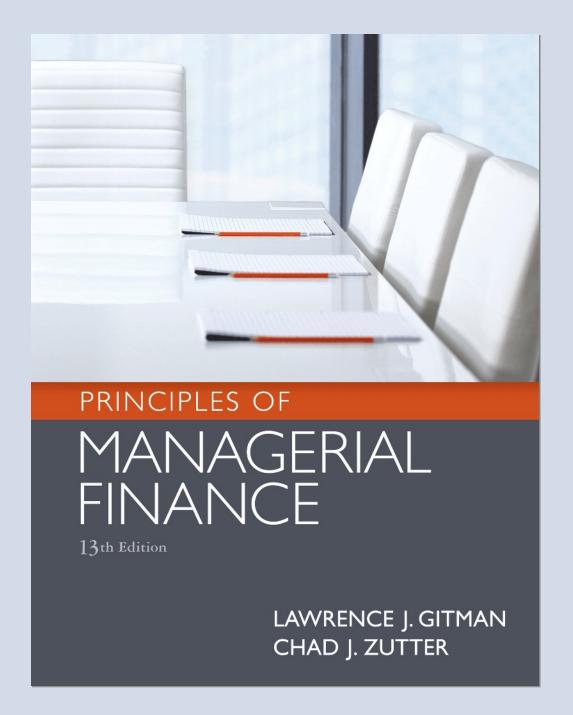
Chapter 15

Working Capital and Current Assets
Management





Learning Goals



- LG1 Understand working capital management, net working capital, and the related trade-off between profitability and risk.
- LG2 Describe the cash conversion cycle, its funding requirements, and the key strategies for managing it.
- LG3 Discuss inventory management: differing views, common techniques, and international concerns.

Learning Goals (cont.)



- LG4 Explain the credit selection process and the quantitative procedure for evaluating changes in credit standards.
- LG5 Review the procedures for quantitatively considering cash discount changes, other aspects of credit terms, and credit monitoring.
- LG6 Understand the management of receipts and disbursements, including float, speeding up collections, slowing down payments, cash concentration, zero-balance accounts, and investing in marketable securities.

Net Working Capital Fundamentals: Working Capital Management



Working capital (or short-term financial) management is the management of current assets and current liabilities.

- Current assets include inventory, accounts receivable, marketable securities, and cash
- Current liabilities include notes payable, accruals, and accounts payable
- Firms are able to reduce financing costs or increase the funds available for expansion by minimizing the amount of funds tied up in working capital

Matter of Fact



CFOs Value Working Capital Management

- A survey of CFOs from firms around the world suggests that working capital management is a top the list of most valued finance functions.
- Among 19 different finance functions, CFOs surveyed viewed working capital management as equally important as capital structure, debt issuance and management, bank relationships, and tax management.
- CFOs viewed the performance of working capital management as only being better than the performance of pension management.
- Consistent with their view that working capital management is a high value but low satisfaction activity, it was identified as the finance function second most in need of additional resources.

Net Working Capital Fundamentals: Net Working Capital



- Working capital refers to current assets, which represent the portion of investment that circulates from one form to another in the ordinary conduct of business.
- Net working capital is the difference between the firm's current assets and its current liabilities; can be positive or negative.

Net Working Capital Fundamentals: Trade-off between Profitability and Risk



- **Profitability** is the relationship between revenues and costs generated by using the firm's assets—both current and fixed—in productive activities.
 - A firm can increase its profits by (1) increasing revenues or (2) decreasing costs.
- **Risk (of insolvency)** is the probability that a firm will be unable to pay its bills as they come due.
- **Insolvent** describes a firm that is unable to pay its bills as they come due.

Cash Conversion Cycle



The **cash conversion cycle (CCC)** is the length of time required for a company to convert cash invested in its operations to cash received as a result of its operations.

