

Patrician College of Arts and Science

Department of
Commerce

Subject Code :
CPZ6B

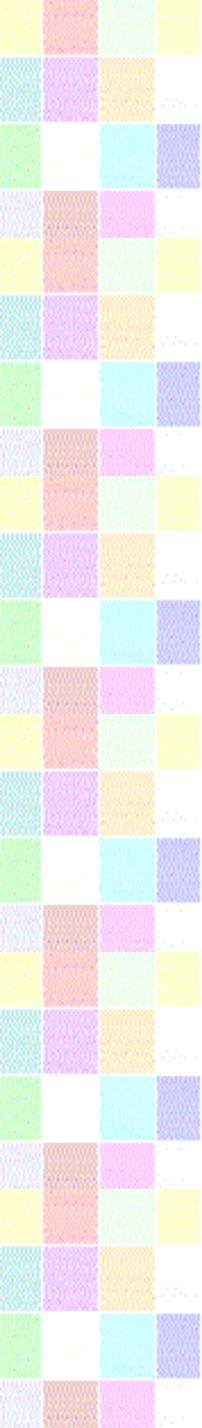
Presented By

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Assistant Professor



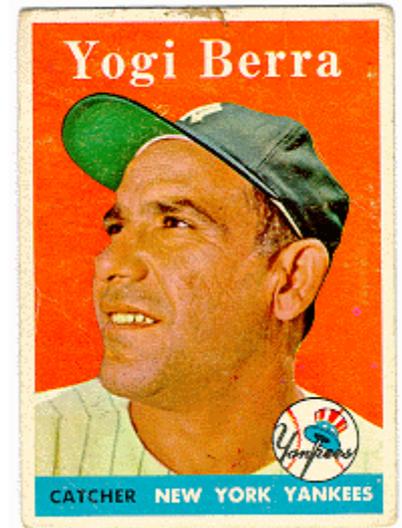
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“We made too many wrong mistakes.”

“It ain’t over till its over!”

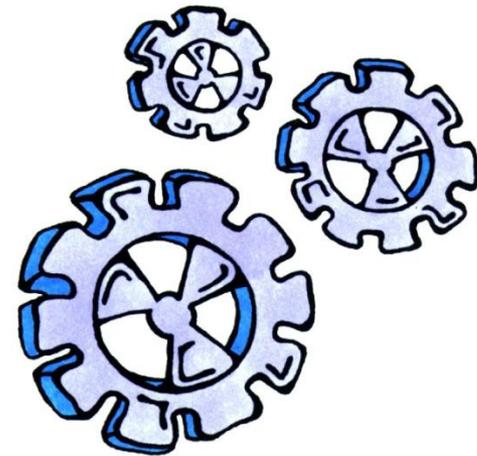
“When you come to a fork in the road, take it!”



Section Four: Cost Concepts and Analysis



Switching Gears





Managerial Accounting

A Potpourri of Management Accounting Topics



Let's see
what's in the
managerial
accounting
bag!

Managerial Accounting Vs. Financial Accounting



WOW! A
Comparison
!

External Uses

Financial Reporting
(Bank Loans)

Financial Reporting
(Owners/Investors)

Financial Reporting
(Taxation)

Financial Accounting

Accounting System

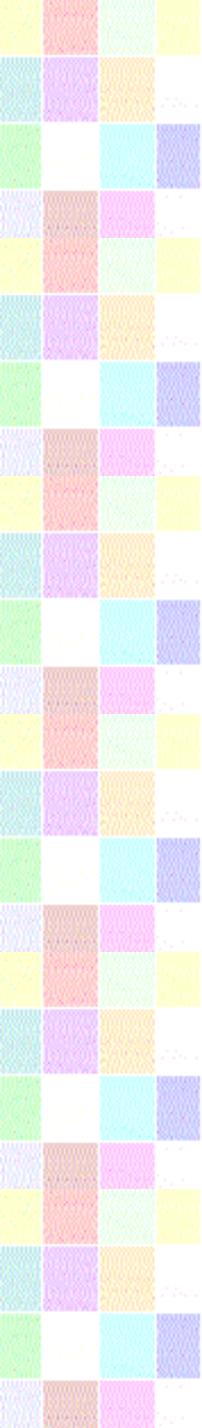
Managerial Accounting

Determine Cost
Per Unit

Performance
Evaluation

Non-Routine
Decisions

Internal Uses

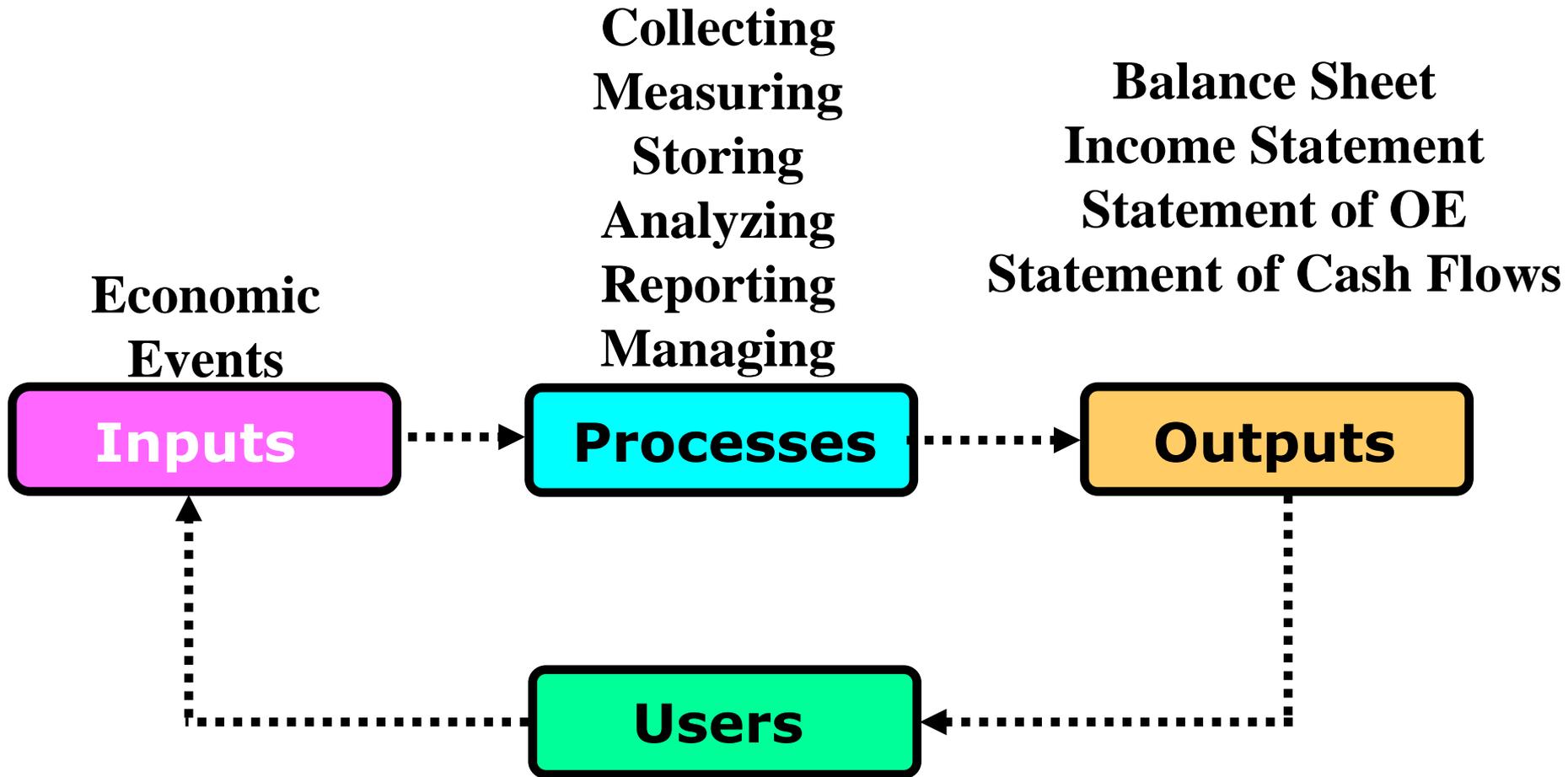


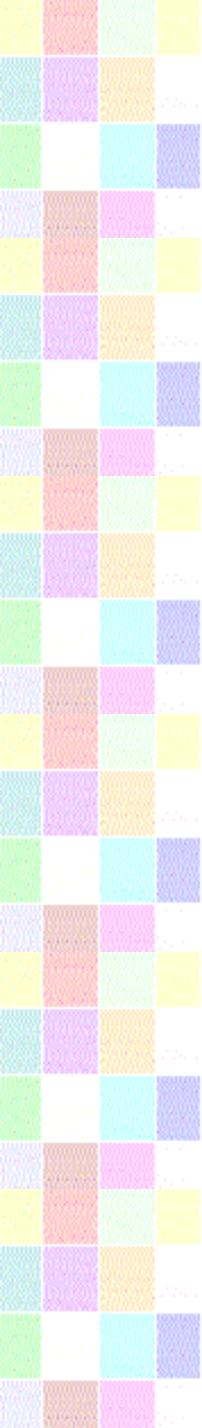
Financial Accounting



- External Focus
- Follows externally imposed rules (GAAP)
- Objective financial information
- Historical orientation
- Information about the firm as a whole (highly summarized)

Financial Accounting Information Systems



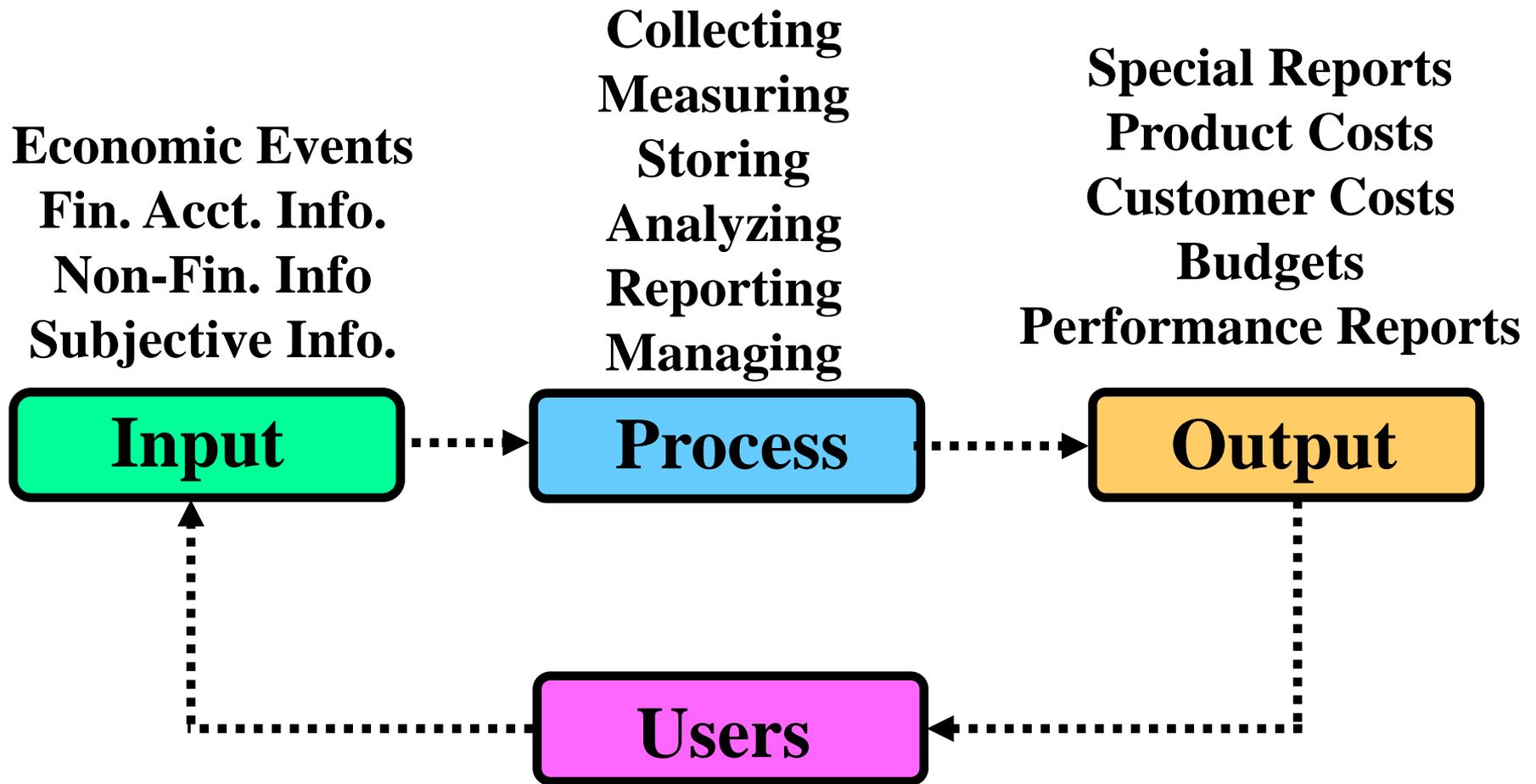


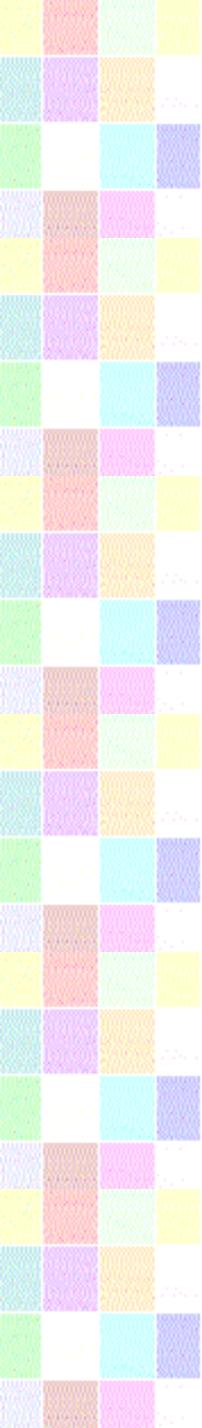
Managerial Accounting



- Internal Focus
- No mandatory rules
- Both financial and nonfinancial information utilized; subjective information possible
- Emphasis on future (heavy use of historical data)

