

Controlling – Processes and Systems

E. Susy Suhendra



Planning Ahead

- Why and how do managers control?
- What are the steps in the control process?
- What are the common control systems and techniques?



Study Question 1: Why and how do managers control?

➤ Controlling

- The process of measuring performance and taking action to ensure desired results.
- Has a positive and necessary role in the management process.
- Ensures that the right things happen, in the right way, at the right time.
- Organizational learning and after-action review.

Study Question 1: Why and how do managers control?

➤ Feedforward controls

- Employed before a work activity begins.
- Ensures that:
 - Objectives are clear.
 - Proper directions are established.
 - Right resources are available.
- Focuses on quality of resources.



Study Question 1: Why and how do managers control?

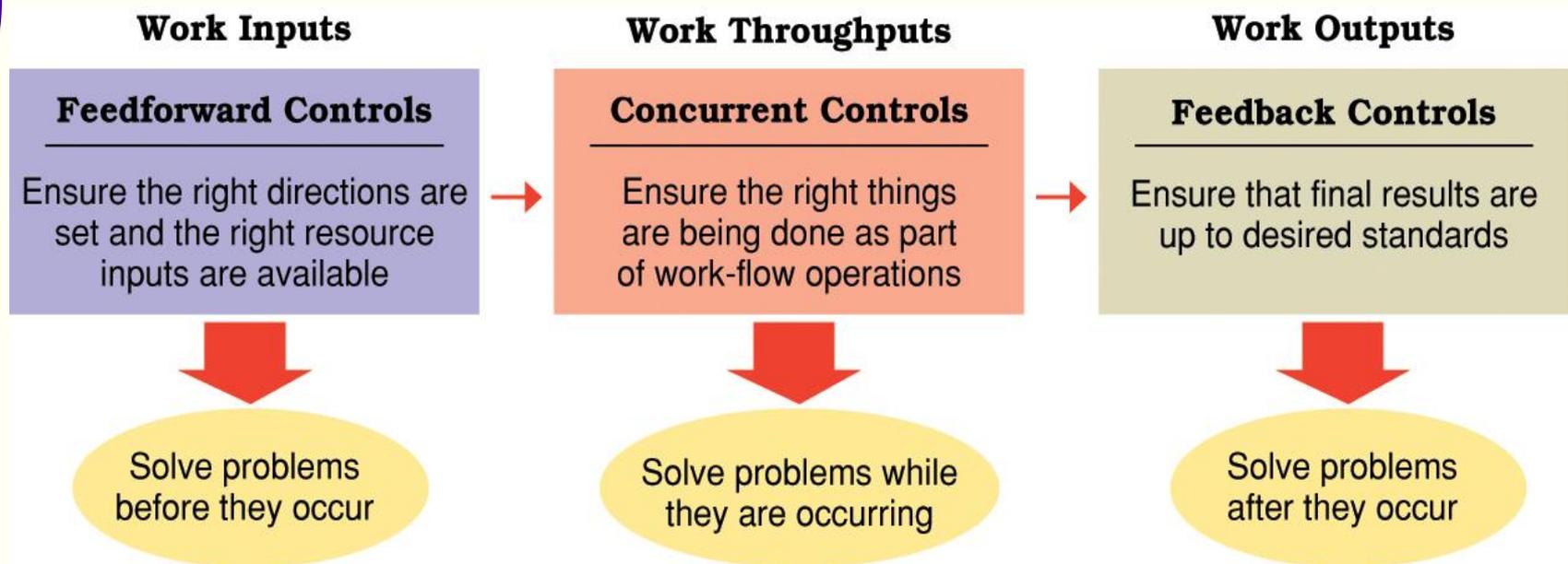
- **Concurrent controls**
 - Focus on what happens during work process.
 - Monitor ongoing operations to make sure they are being done according to plan.
 - Can reduce waste in unacceptable finished products or services.

Study Question 1: Why and how do managers control?

➤ Feedback controls

- Take place after work is completed.
- Focus on quality of end results.
- Provide useful information for improving future operations.

Figure 18.2 The role of feedforward, concurrent, and feedback controls in organizations.