Cash Conversion Cycle: Calculating the Cash Conversion Cycle



- A firm's **operating cycle (OC)** is the time from the beginning of the production process to collection of cash from the sale of the finished product.
- It is measured in elapsed time by summing the average age of inventory (AAI) and the average collection period (ACP).

$$OC = AAI + ACP$$

Matter of Fact



Increasing speed lowers working capital

- A firm can lower its working capital if it can speed up its operating cycle.
- For example, if a firm accepts bank credit (like a Visa card), it
 will receive cash sooner after the sale is transacted than if it has
 to wait until the customer pays its accounts receivable.

Cash Conversion Cycle: Calculating the Cash Conversion Cycle



- However, the process of producing and selling a product also includes the purchase of production inputs (raw materials) on account, which results in accounts payable.
- The time it takes to pay the accounts payable, measured in days, is the average payment period (APP). The operating cycle less the average payment period yields the cash conversion cycle. The formula for the cash conversion cycle is:

$$CCC = OC - APP$$

Cash Conversion Cycle: Calculating the Cash Conversion Cycle

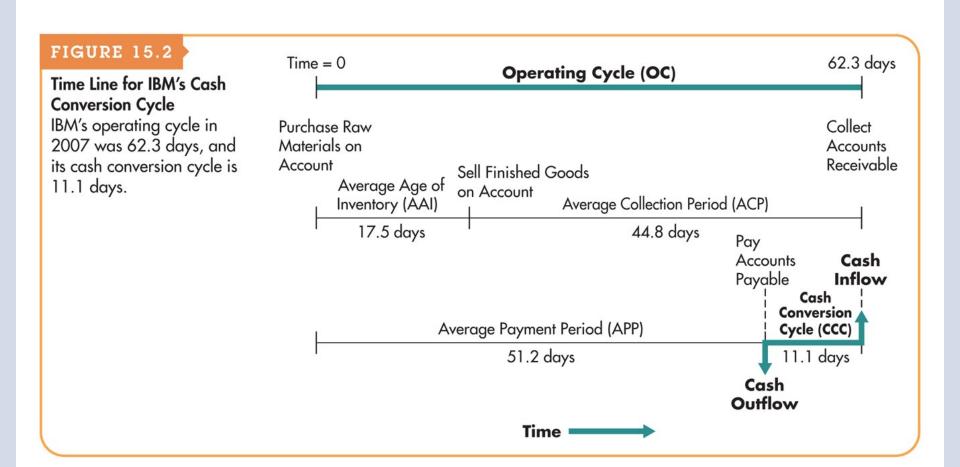


Substituting for OC, we can see that the cash conversion cycle has three main components, as shown in the following equation: (1) average age of the inventory, (2) average collection period, and (3) average payment period.

$$CCC = AAI + ACP - APP$$

Figure 15.2 Timeline for IBM's Cash Conversion Cycle





Cash Conversion Cycle: Funding Requirements of the Cash Conversion Cycle

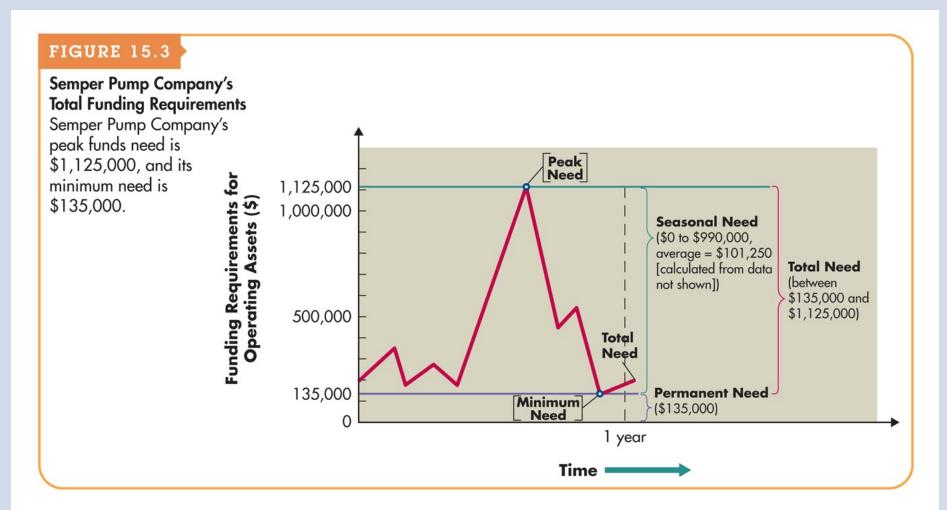


A permanent funding requirement is a constant investment in operating assets resulting from constant sales over time.

