Chapter 1
Managerial Accounting and Cost Concepts

Questions

1-1 The three major types of product costs in a manufacturing company are direct materials, direct labor, and manufacturing overhead.

1-2

a. Direct materials are an integral part of a finished product and their costs can be conveniently traced to it.

b. Indirect materials are generally small items of material such as glue and nails. They may be an integral part of a finished product but their costs can be traced to the product only at great cost or inconvenience.

c. Direct labor consists of labor costs that can be easily traced to particular products. Direct labor is also called "touch labor."

d. Indirect labor consists of the labor costs of janitors, supervisors, materials handlers, and other factory workers that cannot be conveniently traced to particular products. These labor costs are incurred to support production, but the workers involved do not directly work on the product.

e. Manufacturing overhead includes all manufacturing costs except direct materials and direct labor. Consequently, manufacturing overhead includes indirect materials and indirect labor as well as other manufacturing costs.

1-3 A product cost is any cost involved in purchasing or manufacturing goods. In the case of manufactured goods, these costs consist of direct materials, direct labor, and manufacturing overhead. A period cost is a cost that is taken directly to the income statement as an expense in the period in which it is incurred.

1-4

a. Variable cost: The variable cost per unit is constant, but total variable cost changes in direct proportion to changes in volume.
b. Fixed cost: The total fixed cost is constant within the relevant range. The *average* fixed cost per unit varies inversely with changes in volume.
c. Mixed cost: A mixed cost contains both variable and fixed cost elements.

1-5

a. Unit fixed costs decrease as the activity level increases.
b. Unit variable costs remain constant as the activity level increases.
c. Total fixed costs remain constant as the activity level increases.
d. Total variable costs increase as the activity level increases.

1-6

a. Cost behavior: Cost behavior refers to the way in which costs change in response to changes in a measure of activity such as sales volume, production volume, or orders processed.
b. Relevant range: The relevant range is the range of activity within which assumptions about variable and fixed cost behavior are valid.

1-7 An activity base is a measure of whatever causes the incurrence of a variable cost. Examples of activity bases include units produced, units sold, letters typed, beds in a hospital, meals served in a cafe, service calls made, etc.

1-8 The linear assumption is reasonably valid providing that the cost formula is used only within the relevant range.

1-9 A discretionary fixed cost has a fairly short planning horizon—usually a year. Such costs arise from annual decisions by management to spend on certain fixed cost items, such as advertising, research, and management development. A committed fixed cost has a long planning horizon—generally many years. Such costs relate to a company's investment in facilities, equipment, and basic organization. Once such costs have been incurred, they are "locked in" for many years.

1-10 Yes. As the anticipated level of activity changes, the level of fixed costs needed to support operations may also change. Most fixed costs are adjusted upward and downward in large steps, rather than being absolutely fixed at one level for all ranges of activity.

1-11 The traditional approach organizes costs by function, such as production, selling, and administration. Within a functional area, fixed and variable costs are intermingled. The contribution approach income statement organizes costs by behavior, first deducting variable expenses to obtain contribution margin, and then deducting fixed expenses to obtain net operating income.

1-12 The contribution margin is total sales revenue less total variable expenses.

1-13 A differential cost is a cost that differs between alternatives in a decision. An opportunity cost is the potential benefit that is given up when one alternative is selected over another. A sunk cost is a cost that has already been incurred and cannot be altered by any decision taken now or in the future.

1-14 No, differential costs can be either variable or fixed. For example, the alternatives might consist of purchasing one machine rather than another to make a product. The difference between the fixed costs of purchasing the two machines is a differential cost.

Chapter 1: Applying Excel

The completed worksheet is shown below.

