer.

Assignment 4

Ratio Analysis helps in:

A) Tracking cash inflows and outflows

B) Understanding long-term investment strategies

C) Assessing financial performance and health

D) Recording daily financial transactions

Explanation Assignment 4

A) Tracking cash inflows and outflows:

- **Explanation:** Tracking cash inflows and outflows is primarily done through the cash flow statement, not ratio analysis. The cash flow statement categorizes cash flows into operating, investing, and financing activities to provide a clear picture of cash movement within the company.

B) Understanding long-term investment strategies:

- **Explanation:** Long-term investment strategies are typically developed through strategic planning and financial forecasting rather than ratio analysis. While ratios can inform these strategies by providing insights into a company's financial health, ratio analysis itself is not focused on developing investment strategies.

D) Recording daily financial transactions:

- **Explanation:** Recording daily financial transactions is a function of accounting and bookkeeping, not ratio analysis. Bookkeeping involves documenting all financial transactions to maintain accurate financial records, whereas ratio analysis interprets these records to assess financial performance.

Ratio Analysis (Option C) helps in **assessing financial performance and health** by analyzing various financial ratios, such as liquidity ratios, profitability ratios, and solvency ratios. These ratios provide insights into different aspects of a company's financial condition, making Option C the correct answer.

Assignment 5

A higher Debt to Equity Ratio indicates:

A) Better liquidity

B) Higher profitability

C) Greater financial leverage

D) Lower financial risk

Explanation Assignment 5

A) Better liquidity:

- **Explanation:** The debt to equity ratio does not measure liquidity. Liquidity is assessed using ratios like the current ratio or quick ratio, which indicate a company's ability to meet short-term obligations. A higher debt to equity ratio reflects how much debt a company is using to finance its assets relative to equity, not its liquidity.

B) Higher profitability:

- **Explanation:** Profitability is measured by ratios such as the net profit margin, return on assets (ROA), and return on equity (ROE). The debt to equity ratio, however, is a measure of financial leverage, not profitability. A higher debt to equity ratio means the company is using more debt relative to equity, which doesn't directly indicate profitability.

D) Lower financial risk:

- **Explanation:** A higher debt to equity ratio generally indicates higher financial risk, not lower. This is because a company with more debt relative to equity is more leveraged and thus more vulnerable to financial distress if it cannot meet its debt obligations.

Greater financial leverage (Option C) is indicated by a **higher Debt to Equity Ratio**. This ratio shows the extent to which a company is using debt to finance its assets. A higher ratio means the company is more leveraged, which can amplify returns but also increases financial risk, making Option C the correct answer.

ZEN LEARN

Learning Objective 3

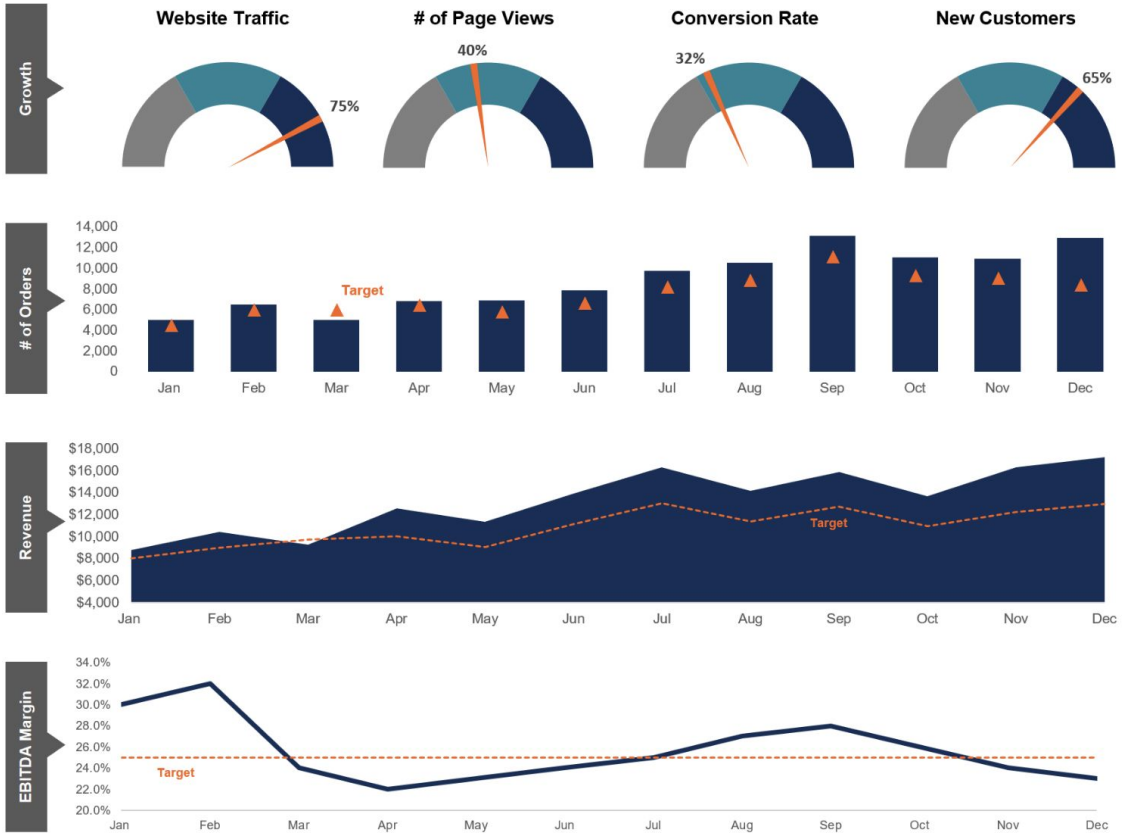
Understanding Financial Performance Indicators

Skill Sets to acquire:
KPIs Interpretation, Monitoring Financial Health, Risk Identification

Critical Financial KPIs for Business Success

Sl	Metric	Importance	Tracking
1	Revenue Growth Rate	Measuring Your Business Expansion	The "Rule of 40" is a popular financial metric used in the software as a service (SaaS) industry to evaluate the health and growth potential of a SaaS company. Calculated by summing the year-over-year revenue growth rate and the EBITDA margin.
2	Gross Profit Margin	Assessing pricing Strategy & Production Efficiency	It indicates how well a business manages its production costs relative to its pricing strategy.
3	Net Profit Margin	Evaluating Overall Financial Health	Increase sales without proportionally increasing costs, Improve operational efficiency
4	Operating Cash Flow	Understanding Your Company’s Liquidity	1. Improve accounts receivable collection 2. Manage inventory more efficiently 3. Negotiate better payment terms with suppliers
5	Customer Acquisition Cost	Optimizing Your Marketing ROI	1. Optimize marketing channels and campaigns 2. Improve sales processes and conversion rates 3. Focus on customer retention to reduce new acquisition 4. Implement referral programs to leverage existing customers

Dashboard template



Source: https://corporatefinanceinstitute.com/resources/management/key-performance-indicators-kpis/

Interpreting Financial Key Performance Indicators (KPIs)

Profitability Ratios

Gross profit margin The cost of sales refers to the direct cost of production and does not include operating expenses, interest, or taxes or any overhead

*= (Revenue - Cost of Sales) / Revenue *100*

Net profit margin Includes all costs for business, including costs of sales, operating expenses, interest & taxes

*= Net Profit / Revenue *100*

Return on Investment (ROI) Denote how much profit has been generated from an investment

*= (Net Profit / Cost of Investment)*100*

Return on Equity (ROE) Ability to generate profit from shareholders equity

= Net Profit / (Beginning Equity +Ending Equity)/2

Interpreting Financial Key Performance Indicators (KPIs)