Management Accounting Information Systems





Management Accounting



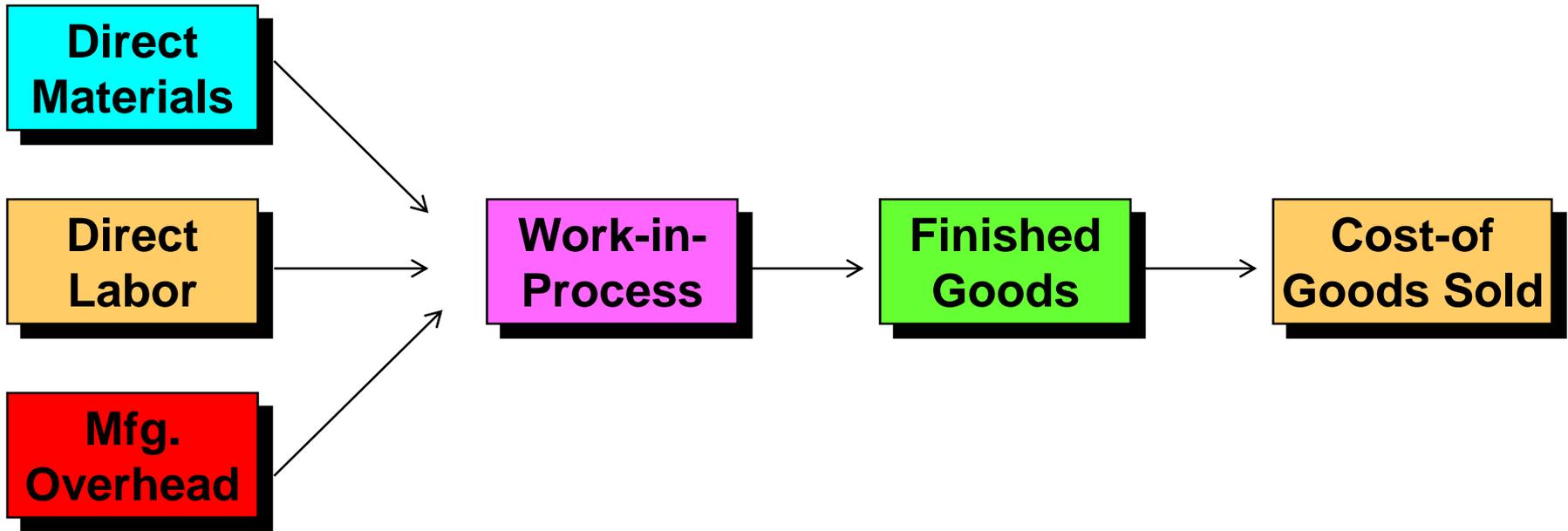
- Provides information to management for . . .
 - Costing product/service
 - Performance evaluations
 - Various non-routine decisions

Management Cost Accounting in a Manufacturing Firm



Yes! A General
Model of Cost
Flow and
Accumulation!

Cost Flows in a Manufacturing Firm



Cost Flows

Manufacturing Costs

Costs incurred in the manufacture of goods being produced.

Direct
Materials

Direct
Labor

Mfg.
Overhead

Work
Pr

- Known as product (inventoriable) costs.
- They are expensed when the product is sold.

Cost Flow

✱ Those materials that become an integral part of the finished product and can be physically traced to the product.

Direct
Materials

Direct
Labor

✱ Those factory labor costs that can be physically traced to the production of the finished product.

Mfg.
Overhead

✱ All costs associated with the manufacture of a product except direct materials and direct labor.

Direct

- Known as Period costs.
- They are expensed in the period in which they are incurred.

Nonmanufacturing Costs

Costs incurred for other than production activities.

Cost of Goods Sold

Income Statement

Gross Margin

Nonmanufacturing Expenses

-

=

Net Income

★ General & Administrative Expenses

All executive, organizational, and clerical costs associated with the general management of the firm.

★ Selling & Distribution Expenses

All costs necessary to secure customer orders and get the products/services to the customer.

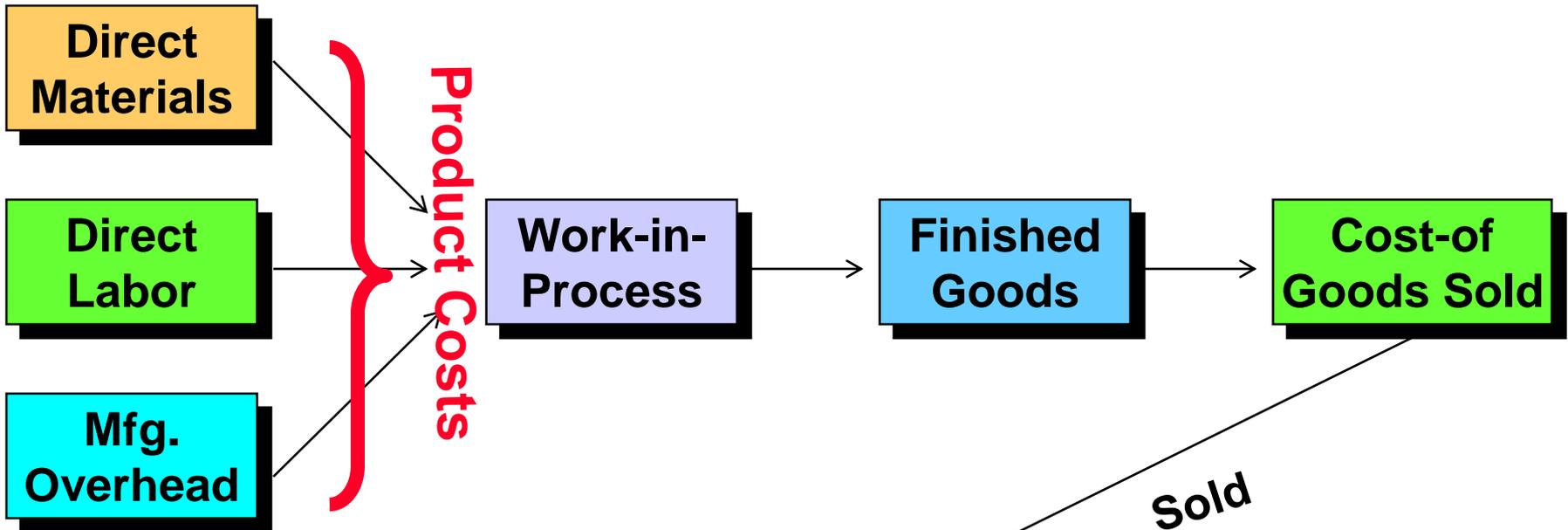
Income
Statement

= **Gross Margin**

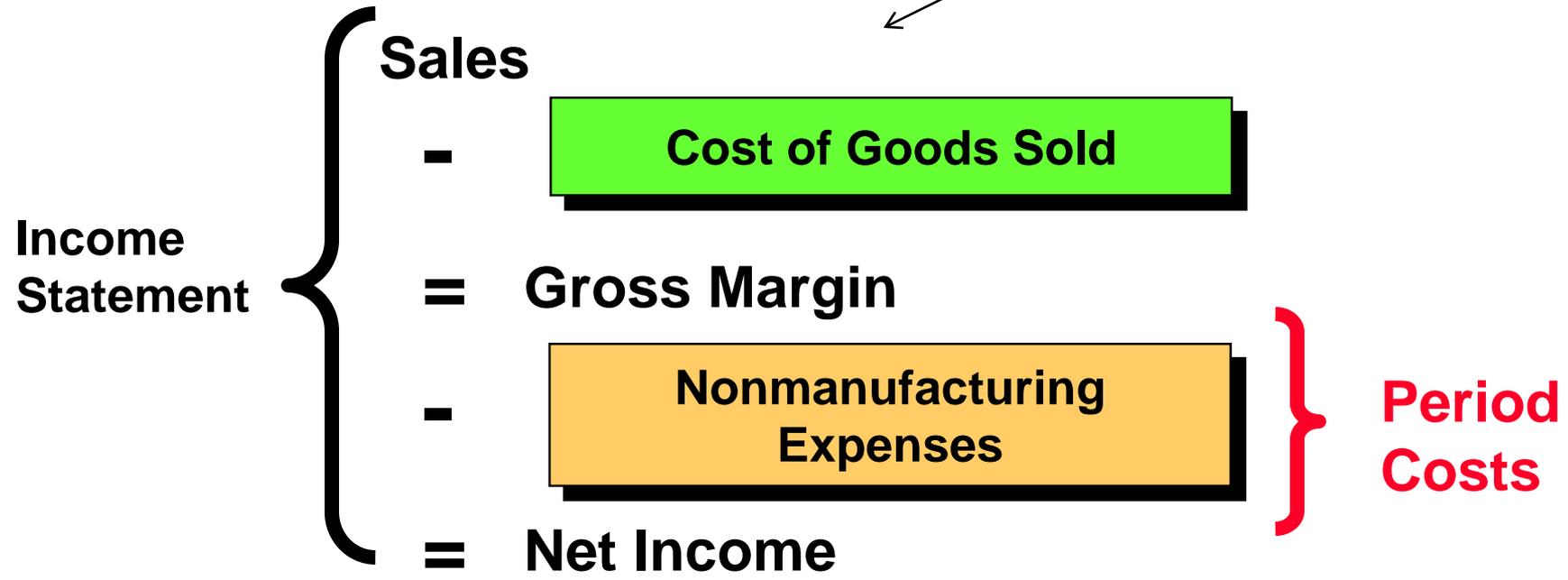
-

**Nonmanufacturing
Expenses**

= **Net Income**



Sold



Some Other Definitions



Definitions!
Oh good! I
love
definitions!

Anything for which a separate measurement of costs is desired
(products, customers,
departments, etc.)

**Indirect
Costs**



**Cost
Object**

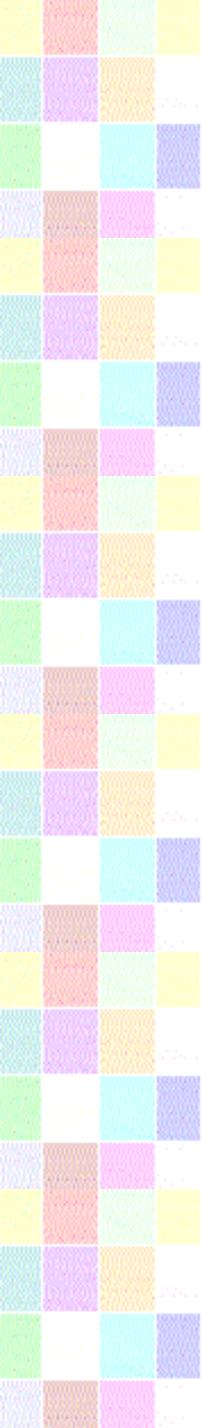
**Direct
Costs**

Costs that are related to and directly traceable to the identified cost objective.
(Direct Material, Direct Labor)

**Indirect
Costs**

Costs that are related to, but not traceable to, the identified cost objective. (Manufacturing overhead)

**Cost
Object**



Cost is defined as . . .