A **seasonal funding requirement** is an investment in operating assets that varies over time as a result of cyclic sales.

Figure 15.3 Semper Pump Company's Total Funding Requirements





Cash Conversion Cycle: Aggressive versus Conservative Seasonal Funding Strategies



An **aggressive funding strategy** is a funding strategy under which the firm funds its seasonal requirements with short-term debt and its permanent requirements with long-term debt.

A **conservative funding strategy** is a funding strategy under which the firm funds both its seasonal and its permanent requirements with long-term debt.

Cash Conversion Cycle: Aggressive versus Conservative Seasonal Funding Strategies



Semper Pump Company has a permanent funding requirement of \$135,000 in operating assets and seasonal funding requirements that vary between \$0 and \$990,000 and average \$101,250. If Semper can borrow short-term funds at 6.25% and long-term funds at 8%, and if it can earn 5% on the investment of any surplus balances, then the annual cost of an aggressive strategy for seasonal funding will be:

Cost of short-term financing

- + Cost of long-term financing
- Earnings on surplus balances
 Total cost of aggressive
 strategy

$$=0.0625 \times \$101,250 = \$6,328.13$$

$$=0.0800 \times 135,000 = 10,800.00$$

$$= 0.0500 \times 0 = 0$$

 $= $17,128.13$

Cash Conversion Cycle: Aggressive versus Conservative Seasonal Funding Strategies



Alternatively, Semper can choose a conservative strategy, under which surplus cash balances are fully invested. (In Figure 15.3, this surplus will be the difference between the peak need of \$1,125,000 and the total need, which varies between \$135,000 and \$1,125,000 during the year.) The cost of the conservative strategy will be:

Cost of short-term financing

- + Cost of long-term financing
- Earnings on surplus balancesTotal cost of conservative strategy

$$= 0.0625 \times \$$$
 0 = \$

$$= 0.0800 \times 1{,}125{,}000 = 90{,}000.00$$

$$= 0.0500 \times 888,750 = 44,437.50$$

Cash Conversion Cycle: Strategies for Managing the Cash Conversion Cycle



The goal is to minimize the length of the cash conversion cycle, which minimizes negotiated liabilities. This goal can be realized through use of the following strategies:

- 1. Turn over inventory as quickly as possible without stockouts that result in sales.
- 2. Collect accounts receivable as quickly as possible without losing sales from high-pressure collection techniques.
- 3. Manage mail, processing, and clearing time to reduce them when collecting from customers and to increase them when paying suppliers.
- 4. Pay accounts payable as slowly as possible without damaging the firm's credit rating.

Inventory Management



Differing viewpoints about appropriate inventory levels commonly exist among a firm's finance, marketing, manufacturing, and purchasing managers.

- The financial manager's general disposition toward inventory levels is to keep them low, to ensure that the firm's money is not being unwisely invested in excess resources.
- The marketing manager, on the other hand, would like to have large inventories of the firm's finished products.
- The manufacturing manager's major responsibility is to implement the production plan so that it results in the desired amount of finished goods of acceptable quality available on time at a low cost.
- The purchasing manager is concerned solely with the raw materials inventories.



The **ABC** inventory system is an inventory management technique that divides inventory into three groups—A, B, and C, in descending order of importance and level of monitoring, on the basis of the dollar investment in each.

- The A group includes those items with the largest dollar investment.
 Typically, this group consists of 20 percent of the firm's inventory items but 80 percent of its investment in inventory.
- The B group consists of items that account for the next largest investment in inventory.
- The C group consists of a large number of items that require a relatively small investment.



The inventory group of each item determines the item's level of monitoring.