	A	B	C	D
1	Chapter 1: Applying Excel			
2				
3	**Data**			
4	Sales	$12,000		
5	Variable costs:			
6	Cost of goods sold	$6,000		
7	Variable selling	$600		
8	Variable administrative	$400		
9	Fixed costs:			
10	Fixed selling	$2,500		
11	Fixed administrative	$1,500		
12				
13	*Enter a formula into each of the cells marked with a ? below*			
14	**Exhibit 1-7**			
15				
16	**Traditional Format Income Statement**			
17	Sales		$ 12,000	
18	Cost of goods sold		6,000	
19	Gross margin		6,000	
20	Selling and administrative expenses:			
21	Selling	$ 3,100		
22	Administrative	1,900	5,000	
23	Net operating income		$ 1,000	
24				
25	**Contribution Format Income Statement**			
26	Sales		$ 12,000	
27	Variable expenses:			
28	Cost of goods sold	$ 6,000		
29	Variable selling	600		
30	Variable administration	400	7,000	
31	Contribution margin		5,000	
32	Fixed expenses:			
33	Fixed selling	2,500		
34	Fixed administrative	1,500	4,000	
35	Net operating income		$ 1,000	
36				

Filled in Chapter 1 Form

Chapter 1: Applying Excel (continued)

The completed worksheet, with formulas displayed, is shown below.

	A	B	C	D
1	Chapter 1: Applying Excel			
2				
3	**Data**			
4	Sales	12000		
5	Variable costs:			
6	Cost of goods sold	6000		
7	Variable selling	600		
8	Variable administrative	400		
9	Fixed costs:			
10	Fixed selling	2500		
11	Fixed administrative	1500		
12				
13	*Enter a formula into each of the cells marked with a ? below*			
14	**Exhibit 1-7**			
15				
16	**Traditional Format Income Statement**			
17	Sales		=B4	
18	Cost of goods sold		=B6	
19	Gross margin		=C17-C18	
20	Selling and administrative expenses:			
21	Selling	=B7+B10		
22	Administrative	=B8+B11	=B21+B22	
23	Net operating income		=C19-C22	
24				
25	**Contribution Format Income Statement**			
26	Sales		=B4	
27	Variable expenses:			
28	Cost of goods sold	=B6		
29	Variable selling	=B7		
30	Variable administration	=B8	=SUM(B28:B30)	
31	Contribution margin		=C26-C30	
32	Fixed expenses:			
33	Fixed selling	=B10		
34	Fixed administrative	=B11	=SUM(B33:B34)	
35	Net operating income		=C31-C34	
36				

... **Chapter 1 formulas** | Chapter 1 Requirement ...

[Note: To display formulas in cells instead of their calculated amounts, consult Excel Help.]

Chapter 1: Applying Excel (continued)

1. When the variable selling cost is changed to $900, the worksheet changes as show below:

	A	B	C	D
1	Chapter 1: Applying Excel			
2				
3	**Data**			
4	Sales	$12,000		
5	Variable costs:			
6	Cost of goods sold	$6,000		
7	Variable selling	$900		
8	Variable administrative	$400		
9	Fixed costs:			
10	Fixed selling	$2,500		
11	Fixed administrative	$1,500		
12				
13	*Enter a formula into each of the cells marked with a ? below*			
14	**Exhibit 1-7**			
15				
16	**Traditional Format Income Statement**			
17	Sales		$ 12,000	
18	Cost of goods sold		6,000	
19	Gross margin		6,000	
20	Selling and administrative expenses:			
21	Selling	$ 3,400		
22	Administrative	1,900	5,300	
23	Net operating income		$ 700	
24				
25	**Contribution Format Income Statement**			
26	Sales		$ 12,000	
27	Variable expenses:			
28	Cost of goods sold	$ 6,000		
29	Variable selling	900		
30	Variable administration	400	7,300	
31	Contribution margin		4,700	
32	Fixed expenses:			
33	Fixed selling	2,500		
34	Fixed administrative	1,500	4,000	
35	Net operating income		$ 700	
36				

Chapter 1 Requirement 1

The gross margin is $6,000; the same as it was before. It did not change because the variable selling expense is deducted *after* the gross margin, not before it on the traditional format income statement.