. . . the value of assets
given up, or to be given up,
to acquire other assets.



Cost is defined as . . .



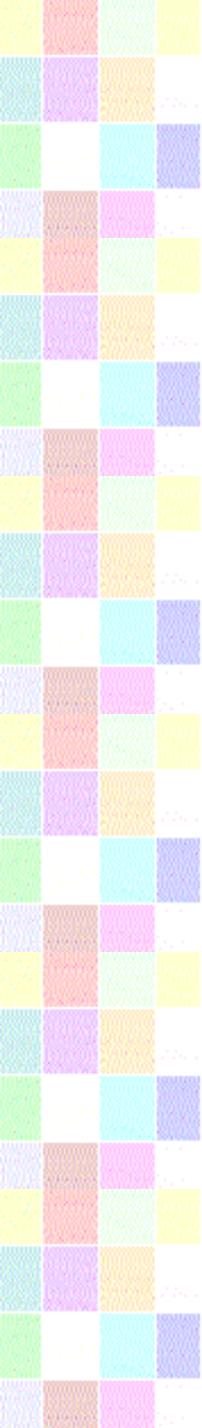
. . . the cash or cash equivalent value sacrificed for goods and services that are expected to bring a current or future benefit to the organization.



Cost is defined as . . .



. . . the cash or cash equivalent value sacrificed for goods and services that are expected to bring a current or future benefit to the organization.



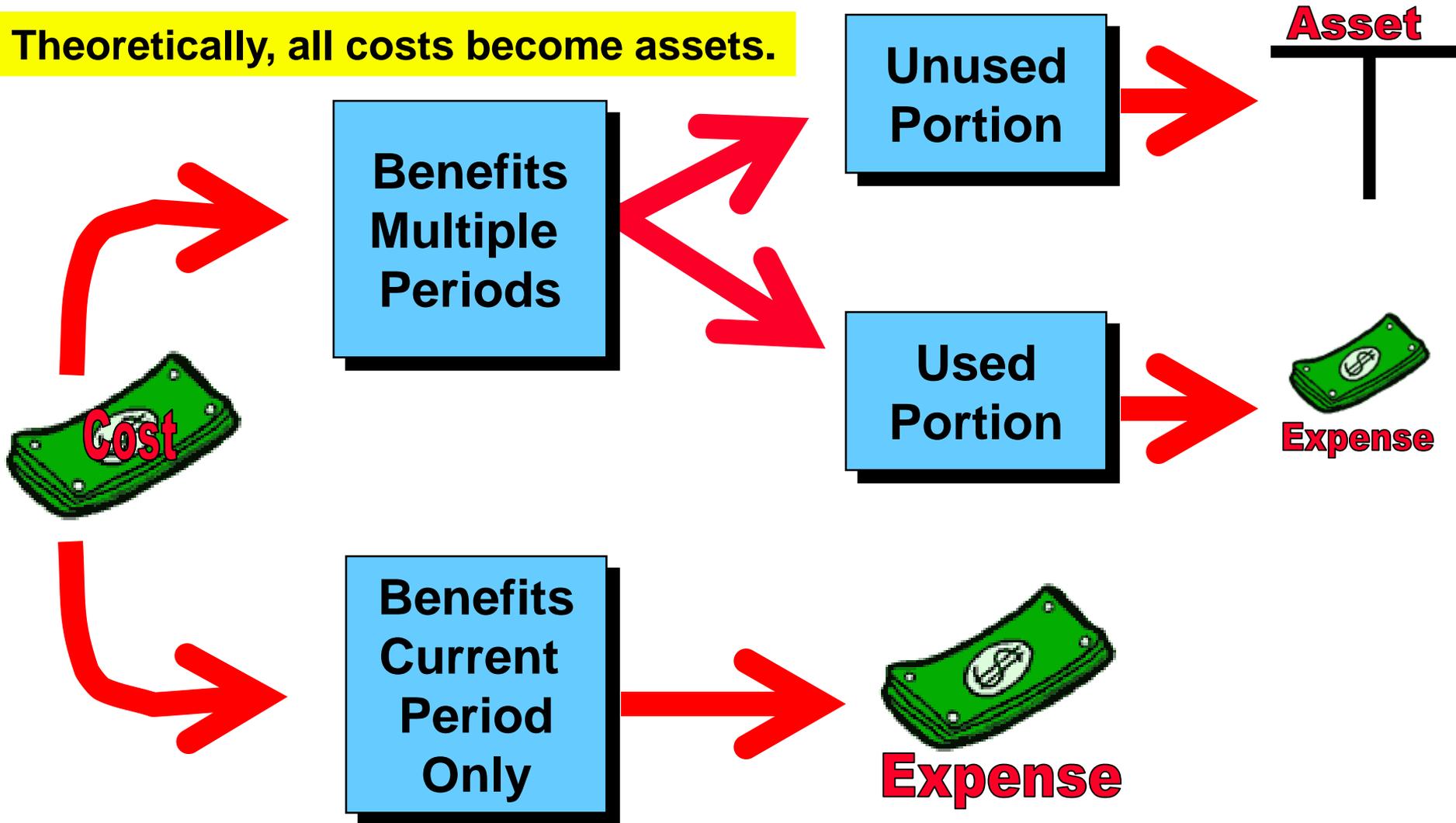
Expense . . .



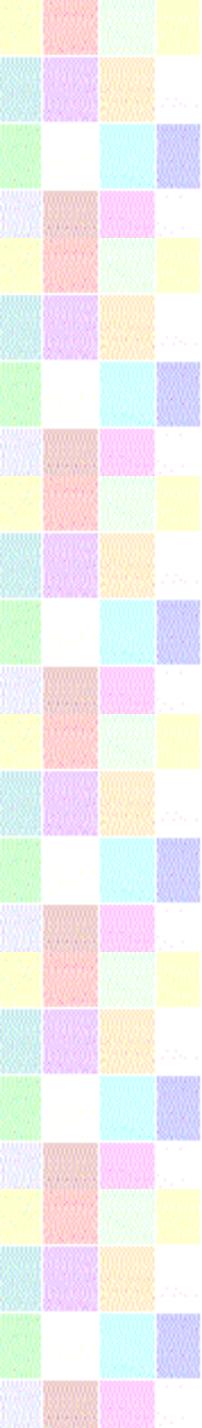
- The value of assets given up to generate revenue.
- An expired cost.

Cost Vs. Expense

Theoretically, all costs become assets.



But often are charged to expense immediately.



For Managerial Accounting:



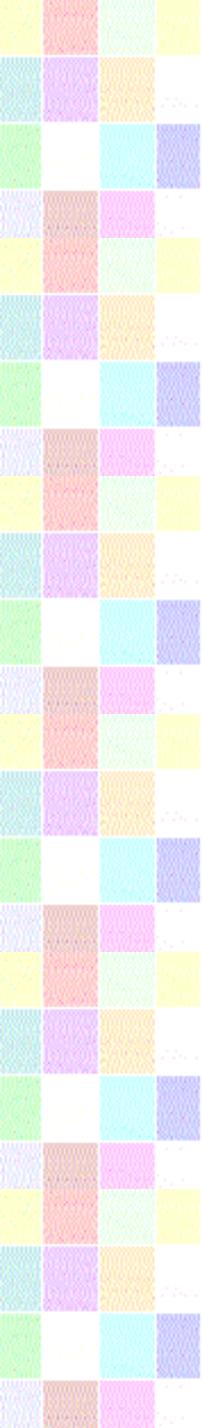
- ❖ A cost can be classified in many different ways.
- ❖ An adjective is used to describe costs (i.e., to signify their purpose).



Opportunity Cost



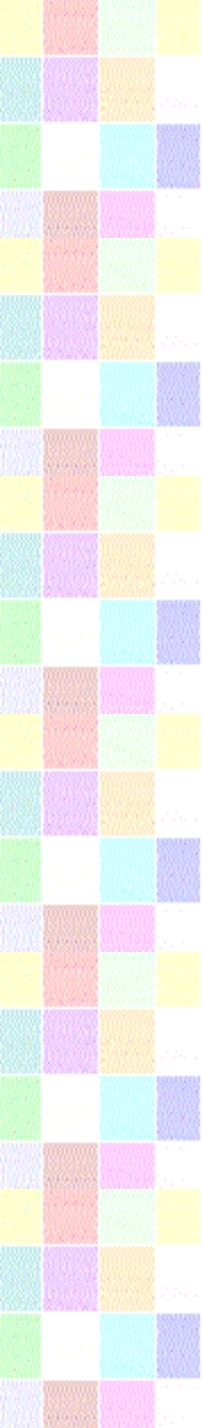
- The benefit given up or sacrificed when one alternative is chosen over another.



Other Adjectives . . .



- ❖ Manufacturing/
Nonmanufacturing Costs
- ❖ Period/Product Costs
- ❖ Fixed/Variable Costs

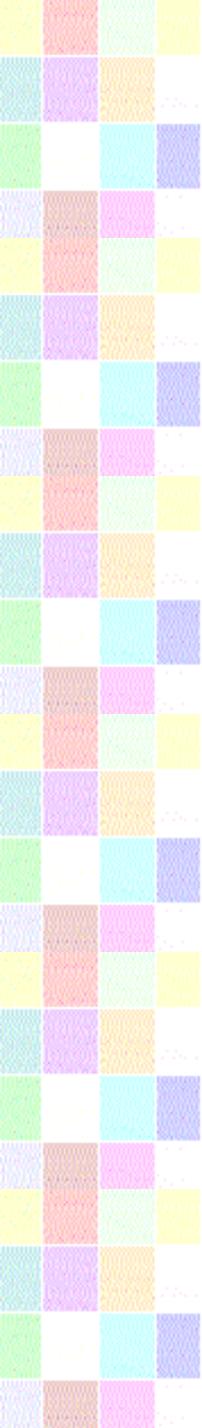


Other Adjectives . . .

- 
- ❖ Selling/Administrative Costs
 - ❖ Differential Cost
 - ❖ Sunk Cost

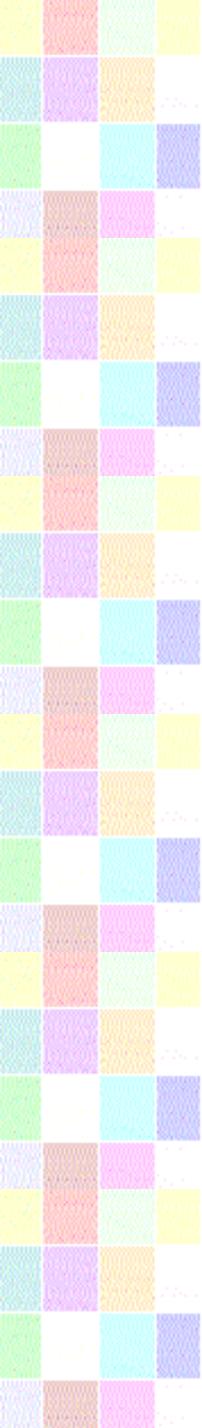
Relevant Costs

- Any cost that is a **future** cost
- Any cost that **differs among alternatives** and will influence the outcome,
- Any cost that is **avoidable**



Avoidable Cost

- 
- A cost that can be eliminated (in whole, or in part) as a result of choosing one alternative over another.



Sunk Costs . . .



- Costs that have been incurred or committed in the past.
- Sunk costs are irrelevant because the decision maker no longer has discretion over them.

Issues in Managerial Accounting



Yeah! A look
at managerial
accounting
issues!

Cost Measurement

Cost Accumulation

Cost Assignment

Direct Materials

Direct Labor

Mfg. Overhead

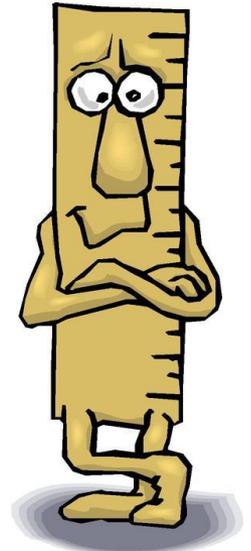
Work-in-Process

Finished Goods

Cost-of Goods Sold

Goal: Accurately costed products.

