Finance for the Non-Financial Manager

Women's Leadership Series
October 2022
Presented by: Dr. Sherry Williams, CPA

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Introduction & Course Objectives

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Why this course?

The Missing 33%... Susan Colantuono, leadership expert and founder/CEO of Leading Women

The Career Advice You Probably Didn't Get

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Objectives

- Understanding of key financial statements and reports
- Competence in calculating key financial ratios
- Budgeting and costing foundations
- Top 6 questions to ask when reviewing financial statements
- Top 6 questions to ask during the budgeting process

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AGENDA

1:00 – 1:15	**Introduction & Course Objectives**
1:15 – 2:25	**Accounting & Financial Reporting Foundation** ▪ Financial Reporting ▪ Financial Statements ▪ Financial Analysis – Key Ratios
2:25 – 2:40	**Break**
2:40 – 3:45	**Foundations in Managerial Finance** • Costing • Budgeting • Making Investment Decisions
3:45 – 4:00	**Course Wrap-Up & Evaluations**

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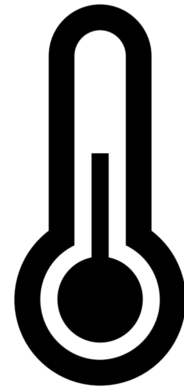

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Accounting & Financial Reporting

- Reviewing Financial Reports - Introduction

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Generally Accepted Accounting Principles

Generally Accepted Accounting Principles (GAAP) refers to the measurement rules used to develop the information in financial statements. Knowledge of GAAP is necessary for accurate interpretation of the numbers in financial statements.

Management has primary responsibility for the accuracy of a company's financial information. Auditors are responsible for expressing an opinion on the fairness of the financial statement presentations based on their examination of the reports and records of the company.

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Cash Basis vs. Accrual Basis Accounting

Cash Basis of Accounting

- Revenues are recorded when cash is received, and expenses are recorded when cash is paid, regardless of when the revenues were earned or the expenses incurred.
- Financial statements created under cash basis accounting normally postpone or accelerate recognition of revenues and expenses long before or after goods and services are produced and delivered (when cash is received or paid).
- Cash basis is often quite adequate for organizations that do not need to report to external users, but cash basis financial statements are not very useful to external decision makers.

Accrual Basis of Accounting

- Revenues are recognized when earned and expenses are recognized when incurred.
- Revenue recognition principle—recognize revenues (1) when the company transfers promised goods or services to customers (2) in the amount it expects to receive.
- Expense recognition principle (matching)—recognize expenses when they are incurred in generating revenue (a matching of costs with benefits).

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Where to Find Financial Reports

Publicly traded companies who have their shares listed on stock exchanges are required to file regular financial statements and disclosures with regulators, such as the Securities and Exchange Commission (SEC).

Types of Reports

- **10-K** (annual filing)
- **10-Q** (quarterly filing)
- **8-K** used to notify investors in public companies of specified events that may be important to shareholders or the SEC. This is one of the most common types of forms filed with the SEC.

Annual report - tells investors and analysts:

- Company performance over the previous fiscal year (FY)
- How the company looks going forward
- Company financials for use in ratio analysis through scrutinizing the balance sheet, income statement, and statement of cash flows.

How to find:

- Investor Relations link on company's website
- SEC filings

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Financial Reporting

Information we can use…the financial statements.

Let's take a look at

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…financial statements are the responsibility of management.

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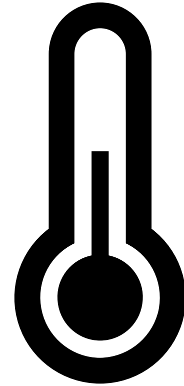
FINANCIAL REPORTING POLL



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Accounting & Financial Reporting

- Key Financial Statements

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Primary Financial Statements

Financial Statement	Balance Sheet	Income Statement	Statement of Stockholders' Equity	Statement of Cash Flows
Purpose	Reports the financial position of an accounting entity ***at a point in time.***	Reports the accountant's primary means of economic performance ***during the accounting period.***	**Reports changes in common stock and retained earnings *during the accounting period.***	Reports inflows and outflows of cash ***during the accounting period*** in categories of operating, financing and investing
Structure	**Assets= Liabilities + Stockholders' Equity**	**Revenue - Expenses Income**	**Beginning Balance + Increases - Decreases Ending balance**	**± CFO ± CFF ± CFI = Change in Cash**
Example of Content	• **Cash** • **Accounts Receivable** • **Inventory** • **Plant & Equipment** • **Accounts Payable** • **Long-Term Debt** • **Common Stock**	• **Sales Revenue** • **Cost of Goods Sold** • **Selling Expenses** • **Interest Expense**	• **Beginning stockholders' equity** • **Ending stockholders' equity** • **Stock issuance** • **Dividends**	• **Cash collected from customers** • **Cash paid to suppliers** • **Cash borrowed from banks**

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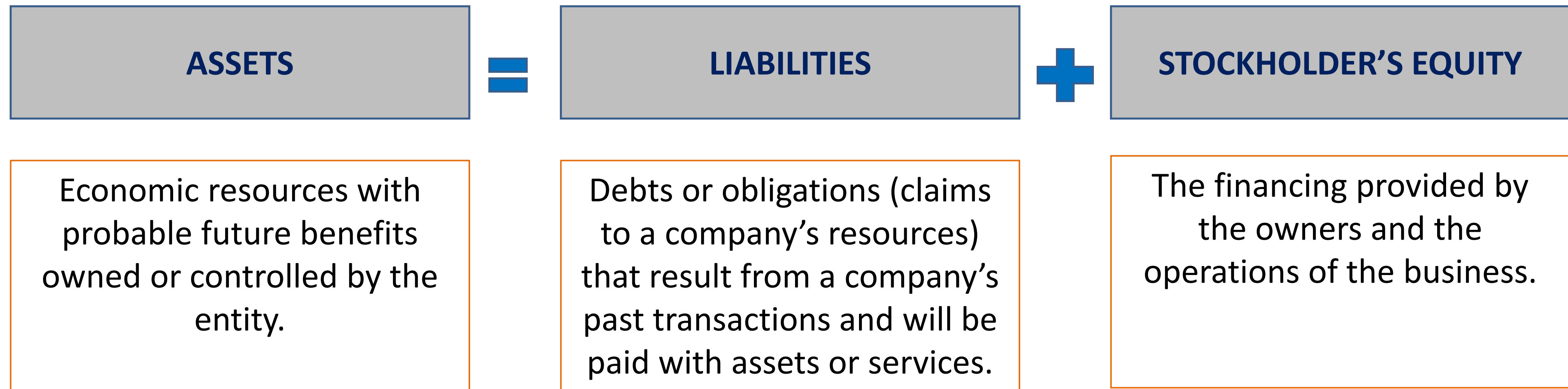
The Balance Sheet