Working Capital measures operating liquidity which can be used to fund day to day operations

= Current assets - Current liabilities

Leverage Ratios

Debt to Equity ratio measures solvency of business by measuring the ability of shareholder equity to cover all debt in the event of a business downturn

= Total Debt / Total Equity

Efficiency Ratios

Inventory Turnover measures how quickly inventory is sold & replaced over a period

= Cost of Goods Sold (COGS) / [(Beginning Inventory + Ending Inventory)/2]

Measures that matter across industries…

Financials and non-financial indicators

Banking	Petroleum	Retail
Customer retention	Capital expenditure	Capital expenditure
Customer penetration	Exploration success rate	Store portfolio changes
Asset quality	Refinery utilisation	Expected return on new stores
Capital adequacy	Refinery capacity	Customer satisfaction
Assets under management	Volume of proven and probable reserves	Same store/like-for-like sales
Loan loss	Reserve replacement costs	Sales per square foot/metre

Source: https://www.pwc.com/gx/en/audit-services/corporate-reporting/assets/pdfs/uk_kpi_guide.pdf

IT industry Financial KPIs

Profit & Loss account	---------- in Rs. Cr. ----------				
	Infosys	TCS	HCL Tech	Wipro	LTIMindtree
	Mar '24	Mar '24	Mar '23	Mar '24	Mar '23
Income					
Sales Turnover	128,933.00	202,359.00	46,276.00	66,792.40	31,975.40
Excise Duty	0.00	0.00	0.00	0.00	0.00
Net Sales	128,933.00	202,359.00	46,276.00	66,792.40	31,975.40
Other Income	7,417.00	6,315.00	1,031.00	3,045.80	500.80
Stock Adjustments	0.00	0.00	12.00	-17.90	0.00
Total Income	**136,350.00**	**208,674.00**	**47,319.00**	**69,820.30**	**32,476.20**
Expenditure					
Raw Materials	0.00	0.00	168.00	264.20	0.00
Power & Fuel Cost	0.00	0.00	189.00	0.00	49.80
Employee Cost	65,139.00	103,139.00	19,799.00	38,289.50	19,427.40
Other Manufacturing Expenses	0.00	0.00	7,291.00	0.00	4,445.80
Selling and Admin Expenses	0.00	0.00	0.00	0.00	94.00
Miscellaneous Expenses	32,037.00	43,373.00	2,598.00	16,537.60	2,088.00
Preoperative Exp Capitalised	0.00	0.00	0.00	0.00	0.00
Total Expenses	97,176.00	146,512.00	30,045.00	55,091.30	26,105.00
	Infosys	**TCS**	**HCL Tech**	**Wipro**	**LTIMindtree**
	Mar '24	Mar '24	Mar '23	Mar '24	Mar '23
Operating Profit	**31,757.00**	**55,847.00**	**16,243.00**	**11,683.20**	**5,870.40**
PBDIT	39,174.00	62,162.00	17,274.00	14,729.00	6,371.20
Interest	277.00	673.00	127.00	819.70	144.00
PBDT	38,897.00	61,489.00	17,147.00	13,909.30	6,227.20
Depreciation	2,944.00	3,887.00	2,431.00	1,491.80	639.20
Other Written Off	0.00	0.00	0.00	0.00	0.00
Profit Before Tax	35,953.00	57,602.00	14,716.00	12,417.50	5,588.00
Extra-ordinary items	0.00	0.00	0.00	0.00	0.00
PBT (Post Extra-ord Items)	35,953.00	57,602.00	14,716.00	12,417.50	5,588.00
Tax	8,719.00	14,043.00	3,257.00	3,298.90	1,331.70
Reported Net Profit	**27,234.00**	**43,559.00**	**11,459.00**	**9,118.60**	**4,256.30**

Balance Sheet	---------- in Rs. Cr. ----------				
	Infosys	TCS	HCL Tech	Wipro	LTIMindtree
	Mar '24	Mar '24	Mar '23	Mar '24	Mar '23
Sources Of Funds					
Total Share Capital	2,075.00	362.00	543.00	1,045.00	29.60
Equity Share Capital	2,075.00	362.00	543.00	1,045.00	29.60
Share Application Money	0.00	0.00	0.00	0.00	484.00
Preference Share Capital	0.00	0.00	0.00	0.00	0.00
Reserves	79,101.00	71,758.00	40,561.00	56,736.90	15,485.50
Revaluation Reserves	0.00	0.00	0.00	0.00	0.00
Networth	**81,176.00**	**72,120.00**	**41,104.00**	**57,781.90**	**15,999.10**
Secured Loans	0.00	0.00	191.00	4,175.00	0.00
Unsecured Loans	0.00	0.00	0.00	0.00	0.00
Total Debt	**0.00**	**0.00**	**191.00**	**4,175.00**	**0.00**
Total Liabilities	**81,176.00**	**72,120.00**	**41,295.00**	**61,956.90**	**15,999.10**
	Infosys	**TCS**	**HCL Tech**	**Wipro**	**LTIMindtree**
	Mar '24	Mar '24	Mar '23	Mar '24	Mar '23
Application Of Funds					
Gross Block	14,604.00	16,403.00	22,770.00	8,529.20	4,548.00
Less: Accum. Depreciation	0.00	0.00	4,835.00	0.00	1,780.80
Net Block	**14,604.00**	**16,403.00**	**17,935.00**	**8,529.20**	**2,767.20**
Capital Work in Progress	0.00	0.00	21.00	0.00	856.00
Investments	**34,659.00**	**32,245.00**	**10,159.00**	**50,824.30**	**6,120.70**
Inventories	0.00	27.00	35.00	72.90	3.30
Sundry Debtors	25,152.00	46,068.00	12,913.00	8,515.30	5,318.50
Cash and Bank Balance	8,191.00	6,599.00	6,231.00	3,790.60	2,637.10
Total Current Assets	33,343.00	52,694.00	19,179.00	12,378.80	7,958.90
Loans and Advances	32,344.00	19,806.00	6,066.00	9,916.30	4,753.00
Fixed Deposits	0.00	0.00	0.00	0.00	0.00
Total CA, Loans & Advances	65,687.00	72,500.00	25,245.00	22,295.10	12,711.90
Deffered Credit	0.00	0.00	0.00	0.00	0.00
Current Liabilities	32,310.00	48,957.00	10,903.00	18,244.90	5,652.10
Provisions	1,464.00	71.00	1,162.00	1,446.80	804.60
Total CL & Provisions	33,774.00	49,028.00	12,065.00	19,691.70	6,456.70
Net Current Assets	**31,913.00**	**23,472.00**	**13,180.00**	**2,603.40**	**6,255.20**
Miscellaneous Expenses	0.00	0.00	0.00	0.00	0.00
Total Assets	**81,176.00**	**72,120.00**	**41,295.00**	**61,956.90**	**15,999.10**

Source: [Infosys Competition, Infosys Comparison with Competitors (moneycontrol.com)]

IT industry Financial KPIs

	---------- in Rs. Cr. ----------				
	Infosys	**TCS**	**HCL Tech**	**Wipro**	**TCS**
	Mar '23	Mar '23	Mar '23	Mar '23	Mar '24
	12 mths	12 mths	12 mths	12 mths	12 mths
Net Profit Before Tax	**23268.00**	**39106.00**	**14716.00**	**9176.70**	**57602.00**
Net Cash From Operating Activities	19169.00	37029.00	13538.00	11191.60	39142.00
Net Cash (used in)/from Investing Activities	821.00	3250.00	-798.00	-4761.60	10807.00
Net Cash (used in)/from Financing Activities	-25857.00	-47224.00	-13267.00	-6803.60	-47793.00
Net (decrease)/increase In Cash and Cash Equivalents	**-5736.00**	**-6735.00**	**-533.00**	**-371.10**	**2182.00**
Opening Cash & Cash Equivalents	12270.00	8197.00	2907.00	4898.10	1462.00
Closing Cash & Cash Equivalents	6534.00	1462.00	2374.00	4527.00	3644.00

Compare ROI, ROE, liquidity ratios, profitability ratios

Source: [Infosys Competition, Infosys Comparison with Competitors (moneycontrol.com)]

What is it not … non-standard metrics or unusual reporting practices

Not identifying or disclosing significant operational vulnerabilities at Boeing

Boeing faced severe consequences for underestimating the risks associated with the 737 MAX's MCAS system. This operational risk led to two fatal crashes, massive financial losses, and damage to the company's reputation.

