Inventories, Cost Flows and Allocation

- **Materials** inventory (M) holds raw materials and parts
- **Work in process** inventory (WIP) holds all partially completed goods
- **Finished goods** inventory (FG) holds all completed goods ready for sale

Cost Flows
- Costs are accumulated and "flow" through accounts by transfer as goods go from one stage to the next.
- Direct Materials + Direct Labor + Manufacturing Overhead → Work in Progress → Finished Goods → CGS
  - These accounts are debited and credited as usual for asset/expense.
  - Debits increase and credits decrease.

Cost Drivers
- Fixed costs are not affected by changes in activity level.
- Variable costs are tied to changes in activity level.
  - A cost driver is a phenomenon such as direct labor hours or units produced that the particular variable cost is most correlated with.
  - Step costs: change abruptly at intervals (fixed over a range, then change when the activity moves out of that range)
- Mixed costs include both variable and fixed costs.
  - This is a linear cost formula: \( Y = VX + F \)
    - \( V \) is the variable cost per unit and \( F \) is the fixed costs

Overhead
- The large number of separate costs related to manufacturing accumulated and allocated to product costs using an overhead application rate
  - **Total Annual Overhead Costs**
    - **Overhead Cost Driver**
      - An overhead cost driver is something related to production and reflects the nature of the cost.
        - Such as labor hours, machine hours, units produced
        - A reasonable cause and effect relationship
      - Some businesses have service departments such as maintenance or computer processing that use step-based costing
        - Costs of these service departments are allocated to one another if they use each other’s services
        - Then, they are allocated to product departments
- Traditional costing combines all indirect costs and assigns them to products using one cost driver (plant-wide allocation method)
- Cost pools group distinct cost types together and are allocated on a cost driver relevant to each pool
- **Activity based costing** (ABC) allocates indirect costs based on activity
  - Identify activities that consume resources and assign costs to them
  - Identify cost drivers associated with the activities
  - Compute the cost rate per unit of the cost driver
  - Assign costs to products
    - Cost driver rate \( \times \) units consumed by product
  - 2 stages: assigning costs to activities; allocate costs to product