Cost Measurement

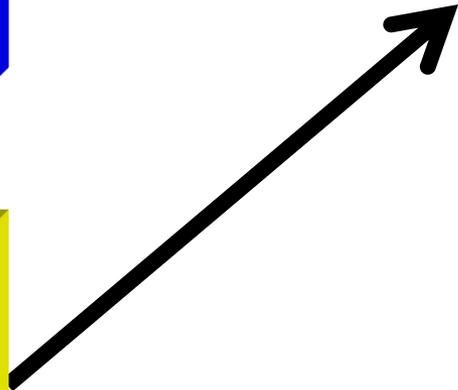
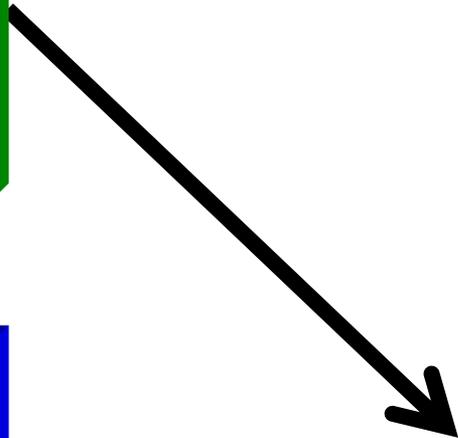


Actual
Costing
System

Normal
Costing
System

Standard
Costing
System

Measuring
Costs

The diagram features a large red rectangular box on the right side. Inside this box, the text "Measuring Costs" is written in white, bold, sans-serif font. Surrounding the text are four stacks of green money, each with a white dollar sign on the front. The stacks are arranged in a 2x2 grid: two at the top and two at the bottom.

Actual
Costing
System

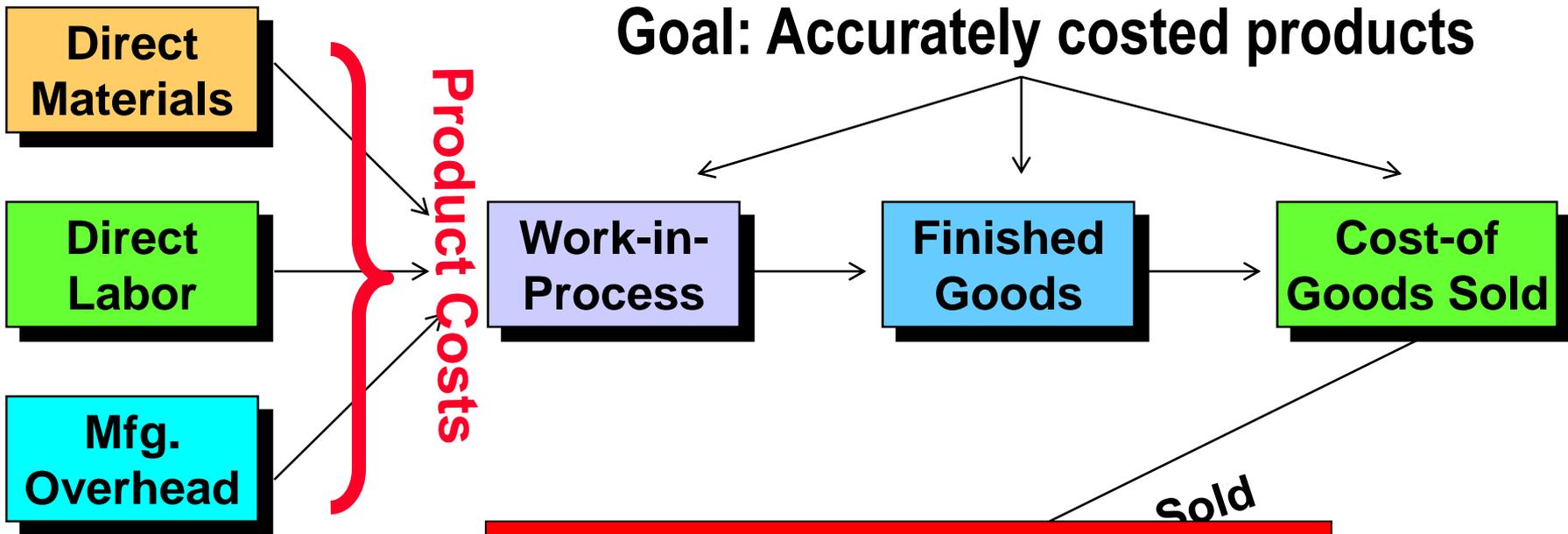
Normal
Costing
System

Standard
Costing
System

Costs charged to production:

1. Actual Direct Materials
2. Actual Direct Labor
3. Actual Manufacturing Overhead

Goal: Accurately costed products



Income Statement

Sa

Timeliness is critical

= **Gross Margin**

-

Nonmanufacturing Expenses

=

Net Income

Period Costs

Actual
Costing
System

Normal
Costing
System

Standard
Costing
System

Costs charged to production:

1. Actual Direct Materials
2. Actual Direct Labor
3. Estimated Manufacturing Overhead

Let's look
at this.

Predetermined Overhead Rate (POR)

**Estimated
Overhead**

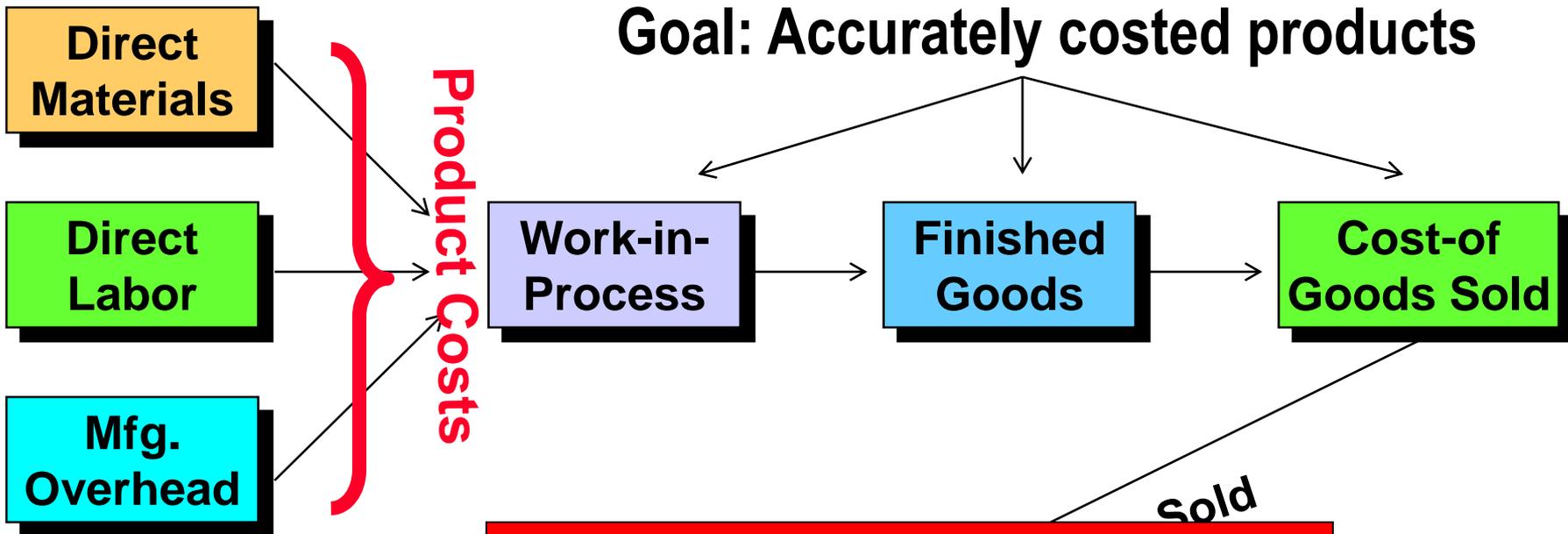
Budgeted Overhead

POR = -----

Budgeted Activity Usage

**Estimated
Activity Base**

Goal: Accurately costed products



Income Statement

Sa

Timeliness is critical

= **Gross Margin**

-

Nonmanufacturing Expenses

=

Net Income

Period Costs

**Actual
Costing
System**

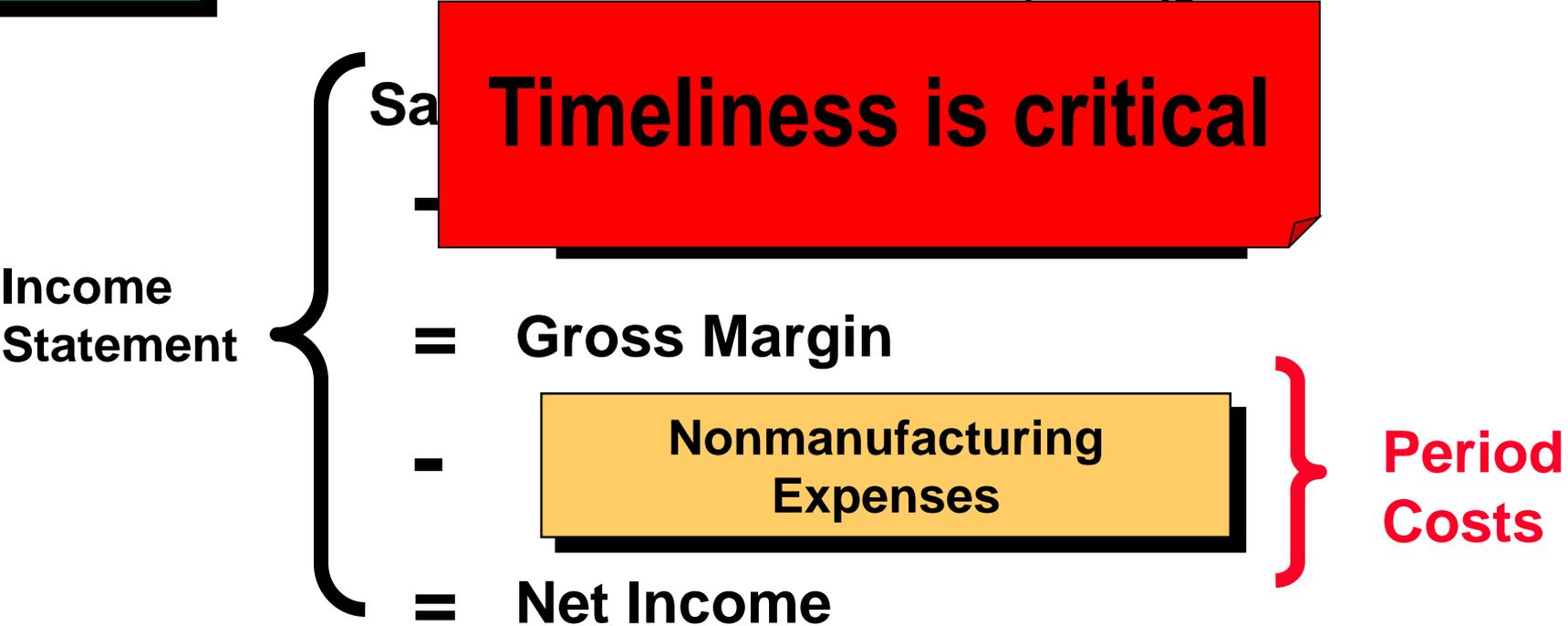
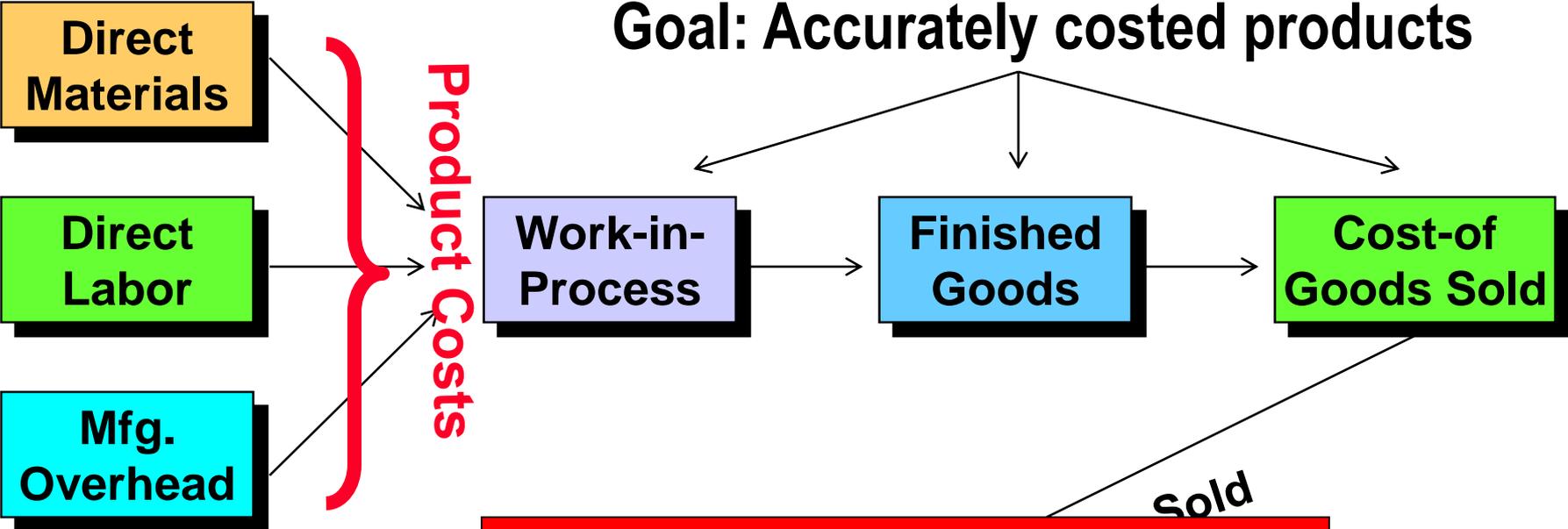
**Normal
Costing
System**