Study Question 1: Why and how do managers control?

➤ Internal and external control

- Internal control
 - Allows motivated individuals and groups to exercise self-discipline in fulfilling job expectations.
- External control
 - Occurs through personal supervision and the use of formal administrative systems.



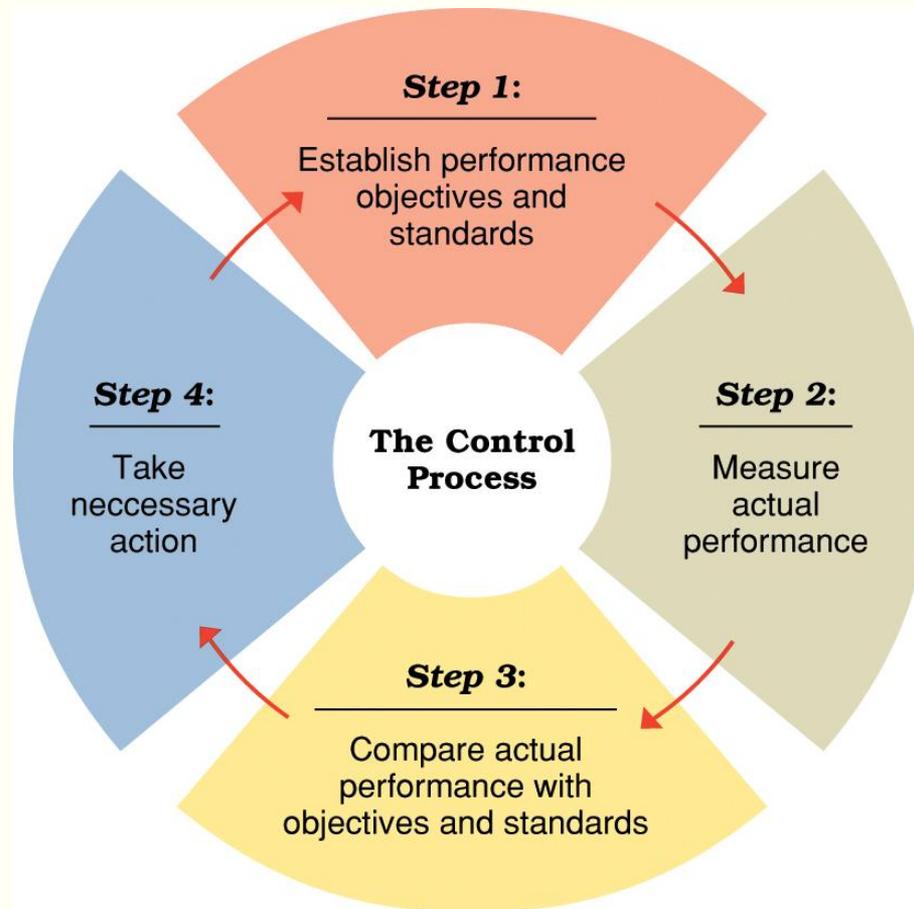
Study Question 2: What are the steps in the control process?

- **Steps in the control process:**
 - Step 1 — establish objectives and standards.
 - Step 2 — measure actual performance.
 - Step 3 — compare results with objectives and standards.
 - Step 4 — take corrective action as needed.

Study Question 2: What are the steps in the control process?

- Step 1 — establishing objectives and standards
 - Output standards
 - Measure performance results in terms of quantity, quality, cost, or time.
 - Input standards
 - Measure effort in terms of amount of work expended in task performance.

Figure 18.3 Four steps in the control process.



Study Question 2: What are the steps in the control process?

- Step 2 — measuring actual performance
 - Goal is accurate measurement of actual performance results and/or performance efforts.
 - Must identify significant differences between actual results and original plan.
 - Effective control requires measurement.

Study Question 2: What are the steps in the control process?

- Step 3 — comparing results with objectives and standards
 - Need for action reflects the difference between desired performance and actual performance
 - Comparison methods:
 - Historical comparison
 - Engineering comparison

Study Question 2: What are the steps in the control process?

