

699-703

Living in the Real World

Roundtable Discussion

A Historical Perspective Businesspersons and historians can't forget the causes of the Great Depression even to this day. Many people blame corporate greed, overextension of credit, excess debt, and lack of controls on the buying and selling of stock. On "Black Monday," October 29, 1929, more than 16 million shares of stock were traded. It took another 39 years for the volume of trades to reach that number again. The Depression had a profound and long-lasting effect on the life, economic systems, and political relationships of the entire world.

- ① **Investigate.** Use the Internet and magazines to find out what the Dow Jones Industrial average is. What is the Dow Jones average today? If the average fell 100 points in a day before the Crash, what would that mean? If the average falls 100 points today, what does that mean?
- ② **Critical Thinking.** In the 1920s, many people bought stock on margin. That means buyers buy shares with a small down payment and agree to pay the balance later. What are the drawbacks of such a system for individual buyers and companies?



After YOU READ

REVIEW OF KEY WORDS

corporations (p. 682)

taxable income (p. 682)

stocks (p. 685)

bonds (p. 685)

underwriting commission (p. 685)

commercial loans (p. 688)

maturity value (p. 688)

prime rate (p. 689)

Treasury bill (p. 691)

discount (p. 691)

face value (p. 691)

yield (p. 691)

commercial paper (p. 693)

merge (p. 695)

growth expenses (p. 695)

Match one of the key words above with a definition below.

1. an unsecured promissory note issued by various companies.
2. when a business combines with another business.
3. the portion of your company's gross income that remains after normal business expenses are deducted.
4. may include construction fees, consultation fees, legal fees, etc.
5. a loan that is repaid over a period of time.
6. includes the principal borrowed and the interest owed on the loan.
7. a business loan.
8. when these are issued, the buyer becomes part owner of your business.
9. an amount of money paid to the investment banker who helps you distribute the stocks and bonds.
10. a document that states the terms of a loan.

Skills and Concepts

SECTION OBJECTIVE 22-1 AND EXAMPLES

Compute the taxable income and the corporate income tax.

Use Figure 22.1 on page 682 to find the federal corporate income tax.

Gross Income: \$175,000

Deductions: \$38,000

STEP 1: Find the taxable income.

$$\begin{array}{r} \text{Annual Gross Income} - \text{Deductions} \\ \$175,000 \quad - \quad \$38,000 \quad = \quad \$137,000 \text{ taxable income} \end{array}$$

STEP 2: Find the federal corporate income tax. (Refer to Figure 22.1 on page 682.)

The tax is \$22,250 + 39 percent of the amount over \$100,000.

$$\$22,250 + (\$37,000 \times 39\%) = \$36,680 \text{ federal corporate income tax}$$

REVIEW EXERCISES

Refer to Figure 22.1 on page 682 for federal corporate income tax.

	Annual Gross Income	Deductions	Taxable Income	Total Tax
11.	\$ 230,000	\$ 82,371	a.	b.
12.	512,054	209,732	a.	b.
13.	127,932	85,403	a.	b.
14.	983,210	356,008	a.	b.
15.	651,287	410,911	a.	b.
16.	1,800,529	432,877	a.	b.
17.	341,900	99,812	a.	b.

SECTION OBJECTIVE 22-2 AND EXAMPLES

Calculate the selling expenses and the net proceeds from an issue of stocks and bonds.

Find the net proceeds and the cost per share for:

Value of stock: \$7,000,000 for 500,000 shares.

Commission: 4.00 percent of the value of the stock.

Other selling expenses: 0.3 percent of the value of the stock.

STEP 1a: Find the underwriting commission.

$$\begin{array}{r} \text{Value of Issue} \times \text{Percent of Underwriting Commission} \\ \$7,000,000 \times \quad \quad \quad 4\% \quad \quad \quad = \$280,000 \text{ commission} \\ \$7,000,000 \times \quad \quad \quad 0.3\% \quad \quad \quad = \$21,000 \text{ other selling expenses} \end{array}$$

STEP 1b: Find the total selling expenses.

$$\$280,000 + \$21,000 = \$301,000 \text{ total selling expenses}$$

STEP 2: Find the net proceeds.

$$\begin{array}{rcl} \text{Value of Issue} & - & \text{Total Selling Expenses} \\ \$7,000,000 & - & \$301,000 \\ \hline & & = \$6,699,000 \text{ net proceeds} \end{array}$$

STEP 3: Find the cost per share.

$$\$301,000 \div 500,000 = \$0.602 \text{ cost per share}$$

REVIEW EXERCISES

Complete the table.

	Value of Issue	Percent	Commission Expenses	Other Expenses	Total Selling Expenses	Net Proceeds	Number of Shares	Selling Cost per Share
18.	\$ 1,200,000	5.0%	a.	\$ 38,600	b.	c.	35,000	d.
19.	860,000	7.0%	a.	45,980	b.	c.	27,000	d.
20.	5,750,000	6.5%	a.	73,500	b.	c.	150,000	d.
21.	8,900,000	6.0%	a.	120,000	b.	c.	190,000	d.
22.	32,900,000	8.0%	a.	98,500	b.	c.	1,150,000	d.
23.	39,800,000	5.5%	a.	110,500	b.	c.	1,500,000	d.

SECTION OBJECTIVE 22-3 AND EXAMPLES

Determine the maturity value of a commercial loan.

Tristan's Department Store borrowed \$130,000 from the bank to pay for a new line of clothing. The bank lent the money at 7 percent ordinary interest for 90 days. What was the maturity value of the loan?