- **Reports the financial position of an accounting entity at a point in time.**



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Sample Balance Sheet

Assets	
Cash	$10.60
Accounts Receivable	6.6
Inventories	51.2
Property, plant, and equipment	459
Total Assets	**$527.4**
Liabilities and stockholders' equity:	
Liabilities	
Accounts Payable	$26.00
Notes Payable to Banks	381.7
Total Liabilities	407.7
Stockholders' Equity	
Common Stock	55.7
Retained Earnings	64
Total Stockholders' Equity	119.7
Total Liabilities and stockholders' equity	**$527.40**

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The Income Statement

Reports economic performance during the accounting period.

Revenues
Increases in assets or settlements of liabilities from the major or central ongoing operations.

Expenses
Decreases in assets or increases in liabilities from ongoing operations incurred to generate revenues.

Gains
Increases in assets or settlements of liabilities from peripheral transactions.

Losses
Decreases in assets or increases in liabilities from peripheral transactions.

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Sample Income Statement

Revenues	
Sales revenue	$275.1
Expenses	
Cost of goods sold	140.8
Selling, general, and administrative expenses	77.1
Interest expense	17.2
Income before income taxes	40.0
Income tax expense	17.1
Net Income	$22.9

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The Statement of Cash Flows

Reports cash inflows (+) and cash outflows (–) over a period.

Operating Activities

Relate directly to income and expenses reported on the income statement.

- \+ Cash received from customers
- \+ Dividends and interest on investments
- \- Salaries & Wages
- \- Income Taxes
- \- Purchases of services and goods for resale

Investing Activities

- \- Purchasing long-term assets and investments for cash
- \+ Selling long-term assets and investments for cash
- \- Lending cash to others
- \+ Receiving principal payments on loans made to others

Financing Activities

- \+ Borrowing cash from banks
- \- Repaying principal on bank loans
- \+ Issuing stock for cash
- \- Repurchasing stock with cash
- \- Paying cash dividends

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Sample Statement of Cash Flows

Cash flows from operating activities:	
Net income	$ 107,045
Adjustments to reconcile net income to net cash provided by (used in) operating activities:	
Depreciation and amortization	10,152
Changes in assets and liabilities:	
Accou	(10,273)
Inventories	(5,433)
Prepaid expenses	(2,603)
Accounts payable	8,709
Accrued expenses	2,883
Net cash provided by operating activities	110,480
Cash flows from investing activities:	
Purchase of property, plant, and equipment	(14,015)
Proceeds from disposal of property, plant, and equipment	28
Purchase of short-term investments	(1,463)
Proceeds from sale of short-term investments	2,011
Net cash used by investing activities	(13,439)
Cash flows from financing activities:	
Repayment of principal on long-term debt	-
Proceeds from issuance of long-term debt	1,333
Repurchase of stock	-
Proceeds from issuance of stock	1,068
Payment of cash dividends	(68,647)
Net cash used by financing activities	$ (66,246)
Net Increase (Decrease) in Cash and Equivalents	30,795
Cash and Equivalents - Beginning of Year	105,577
Cash and Equivalents - End of Year	$ 136,372

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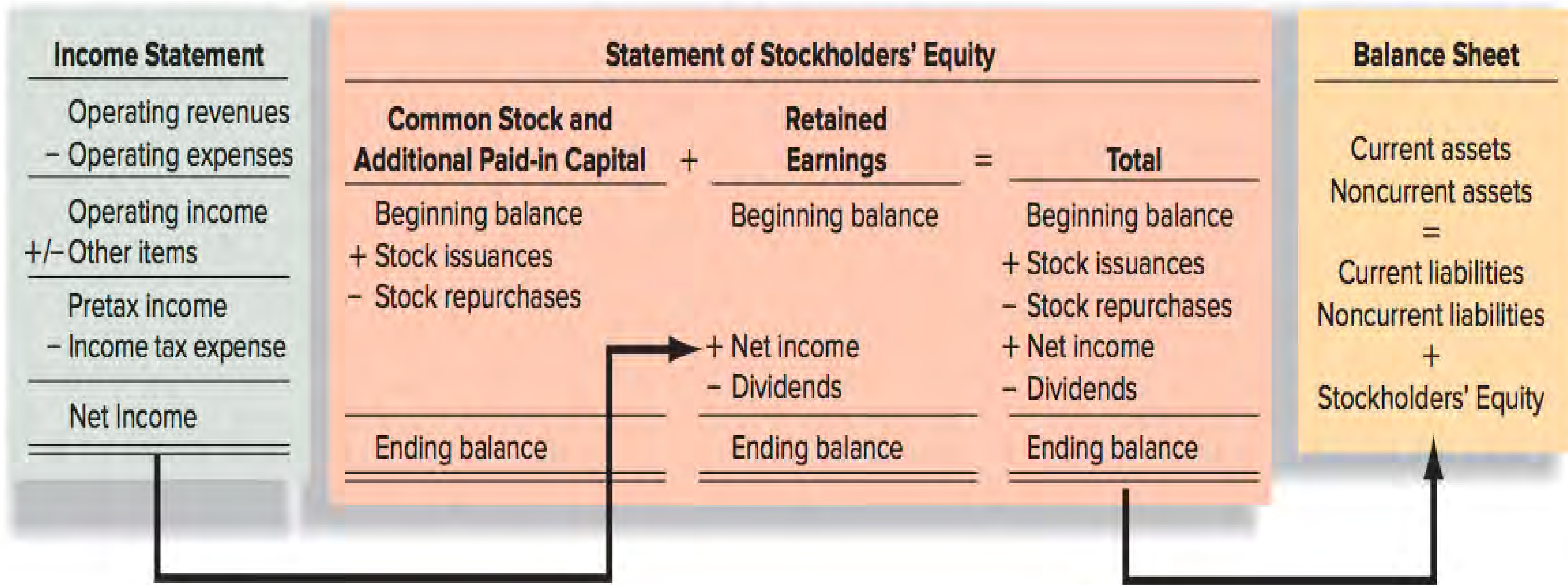
Relationships Among Financial Statements