- **Step 4 — taking corrective action**
 - Taking action when a discrepancy exists between desired and actual performance.
 - Management by exception
 - Giving attention to situations showing the greatest need for action.
 - Types of exceptions
 - Problem situation
 - Opportunity situation



Study Question 3: What are the common control systems and techniques?

- **Employee discipline systems**
 - Discipline is the act of influencing behavior through reprimand.
 - Discipline that is applied fairly, consistently, and systematically provides useful control.



Study Question 3: What are the common control systems and techniques?

➤ Employee discipline systems

- Progressive discipline ties reprimands to the severity and frequency of the employee's infractions.
- Progressive discipline seeks to achieve compliance with the least extreme reprimand possible.



Study Question 3: What are the common control systems and techniques?

- To be effective, reprimands should
 - Be immediate.
 - Be directed toward actions, not personality.
 - Be consistently applied.
 - Be informative.
 - Occur in a supportive setting.
 - Support realistic rules.

Study Question 3: What are the common control systems and techniques?

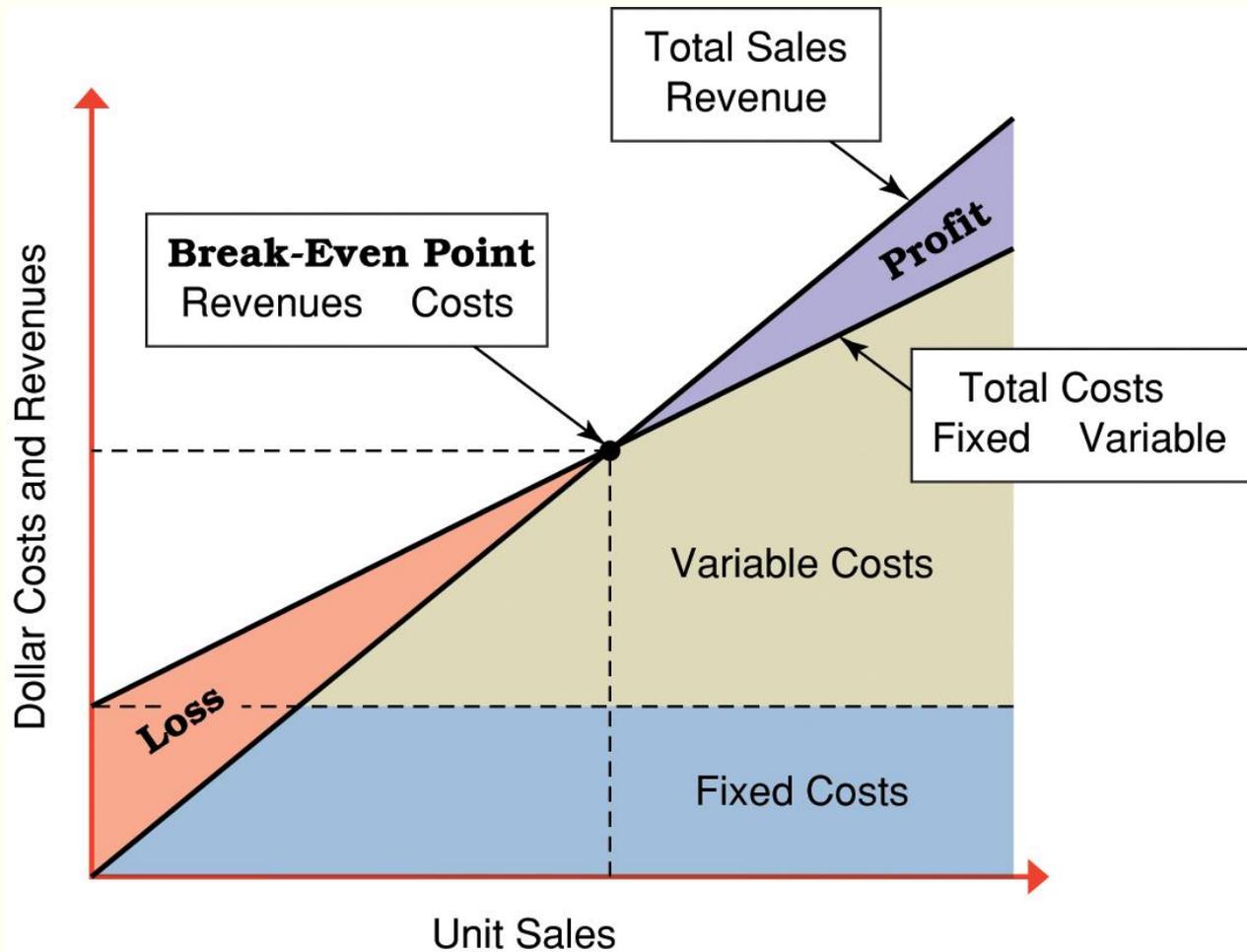
- Important financial aspects of organizational performance
 - Liquidity
 - The ability to generate cash to pay bills.
 - Leverage
 - The ability to earn more in returns than the cost of debt.
 - Asset management
 - The ability to use resources efficiently and operate at minimum cost.
 - Profitability
 - The ability to earn revenues greater than costs.