Chapter 1: Applying Excel (continued)

2. The new worksheet appears below:

	A	B	C	D
1	Chapter 1: Applying Excel			
2				
3	**Data**			
4	Sales	$13,200		
5	Variable costs:			
6	Cost of goods sold	$6,600		
7	Variable selling	$660		
8	Variable administrative	$440		
9	Fixed costs:			
10	Fixed selling	$2,500		
11	Fixed administrative	$1,500		
12				
13	*Enter a formula into each of the cells marked with a ? below*			
14	**Exhibit 1-7**			
15				
16	**Traditional Format Income Statement**			
17	Sales		$ 13,200	
18	Cost of goods sold		6,600	
19	Gross margin		6,600	
20	Selling and administrative expenses:			
21	Selling	$ 3,160		
22	Administrative	1,940	5,100	
23	Net operating income		$ 1,500	
24				
25	**Contribution Format Income Statement**			
26	Sales		$ 13,200	
27	Variable expenses:			
28	Cost of goods sold	$ 6,600		
29	Variable selling	660		
30	Variable administration	440	7,700	
31	Contribution margin		5,500	
32	Fixed expenses:			
33	Fixed selling	2,500		
34	Fixed administrative	1,500	4,000	
35	Net operating income		$ 1,500	
36				

Chapter 1 Requirement 2

The variable costs increased by 10% when the sales increased by 10%, however the fixed costs did not increase at all. By definition, total variable cost increases in proportion to activity whereas total fixed cost is constant. (In the real world, cost behavior may be messier.)

The contribution margin also increased by 10%, from $5,000 to $5,500, because both of its components—sales and variable costs—increased by 10%.

The net operating income increased by more than 10%, from $1,000 to $1,500, because even though sales and variable expenses increased by 10%, the fixed costs did not increase by 10%.

The Foundational 15

1.

Direct materials	$ 6.00	
Direct labor	3.50	
Variable manufacturing overhead	1.50	
Variable manufacturing cost per unit	$11.00	

Variable manufacturing cost per unit (a)	$11.00	
Number of units produced (b)	10,000	
Total variable manufacturing cost (a) × (b)		$110,000
Average fixed manufacturing overhead per unit (c)	$4.00	
Number of units produced (d)	10,000	
Total fixed manufacturing cost (c) × (d)		40,000
Total product (manufacturing) cost		$150,000

Note: The average fixed manufacturing overhead cost per unit of $4.00 is valid for only one level of activity—10,000 units produced.

2.

Sales commissions	$1.00	
Variable administrative expense	0.50	
Variable selling and administrative per unit	$1.50	

Variable selling and admin. per unit (a)	$1.50	
Number of units sold (b)	10,000	
Total variable selling and admin. expense (a) × (b)		$15,000
Average fixed selling and administrative expense per unit ($3 fixed selling + $2 fixed admin.) (c)	$5.00	
Number of units sold (d)	10,000	
Total fixed selling and administrative expense (c) × (d)		50,000
Total period (nonmanufacturing) cost		$65,000

Note: The average fixed selling and administrative expense per unit of $5.00 is valid for only one level of activity—10,000 units sold.

The Foundational 15 (continued)

3.

Direct materials	$ 6.00
Direct labor	3.50
Variable manufacturing overhead	1.50
Sales commissions	1.00
Variable administrative expense	0.50
Variable cost per unit sold	$12.50

4.

Direct materials	$ 6.00
Direct labor	3.50
Variable manufacturing overhead	1.50
Sales commissions	1.00
Variable administrative expense	0.50
Variable cost per unit sold	$12.50

5.

Variable cost per unit sold (a)	$12.50
Number of units sold (b)	8,000
Total variable costs (a) × (b)	$100,000

6.

Variable cost per unit sold (a)	$12.50
Number of units sold (b)	12,500
Total variable costs (a) × (b)	$156,250

7.

Total fixed manufacturing cost (see requirement 1) (a)	$40,000
Number of units produced (b)	8,000
Average fixed manufacturing cost per unit produced (a) ÷ (b)	$5.00

8.