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Class Exercise – Financial Statement Effect of Transactions

For each transaction, complete the tabulation, indicating + for increase or – for decrease of each transaction. Write NE if no effect. Remember A=L+SE, R-E=NI, and NI affects SE through RE.

1. Issued common stock to investors for $21.40 cash (example).
2. Purchased $1626.60 of additional inventory on account.
3. Paid $43.10 on long-term debt principal and $3.70 in interest on the debt.
4. Sold $2350.00 of products to customers on account; cost of the products sold was $1426.60.
5. Paid cash dividends of $23,000,000.00 to shareholders.
6. Purchased for cash $32.40 in additional property, plant, and equipment.
7. Incurred $713.60 in selling expenses, paying three-fourths in cash, and the rest on account.
8. Earned $.50 in interest on investments, receiving 80% in cash.

(E3-6)

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Exercise - cont'd.
Financial Statement Effect of Transactions

Transaction	Balance Sheet			Income Statement		
	Assets	Liabilities	Stockholders' Equity	Revenues	Expenses	Net Income
(1) example	+ 21,400,000		+ 21,400,000			
(2) Inventory purchased on account	+1620.60	+1620.60				
(5) Paid cash dividends of $23	-23,000,000				+23,000,000	
(7) Incurred $713,000 in selling expenses, paying three-fourths in cash, and the rest on account.	-534,750	+178,250			+713,000	

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Group Exercise #1 (13 MINUTES)

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Group Breakout #1 - Financials

Find the following items in your assigned company's financials:

- Starbucks 10-K
- Donegal Group Inc. 10-K
- Independence Blue Cross Annual Report
- PFIZER 10-K

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Group Breakout Exercise #1

Find the following items in your assigned company's financials:

1. What period is covered by the financial statements?
2. Name of the external audit firm
3. External auditor's opinion
4. Total Income
5. Income taxes paid
6. Total Assets
7. Total Liabilities
8. Number of common stock shares outstanding
9. Two risk factors

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Accounting & Financial Reporting

- Financial Analysis Key Ratios

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Key Financial Ratios: Current Ratio

Does the company have enough current assets
to cover its current liabilities?

Current Ratio = $\dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

The 2017 ratio for Chipotle is (dollars in millions):

$$\frac{\$630}{\$324} = 1.944$$

COMPARISONS OVER TIME Chipotle Mexican Grill, Inc.		
2017	2016	2015
1.944	1.851	2.911

COMPARISONS WITH COMPETITORS	
El Pollo Loco Holdings, Inc.	Fiesta Restaurant Group, Inc.
2017	2017
0.438	0.686
Offers Mexican-inspired grilled chicken and entrees	Owns Pollo Tropical and Taco Cabana

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Exercise

Calculate the current ratio for Sal's Taco Company at the end of 2020 and 2021, based on the following data:

	Current Assets	Current Liabilities
End of 2020	$280,000	$155,000
End of 2021	$270,000	$250,000

What does the result suggest about Sal's over time? What can you say about the ratio for Sal's Taco Company compared to Chipotle's 2017 ratio of 1.944?

(M2-12)

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Key Financial Ratios: Net Profit Margin Ratio

How effective is management in generating profit on every dollar of sales?

$$\textbf{Net Profit Margin Ratio} = \frac{\text{Net Income}}{\text{Net Sales (or Operating Revenues)}}$$

A rising net profit margin signals more efficient management of sales and expenses.

Note: Net sales is sales revenue less any returns from customers and other reductions. For companies in the service industry, total operating revenues is equivalent to net sales.

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Exercise

The following data are from the annual reports of Jen’s Jewelry Company:

	2021	2020	2019
Total Assets	$60,000	$53,000	$41,000
Total Liabilities	14,000	11,000	6,000
Total Stockholders Equity	46,000	42,000	35,000
Sales Revenue	163,000	151,000	132,000
Net Income	51,000	40,000	25,000

Compute Jen’s Net Profit Margin Ratio for each year. What do these results suggest about Jen’s Jewelry Company?

(M3-10)

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Key Financial Ratios: Total Asset Turnover Ratio

How efficient is management in using its resources to generate sales?

Total Asset Turnover Ratio = $\frac{\text{Net Sales (or Operating Revenues)}}{\text{Average Total Assets*}}$

The higher the asset turnover is, the more efficient assets are being utilized to generate revenues.

*An average is computed as: (Beginning balance + Ending balance) ÷ 2

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Key Financial Ratios: Return on Assets

How well has management used the company's total investment in assets financed by both investors and stockholders ?

$$\textbf{Return on Assets} = \frac{\text{Net Income}}{\text{Average Total Assets*}}$$

The higher the return on assets, the more efficient assets are being utilized to generate income.

