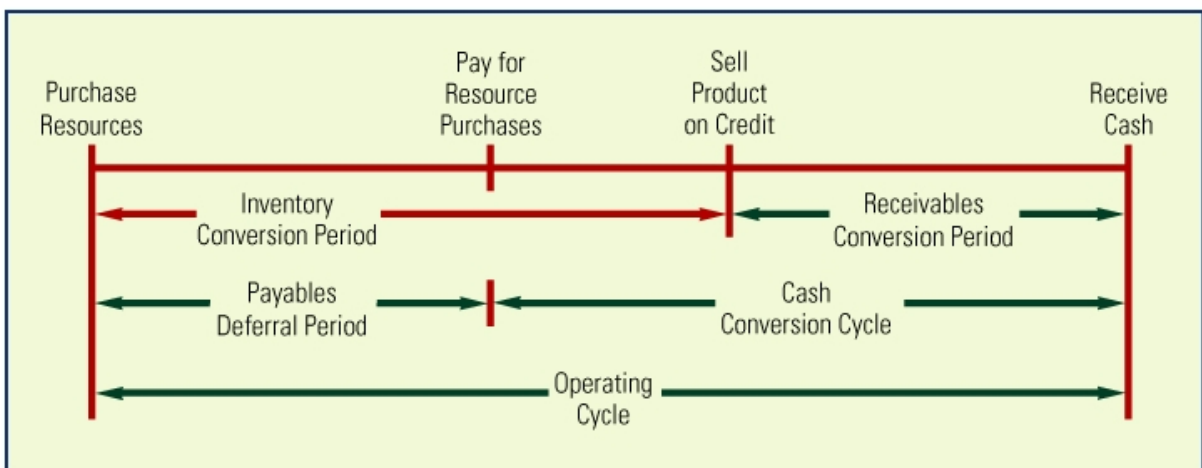


Chapter 19: Short-Term Financial Planning**Operating Cycle**

- Purchasing resources from suppliers
- Producing the product
- Distributing the product to customers
- Create cash flows:
 - Unsynchronized: cash payments(eg. to suppliers) usually take place before cash receipts (from customers)
 - Uncertain: future sales and costs are not certain

**Operating Cycle Analysis**

Operating cycle = Inventory period + Receivables period

Inventory period: The length of time required to produce and sell the product.

Inventory period = Average Inventory / [cost of sales/365]

Receivables period: The length of time required to collect the money from customers.

Receivables period = Average Account receivable / [annual sales/365]

Is it better to have long or short operation cycle?

If it takes long time to produce and sell the product and of it takes a long time receive the payment from customers, the operation cycle will be long.

Now, until the firm receives the money from customers, how would the firm survive?

The longer the operating cycle the more current assets needed to cover the operational needs of the firm until cash is received from customers.

Thus, firms do two things:

- 1- Defer (postpone) the payments for suppliers, employees, etc. to certain period of time without incurring any financing cost. We call the length of time the firm is able to defer payment **the payables period**.

Payables period = average account payable / [cost of sales/365]

- 2- Increase the net working capital (net working capital=current assets – current liabilities), by increasing the current assets of the firm. For example, the firm may hold large amount of cash to be able to pay bills until they receive their money from customers; the firm may increase their inventory account to be ready to produce and sell until they receive their money from customers.

The firm needs to have enough current assets to operate until they receive their money. The amount of time needed to be covered by increase in current assets is called cash conversion cycle.

**Cash conversion cycle = Operating cycle - Payables period
= Inventory period + Receivables period- Payables period**

Question: How much does it cost to wait until you receive your money from customers?

Answer: A LOT

As we see, firms have to invest in current assets to be able to operate until they receive their money. These investments in current assets include, building inventory account, building cash balance. To invest in current assets (increase cash and inventory), you need to issue equity or borrow money (either short-term or long-term debt) that capital does not come without cost.

As a manager who faces operating cycle, you have to make several decisions:

- 1- Shorten your operating cycle by shortening inventory period, and receivables period. **(working capital management)**
- 2- Increase your current assets to certain (optimal) level so that you can operate your business until you receive your money form customers.
- 3- Decide how you are going to finance the increase in current assets. Are going to have a short-term debt or a long-term debt.