Total fixed manufacturing cost (see requirement 1) (a)	$40,000
Number of units produced (b)	12,500
Average fixed manufacturing cost per unit produced (a) ÷ (b)	$3.20

9.

Total fixed manufacturing cost (see requirement 1)	$40,000

The Foundational 15 (continued)

10. Total fixed manufacturing cost (see requirement 1) $40,000

11.

Variable overhead per unit (a)	$1.50	
Number of units produced (b)	8,000	
Total variable overhead cost (a) × (b)		$12,000
Total fixed overhead (see requirement 1)		40,000
Total manufacturing overhead cost		$52,000

Total manufacturing overhead cost (a)	$52,000
Number of units produced (b)	8,000
Manufacturing overhead per unit (a) ÷ (b)	$6.50

12.

Variable overhead per unit (a)	$1.50	
Number of units produced (b)	12,500	
Total variable overhead cost (a) × (b)		$18,750
Total fixed overhead (see requirement 1)		40,000
Total manufacturing overhead cost		$58,750

Total manufacturing overhead cost (a)	$58,750
Number of units produced (b)	12,500
Manufacturing overhead per unit (a) ÷ (b)	$4.70

13.

Selling price per unit	$22.00
Variable cost per unit sold (see requirement 4)	12.50
Contribution margin per unit	$ 9.50

The Foundational 15 (continued)

14.

Direct materials per unit	$6.00	
Direct labor per unit	3.50	
Direct manufacturing cost per unit	$9.50	
Direct manufacturing cost per unit (a)	$9.50	
Number of units produced (b)	11,000	
Total direct manufacturing cost (a) × (b)	$104,500	
Variable overhead per unit (a)	$1.50	
Number of units produced (b)	11,000	
Total variable overhead cost (a) × (b)		$16,500
Total fixed overhead (see requirement 1)		40,000
Total indirect manufacturing cost		$56,500

15.

Direct materials per unit	$6.00
Direct labor per unit	3.50
Variable manufacturing overhead per unit	1.50
Incremental cost per unit produced	$11.00

Note: Variable selling and administrative expenses are variable with respect to the number of units sold, not the number of units produced.

Exercise 1-1 (15 minutes)

	Cost	*Cost Object*	*Direct Cost*	*Indirect Cost*
1.	The wages of pediatric nurses	The pediatric department	X	
2.	Prescription drugs	A particular patient	X	
3.	Heating the hospital	The pediatric department		X
4.	The salary of the head of pediatrics	The pediatric department	X	
5.	The salary of the head of pediatrics	A particular pediatric patient		X
6.	Hospital chaplain's salary	A particular patient		X
7.	Lab tests by outside contractor	A particular patient	X	
8.	Lab tests by outside contractor	A particular department	X	

Exercise 1-2 (10 minutes)

1. The cost of a hard drive installed in a computer: direct materials.

2. The cost of advertising in the *Puget Sound Computer User* newspaper: selling.

3. The wages of employees who assemble computers from components: direct labor.

4. Sales commissions paid to the company's salespeople: selling.

5. The salary of the assembly shop's supervisor: manufacturing overhead.

6. The salary of the company's accountant: administrative.

7. Depreciation on equipment used to test assembled computers before release to customers: manufacturing overhead.

8. Rent on the facility in the industrial park: a combination of manufacturing overhead, selling, and administrative. The rent would most likely be prorated on the basis of the amount of space occupied by manufacturing, selling, and administrative operations.