Study Question 3: What are the common control systems and techniques?

➤ Break-even analysis

- Determination of the point at which sales revenues are sufficient to cover costs.
- Break-Even Point =
$$\text{Fixed Costs} / (\text{Price} - \text{Variable Costs})$$
- Used in evaluating:
 - New products
 - New program initiatives

Figure 18.4 Graphical approach to break-even analysis.





Study Question 3: What are the common control systems and techniques?

➤ Purchasing control

- A productivity tool
- Trends in purchasing control:
 - Leveraging buying power
 - Committing to a small number of suppliers
 - Working together in supplier-purchaser partnerships

Study Question 3: What are the common control systems and techniques?

➤ Inventory control

- Goal is to ensure that inventory is just the right size to meet performance needs, thus minimizing the cost.
- Methods of inventory control:
 - Economic order quantity
 - Just-in-time scheduling



Study Question 3: What are the common control systems and techniques?

- **Statistical quality control**
 - Quality control involves checking processes, materials, products, and services to ensure that they meet high standards.
 - Statistical quality control involves:
 - Taking samples of work.
 - Measuring quality in the samples.
 - Determining the acceptability of results.

Controlling Balance Sheet (EXAMPLE: Company X, December 2002)

	ASSETS	
Current Assets		
Cash	150000	
Securities	100000	250000
Accounts Receivable		400000
Inventories		
Raw Materials and Supplies	200000	
Work in Progress	200000	
Finished Goods	300000	700000
Prepaid Expenses		50000
TOTAL CURRENT ASSETS		1400000
Property, Plant and Equipment	5000000	
Less accumulated depreciation and depletion	2000000	3000000
TOTAL ASSETS		4400000

What company
Owns

	Liabilities and Stockholders' Equity	
Current Liabilities		
Accounts Payable	100000	
Installments due within 1 year on debt	50000	
Federal Income and Other Taxes	200000	
Other Accrued liabilities	100000	
TOTAL CURRENT LIABILITIES		450000
Long term Debt		1000000
TOTAL LIABILITIES		1450000
Stockholders Equity		
Capital Stock	500000	
Retained Earnings	1000000	1500000
TOTAL LIABILITIES AND EQUITY		2950000

What company
Owes

Controlling Statement of Income and Retained Earnings

*(EXAMPLE:
Company X,
End of 2002)*

Gross Sales	4200000	
Less Returns and Allowances	<u>200000</u>	
Net Sales		4000000
Less Expenses and Costs of Goods Sold		
Cost Of Goods Sold	2000000	
Depreciation and Depletion	300000	
Selling Expenses	200000	
General and Administrative Expenses	<u>200000</u>	<u>2700000</u>
Operating Profit		1300000
Plus Interest and Other Income		<u>100000</u>
Gross Income		1400000
Less Interest Expense		50000
Income Before Taxes		<u>1350000</u>
Provision for Income Taxes		<u>300000</u>
Net Income		1050000
Retained Earnings January 1 2003		<u>1500000</u>
		2550000
Dividends Paid		<u>300000</u>
Retained Earnings December 31 2002		2250000