Failing to adequately assess or disclose potential regulatory challenges at Meta

Facebook (now Meta) has faced criticism for not fully disclosing the risks associated with data privacy regulations. The Cambridge Analytica scandal in 2018 highlighted these risks and led to significant reputational and financial consequences.

Not recognizing over-reliance on specific customers, suppliers, or markets at Foxconn

Foxconn, a major electronics manufacturer, has faced challenges due to its heavy reliance on Apple as a customer. While this relationship has been profitable, it also represents a significant risk that hasn't always been fully communicated to investors.

Focusing solely on lagging indicators without considering metrics that might predict future performance at Kodak

Kodak focused on traditional film sales (a lagging indicator) while underestimating the impact of digital photography (which leading indicators might have revealed), ultimately leading to the company's bankruptcy in 2012.

Examples of non-standard practices

Focusing on vanity metrics that look good but don't necessarily correlate with business success at Zynga

Zynga, the social game developer, initially focused heavily on user acquisition numbers rather than user engagement or monetization. This led to inflated expectations about the company's potential, which weren't met after its IPO in 2011.

Ignoring working capital and cash flow at Carillion

Carillion, a British construction company, collapsed in 2018 despite reporting profits. The company had poor cash flow management and high debt levels, which weren't immediately apparent from its reported profits.

Neglecting off-balance-sheet liabilities at Enron

Enron's use of off-balance-sheet entities to hide debt and inflate profits is a classic case of misleading financial health reporting.

Failing to adequately consider or disclose potential market shifts or competitive threats at Blockbuster

Blockbuster underestimated the threat from streaming services like Netflix, leading to its bankruptcy in 2010. The company's financial reports and investor communications didn't adequately reflect the risk to its business model.

Example: Apple's Strategic Financial Management

Robust Cash Reserves: In 2021 Apple had $191 B in cash plus marketable securities. Apple maintains a large cash reserve to provide financial stability, support R&D, and enable strategic acquisitions without the need to secure external financing.

Google and Meta’s business are concentrated on advertising, have high cash and invest heavily on R&D.

Beyond its flagship iPhone, Apple has developed revenue streams across services (Apple Music, iCloud, App Store) & other products (iPad, Mac, Wearables). This diversification helps stabilize earnings against fluctuating sales cycles of individual products.

Shareholder Returns: In 2021, Apple returned $90 B to shareholders through dividends and share buybacks, which also supports share price during market volatility, reflecting strong shareholder value orientation. Apple’s brand strength allows it to charge premium prices, maintaining higher profit margins compared to competitors.

Mark Mahaney (Top Analyst at Evercore ISI) notes that Apple’s financial strategy is robust, particularly praising its ability to manage capital returns effectively through strategic buybacks and dividends, fostering strong investor confidence.

Capital Expenditure: In 2021 Apple's spent $ 22 B on product development & supply chain enhancement. Continual investment in technology & manufacturing capabilities to maintain & enhance its competitive edge in product innovation & operational efficiency.

Apple’s control over its entire supply chain, from hardware design to software, enhances its profit margins and reduces dependency on external vendors, setting it apart from competitors who rely more on third-party suppliers.

Common follow-up questions

1. "What are key performance indicators (KPIs) in financial analysis, and why are they important?"
2. "How do profitability ratios differ from liquidity ratios, and what insights do they provide?"
3. "What role do performance indicators play in strategic decision-making?"
4. "Can you discuss how different industries might prioritize different financial performance indicators?"

Assessment

Assignment 1

Gross Profit Margin is calculated as:

A) (Revenue - Cost of Sales) / Revenue * 100

B) Net Profit / Revenue * 100

C) Net Profit / Total Assets

D) Total Debt / Total Equity

Explanation Assignment 1

B) Net Profit / Revenue * 100:

- **Explanation:** This formula calculates the **Net Profit Margin**, not the Gross Profit Margin. Net Profit Margin measures the percentage of revenue that remains as profit after all expenses, including operating expenses, interest, and taxes, have been deducted.

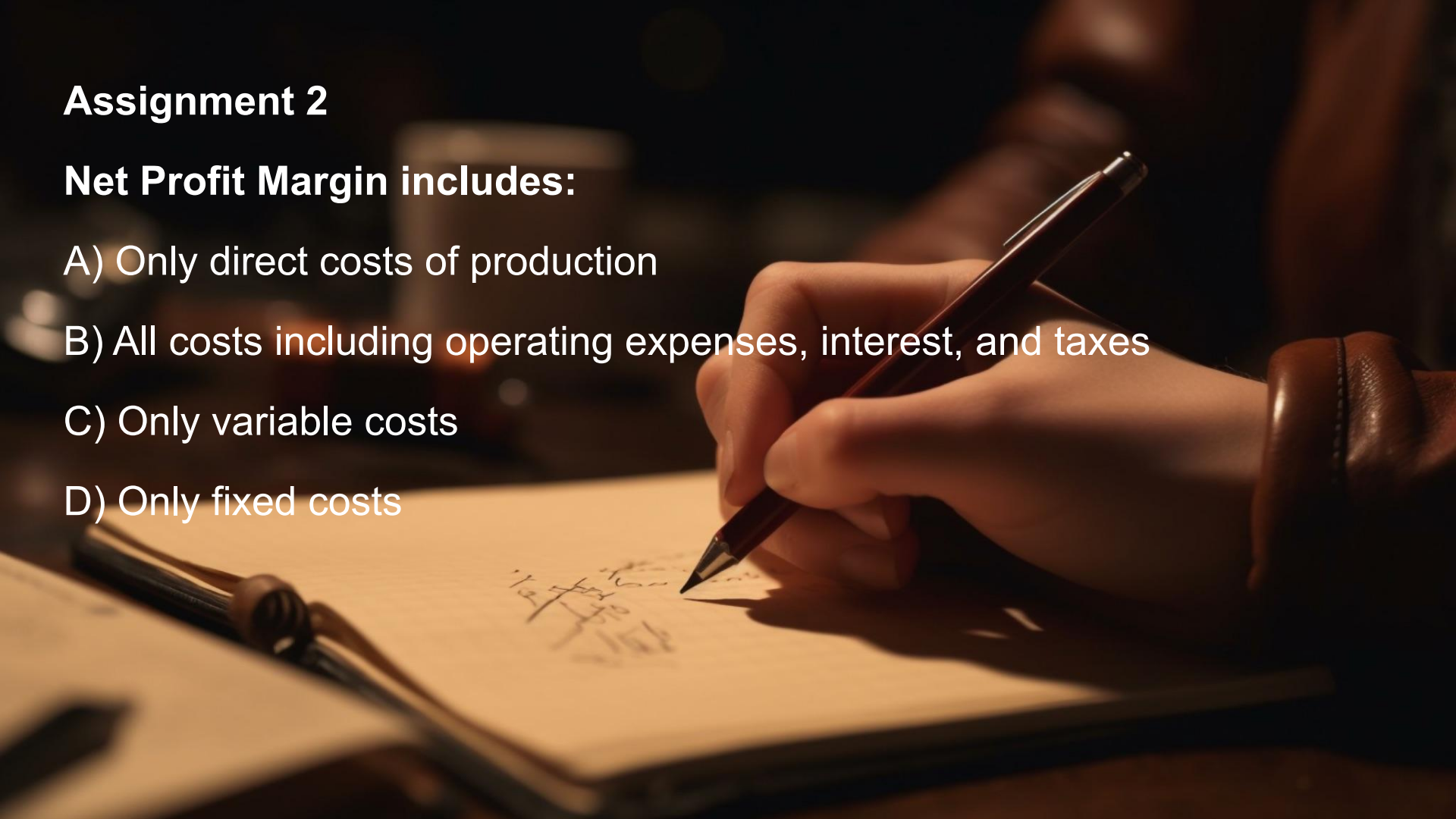
C) Net Profit / Total Assets:

- **Explanation:** This formula calculates the **Return on Assets (ROA)**, which measures how efficiently a company is using its assets to generate profit. It does not measure the Gross Profit Margin.

D) Total Debt / Total Equity:

- **Explanation:** This formula calculates the **Debt to Equity Ratio**, which measures a company's financial leverage by comparing its total debt to total equity. It does not provide any information about the Gross Profit Margin.

Gross Profit Margin (Option A) is calculated as **(Revenue - Cost of Sales) / Revenue * 100**. This ratio measures the percentage of revenue that exceeds the cost of goods sold (COGS), indicating how efficiently a company is producing and selling its goods. It is a key indicator of the company's financial health and operational efficiency, making Option A the correct answer.



Assignment 2

Net Profit Margin includes:

A) Only direct costs of production

B) All costs including operating expenses, interest, and taxes

C) Only variable costs

D) Only fixed costs

Explanation Assignment 2

A) Only direct costs of production:

- **Explanation:** Direct costs of production, also known as the cost of goods sold (COGS), are subtracted from revenue to calculate the gross profit, not the net profit. Net Profit Margin takes into account all costs, not just direct production costs.

C) Only variable costs:

- **Explanation:** Variable costs are costs that change with the level of production, such as materials and labor. While these are included in the calculation of gross profit, Net Profit Margin also includes fixed costs, operating expenses, interest, and taxes.

D) Only fixed costs:

- **Explanation:** Fixed costs are expenses that do not change with the level of production, such as rent and salaries. Net Profit Margin includes both fixed and variable costs, as well as operating expenses, interest, and taxes.

Net Profit Margin (Option B) includes **all costs, including operating expenses, interest, and taxes**. It represents the percentage of revenue that remains as profit after all these expenses have been deducted, making Option B the correct answer.

Assignment 3

Return on Investment (ROI) measures:

A) The total revenue generated by the company

B) The profit generated from investments

C) The company’s asset turnover

D) The company’s debt levels

Explanation Assignment 3

A) The total revenue generated by the company:

- **Explanation:** Total revenue refers to the amount of money a company earns from its sales or services, but it does not account for the costs associated with generating that revenue. ROI, on the other hand, specifically measures the profitability of an investment, not the total revenue.

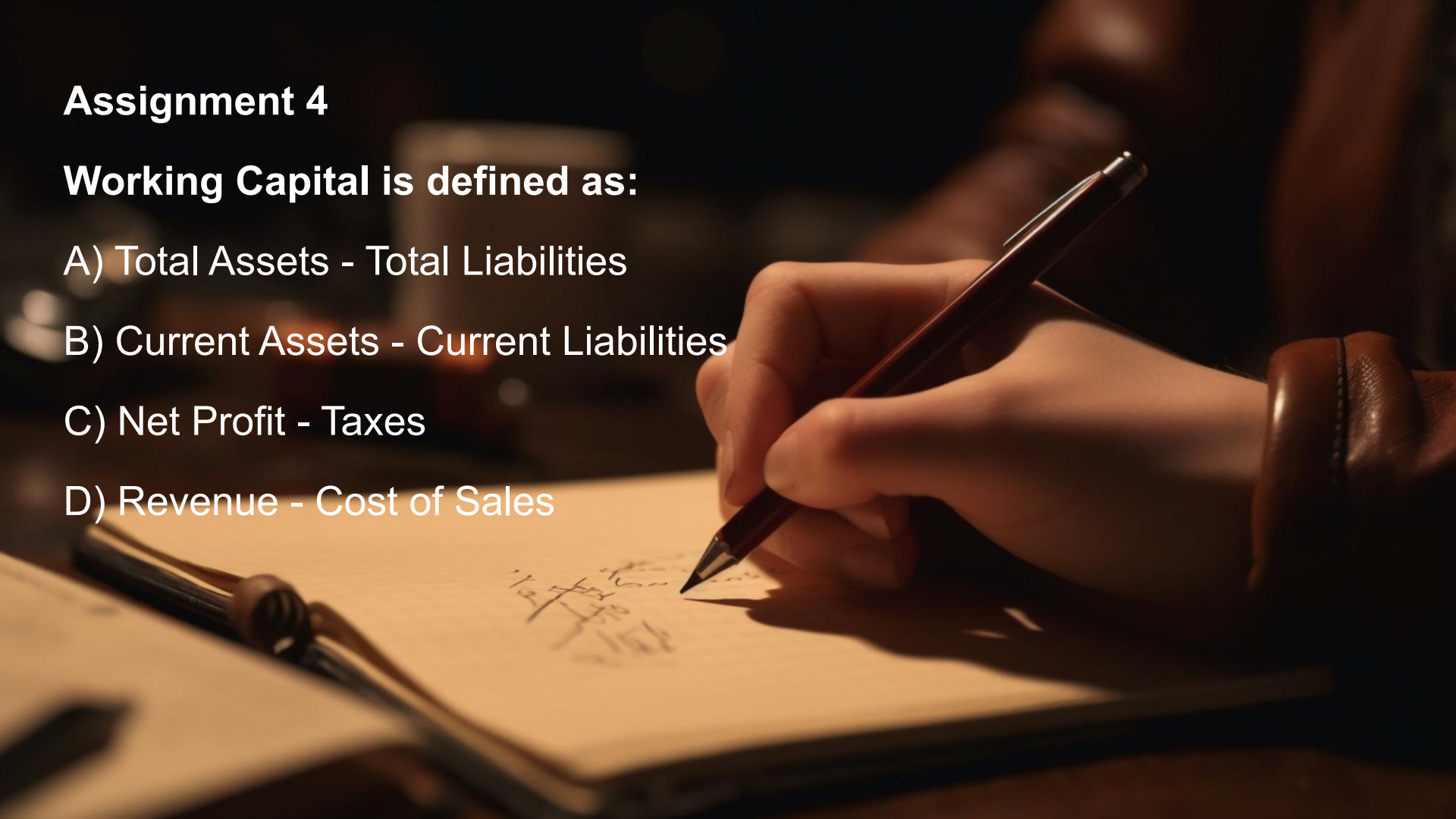
C) The company's asset turnover:

- **Explanation:** Asset turnover measures how efficiently a company uses its assets to generate sales. It is calculated as revenue divided by average total assets, but it does not directly measure the profitability of investments, which is the focus of ROI.

D) The company's debt levels:

- **Explanation:** Debt levels are typically assessed using leverage ratios, such as the debt-to-equity ratio. These ratios evaluate the amount of debt a company has relative to its equity, but they do not measure the profitability of investments, which is what ROI does.