*An average is computed as: (Beginning balance + Ending balance) ÷ 2

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Key Financial Ratios: Earnings Per Share

How much money did we make for each share of stock?

$$\textbf{Earnings Per Share} = \frac{\text{Net Profit}}{\text{Number of Shares of Common Stock Outstanding}}$$

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Summary of Key Ratios

Ratio	Question Answered	Formula
Current	Does the company have enough current assets to cover its current liabilities?	▪ **Current Assets/Current Liabilities**
Net Profit Margin	How effective is management in generating profit on every dollar of sales?	▪ **Net Income/Net Sales**
Total Asset Turnover	How efficient is management in using its resources to generate sales?	▪ **Net Sales/Avg Total Assets**
Return on Assets	How efficient is management in using its resources to generate income?	▪ **Net Income/Avg Total Assets**
Earnings Per Share	How much money did we make per share of stock outstanding?	▪ **Net Profit/Number of Common Stock Shares Outstanding**

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Summary of Key Calculations

Ratio	Question Answered	Formula
Gross Profit	What are our earnings after deducting costs?	▪ **Revenue – Cost of Goods Sold**
Gross Profit Margin "gross margin"	What portion of revenue did we retain as profit?	▪ **(Revenue – Cost of Goods Sold)/ Revenue X 100**
Working Capital	Can we meet our short-term obligations with the current assets?	▪ **Current Assets – Current Liabilities**
Opportunity Cost	What is the potential loss when choosing one alternative over another?	▪ **Compare various metrics like income or contribution margin (sales –variable expenses) of each option**

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Group Exercise #2 (10 MINUTES)

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Group Breakout Exercise #2

For your assigned company, answer the following questions:

1. Does the company have adequate current assets to cover its short-term liabilities?
2. What is the amount of working capital?
3. What is the gross profit?
4. How much is earnings per share?

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6 Questions to Ask When Reviewing Financial Statements

1. Have any concerns been raised by the external auditors?
2. What is the earnings trend and how does it compare with peers?
3. What is the gross margin and how is it trending?
4. How is the expense ratio relative to others in the industry?
5. Can we cover our current liabilities with current assets?
6. How well are we using our assets to generate income?

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Break 15 minutes

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Managerial Accounting

- Costing Fundamentals

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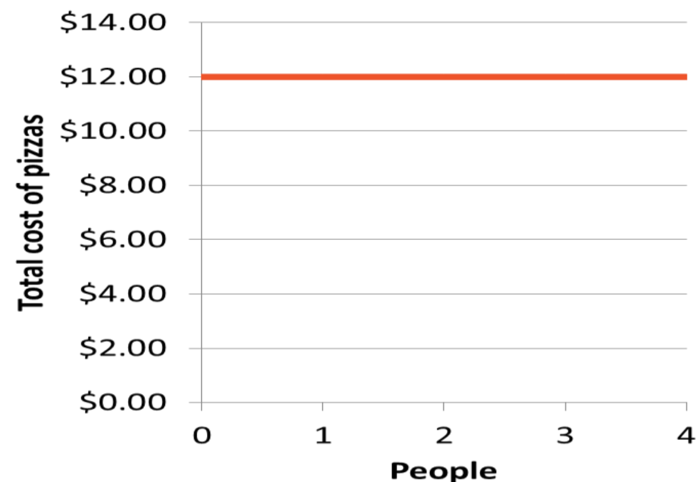
4 Types of Cost Behavior

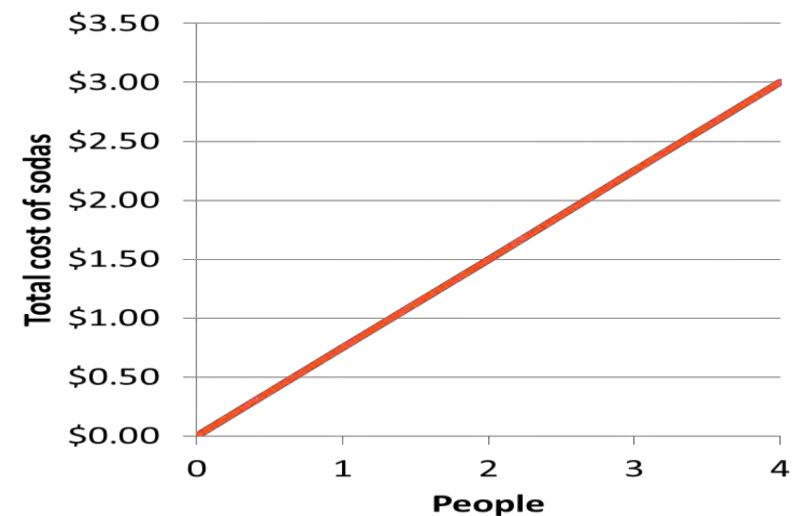
Fixed Cost

- Total cost remains constant with changes in volume
- Unit cost changes inversely with changes in volume
- Fixed relationship only holds over the relevant range



Variable Cost

- Cost per unit remains constant with changes in volume
- Total cost varies proportionately with changes in volume



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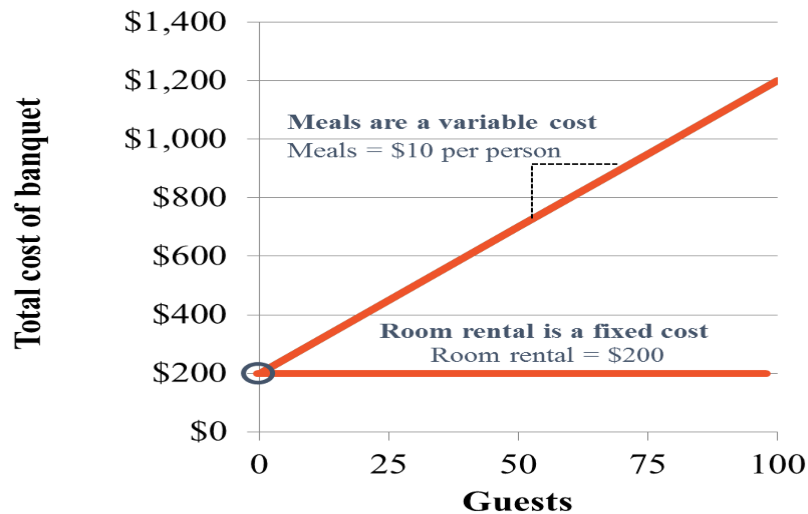
4 Types of Cost Behavior