Controlling Financial Ratios (EXAMPLE: Company X, 2002)

		ASSETS	
Current Assets			
Cash		150000	
Securities		100000	250000
Accounts Receivable			400000
Inventories			
Raw Materials and Supplies		200000	
Work in Progress		300000	
Finished Goods		300000	700000
Prepaid Expenses			50000
TOTAL CURRENT ASSETS			1400000
Property, Plant and Equipment			
Less accumulated depreciation and depletion		5000000	3000000
TOTAL ASSETS			4400000
		Liabilities and Stockholders' Equity	
Current Liabilities			
Accounts Payable		100000	
Installments due within 1 year on debt		50000	
Federal Income and Other Taxes		200000	
Other Accrued liabilities		100000	
TOTAL CURRENT LIABILITIES			450000
Long term Debt			1000000
TOTAL LIABILITIES			1450000
Stockholders Equity			
Capital Stock		500000	
Retained Earnings		1000000	1500000
TOTAL LIABILITIES AND EQUITY			2950000

Liquidity Ratios

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

$$\frac{1400000}{450000} = 3,11$$

Measure the ability to meet short-term obligations.

As minimum 2.0 is used but it varies. A current ratio of 10 shows assets are not using efficiently.

Controlling Financial Ratios (EXAMPLE: Company X, 2002)

ASSETS		
Current Assets		
Cash	150000	
Securities	100000	250000
Accounts Receivable		400000
Inventories		
Raw Materials and Supplies	200000	
Work in Progress	200000	
Finished Goods	300000	700000
Prepaid Expenses		50000
TOTAL CURRENT ASSETS		1400000
Property, Plant and Equipment	3000000	
Less accumulated depreciation and depletion	2000000	3000000
TOTAL ASSETS		4400000
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts Payable	100000	
Installments due within 1 year on debt	50000	
Federal Income and Other Taxes	200000	
Other Accrued liabilities	100000	
TOTAL CURRENT LIABILITIES		450000
Long term Debt		1000000
TOTAL LIABILITIES		1450000
Stockholders Equity		
Capital Stock	500000	
Retained Earnings	1000000	1500000
TOTAL LIABILITIES AND EQUITY		2950000

Liquidity Ratios

Acid Test Ratio

$\frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$

Current Liabilities

$$\frac{1400000 - 700000}{450000} = 1,56$$

For quickly converting to cash we calculate this ratio.

It is difficult to convert inventories to cash, Therefore, inventory extracted.

Over 1.0 is OK.

Controlling Financial Ratios (EXAMPLE: Company X, 2002)

		ASSETS	
Current Assets			
Cash		150000	
Securities		100000	250000
Accounts Receivable			400000
Inventories			
Raw Materials and Supplies		200000	
Work in Progress		200000	
Finished Goods		300000	700000
Prepaid Expenses			50000
TOTAL CURRENT ASSETS			1400000
Property, Plant and Equipment		5000000	
Less accumulated depreciation and depletion		2800000	2200000
TOTAL ASSETS			4400000
Liabilities and Stockholders' Equity			
Current Liabilities			
Accounts Payable		100000	
Installments due within 1 year on debt		50000	
Federal Income and Other Taxes		200000	
Other Accrued liabilities		100000	
TOTAL CURRENT LIABILITIES			450000
Long term Debt			1000000
TOTAL LIABILITIES			1450000
Stockholders Equity			
Capital Stock		500000	
Retained Earnings		1000000	1500000
TOTAL LIABILITIES AND EQUITY			2950000

Leverage Ratios

Debt-to-assets ratio

Total Debt

Total Assets

$$\frac{1450000}{4400000} = 0,33$$

Relative importance of stockholders and outside creditors as a source of enterprise's capital.

Rate is dependent on the industry.