**Standard
Costing
System**

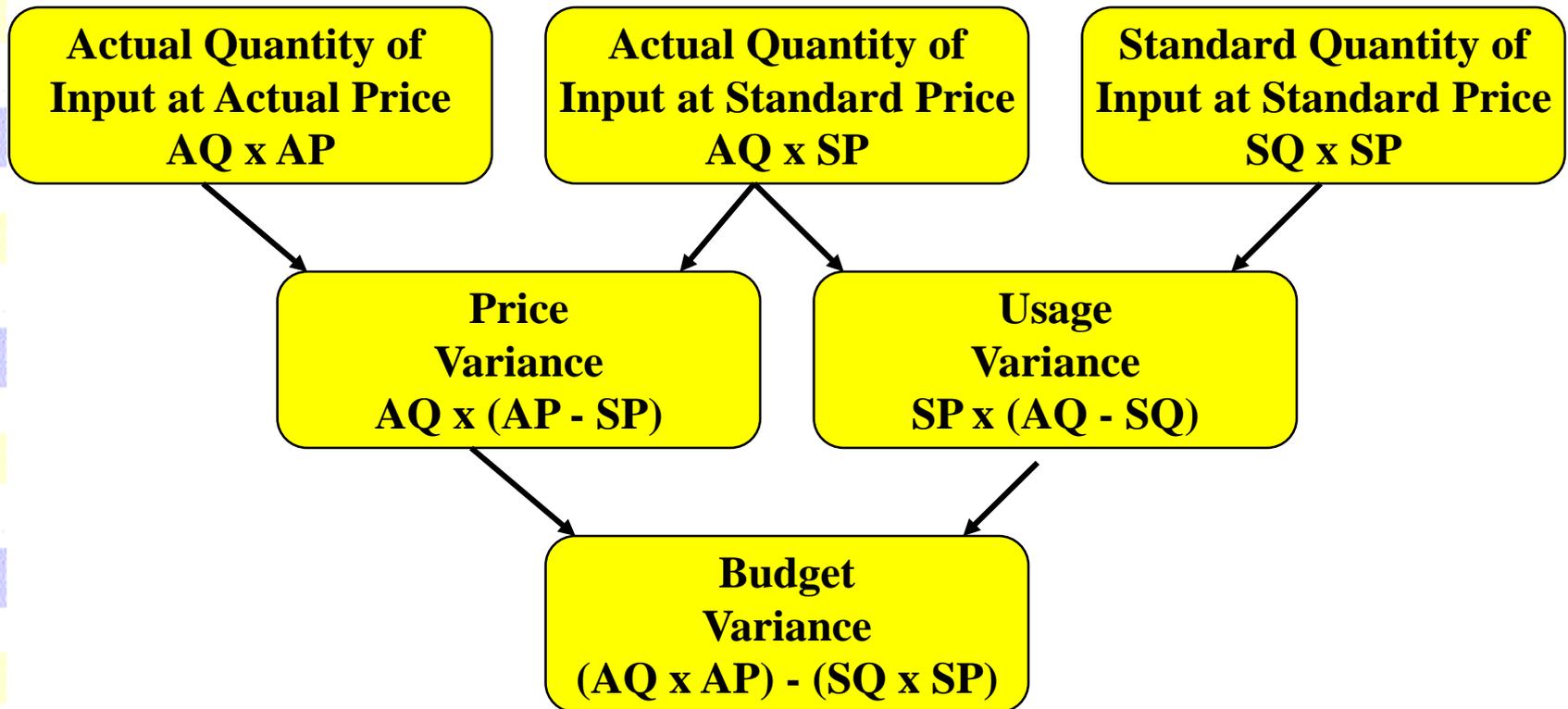
Costs charged to production:

1. Standard Direct Materials
2. Standard Direct Labor
3. Standard Manufacturing Overhead

Goal: Accurately costed products



Variance Analysis: General Description



Cost Accumulation



Cost Accounting Systems

Product Costs

Job-Order Costing

Process Costing



Total/Unit Cost



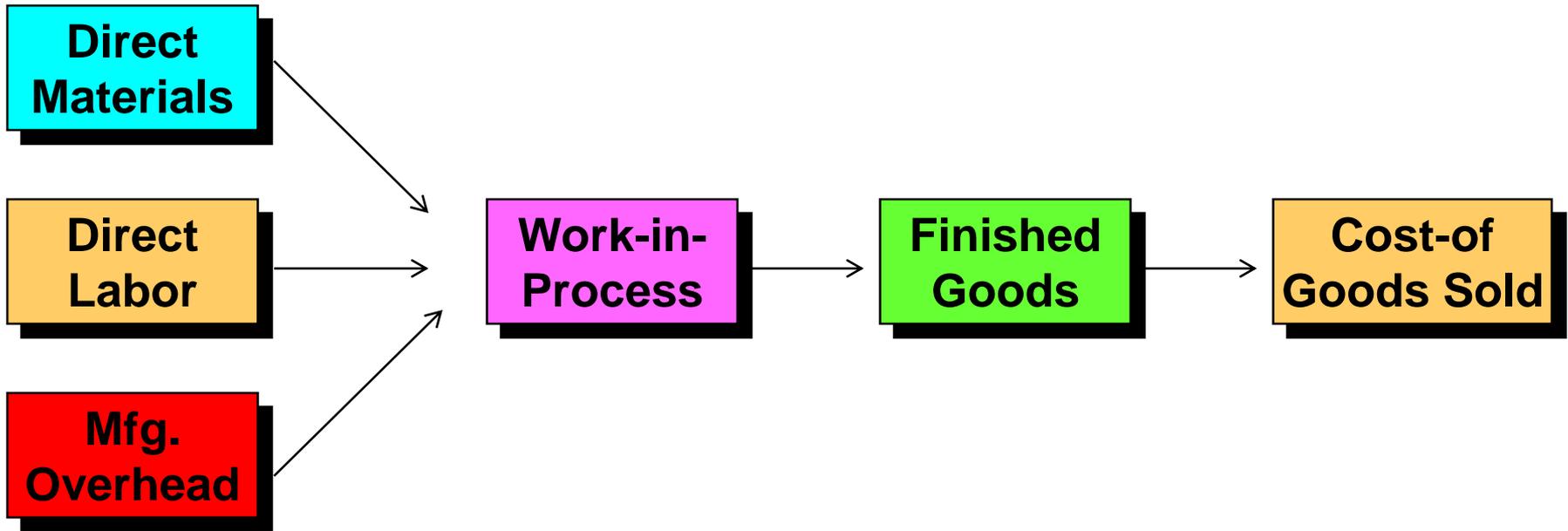


Process Costing . . .

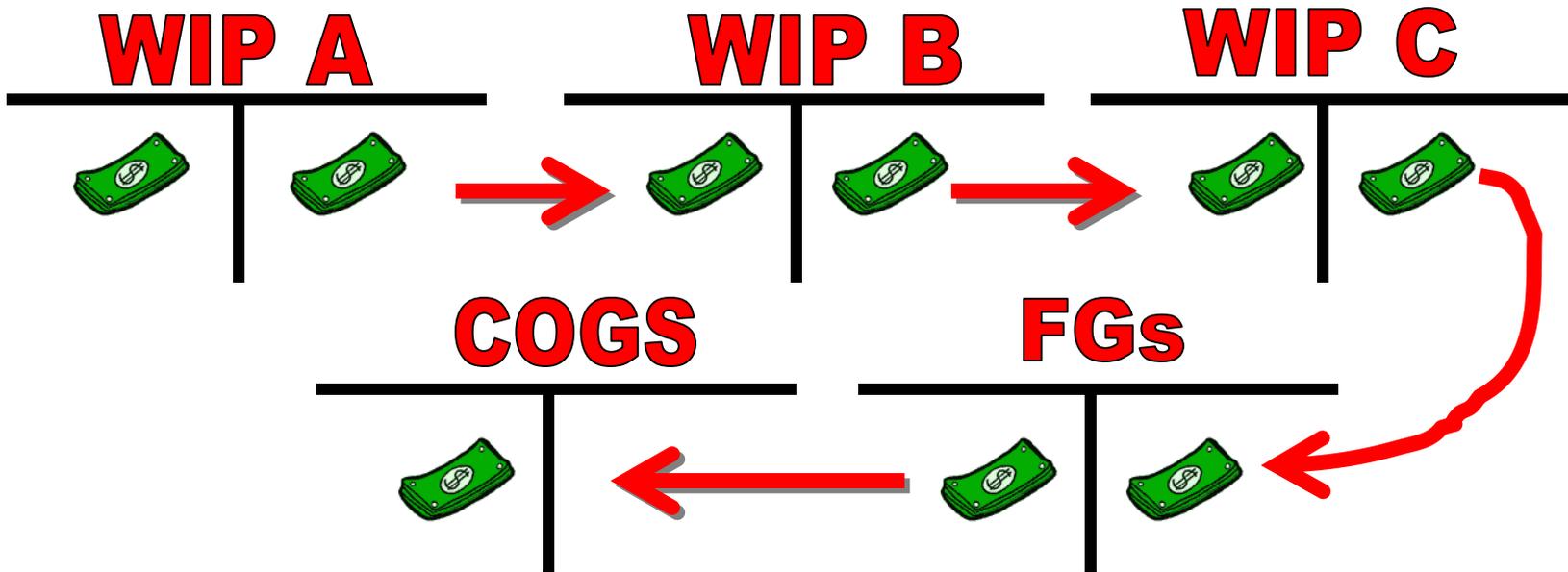
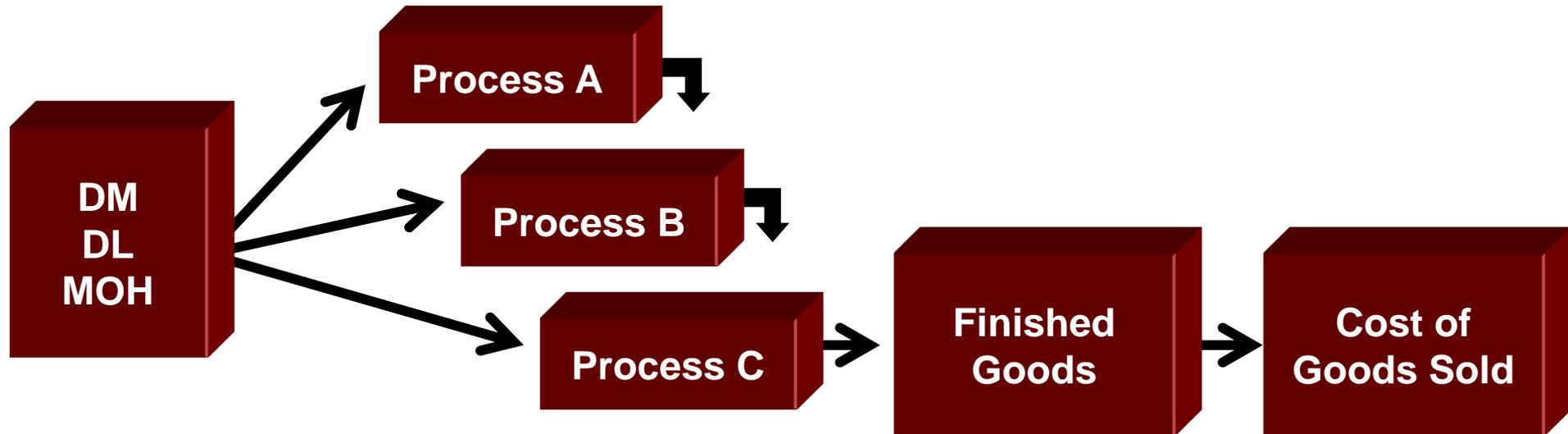


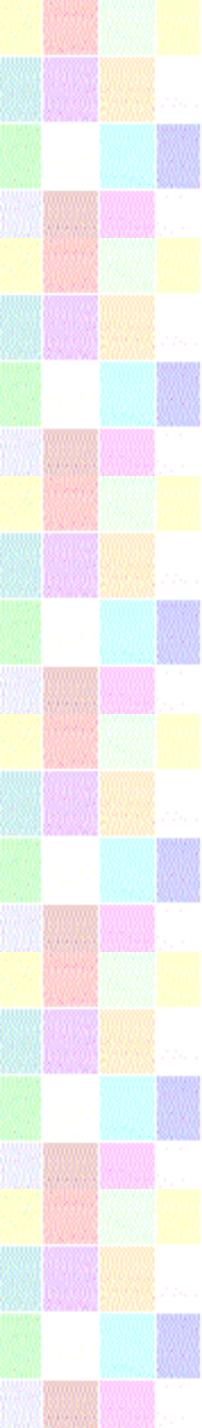
- Homogeneous products continuously produced.
- Costs accumulated by process (time).
- Unit cost = total cost for period divided by number of units produced.