Return on Investment (ROI) (Option B) measures **the profit generated from investments**. It is calculated as (Net Profit from Investment / Cost of Investment) × 100. ROI is a key indicator of the efficiency of an investment and helps in comparing the profitability of different investments, making Option B the correct answer.



Assignment 4

Working Capital is defined as:

A) Total Assets - Total Liabilities

B) Current Assets - Current Liabilities

C) Net Profit - Taxes

D) Revenue - Cost of Sales

Explanation Assignment 4

A) Total Assets - Total Liabilities:

- **Explanation:** This calculation gives you the company's **net worth** or **equity**, not working capital. Net worth represents the difference between what the company owns (assets) and what it owes (liabilities), but it does not measure the short-term financial health of the company, which is what working capital does.

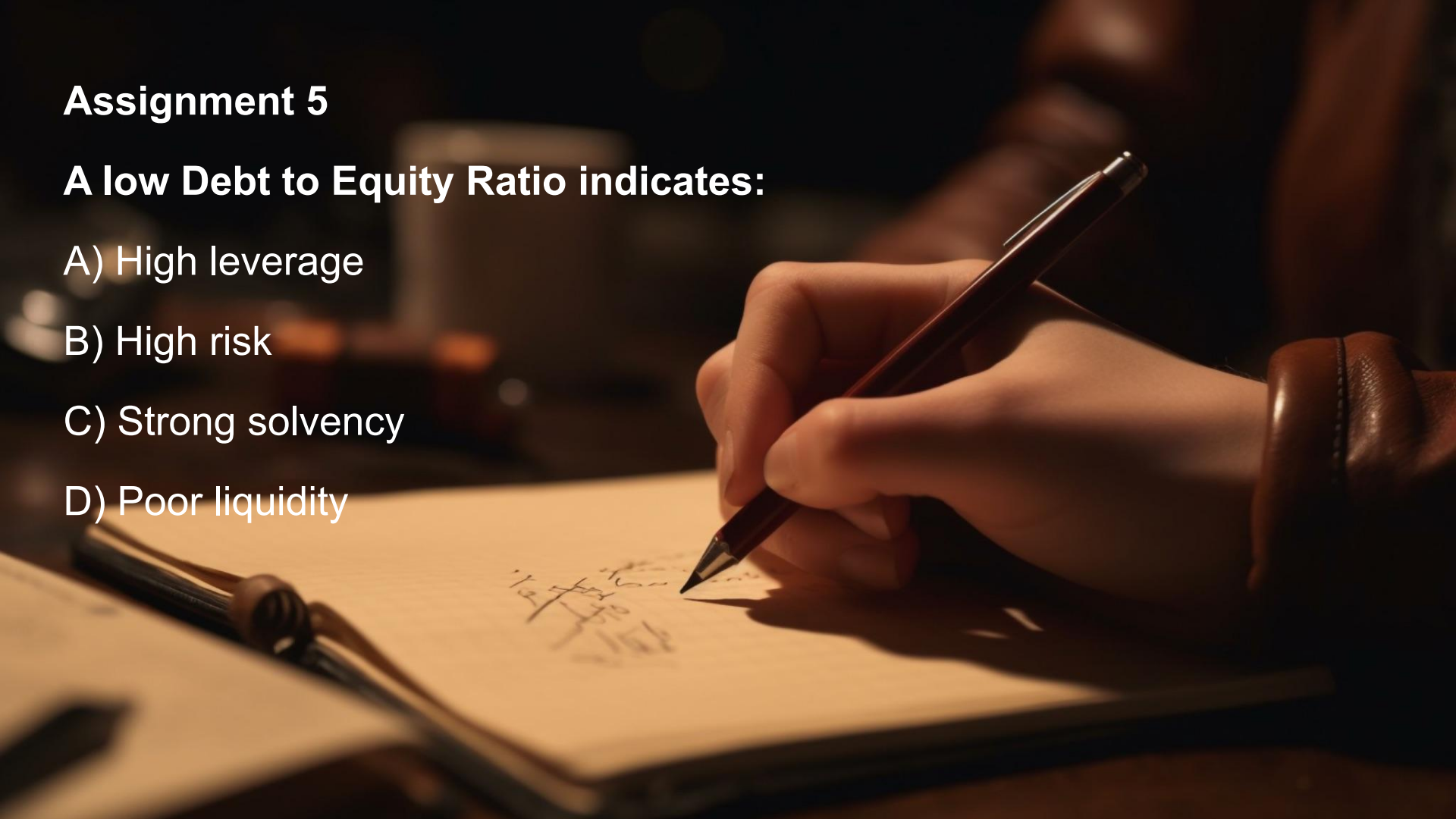
C) Net Profit - Taxes:

- **Explanation:** Net Profit minus taxes represents the company's **net income after taxes**, which is not the same as working capital. Working capital focuses on the company's ability to cover short-term obligations, whereas net income reflects profitability after all expenses and taxes have been deducted.

D) Revenue - Cost of Sales:

- **Explanation:** Revenue minus the cost of sales gives you the **gross profit**, not working capital. Gross profit measures how efficiently a company is producing its goods or services, but it doesn't provide information about the company's liquidity or its ability to meet short-term obligations.

Working Capital (Option B) is defined as **Current Assets - Current Liabilities**. It measures a company's short-term financial health and its ability to cover its short-term liabilities with its short-term assets. Positive working capital indicates that a company can meet its short-term obligations, making Option B the correct answer.



Assignment 5

A low Debt to Equity Ratio indicates:

A) High leverage

B) High risk

C) Strong solvency

D) Poor liquidity

Explanation Assignment 5

A) High leverage:

- **Explanation:** A low Debt to Equity Ratio actually indicates **low leverage**, not high leverage. High leverage means that a company is using more debt relative to equity to finance its assets. A low ratio suggests the opposite: that the company relies more on equity financing, which is less risky.

B) High risk:

- **Explanation:** A low Debt to Equity Ratio generally indicates **lower risk** because the company is less dependent on debt. Companies with lower debt levels are usually considered less risky since they have fewer obligations to meet in the form of interest payments and principal repayments.

D) Poor liquidity:

- **Explanation:** The Debt to Equity Ratio does not directly measure liquidity. Liquidity is about a company's ability to meet short-term obligations and is measured by ratios like the current ratio or quick ratio. A low Debt to Equity Ratio indicates low leverage and strong solvency, not necessarily poor liquidity.

Strong solvency (Option C) is indicated by a **low Debt to Equity Ratio**. This ratio suggests that a company has a solid financial foundation and is not heavily reliant on debt, making it more solvent and financially stable. This makes Option C the correct answer.