Controlling Financial Ratios (EXAMPLE: Company X, 2002)

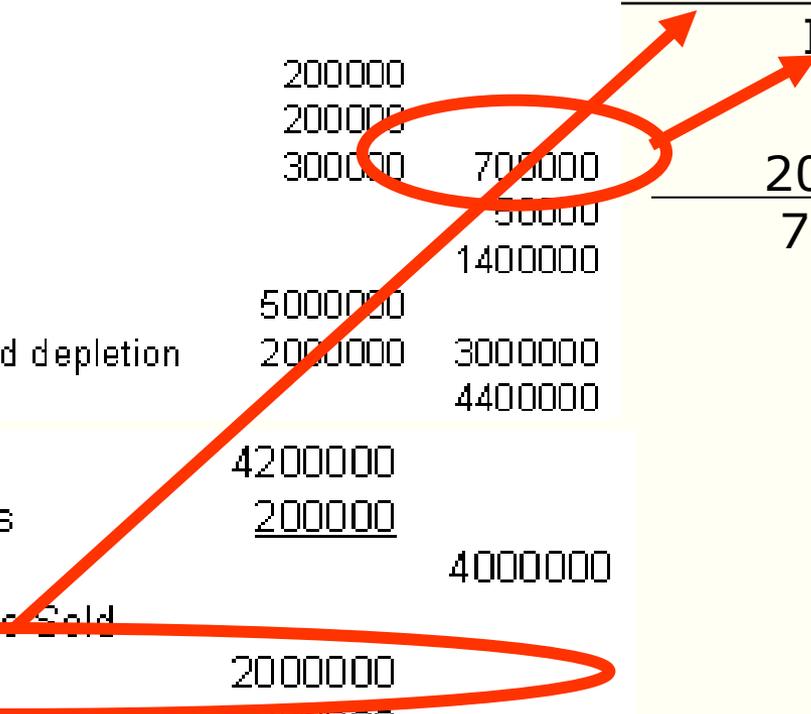
Activity Ratios

Inventory Turnover
 $\frac{\text{Cost of Goods Sold}}{\text{Inventory}}$

Inventory

$$\frac{2000000}{700000} = 2,86$$

	ASSETS	
Current Assets		
Cash	150000	
Securities	100000	250000
Accounts Receivable		400000
Inventories		
Raw Materials and Supplies	200000	
Work in Progress	200000	
Finished Goods	300000	700000
Prepaid Expenses		50000
TOTAL CURRENT ASSETS		1400000
Property, Plant and Equipment	5000000	
Less accumulated depreciation and depletion	2000000	3000000
TOTAL ASSETS		4400000
Gross Sales	4200000	
Less Returns and Allowances	<u>200000</u>	
Net Sales		4000000
Less Expenses and Costs of Goods Sold		
Cost Of Goods Sold	2000000	
Depreciation and Depletion	300000	
Selling Expenses	200000	
General and Administrative Expenses	<u>200000</u>	2700000
Operating Profit		1300000
Plus Interest and Other Income		<u>100000</u>
Gross Income		1400000



Controlling Financial Ratios (EXAMPLE: Company X, 2002)

Current Assets	ASSETS			Activity Ratios
Cash	150000			Accounts Receivable
Securities	100000	250000		Turnover
Accounts Receivable		400000		
Inventories				
Raw Materials and Supplies	200000			Net Sales
Work in Progress	200000			Accounts Receivable
Finished Goods	300000	700000		
Prepaid Expenses		50000		
TOTAL CURRENT ASSETS		1400000		$\frac{4000000}{400000} = 10$
Property, Plant and Equipment	5000000			
Less accumulated depreciation and depletion	2000000	3000000		
TOTAL ASSETS		4400000		
Gross Sales	4200000			
Less Returns and Allowances	200000			
Net Sales		4000000		
Less Expenses and Costs of Goods Sold				
Cost Of Goods Sold	2000000			
Depreciation and Depletion	300000			
Selling Expenses	200000			
General and Administrative Expenses	200000	2700000		
Operating Profit		1300000		
Plus Interest and Other Income		100000		
Gross Income		1400000		



Controlling Financial Ratios (EXAMPLE: Company X, 2002)

