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Operating Cycle versus Cash Cycle

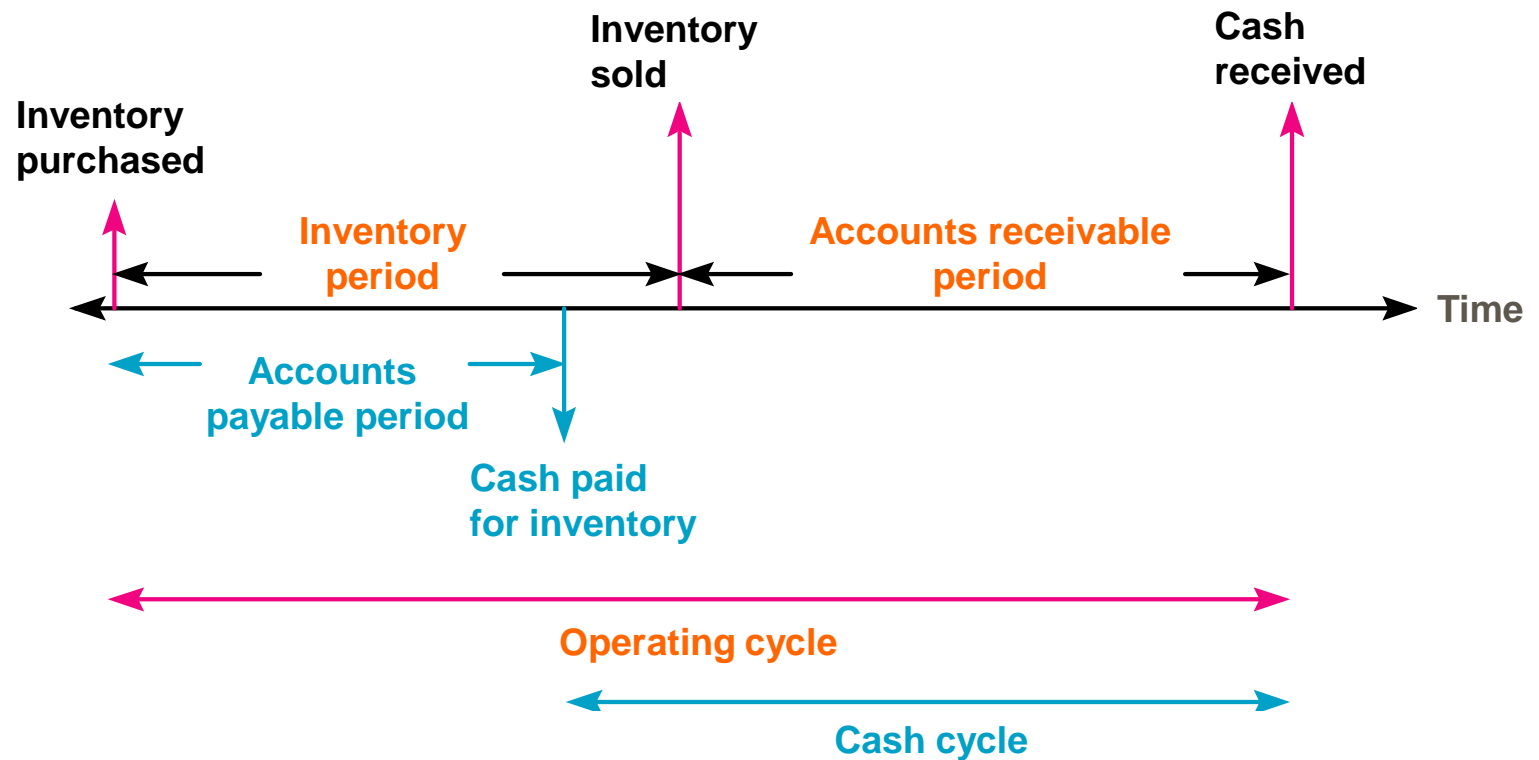
- *Operating cycle*—the time period between the acquisition of inventory and the collection of cash from receivables.