- The A group items receive the most intense monitoring because of the high dollar investment. Typically, A group items are tracked on a perpetual inventory system that allows daily verification of each item's inventory level.
- B group items are frequently controlled through periodic, perhaps weekly, checking of their levels.
- C group items are monitored with unsophisticated techniques, such as the two-bin method; an unsophisticated inventory-monitoring technique that involves reordering inventory when one of two bins is empty.



The large dollar investment in A and B group items suggests the need for a better method of inventory management than the ABC system.

The Economic Order Quantity (EOQ) Model is an inventory management technique for determining an item's optimal order size, which is the size that minimizes the total of its order costs and carrying costs.

The EOQ model is an appropriate model for the management of A and B group items.



EOQ assumes that the relevant costs of inventory can be divided into order costs and carrying costs.

- Order costs are the fixed clerical costs of placing and receiving an inventory order.
- Carrying costs are the variable costs per unit of holding an item in inventory for a specific period of time.

The EOQ model analyzes the tradeoff between order costs and carrying costs to determine the order quantity that minimizes the total inventory cost.



A formula can be developed for determining the firm's EOQ for a given inventory item, where

S = usage in units per period

O =order cost per order

C =carrying cost per unit per period

Q =order quantity in units

The order cost can be expressed as the product of the cost per order and the number of orders. Because the number of orders equals the usage during the period divided by the order quantity (S/Q), the order cost can be expressed as follows:

Order cost =
$$O \times S/Q$$



The carrying cost is defined as the cost of carrying a unit of inventory per period multiplied by the firm's average inventory. The average inventory is the order quantity divided by 2(Q/2), because inventory is assumed to be depleted at a constant rate. Thus carrying cost can be expressed as follows:

Carrying cost =
$$C \times Q/2$$

The firm's total cost of inventory is found by summing the order cost and the carrying cost. Thus the total cost function is

Total cost =
$$(O \times S/Q) + (C \times Q/2)$$



Because the EOQ is defined as the order quantity that minimizes the total cost function, we must solve the total cost function for the EOQ. The resulting equation is

$$EOQ = \sqrt{\frac{2 \times S \times O}{C}}$$



MAX Company, a producer of dinnerware, has an A group inventory item that is vital to the production process. This item costs \$1,500, and MAX uses 1,100 units of the item per year. MAX wants to determine its optimal order strategy for the item. To calculate the EOQ, we need the following inputs:

- Order cost per order = \$150
- Carrying cost per unit per year = \$200
- Thus,

$$EOQ = \sqrt{\frac{2 \times 1,100 \times \$150}{\$200}} \approx \underline{41} \text{ units}$$



The **reorder point** is the point at which to reorder inventory, expressed as days of lead time × daily usage.

Because lead times and usage rates are not precise, most firms hold **safety stock**—extra inventory that is held to prevent stockouts of important items.



The reorder point for MAX depends on the number of days MAX operates per year.

- Assuming that MAX operates 250 days per year and uses 1,100 units of this item, its daily usage is 4.4 units $(1,100 \div 250)$.
- If its lead time is 2 days and MAX wants to maintain a safety stock of 4 units, the reorder point for this item is 12.8 units $[(2 \times 4.4) + 4]$.
- However, orders are made only in whole units, so the order is placed when the inventory falls to 13 units.



A **just-in-time (JIT) system** is an inventory management technique that minimizes inventory investment by having materials arrive at exactly the time they are needed for production.

- Because its objective is to minimize inventory investment, a JIT system uses no (or very little) safety stock.
- Extensive coordination among the firm's employees, its suppliers, and shipping companies must exist to ensure that material inputs arrive on time.
- Failure of materials to arrive on time results in a shutdown of the production line until the materials arrive.
- Likewise, a JIT system requires high-quality parts from suppliers.

Focus on Practice



RFID: The Wave of the Future

- Wal-Mart expects the RFID technology to improve its inventory management, and it remains committed to advancing its use of RFID.
- Wal-Mart will then share the benefits and best practices with its suppliers, which might want to achieve the same benefits from the technology.
- What problem might occur with the full implementation of RFID technology in retail industries? Specifically, consider the amount of data that might be collected.

Inventory Management: Computerized Systems for Resource Control



A materials requirement planning (MRP) system is an inventory management technique that applies EOQ concepts and a computer to compare production needs to available inventory balances and determine when orders should be placed for various items on a product's bill of materials.