Current Assets	ASSETS		Activity Ratios
Cash	150000		
Securities	100000	250000	Asset Turnover
Accounts Receivable		400000	<u>Net Sales</u>
Inventories			<u>Total Assets</u>
Raw Materials and Supplies	200000		
Work in Progress	200000		
Finished Goods	300000	700000	
Prepaid Expenses		50000	$\frac{4000000}{4400000} = 0,91$
TOTAL CURRENT ASSETS		1400000	
Property, Plant and Equipment	5000000		
Less accumulated depreciation and depletion	2000000	3000000	
TOTAL ASSETS		4400000	
Gross Sales	4200000		
Less Returns and Allowances	200000		
Net Sales		4000000	
Less Expenses and Costs of Goods Sold			
Cost Of Goods Sold	2000000		
Depreciation and Depletion	300000		
Selling Expenses	200000		
General and Administrative Expenses	200000	2700000	
Operating Profit		1300000	
Plus Interest and Other Income		100000	
Gross Income		1400000	

Controlling Financial Ratios (EXAMPLE: Company X, 2002)

Profitability Ratios

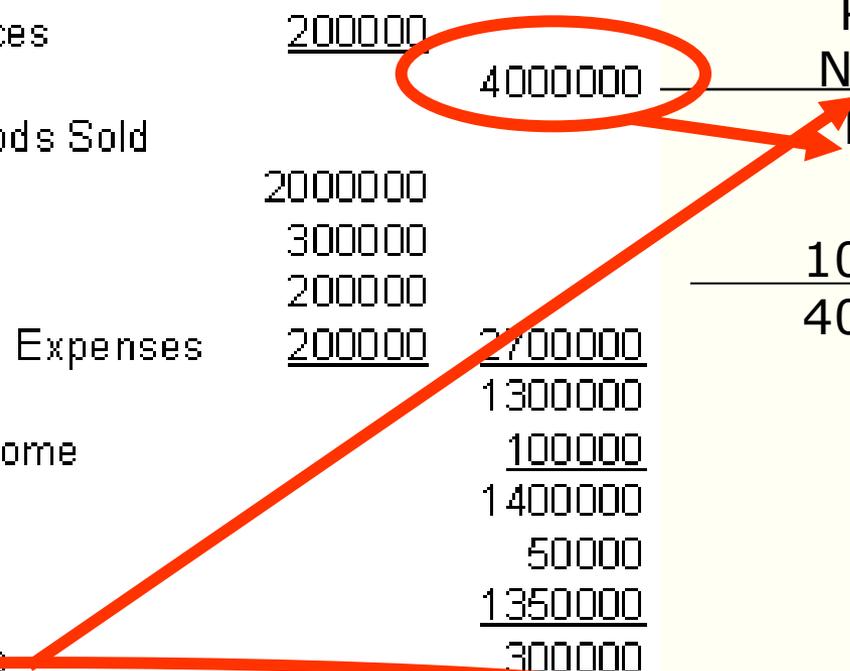
Profit Margin

Net Income

Net Sales

$$\frac{1050000}{4000000} = 26,3\%$$

Gross Sales	4200000	
Less Returns and Allowances	<u>200000</u>	
Net Sales	4000000	
Less Expenses and Costs of Goods Sold		
Cost Of Goods Sold	2000000	
Depreciation and Depletion	300000	
Selling Expenses	200000	
General and Administrative Expenses	<u>200000</u>	<u>2700000</u>
Operating Profit		1300000
Plus Interest and Other Income		<u>100000</u>
Gross Income		1400000
Less Interest Expense		50000
Income Before Taxes		<u>1350000</u>
Provision for Income Taxes		<u>300000</u>
Net Income		1050000
Retained Earnings January 1, 2002		<u>1500000</u>
		2550000
Dividends Paid		<u>300000</u>
Retained Earnings December 31, 2002		2250000