Cost Flows in a Manufacturing Firm



Process Costing System



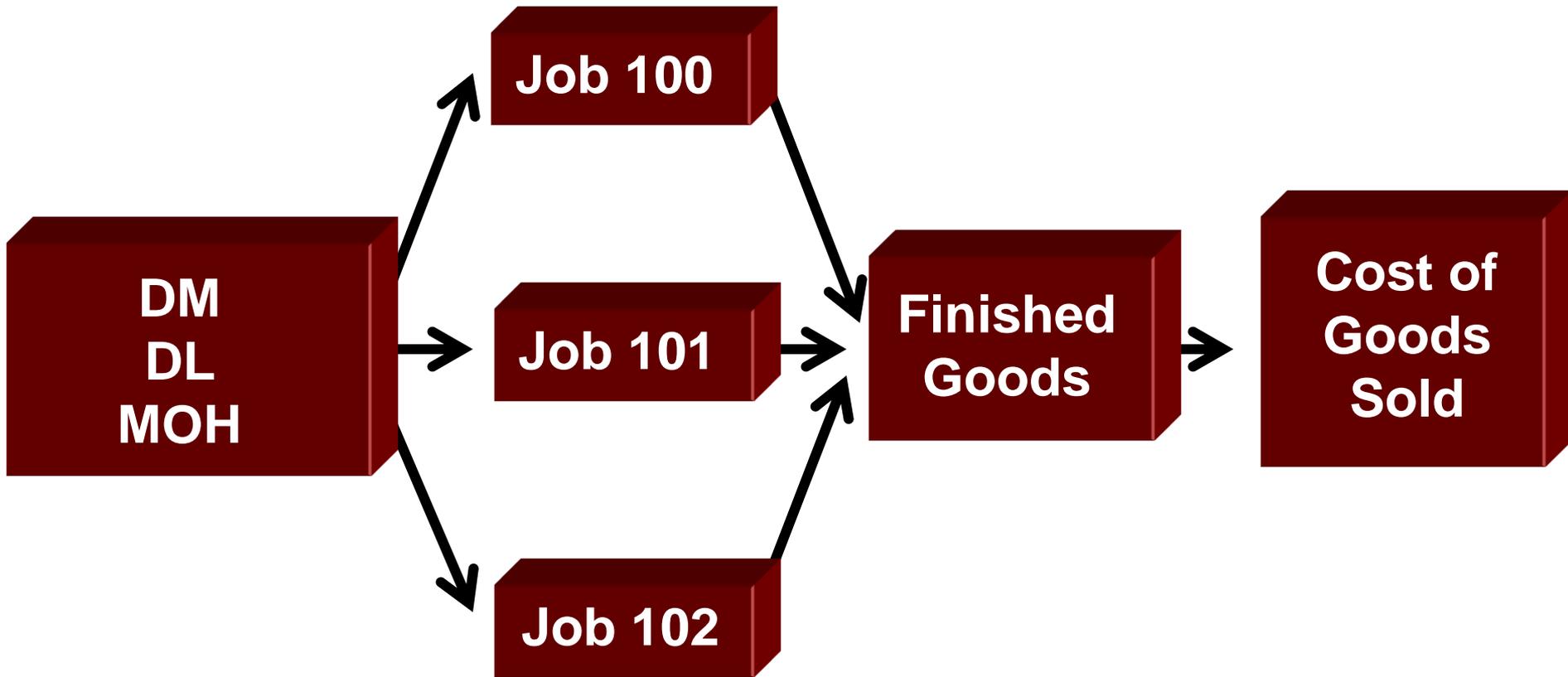


Job-Order Costing . . .



- Wide variety of distinct products.
- Costs accumulated by job.
- Unit cost = total cost of job divided by number of units produced.

Job-Order Costing



Work in Process

Finished Goods

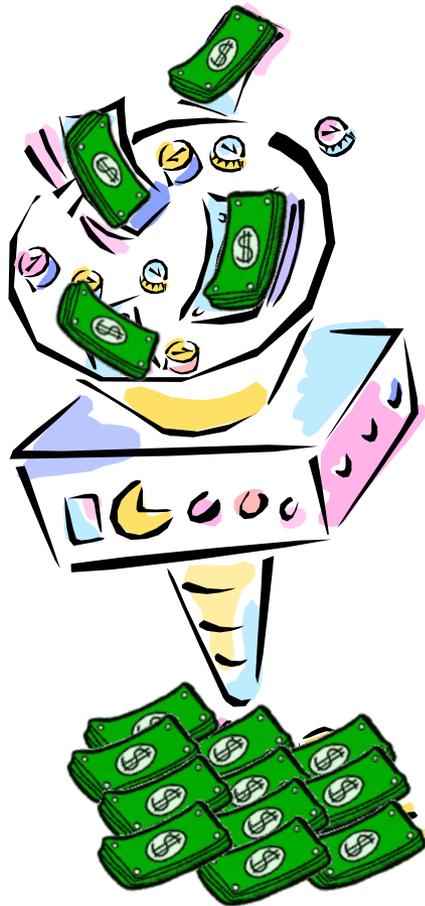
Cost of Goods Sold



Cost Assignment



Assigning Manufacturing Costs



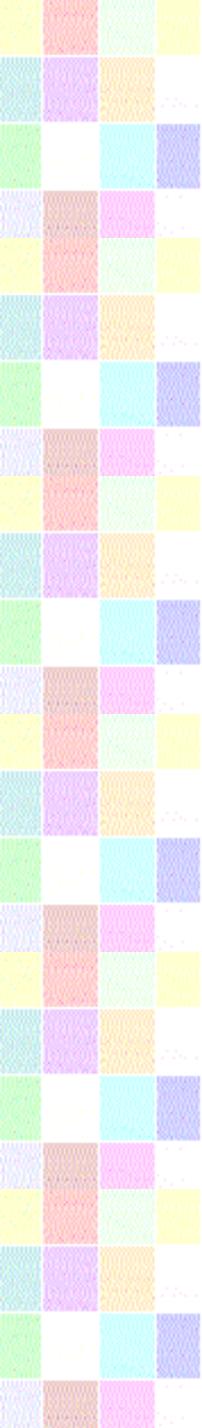
Functional Based Costing



Activity Based Costing

**Good! Cost
Behavior!**





Cost Behavior



- Variable Costs
- Fixed Costs
- Mixed Costs

Variable Costs



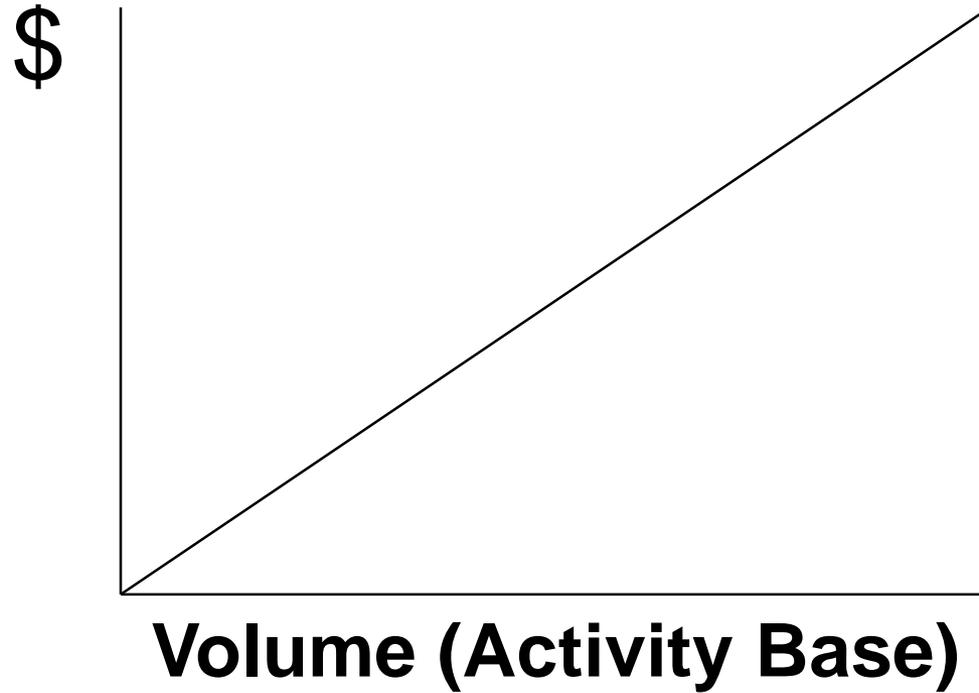


Variable Costs



- Total costs that vary in direct proportion to changes in the level of activity within the relevant range.

Total Variable Costs



Per Unit Variable Cost



\$



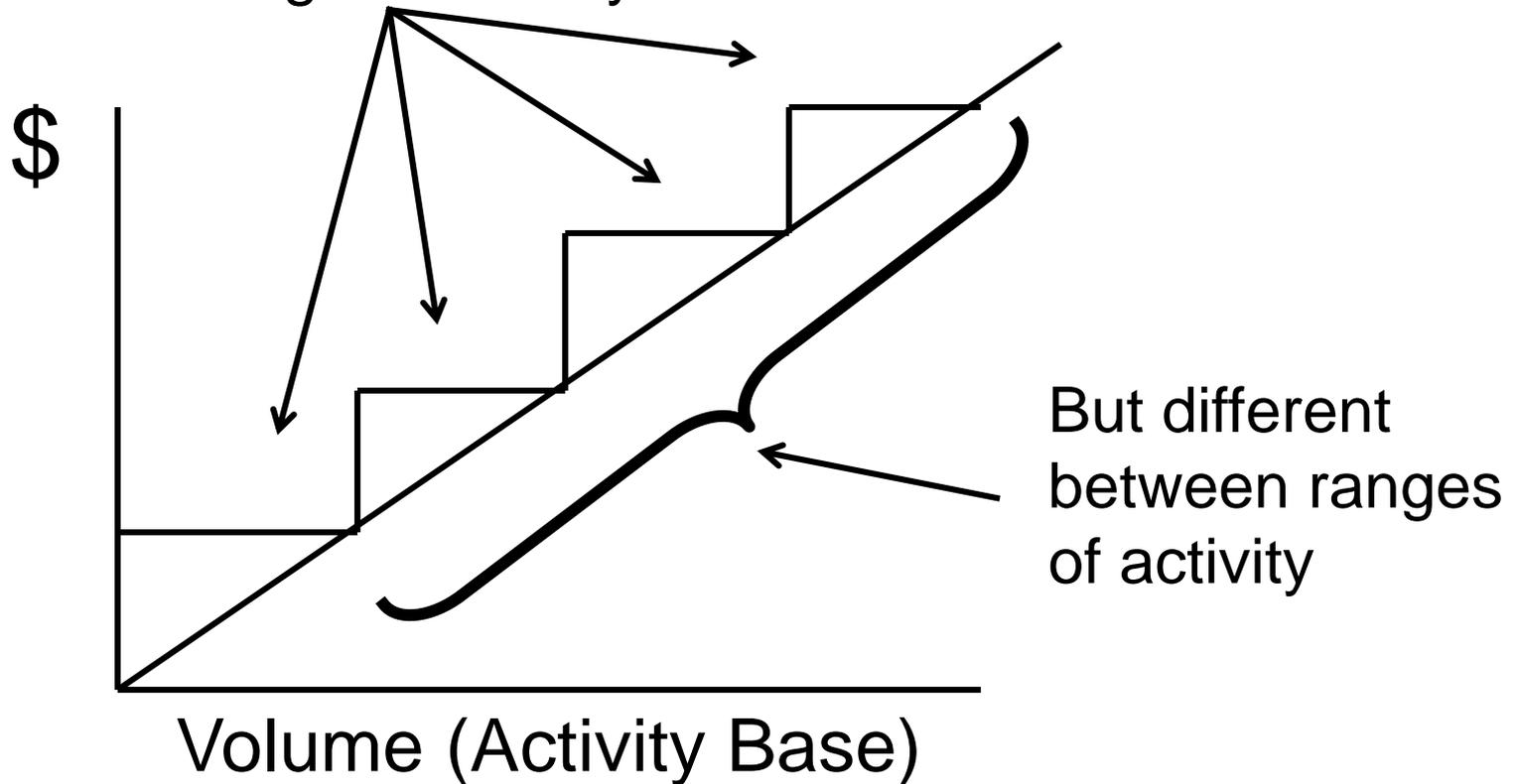
Volume (Activity Base)