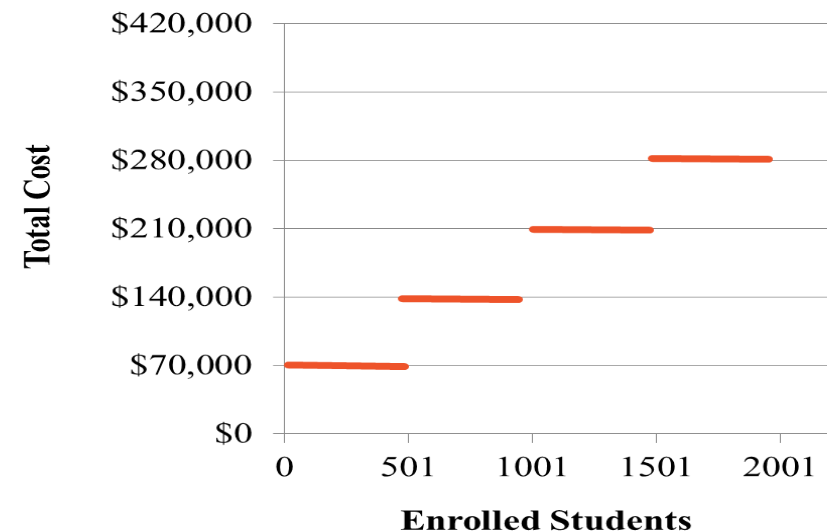
Mixed Cost

- Cost contains both fixed and variable components
- Total cost AND unit cost varies with changes in volume



Step-Variable Cost

- Cost remains fixed in total over small range of volume or activity
- These small ranges are smaller than the relevant range of fixed cost



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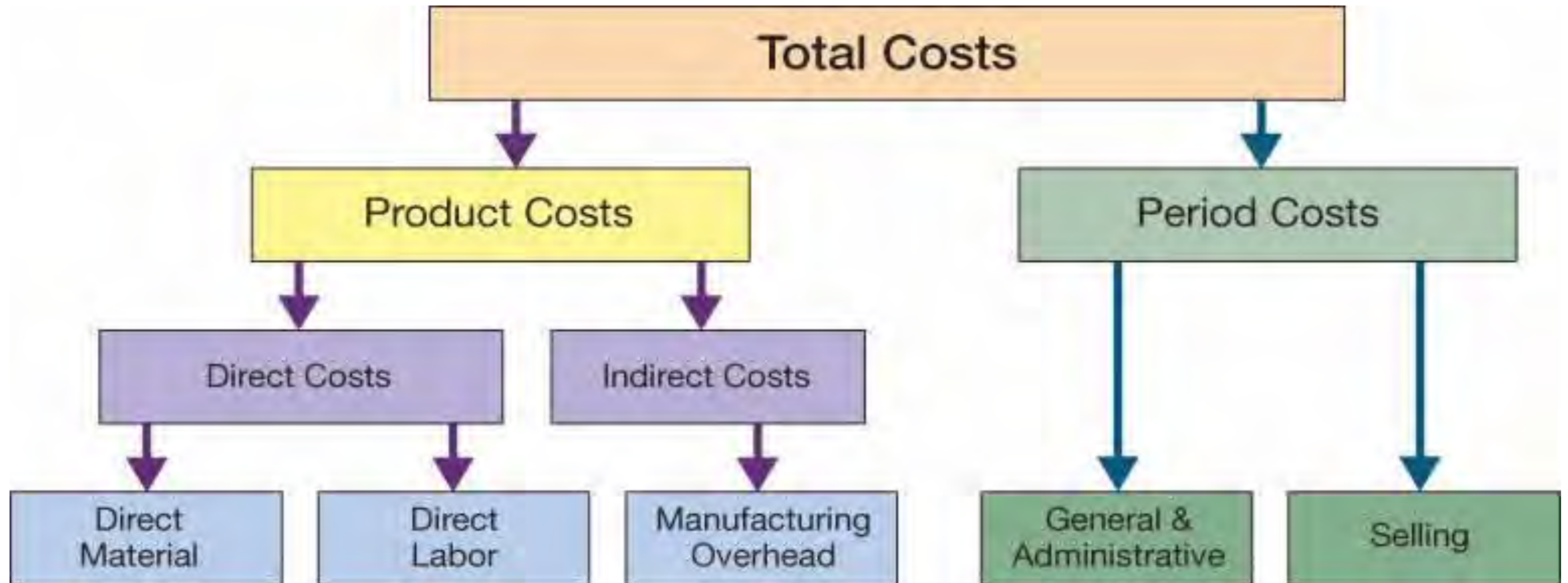
Product and Period Costs



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Managerial Accounting

- Budgeting Essentials

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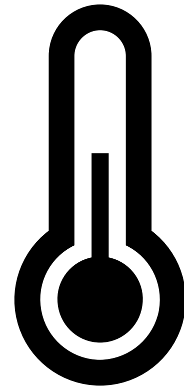
BUDGETING (POLL)



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What is a Budget?