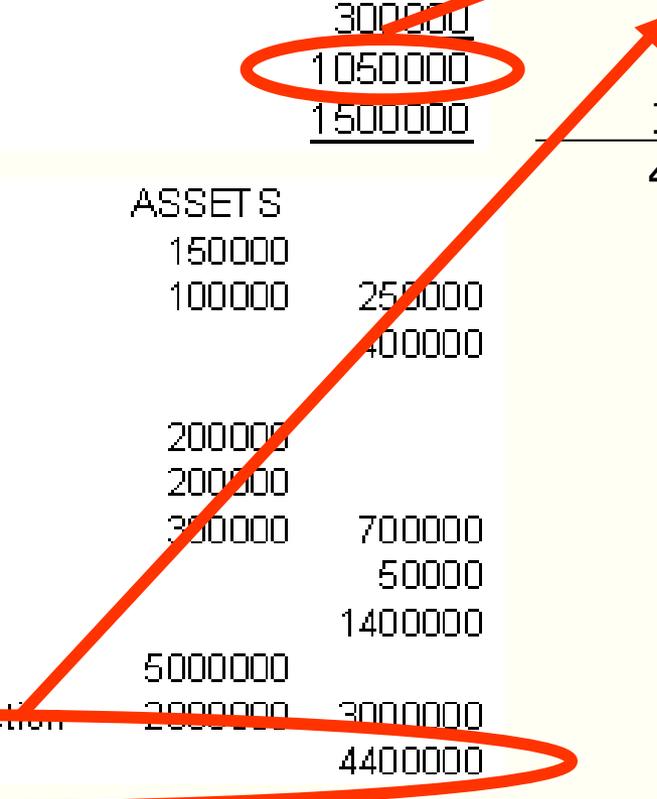
Controlling Financial Ratios (EXAMPLE: Company X, 2002)

Plus Interest and Other Income	100000
Gross Income	1400000
Less Interest Expense	50000
Income Before Taxes	1350000
Provision for Income Taxes	300000
Net Income	1050000
Retained Earnings January 1, 2003	1500000

Profitability Ratios
Return on Total Assets

$$\frac{\text{Net Income}}{\text{Total Assets}} = \frac{1050000}{4400000} = 23,8\%$$

Current Assets	ASSETS	
Cash	150000	
Securities	100000	250000
Accounts Receivable		400000
Inventories		
Raw Materials and Supplies	200000	
Work in Progress	200000	
Finished Goods	300000	700000
Prepaid Expenses		50000
TOTAL CURRENT ASSETS		1400000
Property, Plant and Equipment	5000000	
Less accumulated depreciation and depletion	2000000	3000000
TOTAL ASSETS		4400000



Controlling

Budgets

Plans for the future allocation and use of resources over a fixed period of time.

Financial Budgets

Planning of cash for the coming period and how the company intends to use it.

Three Types of Financial Budgets

1. **Cash Budgets:** Estimate future revenues and expenditure and their timing during budgeting period
2. **Capital Expenditure Budgets:** Describes future investments in plant and equipment
3. **Balance Sheet Budget:** Uses the first two estimates to predict what balance sheet look like at the end of budgeting period

Controlling

Budgets

Plans for the future allocation and use of resources over a fixed period of time.

There are *responsibility centers* in organizations.

Cost Center: Primary financial concern is control of costs

Revenue Center (Sales or Marketing): The manager has revenue targets to meet

Profit Centers: For manipulating costs to increase profit.

Operating budgets can be created like expense budget, revenue budget and profit budget.

Controlling

Budgeting Process

Budgets can be prepared by a central group and imposed on everyone by top management (top-down approach).

This does not take the advantage of information from lower management.

Alternatively, budgets can be prepared in responsibility centers.

They tend to be inflated and doesn't consider upper management goals and objectives.

Controlling

Audits of Financial Data

Audits are investigations of an organization's activities to verify their correctness and identify any need for improvement.

External Audits: required at least once a year for publicly held organization by independent companies

Internal Auditing Staff: They spend their times in auditing several units of organization

Controlling

Non-financial Controls

Human Resource Control: Seen in Human Aspects of organizing

Management Audit: By answering some questions about management such as planning, organizing and staffing, directing, control, resource planning and control

Human Resource Accounting: Investments in acquiring people and in extensive training

Social Control: Building an organizational culture and controlling.