Manufacturing resource planning II (MRP II) is a sophisticated computerized system that integrates data from numerous areas such as finance, accounting, marketing, engineering, and manufacturing and generates production plans as well as numerous financial and management reports.

Inventory Management: Computerized Systems for Resource Control (cont.)



Enterprise resource planning (ERP) is a computerized system that electronically integrates external information about the firm's suppliers and customers with the firm's departmental data so that information on all available resources—human and material—can be instantly obtained in a fashion that eliminates production delays and controls costs.

Accounts Receivable Management



The second component of the cash conversion cycle is the average collection period. The average collection period has two parts:

- 1. The time from the sale until the customer mails the payment.
- 2. The time from when the payment is mailed until the firm has the collected funds in its bank account.

The objective for managing accounts receivable is to collect accounts receivable as quickly as possible without losing sales from high-pressure collection techniques. Accomplishing this goal encompasses three topics: (1) credit selection and standards, (2) credit terms, and (3) credit monitoring.

Accounts Receivable Management: Credit Selection and Standards



Credit standards are a firm's minimum requirements for extending credit to a customer.

The five C's of credit are as follows:

- 1. Character: The applicant's record of meeting past obligations.
- 2. Capacity: The applicant's ability to repay the requested credit.
- 3. Capital: The applicant's debt relative to equity.
- 4. *Collateral*: The amount of assets the applicant has available for use in securing the credit.
- 5. Conditions: Current general and industry-specific economic conditions, and any unique conditions surrounding a specific transaction.



Credit scoring is a credit selection method commonly used with high-volume/small-dollar credit requests; relies on a credit score determined by applying statistically derived weights to a credit applicant's scores on key financial and credit characteristics.



The firm sometimes will contemplate changing its credit standards in an effort to improve its returns and create greater value for its owners. To demonstrate, consider the following changes and effects on profits expected to result from the relaxation of credit standards.

Variable	Direction of change	Effect on profits
Sales volume	Increase	Positive
Investment in accounts receivable	Increase	Negative
Bad-debt expenses	Increase	Negative



To determine the cost of the marginal investment in accounts receivable, Dodd must find the difference between the cost of carrying receivables under the two credit standards. Because its concern is only with the out-of-pocket costs, the relevant cost is the variable cost. The average investment in accounts receivable can be calculated by using the following formula:

Turnover of accounts receivable =
$$\frac{365}{\text{Average collection period}}$$



Credit management is difficult enough for managers of purely domestic companies, and these tasks become much more complex for companies that operate internationally.

- This is partly because international operations typically expose a firm to exchange rate risk.
- It is also due to the dangers and delays involved in shipping goods long distances and in having to cross at least two international borders.



Credit terms are the terms of sale for customers who have been extended credit by the firm.

A **cash discount** is a percentage deduction from the purchase price; available to the credit customer who pays its account within a specified time.

- For example, terms of 2/10 net 30 mean the customer can take a 2 percent discount from the invoice amount if the payment is made within 10 days of the beginning of the credit period or can pay the full amount of the invoice within 30 days.



A **cash discount period** is the number of days after the beginning of the credit period during which the cash discount is available.

The net effect of changes in this period is difficult to analyze because of the nature of the forces involved.

- For example, if a firm were to increase its cash discount period by 10 days (for example, changing its credit terms from 2/10 net 30 to 2/20 net 30), the following changes would be expected to occur: (1) Sales would increase, positively affecting profit. (2) Bad-debt expenses would decrease, positively affecting profit. (3) The profit per unit would decrease as a result of more people taking the discount, negatively affecting profit.



The **credit period** is the number of days after the beginning of the credit period until full payment of the account is due.

Changes in the **credit period**, the number of days after the beginning of the credit period until full payment of the account is due, also affect a firm's profitability.

For example, increasing a firm's credit period from net 30 days to net 45 days should increase sales, positively affecting profit.
 But both the investment in accounts receivable and bad-debt expenses would also increase, negatively affecting profit.