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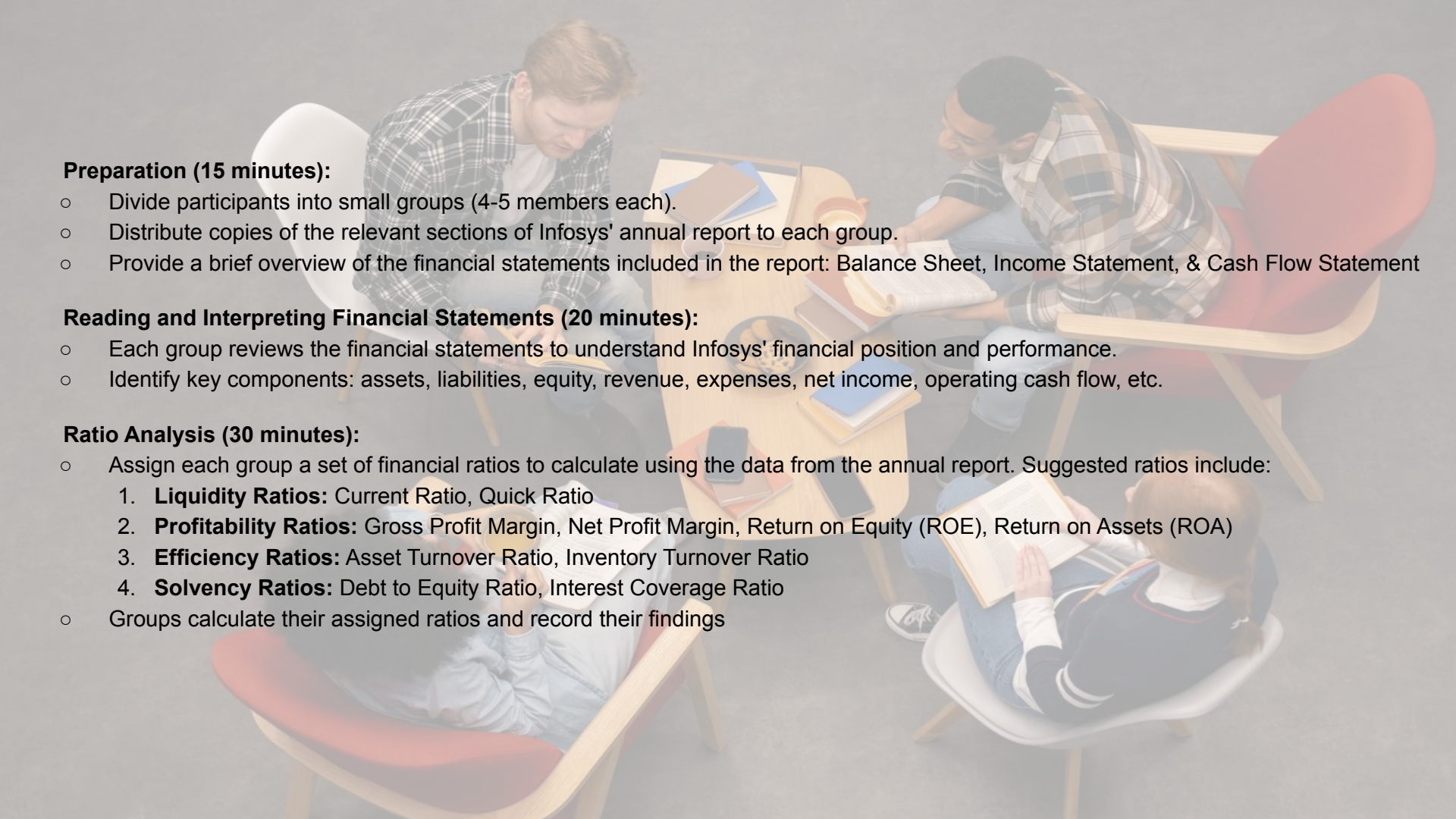
Case Study

Case Study

Infosys' financial transparency & Investor Relations

- Introduction to Infosys' practices in financial transparency and investor relations
- Example: Infosys' communication with shareholders and financial analysts
- Lessons learned: Building trust through transparent financial reporting

Infosys Annual report https://drive.google.com/file/d/1OE1DyQFskuIc_ho9xuclquCHRyZjPXMt/view?usp=sharing



Preparation (15 minutes):

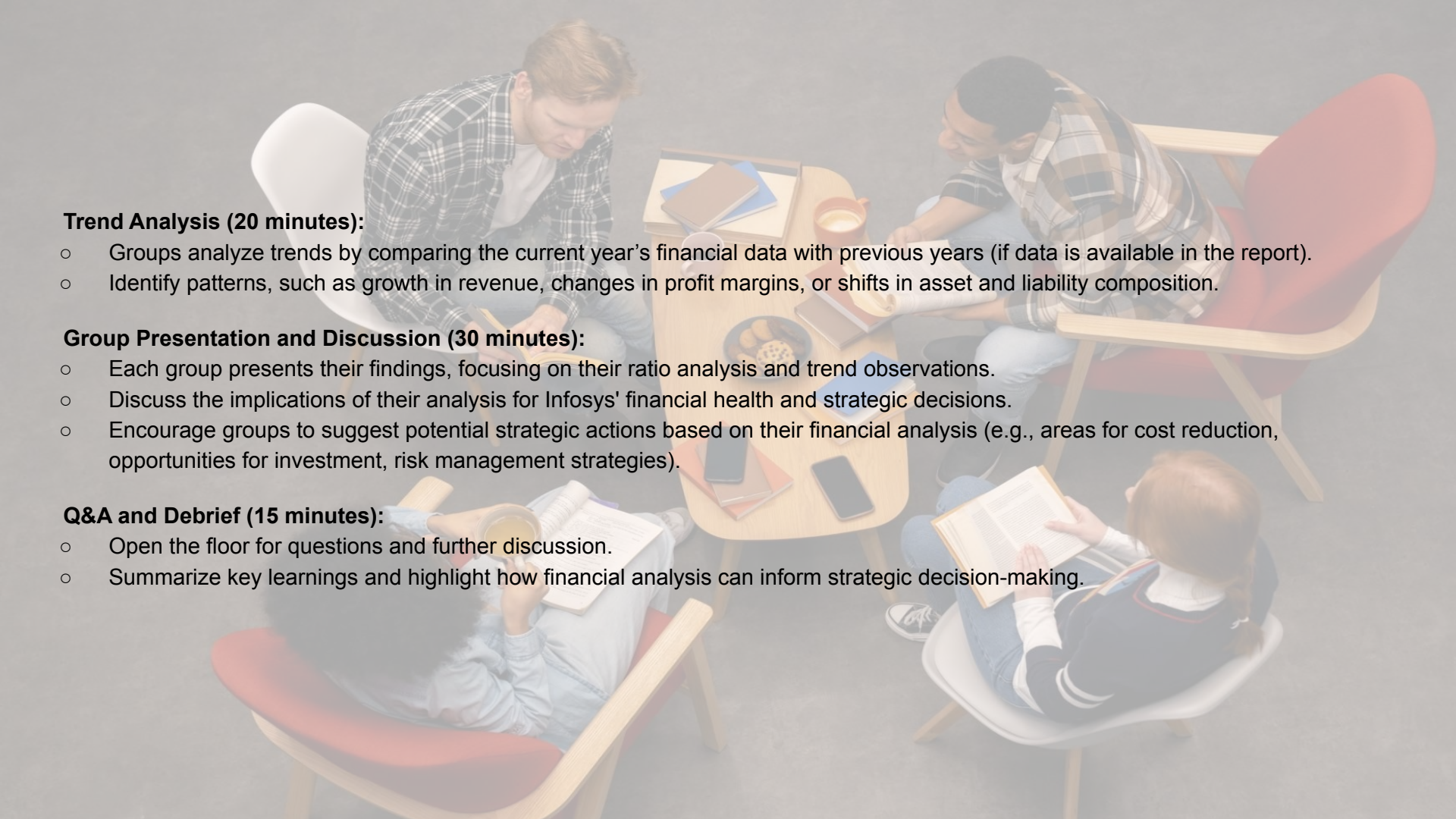
- Divide participants into small groups (4-5 members each).
- Distribute copies of the relevant sections of Infosys' annual report to each group.
- Provide a brief overview of the financial statements included in the report: Balance Sheet, Income Statement, & Cash Flow Statement

Reading and Interpreting Financial Statements (20 minutes):

- Each group reviews the financial statements to understand Infosys' financial position and performance.
- Identify key components: assets, liabilities, equity, revenue, expenses, net income, operating cash flow, etc.