Step-Variable Costs



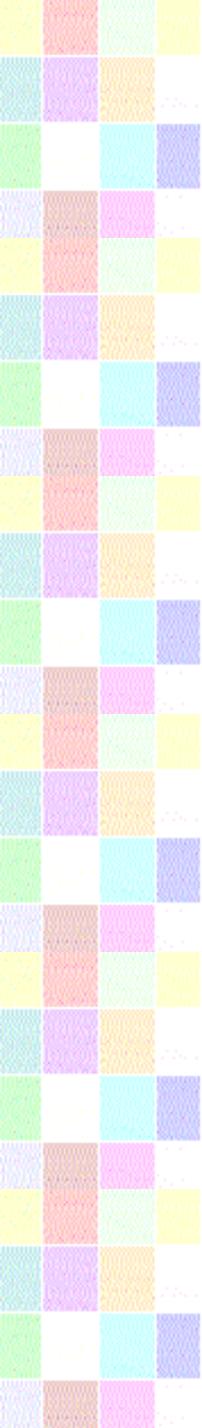
Step Variable Costs

Step Costs are constant within a range of activity



Fixed Costs





Fixed Costs



- Costs that remain constant in total, regardless of the changes in activity within the relevant range.

Total Fixed Costs

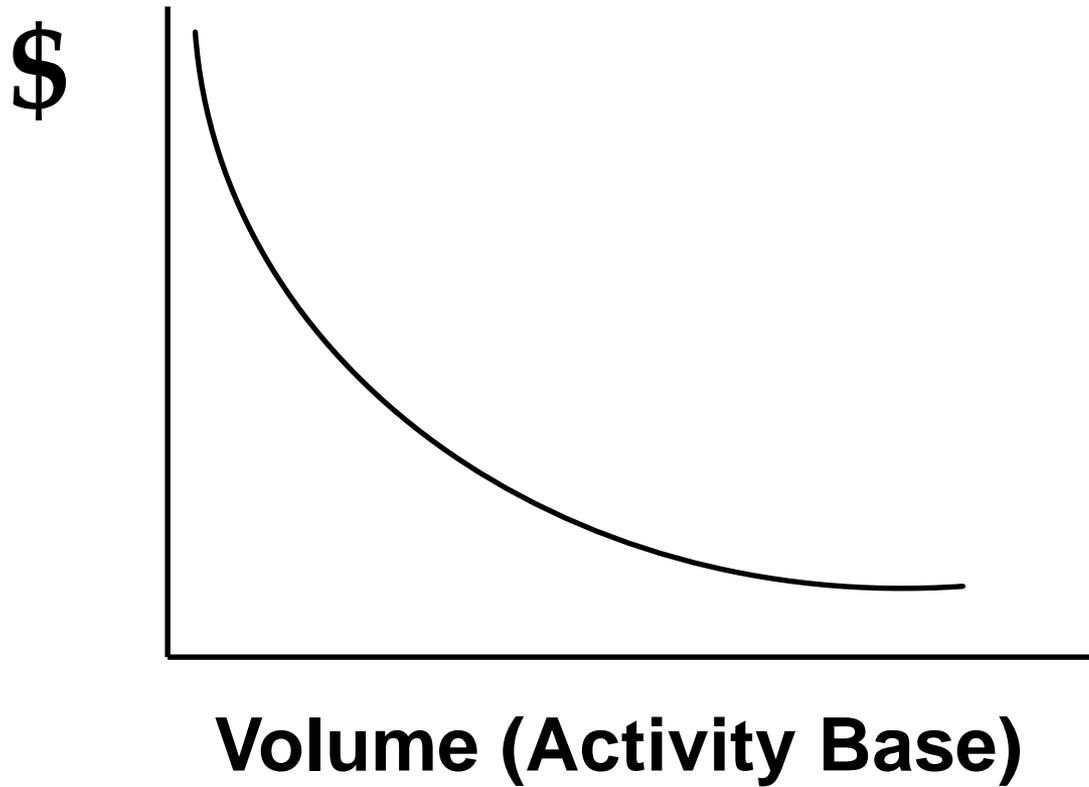


\$



Volume (Activity Base)

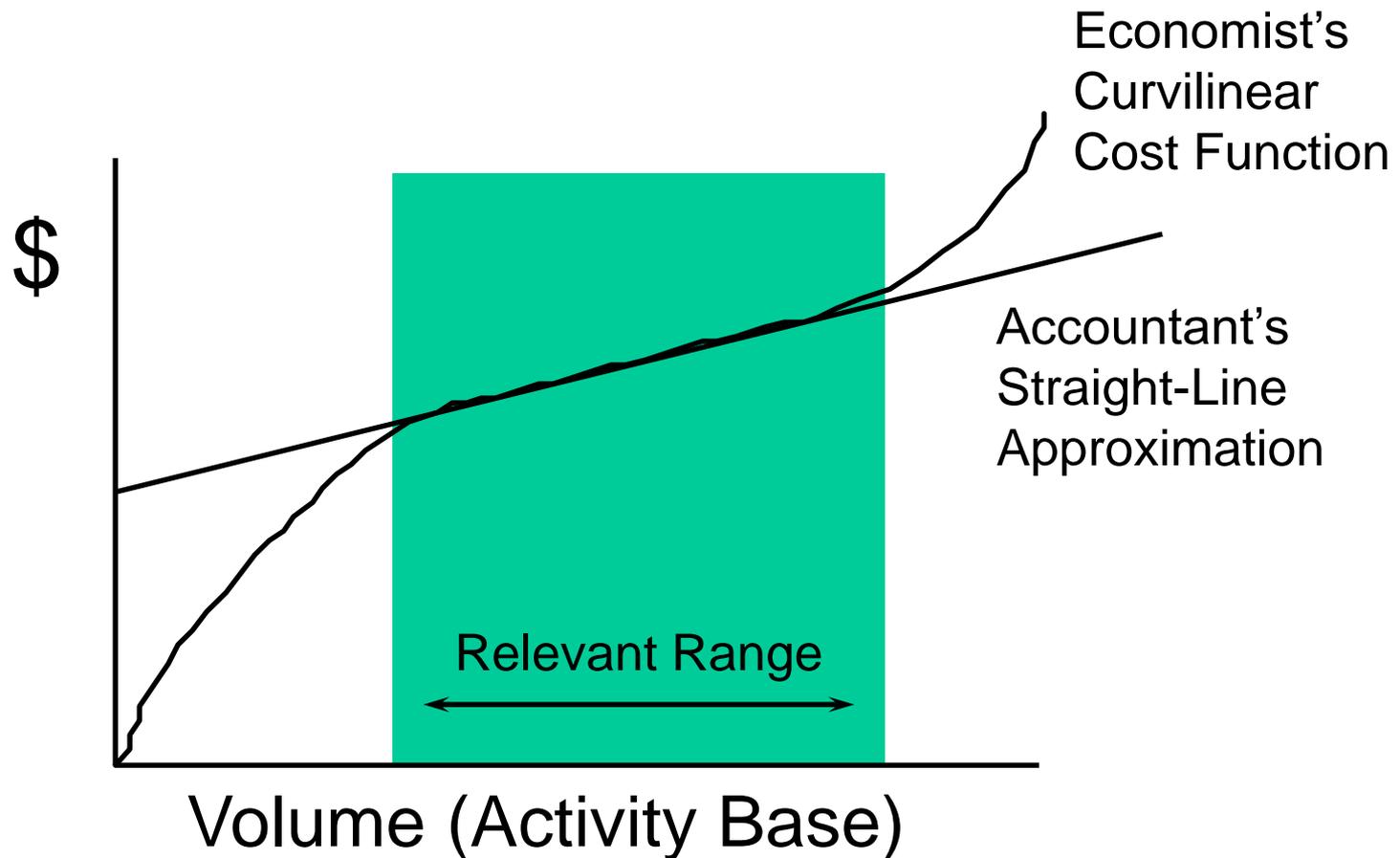
Per Unit Fixed Costs



Relevant Range



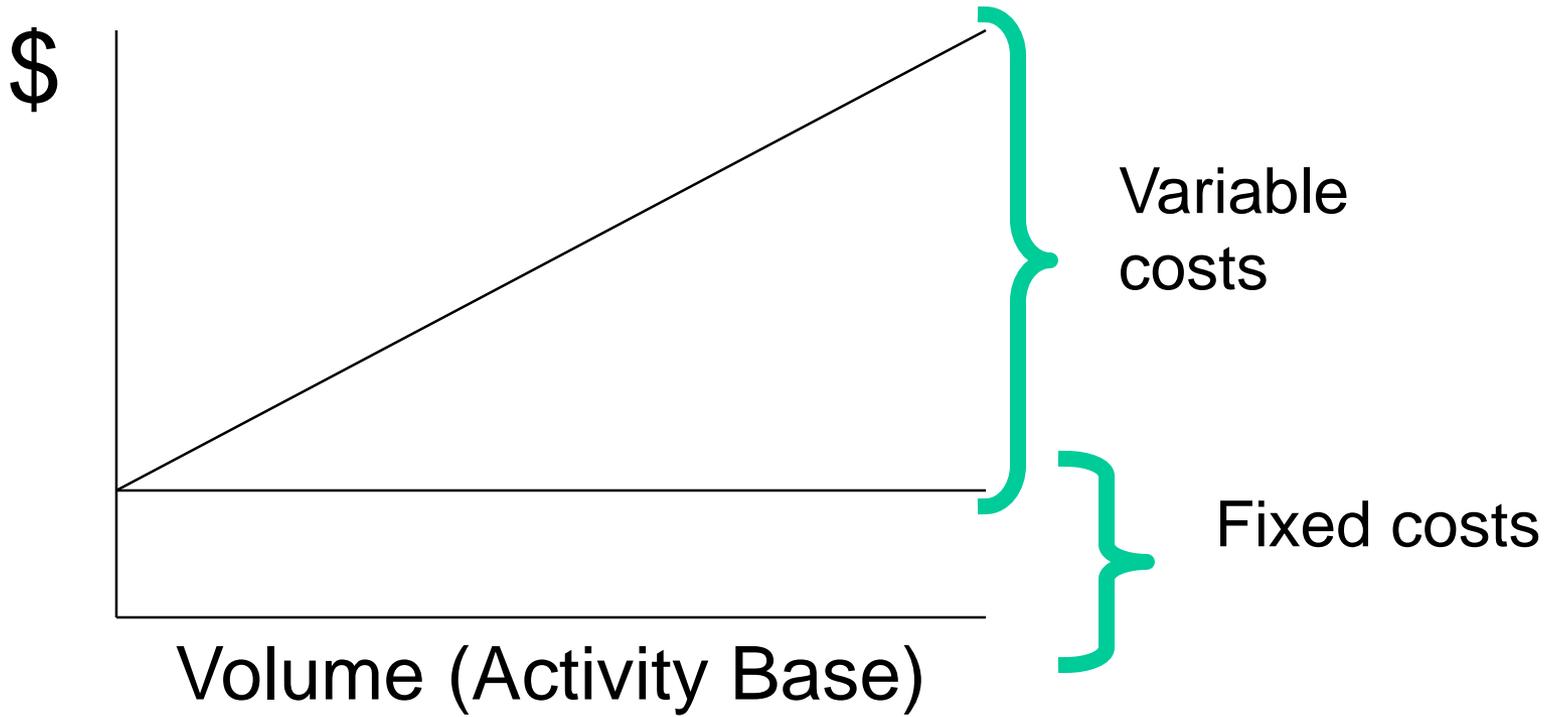
Curvilinear Costs and the Relevant Range