Credit monitoring is the ongoing review of a firm's accounts receivable to determine whether customers are paying according to the stated credit terms.

- If they are not paying in a timely manner, credit monitoring will alert the firm to the problem.
- Slow payments are costly to a firm because they lengthen the average collection period and thus increase the firm's investment in accounts receivable.
- Two frequently used techniques for credit monitoring are average collection period and aging of accounts receivable.



The average collection period has two components: (1) the time from sale until the customer places the payment in the mail and (2) the time to receive, process, and collect the payment once it has been mailed by the customer. The formula for finding the average collection period is:

Average collection period =
$$\frac{\text{Accounts receivable}}{\text{Average sales per day}}$$

Assuming receipt, processing, and collection time is constant, the average collection period tells the firm, on average, when its customers pay their accounts.



An **aging schedule** is a credit-monitoring technique that breaks down accounts receivable into groups on the basis of their time of origin; it indicates the percentages of the total accounts receivable balance that have been outstanding for specified periods of time.

In more depth

Table 15.4 Popular Collection Techniques



Technique ^a	Brief description
Letters	After a certain number of days, the firm sends a polite letter reminding the customer of the overdue account. If the account is not paid within a certain period after this letter has been sent, a second, more demanding letter is sent.
Telephone calls	If letters prove unsuccessful, a telephone call may be made to the customer to request immediate payment. If the customer has a reasonable excuse, arrangements may be made to extend the payment period. A call from the seller's attorney may be used.
Personal visits	This technique is much more common at the consumer credit level, but it may also be effectively employed by industrial suppliers. Sending a local salesperson or a collection person to confront the customer can be very effective. Payment may be made on the spot.
Collection agencies	A firm can turn uncollectible accounts over to a collection agency or an attorney for collection. The fees for this service are typically quite high; the firm may receive less than 50 cents on the dollar fron accounts collected in this way.
Legal action	Legal action is the most stringent step, an alternative to the use of a collection agency. Not only is direct legal action expensive, but it may force the debtor into bankruptcy without guaranteeing the ultimate receipt of the overdue amount.

Management of Receipts and Disbursements: Float



Float refers to funds that have been sent by the payer but are not yet usable funds to the payee. Float has three component parts:

- 1. Mail float is the time delay between when payment is placed in the mail and when it is received.
- 2. Processing float is the time between receipt of a payment and its deposit into the firm's account.
- 3. Clearing float is the time between deposit of a payment and when spendable funds become available to the firm.

Management of Receipts and Disbursements: Speeding Up Collections



Speeding up collections reduces customer collection float time and thus reduces the firm's average collection period, which reduces the investment the firm must make in its cash conversion cycle.

A popular technique for speeding up collections is a **lockbox system**, which is a collection procedure in which customers mail payments to a post office box that is emptied regularly by the firm's bank, which processes the payments and deposits them in the firm's account. This system speeds up collection time by reducing processing time as well as mail and clearing time.

Management of Receipts and Disbursements: Slowing Down Payments



Float is also a component of the firm's average payment period.

Controlled disbursing is the strategic use of mailing points and bank accounts to lengthen mail float and clearing float, respectively.

Focus on Ethics



Stretching Accounts Payable—Is It a Good Policy?

- There are two negative ramifications of stretching accounts payables (A/P).
 - First, the stretching out of payables can be pushed too far, and a business can get tagged as a slow-payer. Vendors will eventually put increasing pressure on the company to make more timely payments.
 - Stretching accounts payables also raises ethical issues. First, it may cause the firm to violate the agreement it entered with its supplier when it purchased the merchandise. More important to investors, the firm may stretch A/P to artificially boost reported operating cash flow during a reporting period. In other words, firms can improve reported operating cash flows due solely to a decision to slow the payment rate to vendors.
- While vendor discounts for early payment are very rewarding, what are some of the difficulties that may arise to keep a firm from taking advantage of those discounts?

Management of Receipts and Disbursements: Cash Concentration



Cash concentration is the process used by the firm to bring lockbox and other deposits together into one bank, often called the concentration bank. Cash concentration has three main advantages.