Ratio Analysis (30 minutes):

- Assign each group a set of financial ratios to calculate using the data from the annual report. Suggested ratios include:
  1. **Liquidity Ratios:** Current Ratio, Quick Ratio
  2. **Profitability Ratios:** Gross Profit Margin, Net Profit Margin, Return on Equity (ROE), Return on Assets (ROA)
  3. **Efficiency Ratios:** Asset Turnover Ratio, Inventory Turnover Ratio
  4. **Solvency Ratios:** Debt to Equity Ratio, Interest Coverage Ratio
- Groups calculate their assigned ratios and record their findings



Trend Analysis (20 minutes):

- Groups analyze trends by comparing the current year’s financial data with previous years (if data is available in the report).
- Identify patterns, such as growth in revenue, changes in profit margins, or shifts in asset and liability composition.

Group Presentation and Discussion (30 minutes):

- Each group presents their findings, focusing on their ratio analysis and trend observations.
- Discuss the implications of their analysis for Infosys' financial health and strategic decisions.
- Encourage groups to suggest potential strategic actions based on their financial analysis (e.g., areas for cost reduction, opportunities for investment, risk management strategies).

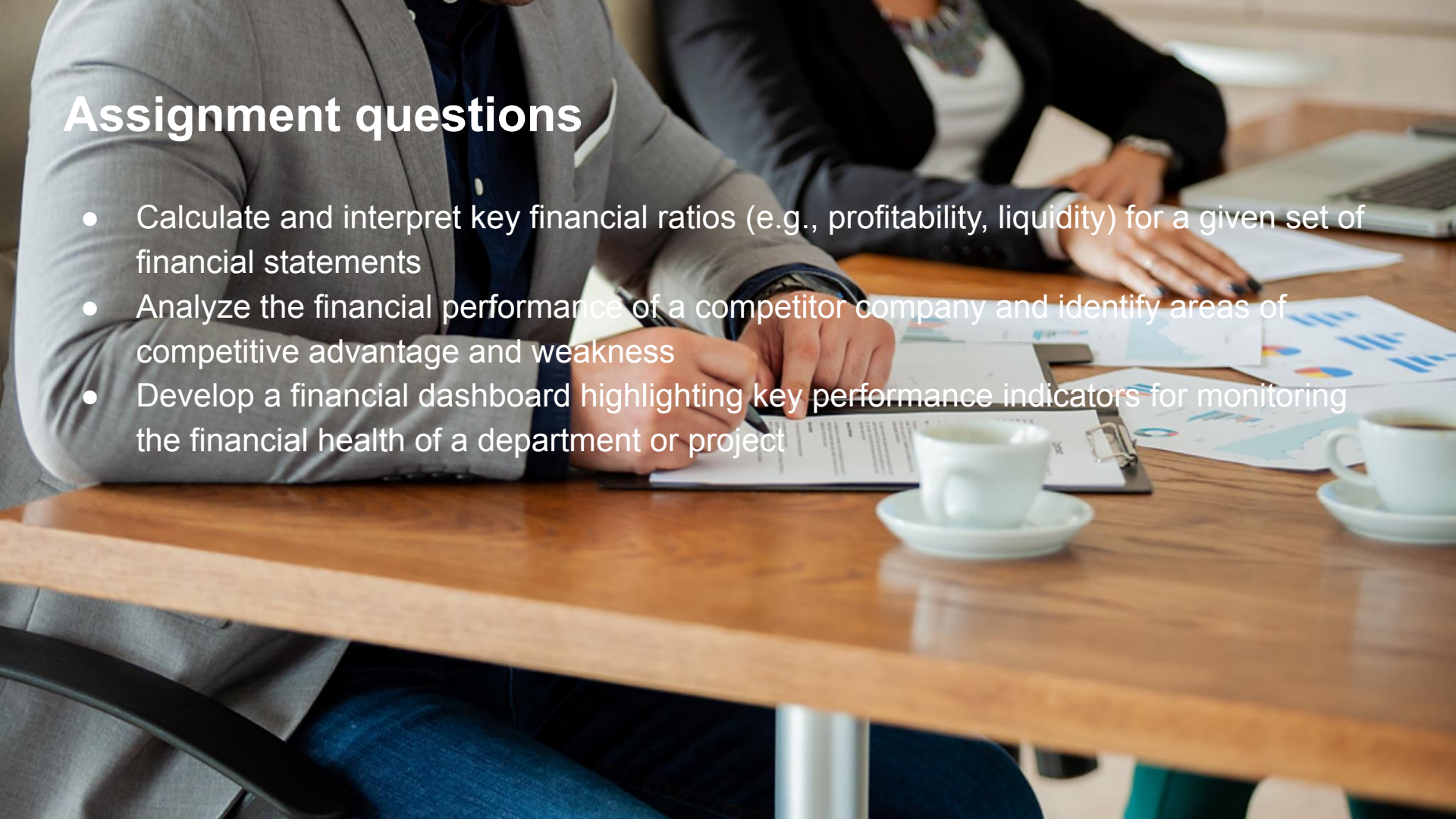
Q&A and Debrief (15 minutes):

- Open the floor for questions and further discussion.
- Summarize key learnings and highlight how financial analysis can inform strategic decision-making.

Interactive Exercise

Interactive Group Exercise - Financial Statement Analysis

Scenario-based activity: Participants analyze financial statements of a hypothetical company and draw conclusions about its financial health



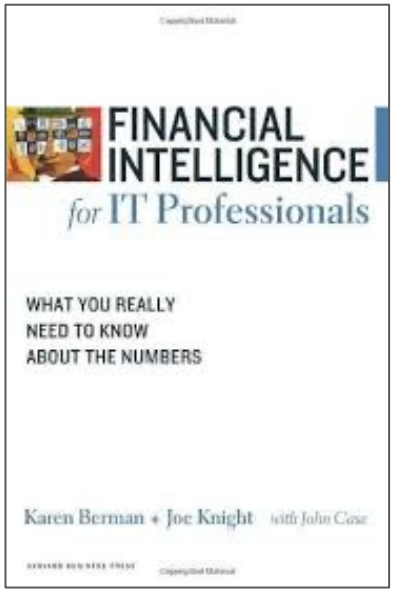
Assignment questions

- Calculate and interpret key financial ratios (e.g., profitability, liquidity) for a given set of financial statements
- Analyze the financial performance of a competitor company and identify areas of competitive advantage and weakness
- Develop a financial dashboard highlighting key performance indicators for monitoring the financial health of a department or project