- An operating plan expressed in dollars
- Shows how resources will be committed during the coming period
- Helps plan for the future
- Communicates corporate direction and coordinates corporate efforts

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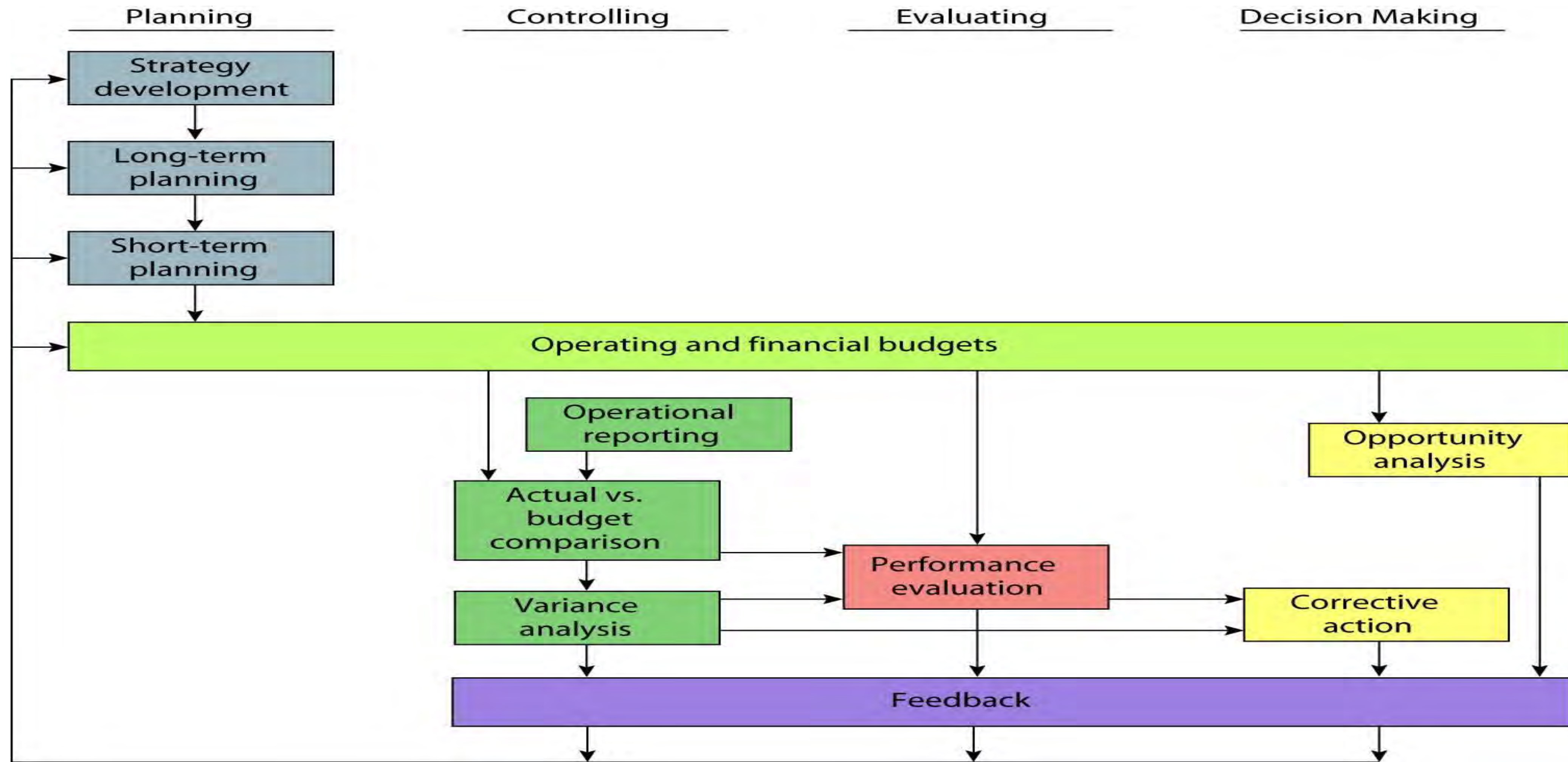
Importance of a Budget



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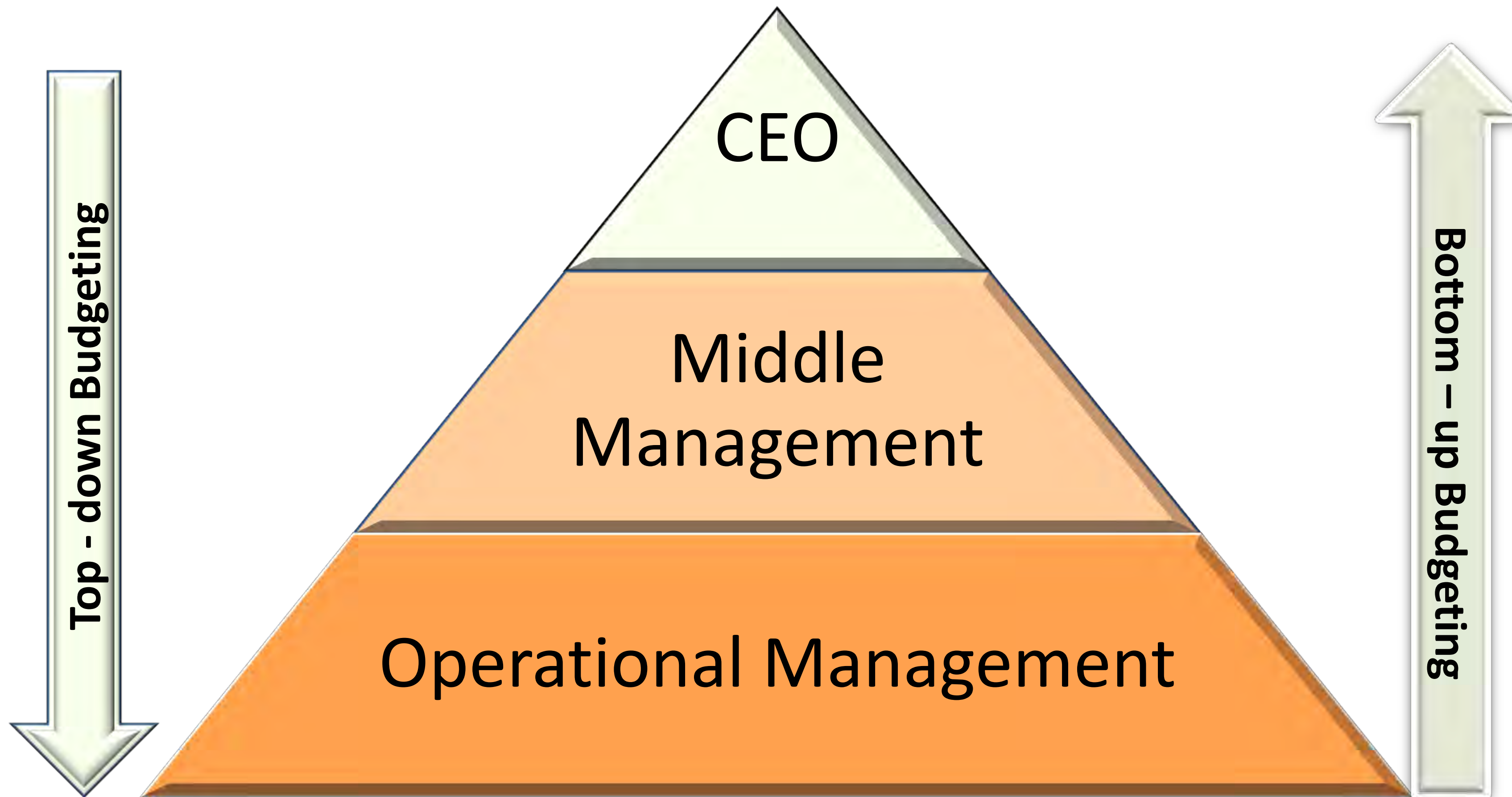
Budget Information Flow