- 1. First, it creates a large pool of funds for use in making short-term cash investments. Because there is a fixed-cost component in the transaction cost associated with such investments, investing a single pool of funds reduces the firm's transaction costs. The larger investment pool also allows the firm to choose from a greater variety of short-term investment vehicles.
- 2. Second, concentrating the firm's cash in one account improves the tracking and internal control of the firm's cash.
- 3. Third, having one concentration bank enables the firm to implement payment strategies that reduce idle cash balances.

Management of Receipts and Disbursements: Cash Concentration (cont.)



A depository transfer check (DTC) is an unsigned check drawn on one of a firm's bank accounts and deposited in another.

An ACH (automated clearinghouse) transfer is a preauthorized electronic withdrawal from the payer's account and deposit into the payee's account via a settlement among banks by the automated clearinghouse, or ACH.

A wire transfer is an electronic communication that, via bookkeeping entries, removes funds from the payer's bank and deposits them in the payee's bank.

Management of Receipts and Disbursements: Zero-Balance Accounts



A zero-balance account (ZBA) is a disbursement account that always has an end-of-day balance of zero because the firm deposits money to cover checks drawn on the account only as they are presented for payment each day.

Personal Finance Example



Megan Laurie, a 25-year-old nurse, works at a hospital that pays her every 2 weeks by direct deposit into her checking account, which pays no interest and has no minimum balance requirement. She takes home about \$1,800 every 2 weeks—or about \$3,600 per month. She maintains a checking account balance of around \$1,500. Whenever it exceeds that amount she transfers the excess into her savings account, which currently pays 1.5% annual interest. She currently has a savings account balance of \$17,000 and estimates that she transfers about \$600 per month from her checking account into her savings account.

Personal Finance Example (cont.)



Megan pays her bills immediately when she receives them. Her monthly bills average about \$1,900, and her monthly cash outlays for food and gas total about \$900. An analysis of Megan's bill payments indicates that on average she pays her bills 8 days early. Most marketable securities are currently yielding about 4.2% annual interest. Megan is interested in learning how she might better manage her cash balances.

Personal Finance Example (cont.)



Megan talks with her sister, who has had a finance course, and they come up with three ways for Megan to better manage her cash balance:

- 1. Invest current balances.
- 2. Invest monthly surpluses.
- 3. Slow down payments.

Based on these three recommendations, Megan would increase her annual earnings by a total of about \$673 (\$460 + \$192 + \$21). Clearly, Megan can grow her earnings by better managing her cash balances.

Table 15.5a Features of Popular Marketable Securities



Security	Issuer	Description	Initial maturity	Risk and return
Government Issues	s			
Treasury bills	U.S. Treasury	Issued weekly at auction; sold at a discount; strong secondary market	4, 13, and 26 weeks	Lowest, virtually risk-free
Treasury notes	U.S. Treasury	Stated interest rate; interest paid semiannually; strong secondary market	1 to 10 years	Low, but higher than U.S. Treasury bills
Treasury bonds	U.S. Treasury	Stated interest rate; interest paid semiannually; strong secondary market	11 to 30 years	Less than corporate bonds, but higher than U.S. Treasury bills and notes
Federal agency issues	Agencies of federal government	Not an obligation of U.S. Treasury; strong secondary market	9 months to 30 years	Slightly higher than U.S. Treasury issue

Table 15.5b Features of Popular Marketable Securities



Negotiable certificates of deposit (CDs)	Commercial banks	Represent specific cash deposits in commercial banks; amounts and maturities tailored to investor needs; large denominations; good secondary market	1 month to 3 years	Higher than U.S. Treasury issues and comparable to commercial paper
Commercial paper	Corporation with a high credit standing	Unsecured note of issuer; large denominations	3 to 270 days	Higher than U.S. Treasury issues and comparable to negotiable CDs
Banker's acceptances	Banks	Results from a bank guarantee of a business transaction; sold at discount from maturity value	30 to 180 days	About the same as negotiable CDs and commercial paper but higher than U.S Treasury issues