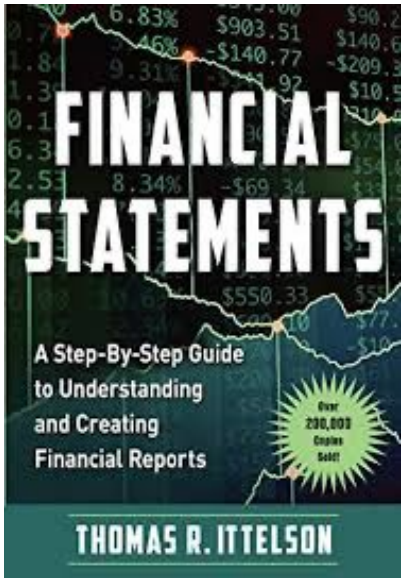
Questions & Further Reading

Q&A
Feedback

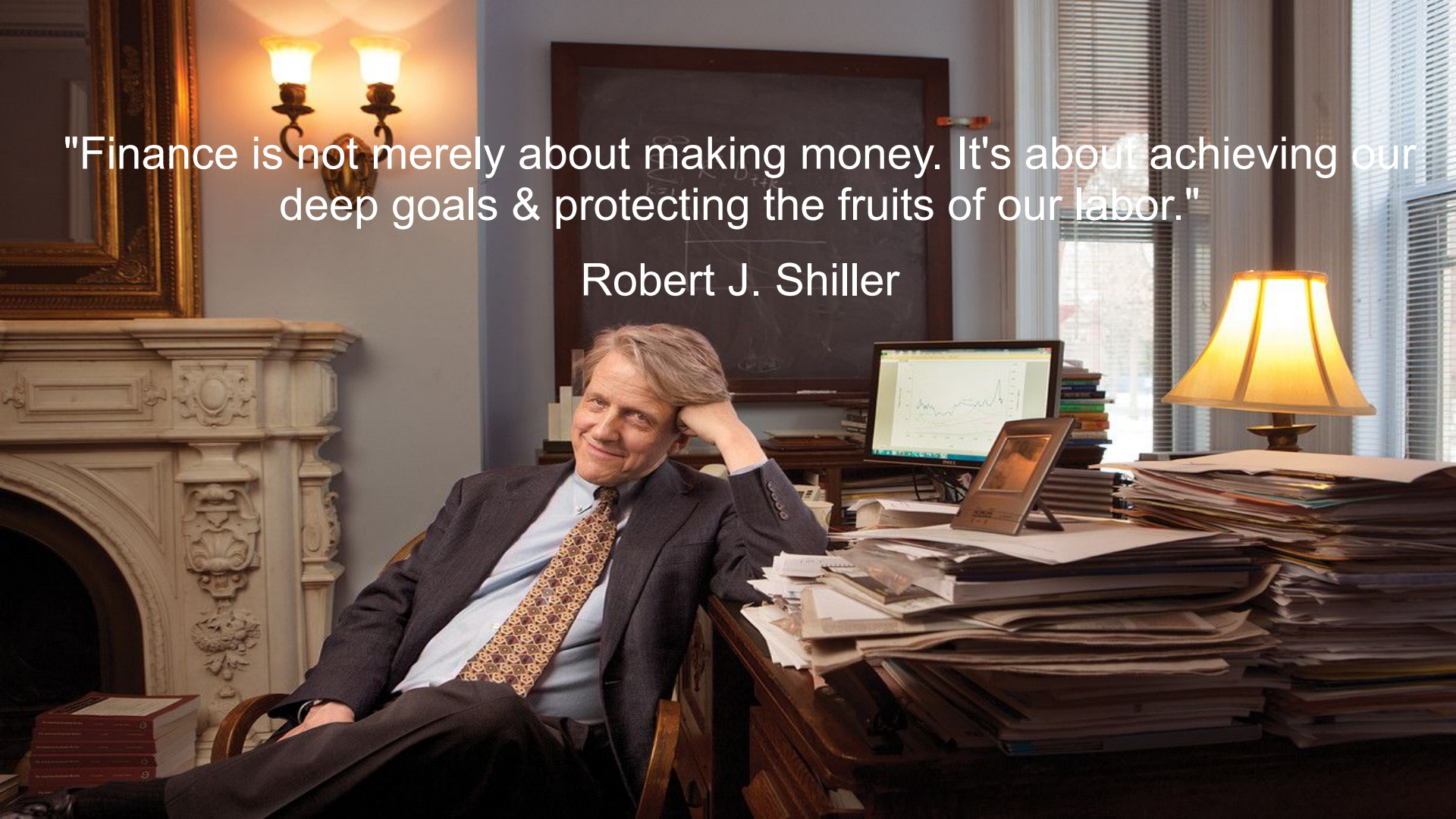
Recommended Books



"Financial Intelligence for IT Professionals: What You Really Need to Know About the Numbers" by Karen Berman and Joe Knight

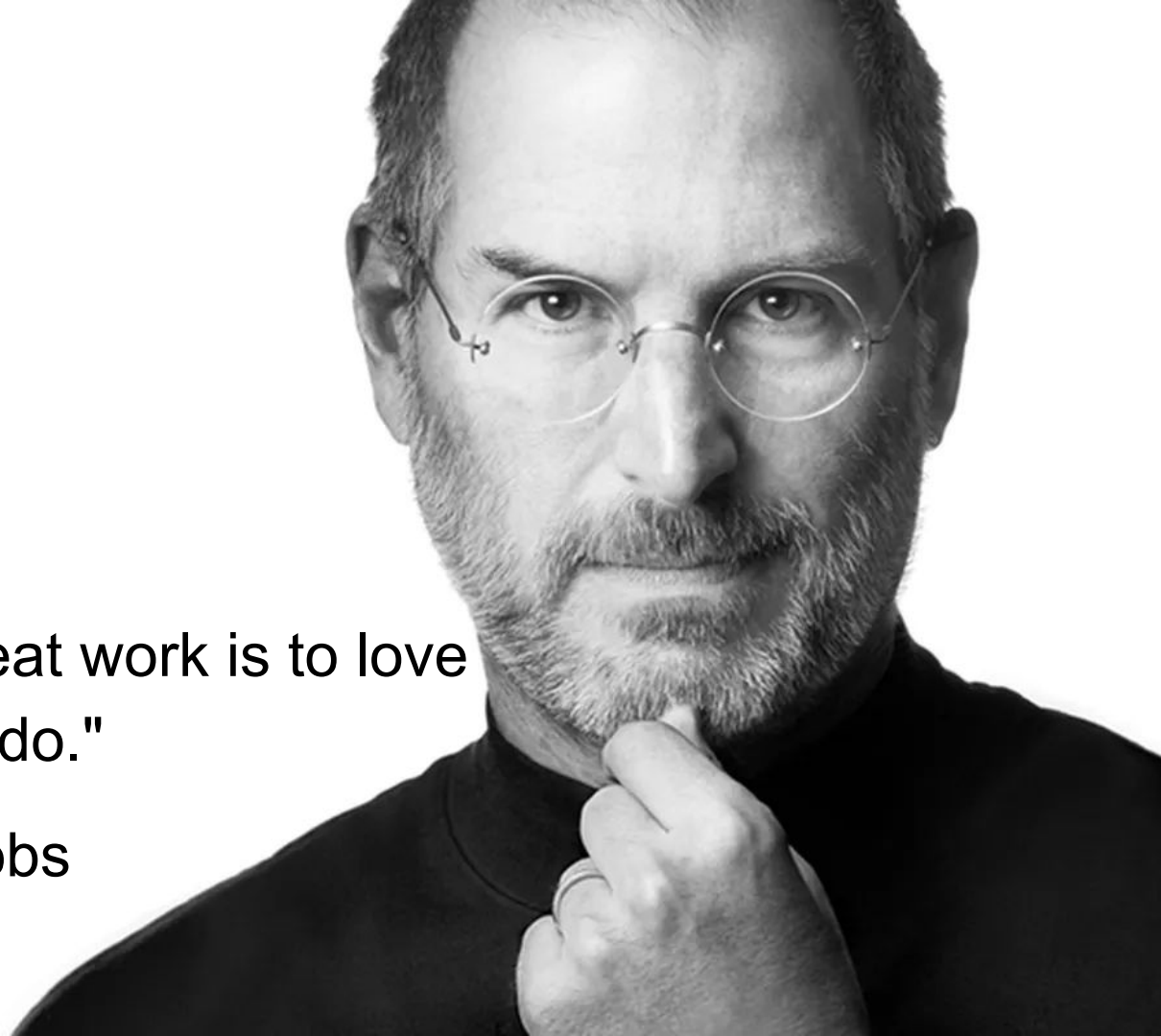


"Financial Statements: A Step-by-Step Guide to Understanding and Creating Financial Reports" by Thomas R. Ittelson


"Finance is not merely about making money. It's about achieving our deep goals & protecting the fruits of our labor."
Robert J. Shiller

"The only way to do great work is to love what you do."

Steve Jobs

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