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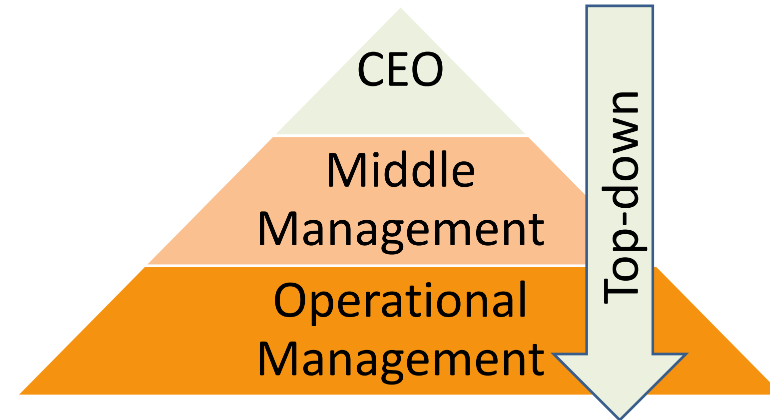
Top-down Budgets



ADVANTAGES

- Increase probability that strategic plans will be incorporated in planned activities
- Enhance coordination among divisional plans and objectives
- Use top management's knowledge of overall resource availability
- Reduce the time frame for the budgeting process

DISADVANTAGES

- May result in dissatisfaction, defensiveness, and low morale among individuals who must work under the budget
- Reduces the feeling of teamwork
- May limit the acceptance of the stated goals and objectives
- May create a view of the budget as a punitive device

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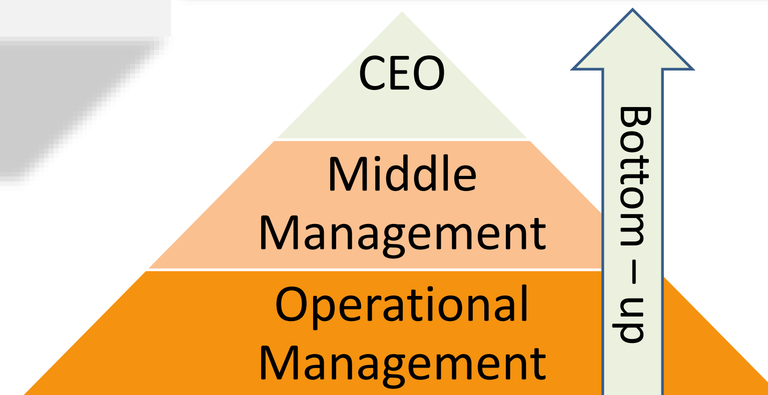
Bottom-up Budgets

ADVANTAGES

- Gathers information from persons most familiar with the needs and constraints of organizational units
- Allow organizational units to coordinate with one another
- Lead to better morale and higher motivation
- Develop a high degree of acceptance of and commitment to organizational goals and objectives by operating management

DISADVANTAGES

- Requires significantly more time
- Effects of managerial participation may be negated by top-management changes
- Managers may be ambivalent or unqualified to participate, creating an unachievable budget
- May cause managers to introduce slack into the budget



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Common Budgeting Models

"Companies that use only one or two budgeting models across all business units and functions would likely make better spending decisions if they used three or all four of the most common budgeting models." https://www.cfo.com/budgeting/2016/08/budgeting-inflexibility-cripples-bottom-line/

Four Common Budgeting Models:

- **Historical budgeting**, or a mix of **top-down** and **bottom-up** budgeting based on historical data, with adjustments made for factors such as expected growth and market expectations.
- **Driver-based budgeting**, a less-detailed approach that identifies the organization's key business drivers and mathematically models how they will impact resourcing and, hence, expenses in future period.
- **Rolling-forecast-based budgeting**, where a forecast from the previous year is used to set the current year's budget one to two quarters in advance.
- **Zero-based budgeting**, in which any expense in a particular cost center, department, or business unit needs to be justified for every new period.

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Budgeting…Where to start

What are the crucial strategies when preparing a budget?

How can I ensure my budget will help meet our strategic goals?

How can I use past financial data to inform my assumptions?

1. List **3-5 goals that you hope to achieve** during the period for which you are budgeting. For example:

- Increase gross sales by 5%.
- Decrease administrative costs as a percentage of revenue by 3 points.
- Reduce inventories by 2% by the end of the fiscal year.

Make sure those goals line up with the organization's strategic priorities.