STEP 1: Find the interest owed.

$$\begin{array}{rcl} \text{Principal} \times \text{Rate} \times \text{Time} \\ \$130,000 \times 7\% \times \frac{90}{360} & = & \$2,275 \text{ interest owed} \end{array}$$

STEP 2: Find the maturity value.

$$\begin{array}{rcl} \text{Principal} + \text{Interest Owed} \\ \$130,000 + \$2,275 & = & \$132,275 \text{ maturity value} \end{array}$$

REVIEW EXERCISES

Complete the table. Determine the ordinary interest and maturity value.

	Principal	×	Rate	×	Time	=	Interest	Maturity Value
24.	\$ 65,000	×	7.50%	×	90 days	=	a.	b.
25.	110,000	×	6.00%	×	120 days	=	a.	b.
26.	85,400	×	8.25%	×	100 days	=	a.	b.
27.	250,000	×	5.00%	×	270 days	=	a.	b.
28.	65,400	×	10.50%	×	90 days	=	a.	b.
29.	900,500	×	...	×	...	=

SECTION OBJECTIVE 22-4 AND EXAMPLES

Work out the cost and yield of a Treasury bill.

Find the cost and the yield of a Treasury bill with a face value of \$150,000 that was purchased at 5.5 percent for 60 days. The service fee was \$40.

STEP 1: Find the interest.

$$\text{Principal} \times \text{Rate} \times \text{Time} \\ \$150,000 \times 5.5\% \times \frac{60}{360} = \$1,375 \text{ interest}$$

STEP 2: Find the cost.

$$(\text{Face Value of Bill} - \text{Interest}) + \text{Service Fee} \\ (\$150,000 - \$1,375) + \$40 = \$148,665 \text{ cost of a Treasury bill}$$

STEP 3: Find the yield.

$$\text{Interest} \div (\text{Cost} \times \text{Time}) \\ \$1,375 \div (\$148,665 \times \frac{60}{360}) = 5.55\% \text{ yield of a Treasury bill}$$

REVIEW EXERCISES

Compute the interest, the cost, and the yield of the Treasury bill.

	Face Value of Treasury Bill	Interest Rate	Time in Days	Interest	Bank Service Fee	Cost of Treasury Bill	Yield
30.	\$ 35,000	5.00%	30	a.	\$25	b.	c.
31.	65,000	5.50%	60	a.	30	b.	c.
32.	100,000	3.43%	90	a.	40	b.	c.
33.	125,000	4.90%	120	a.	50	b.	c.
34.	75,000	4.80%	180	a.	35	b.	c.
35.	98,000	2.75%	82	a.	60	b.	c.

SECTION OBJECTIVE 22-5 AND EXAMPLES

Determine the cost and yield for commercial paper.

Find the cost and yield of the CP. Five hundred thousand dollars is invested at 5 percent interest for 60 days. Service fee of \$75.

STEP 1: Find the interest.

$$\text{Principal} \times \text{Rate} \times \text{Time} \\ \$500,000 \times 5\% \times \frac{60}{360} = \$4,166.67 \text{ interest}$$

STEP 2: Find the cost.

$$(\text{Face Value of CP} - \text{Interest}) + \text{Service Fee} \\ \$500,000 - \$4,166.67 + \$75 = \$495,908.33 \text{ cost of the CP}$$

STEP 3: Find the yield.

$$\text{Interest} \div (\text{Cost} \times \text{Time}) \\ \$4,166.67 \div (\$495,908.33 \times \frac{60}{360}) = 5.04\% \text{ yield of the CP}$$

REVIEW EXERCISES

Use ordinary interest at exact time to solve.

	Face Value of CP	Interest Rate	Time in Days	Interest	Bank Service Fee	Cost of CP	Yield
36.	\$ 600,000	5.25%	30	a.	No Fee	b.	c.
37.	650,000	6.15%	60	a.	\$35	b.	c.
38.	900,000	4.47%	90	a.	45	b.	c.
39.	950,000	5.80%	120	a.	30	b.	c.
40.	1,300,000	9.65%	180	a.	25	b.	c.
41.	7,000,000	7.18%	82	a.	50	b.	c.

SECTION OBJECTIVE 22-6 AND EXAMPLES

Compute the total cost of expanding a business.

The owner of Digital Designs plans to expand the business by adding some new equipment.

Growth expenses include the following:

What is the total cost for the expansion of Digital Designs?

Digital cameras	\$ 3,400
Multimedia editing equipment	13,240
Lighting fixtures	8,300
Printers	6,500

STEP: Find the total of all items.

$$\text{Total Cost of Expansion} = \text{Sum of Individual Costs}$$

$$\$3,400 + \$13,240 + \$8,300 + \$6,500 = \mathbf{\$31,440 \text{ total}}$$

REVIEW EXERCISES

42. The Fashion Barn is adding a shoe department. Fashion Barn pays \$18,560 to convert an area of the store for the shoes. It also pays a 25 percent down payment on new stock that costs a total of \$54,300. What is the total of these growth expenses?
43. The Cranberry Goose Flower Shop is expanding and purchases a new delivery van for \$32,000. It also purchases supplies for \$6,431 and has additional advertising costs of \$1,200. What is the total cost of expansion?

Find the total cost of expansion.

44.

Remodeling	\$54,900
Permits	1,900
Computer system	18,700
Phone installation	2,300
Shelving	8,500
Restocking	3,500
Total	\$

45.

Vehicle	\$28,000
Signage	3,500
Additional supplies	4,368
Advertising	5,400
Additional insurance	2,300
Total	\$