Table 15.5c Features of Popular Marketable Securities



Security	Issuer	Description	Initial maturity	Risk and return	
Nongovernment Issues					
Eurodollar deposits	Foreign banks	Deposits of currency not native to the country in which the bank is located; large denominations; active secondary market	1 day to 3 years	High, due to less regulation of despository banks and some foreign exchange risk	
Money market mutual funds	Professional portfolio management companies	Professionally managed portfolios of marketable securities; provide instant liquidity	None—depends on wishes of investor	Vary, but generally higher than U.S. Treasury issues and comparable to negotiable CDs and commercial paper	
Repurchase agreements	Bank or securities dealer	Bank or securities dealer sells specific securities to firm and agrees to repurchase them at a specific price and time	Customized to purchaser's needs	Generally slightly below that associated with the outright purchase of the security	

Review of Learning Goals



- LG1 Understand working capital management, net working capital, and the related trade-off between profitability and risk.
 - Working capital management focuses on managing each of the firm's current assets and current liabilities in a manner that positively contributes to the firm's value. Net working capital is the difference between current assets and current liabilities. Risk, in the context of short-term financial decisions, is the probability that a firm will be unable to pay its bills as they come due. Assuming a constant level of total assets, the higher a firm's ratio of current assets to total assets, the less profitable the firm, and the less risky it is. The converse is also true. With constant total assets, the higher a firm's ratio of current liabilities to total assets, the more profitable and the more risky the firm is. The converse of this statement is also true.



- LG2 Describe the cash conversion cycle, its funding requirements, and the key strategies for managing it.
 - The cash conversion cycle has three components: (1) average age of inventory, (2) average collection period, and (3) average payment period. To minimize its reliance on negotiated liabilities, the financial manager seeks to (1) turn over inventory as quickly as possible, (2) collect accounts receivable as quickly as possible, (3) manage mail, processing, and clearing time, and (4) pay accounts payable as slowly as possible. Use of these strategies should minimize the length of the cash conversion cycle.



- LG3 Discuss inventory management: differing views, common techniques, and international concerns.
 - The viewpoints of marketing, manufacturing, and purchasing managers about the appropriate levels of inventory tend to cause higher inventories than those deemed appropriate by the financial manager. Four commonly used techniques for effectively managing inventory to keep its level low are (1) the ABC system, (2) the economic order quantity (EOQ) model, (3) the just-in-time (JIT) system, and (4) computerized systems for resource control—MRP, MRP II, and ERP. International inventory managers place greater emphasis on making sure that sufficient quantities of inventory are delivered where and when needed, and in the right condition, than on ordering the economically optimal quantities.



- LG4 Explain the credit selection process and the quantitative procedure for evaluating changes in credit standards.
 - Credit selection techniques determine which customers' creditworthiness is consistent with the firm's credit standards. Two popular credit selection techniques are the five C's of credit and credit scoring. Changes in credit standards can be evaluated mathematically by assessing the effects of a proposed change on profits from sales, the cost of accounts receivable investment, and bad-debt costs.



- LG5 Review the procedures for quantitatively considering cash discount changes, other aspects of credit terms, and credit monitoring.
 - Changes in credit terms—the cash discount, the cash discount period, and the credit period—can be quantified similarly to changes in credit standards. Credit monitoring, the ongoing review of accounts receivable, frequently involves use of the average collection period and an aging schedule. Firms use a number of popular collection techniques.



- LG6 Understand the management of receipts and disbursements, including float, speeding up collections, slowing down payments, cash concentration, zero-balance accounts, and investing in marketable securities.
 - Float refers to funds that have been sent by the payer but are not yet usable funds to the payee. The components of float are mail time, processing time, and clearing time. Float occurs in both the average collection period and the average payment period. One technique for speeding up collections is a lockbox system. A popular technique for slowing payments is controlled disbursing.
 - Zero-balance accounts (ZBAs) can be used to eliminate nonearning cash balances in corporate checking accounts. Marketable securities are short-term, interest-earning, money market instruments used by the firm to earn a return on temporarily idle funds.

Chapter Resources on MyFinanceLab



- Chapter Cases
- Group Exercises
- Critical Thinking Problems