2. Figure out **how you'll achieve the goals**. (Remember that a budget is just a plan with numbers.)

- How can you generate more revenue?
- Will you need more sales representatives?
- Where can you cut costs or reduce inventories?

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Considerations to Create a Realistic Budget

Will you keep prices the same, lower them, or raise them? A price increase of 3% might offset the budget's 2014 sales shortfall, provided it doesn't dampen demand.

Do you plan to enter new markets, target new customers, or use new sales strategies? How much additional revenue do you expect these efforts to bring in? How much will these initiatives cost?

Will your cost of goods change? For example, perhaps you plan to cut down on temporary help and add full-time employees in the plant. Or perhaps you hope to reduce wage costs through automation. If so, how much will it cost to automate?

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Considerations to Create a Realistic Budget

Are your suppliers likely to raise or lower prices? Are you planning to switch to lower-cost suppliers? Will quality suffer as a result? If so, how much will that affect your sales?

Do you need to enhance your product to keep your current customers?

Does your staff need further training?

Are you planning to pursue other special projects or initiatives?

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Group Exercise #3 (14 MINUTES)

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Group Breakout Exercise #3

Refer to case distributed separately and answer the following questions:

1. Which budget model is used?
2. Is there an opportunity to use an alternate budget model which may be more appropriate for the business?
3. What was the disadvantage of using top-down budgeting in the case?
4. What target percentages were used (e.g., decrease costs by x%, increase sales by x%)?
5. Do budget targets align with corporate priorities and strategic initiatives?
6. Why would Max Green, Director of the Southeast Region, care about the level of budgeted income?
7. What does Duvall stand to gain from his actions? Does he have anything to lose?

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6 Questions to Ask When Preparing Budgets

1. Which budget model are we using?
2. Is there an opportunity to use an alternate budget model which may be more appropriate for our business?
3. What are our budget target percentages (e.g., decrease costs by x%, increase sales by y%)?
4. Do budget targets align with corporate priorities and strategic initiatives?
5. Is any relevant past data available to review as input?
6. Are significant changes expected in cost structures (e.g., suppliers, staffing, healthcare)?

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Managerial Accounting

- Investment decisions

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Investment Decisions

Capital budgeting is the process of evaluating an organization's investment in long-term assets. It differs from operational budgeting in terms of its time horizon. When completing an operating budget, managers rarely look more than a year into the future. In capital budgeting, however; managers regularly assess projects that run 5, 10, or even 20 or more years into the future.

Two types of return can be expected from investment in a long-term asset: return of investment and return on investment. **Return of investment means recouping the original investment—that is, getting your money back**. **Return on investment is any return you receive over and above the original investment.**

Managers use capital budgeting techniques to make two types of capital budgeting decisions: screening decisions and preference decisions.

Screening Decisions

Projects must exceed the minimum rate of return "hurdle rate".

Preference Decisions

Projects are ranked and accepted based on their expected return, with the highest ranked projects receiving preference.

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Investment Decisions – Payback Period

The payback period is the time it takes, in years, for an investment to return the original amount of invested capital. The payback period is **used most often as a screening tool** by companies that have established a maximum acceptable payback period. As long as the payback period is less than the stated maximum, the project can move forward to the preference decision.

$$\text{Payback Period} = \frac{\text{Net Initial Investment}}{\text{Annual Cash Flow}}$$

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Payback Period Exercise

Tamara Smith is considering refinancing her home mortgage to reduce her house payment by $125 per month. Closing costs associated with the refinancing will total $5,000. Tamara will finish medical school in four years, at which time she will sell the house and move to another state.

Questions

a. What is the payback period for refinancing this loan?

b. Given Tamara's plans, should she refinance her mortgage at this time? Why or why not?

9-14

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Investment Decisions – Net Present Value

The net present value (NPV) approach to capital budgeting requires you to calculate the present value of each cash flow and then add, or "net," those present values to arrive at the capital project's net present value.

Four steps:

1. Identify the amount and timing of each cash flow.
2. Determine the appropriate discount rate.
3. Calculate the present value of each cash flow.
4. Calculate the net present value of the project.

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Investment Decisions – Internal Rate of Return

Another discounted cash flow method yields a project's internal rate of return (IRR), or the actual return expected to be earned by the project.

To determine whether a project is acceptable, **compare its return to the organization's discount rate, or minimum required rate of return**. If the internal rate of return is greater than or equal to the company's discount rate, the project is acceptable. If the internal rate of return is less than the company's discount rate, the project should be rejected.

IRR VALUE	COMPARE TO NPV	PROJECT ACCEPTABLE?
>discount rate	NPV > 0	Yes
=discount rate	NPV = 0	Yes
<discount rate	NPV < 0	No

Considers amount of future cash flows

Considers timing of future cash flows

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Investment Decisions – Profitability Index

Projects of different sizes can be evaluated using the profitability index, which compares the present value of the project's cash flows to the net initial investment. The profitability index is calculated using the following formula; the project with the highest profitability index is the preferred project.

$$\textbf{Profitability Index} = \frac{\text{Present Value of Future Cash Flows}}{\text{Net Initial Investment}}$$

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Conclusion – What did we learn?

- **Key Financial Statements**
  - ✓ Balance Sheet
  - ✓ Income Statement
  - ✓ Statement of Cash Flows
  - ✓ Statement of Stockholders' Equity
- **How to find information in the Annual Report**
- **Key Ratios**
  - ✓ Current Ratio
  - ✓ Earnings Per Share
  - ✓ Net Profit Margin
  - ✓ Total Asset Turnover
  - ✓ Return on Assets
- **Costing & budgeting considerations**
  - ✓ Fixed costs
  - ✓ Variable costs
  - ✓ Direct & Indirect Materials, Labor
  - ✓ Overhead
  - ✓ Types of budgets
- **Considerations when making investment decisions**
  - ✓ Payback Period
  - ✓ Profitability Index
  - ✓ IRR
  - ✓ NPV

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Q&A/Course Wrap-Up

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Thank You!

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