Operating cycle = Inventory period + A/cs receivable period

- *Cash cycle*—the time period between the outlay of cash for purchases and the collection of cash from receivables.

Cash cycle = Operating cycle – A/cs payable period

Cash Flow Time Line





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Example—Operating Cycle

The following information has been provided for Overcredit Co.:

Item	Beginning	Ending
Inventory	\$90 000	\$102 000
Accounts receivable	\$72 000	\$78 000
Accounts payable	\$49 000	\$55 000

Sales for the year were \$510 000 (assume all credit) and the cost of goods sold was \$350 000.

Calculate the operating cycle and cash cycle.



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Example—Operating Cycle (*continued*)

a) Find the inventory period:

$$\begin{aligned}\text{Inventory turnover} &= \frac{\text{COGS}}{\text{Avg. inventory}} \\ &= \frac{350\,000}{(90\,000 + 102\,000) / 2} \\ &= 3.65 \text{ times}\end{aligned}$$

$$\begin{aligned}\text{Inventory period} &= \frac{365}{\text{Inventory turnover}} \\ &= \frac{365}{3.65 \text{ times}} \\ &= 100 \text{ days}\end{aligned}$$



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Example—Operating Cycle (*continued*)

b) Find the accounts receivable period:

$$\begin{aligned}\text{Receivables t/o} &= \frac{\text{Credit sales}}{\text{Avg. receivables}} \\ &= \frac{510\,000}{(72\,000 + 78\,000) / 2} \\ &= 6.8 \text{ times}\end{aligned}$$

$$\begin{aligned}\text{Receivables period} &= \frac{365}{\text{Receivables t/o}} \\ &= \frac{365}{6.8 \text{ times}} \\ &= 53.7 \text{ days}\end{aligned}$$



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Example—Operating Cycle (*continued*)

$$\begin{aligned}\text{Operating cycle} &= \text{Inventory period} + \text{Receivables period} \\ &= 100 + 53.7 \\ &= 153.7 \text{ days}\end{aligned}$$



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Example—Cash Cycle

a) Find the payables period:

$$\begin{aligned}\text{Payables t/o} &= \frac{\text{COGS}}{\text{Avg. payables}} \\ &= \frac{350\,000}{(49\,000 + 55\,000) / 2} \\ &= 6.73 \text{ times}\end{aligned}$$

$$\begin{aligned}\text{Payables period} &= \frac{365}{\text{Payables turnover}} \\ &= \frac{365}{6.73 \text{ times}} \\ &= 54.2 \text{ days}\end{aligned}$$



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Example—Cash Cycle (*continued*)

$$\begin{aligned}\text{Cash cycle} &= \text{Operating cycle} - \text{Payables period} \\ &= 153.7 - 54.2 \\ &= 99.5 \text{ days}\end{aligned}$$



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Short-term Financial Policy

- Size of investments in current assets
 - Flexible policy—maintain a high ratio of current assets to sales
 - Restrictive policy—maintain a low ratio of current assets to sales
- Financing of current assets
 - Flexible policy—less short-term debt and more long-term debt
 - Restrictive policy—more short-term debt and less long-term debt



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Short-term Financial Policy

- The size of the firm's investment in current assets is determined by its short-term financial policies.
- *Flexible* policy actions include:
 - keeping large cash and securities balances
 - keeping large amounts of inventory
 - granting liberal credit terms.
- *Restrictive* policy actions include:
 - keeping low cash and securities balances
 - keeping small amounts of inventory
 - allowing few or no credit sales.



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Costs of Investments

- Need to manage the trade-off between carrying costs and shortage costs.
- *Carrying costs* increase with the level of investment in current assets, and include the costs of maintaining economic value and opportunity costs.
- *Shortage costs* decrease with increases in the level of investment in current assets, and include trading costs and the costs related to being short of the current asset. For example, sales lost as a result of a shortage of finished goods inventory.