Mixed Costs

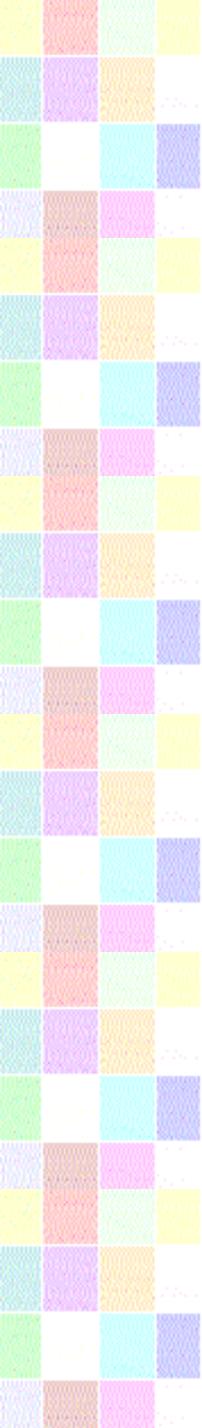


Mixed Costs



**Cost-Volume-Profit
Analysis! That's
my very favorite!**





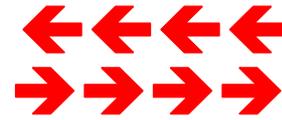
Cost-Volume-Profit (CVP)



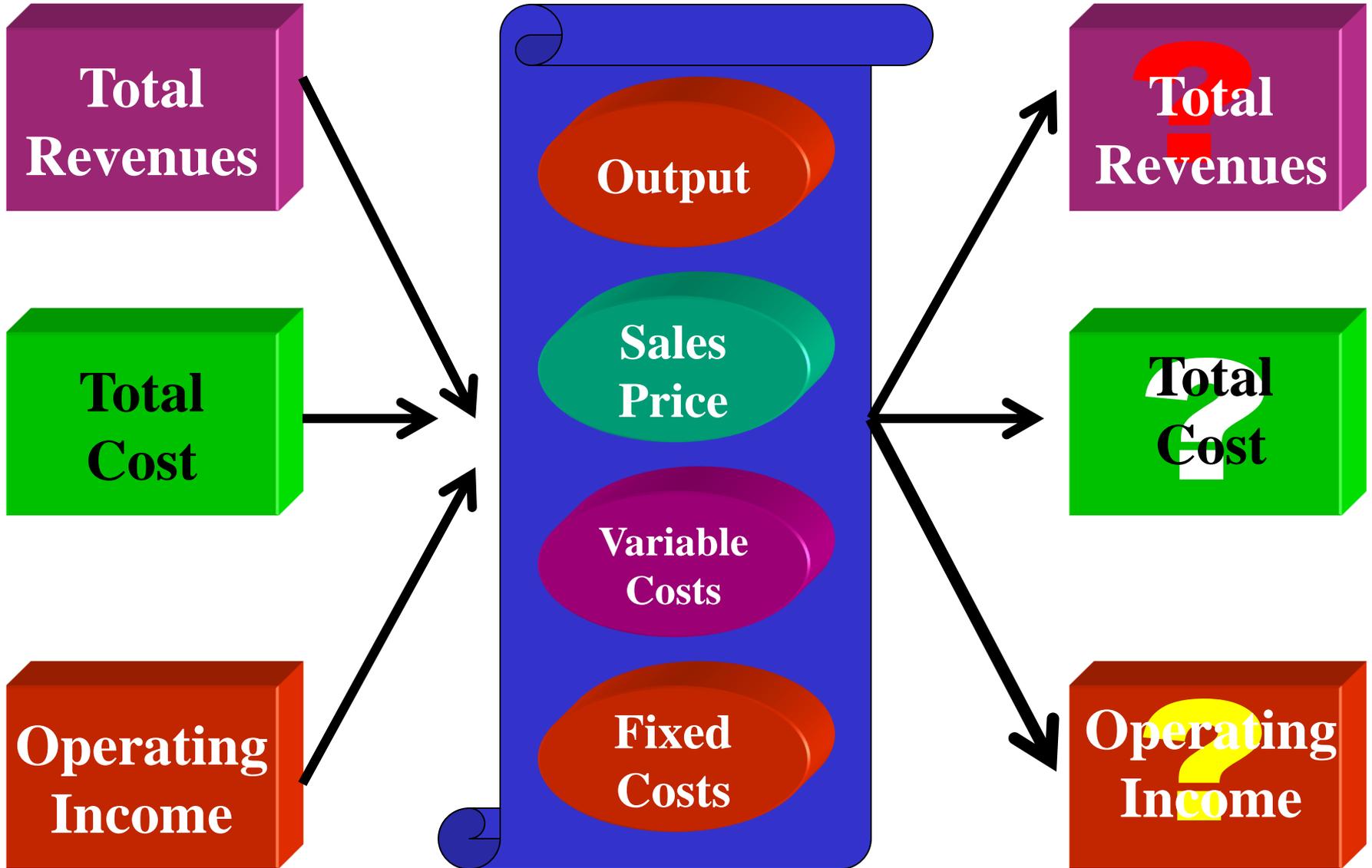
- CVP is the systematic examination of the relationships among . . .
 - Selling prices,
 - Volume of Sales and Production
 - Cost,
 - Expenses, and
 - Profits

Graphically

As changes occur here.



What happens here?



Traditional Income Statement





Traditional Income Statement



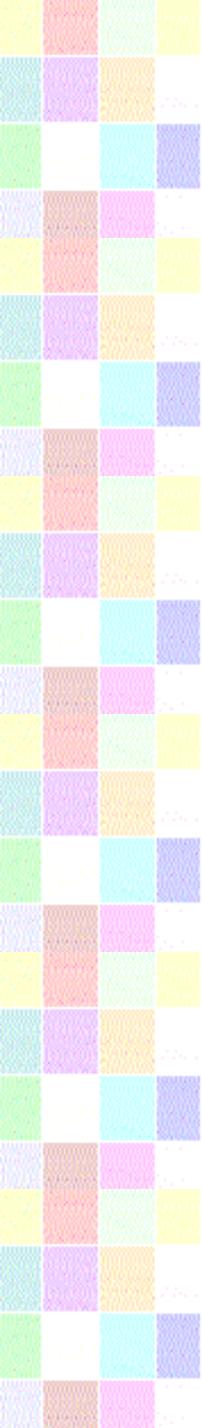
- Costs are grouped by functional classifications - such as:
 - Production,
 - Marketing, and
 - Administration
- With both fixed and variable costs being included in each category.

Absorption-Costing I/S

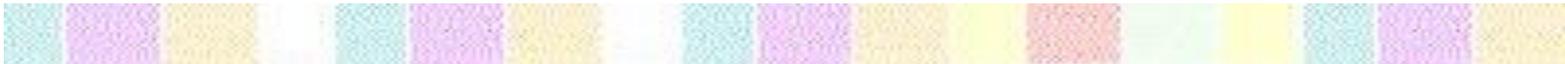
Sales		\$xxx
COGS		Production FC & VC
Gross Margin		\$xxx
Selling Exp.		Selling FC & VC
Admin. Exp		Administrative FC & VC
Net Income		

The Contribution Format Income Statement





The Contribution Margin



- The focus of the contribution format income statement is the contribution margin . . .


$$\text{Contribution Margin} = \text{Net Sales} - \text{Variable Costs}$$



Contribution Format I/S



- Groups costs by behavior:
 - Fixed, and
 - Variable
- Rather than into the functional categories of production, marketing and administration.

Variable-Costing I/S

Sales	\$xxx
Variable Costs	<u>(xx)</u>
Cont. Margin	\$xxx
Fixed Costs	<u>(xx)</u>
Net Income	<u><u>\$xxx</u></u>

Income Statements . . .

Traditional

Sales	\$xxx
Cost of Goods Sold	<u>(xx)</u>
Gross Margin	\$xxx
Operating Expense	<u>(xx)</u>
Net Income	<u><u>\$xxx</u></u>

Contribution Format

Sales	\$xxx
Variable Costs	<u>(xx)</u>
Cont. Margin	\$xxx
Fixed Costs	<u>(xx)</u>
Net Income	<u><u>\$xxx</u></u>

Steps in Cost Analysis

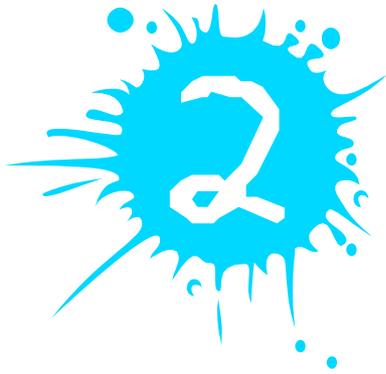


Steps in Cost Analysis



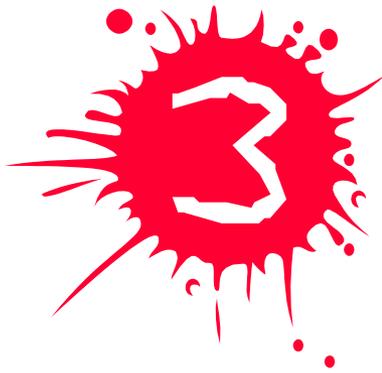
Assemble all costs associated with each alternative

Steps in Cost Analysis



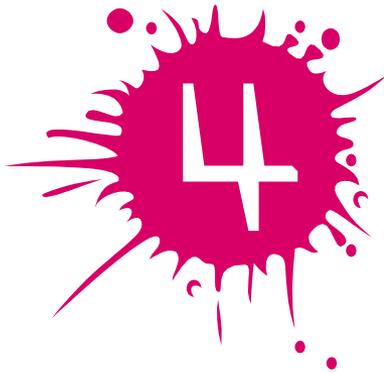
Eliminate those costs that are sunk.

Steps in Cost Analysis



Eliminate those costs that do not differ between alternatives.

Steps in Cost Analysis



Make a decision based on the remaining costs.

When is a Cost Relevant?

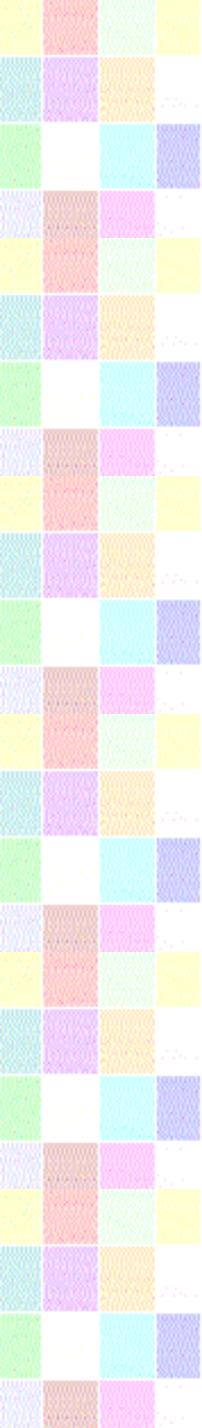
When does the cost arise?

Does the cost differ between alternatives?

	Past	Future
Yes	Sunk	Relevant
No	Sunk	Not Relevant

Limiting Assumptions of Cost-Volume-Profit Analysis





Limiting Assumptions of CVP



1. Revenues and costs behave linearly throughout the relevant range.
2. Costs can be reasonably separated into variable and fixed elements.
3. The sales mix remains constant



Limiting Assumptions of CVP



4. Sales for the period equals production, or the beginning inventory level is equal to the ending inventory level.
5. Productivity and efficiency remains constant during the relevant range.



Limiting Assumptions of CVP



6. Volume is the only factor which causes changes in costs.
7. The time value of money is not considered.