Working Capital Policy

Working capital (or **gross working capital**) refers to current assets used in operations. The four major components of working capital are:

- Cash
- Marketable securities
- Inventory
- Accounts receivable (A/R)

Net working capital equals current assets minus current liabilities. ($NWC = CA - CL$)

Working capital policy involves:

- 1) Setting target levels for each category of current assets, and
- 2) Deciding on how to finance current assets

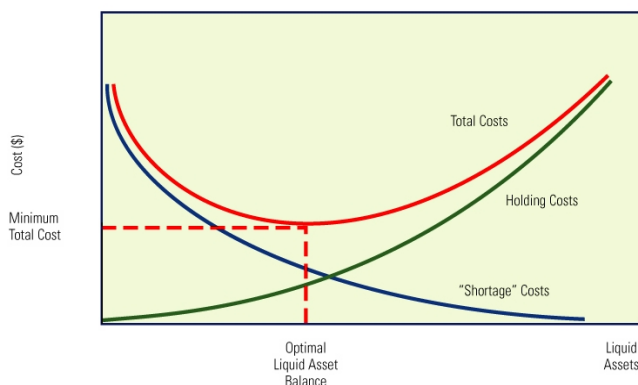
In setting the target levels for current assets the manager should weigh the benefits and costs of holding various current assets:

The higher the level of working capital, the *greater* the **carrying costs** or the costs of maintaining current assets, including the opportunity cost of capital to finance the current assets.

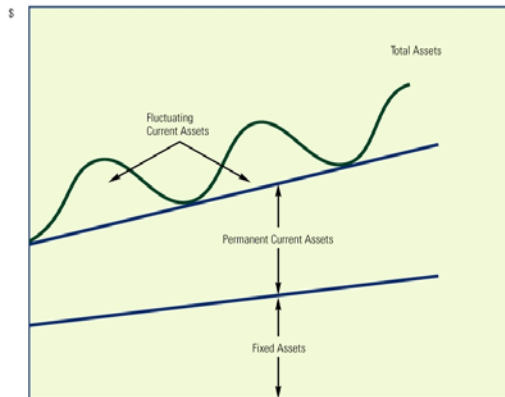
The lower the level of working capital, the *greater* the **shortage costs** or the costs incurred from shortages in current assets.

	<u>Carrying costs</u>	<u>Shortage costs</u>
Cash	Opportunity cost of capital	Cost of borrowing needed funds
Account Receivables	Opportunity cost of capital	cost of losing customers
Inventory	Opportunity cost + storage and Insurance cost	cost of losing customers

The financial manager must attempt to minimize the total opposing carrying and shortage costs.

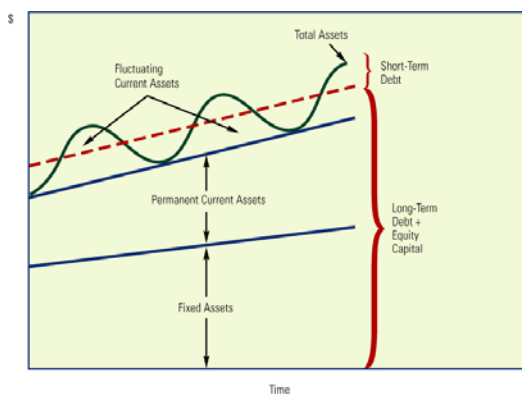


Financing Needs Over Time



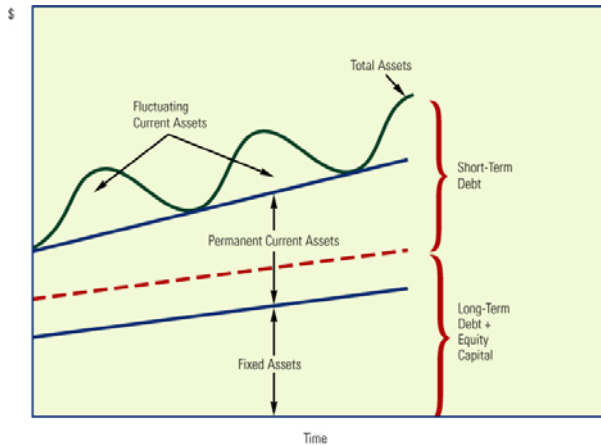
Conservative policy

- High level of current assets (hold high levels of cash, inventory, and receivables)
- Financed using long-term debt and equity (long term capital cost more but it is less risky for the firm)
- Lowest return and lowest risk (It cost more to build large account of current assets therefore this policy produce less return for the firm. However, the firm will face less risk of not having enough current assets to pay their bills.)



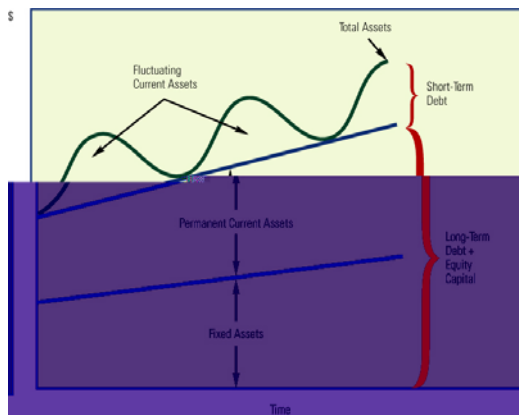
Aggressive policy

- Low current asset balances (minimize holdings of cash, marketable securities, inventories, and receivables)
- Financed using short-term debt(short term debt cost less but it is more risky for the firm)
- Highest return and highest risk (the firm will reduce cost because they do not have to build large account of current assets, therefore this policy produce more return for the firm. However, the firm will face more risk of not having enough current assets to pay their bills.)



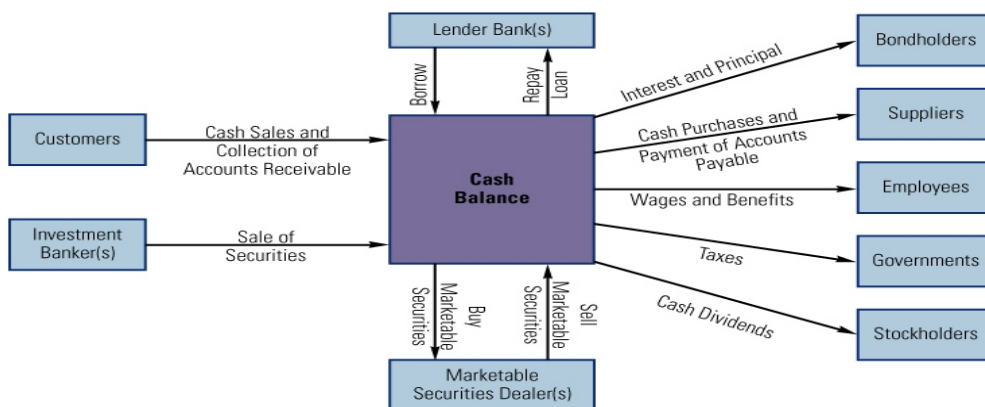
Moderate policy (Matching Policy)

➤ Working capital policy falls between the previous two extremes.



Cash Budgeting

The cash budget estimates sources and uses of funds in future periods and provides information related to future cash needs and a plan for future cash flows.



Sources of Short-Term Financing

Bank Loans

A business interested in bank financing should establish a **line of credit** with the bank, an agreement by a bank that a company may borrow at any time up to an established limit. To enter this agreement the company should pay an annual fee to the bank. Also, lines of credit may be associated with a minimum deposit balance requirement for the business called a compensating balance.

Secured Loans

Current assets such as inventory and accounts receivable are often used as security for business loans. Accounts receivable may be pledged or assigned as security for a loan or sold or factored to shorten the cash conversion cycle.

Commercial Paper

A larger business with a high quality credit rating may issue short-term, unsecured notes, called **commercial paper**, in financial markets.