Exercise 1-3 (15 minutes)

	Product Cost	*Period Cost*
1. Depreciation on salespersons' cars		X
2. Rent on equipment used in the factory	X	
3. Lubricants used for machine maintenance	X	
4. Salaries of personnel who work in the finished goods warehouse		X
5. Soap and paper towels used by factory workers at the end of a shift	X	
6. Factory supervisors' salaries................................	X	
7. Heat, water, and power consumed in the factory ...	X	
8. Materials used for boxing products for shipment overseas (units are not normally boxed)		X
9. Advertising costs		X
10. Workers' compensation insurance for factory employees...	X	
11. Depreciation on chairs and tables in the factory lunchroom...	X	
12. The wages of the receptionist in the administrative offices...		X
13. Cost of leasing the corporate jet used by the company's executives		X
14. The cost of renting rooms at a Florida resort for the annual sales conference....................................		X
15. The cost of packaging the company's product........	X	

Exercise 1-4 (15 minutes)

1.

	Cups of Coffee Served in a Week		
	2,000	*2,100*	*2,200*
Fixed cost................................	$1,200	$1,200	$1,200
Variable cost............................	440	462	484
Total cost	$1,640	$1,662	$1,684
Average cost per cup served *...	$0.820	$0.791	$0.765

* Total cost ÷ cups of coffee served in a week

2. The average cost of a cup of coffee decreases as the number of cups of coffee served increases because the fixed cost is spread over more cups of coffee.

Exercise 1-5 (15 minutes)

Item	*Differential Cost*	*Sunk Cost*	*Opportunity Cost*
1. Cost of the old X-ray machine		X	
2. The salary of the head of the Radiology Department............			
3. The salary of the head of the Laboratory Department			
4. Cost of the new color laser printer..................................	X		
5. Rent on the space occupied by Radiology			
6. The cost of maintaining the old machine	X		
7. Benefits from a new DNA analyzer			X
8. Cost of electricity to run the X-ray machines	X		

Note: The costs of the salaries of the head of the Radiology Department and Laboratory Department and the rent on the space occupied by Radiology are neither differential costs, nor opportunity costs, nor sunk costs. These costs do not differ between the alternatives and therefore are irrelevant in the decision, but they are not sunk costs because they occur in the future.

Exercise 1-6 (15 minutes)

1. Traditional income statement

Cherokee Inc.
Traditional Income Statement

Sales ($30 per unit × 20,000 units)		$600,000
Cost of goods sold		
($24,000 + $180,000 – $44,000)		160,000
Gross margin		440,000
Selling and administrative expenses:		
Selling expenses		
(($4 per unit × 20,000 units) + $40,000)	$120,000	
Administrative expenses		
(($2 per unit × 20,000 units) + $30,000)	70,000	190,000
Net operating income		$250,000

2. Contribution format income statement

Cherokee Inc.
Contribution Format Income Statement

Sales ($30 per unit × 20,000 units)		$600,000
Variable expenses:		
Cost of goods sold		
($24,000 + $180,000 – $44,000)	$160,000	
Selling expenses ($4 per unit × 20,000 units)	80,000	
Administrative expenses		
($2 per unit × 20,000 units)	40,000	280,000
Contribution margin		320,000
Fixed expenses:		
Selling expenses	40,000	
Administrative expenses	30,000	70,000
Net operating income		$250,000

Exercise 1-7 (20 minutes)

1a. The total direct manufacturing cost incurred is computed as follows:

Direct materials per unit	$7.00	
Direct labor per unit	4.00	
Direct manufacturing cost per unit (a)		$11.00
Number of units sold (b)		20,000
Total direct manufacturing cost (a) × (b)		$220,000

1b. The total indirect manufacturing cost incurred is computed as follows:

Variable manufacturing overhead per unit	$1.50	
Fixed manufacturing overhead per unit	5.00	
Indirect manufacturing cost per unit (a)		$6.50
Number of units sold (b)		20,000
Total indirect manufacturing cost (a) × (b)		$130,000

Note: The average fixed manufacturing overhead cost per unit of $5.00 is valid for only one level of activity—20,000 units produced.

2a. The total manufacturing cost that is directly traceable to the Manufacturing Department is computed as follows:

Direct materials per unit	$7.00	
Direct labor per unit	4.00	
Variable manufacturing overhead per unit	1.50	
Fixed manufacturing overhead per unit	5.00	
Total manufacturing cost per unit (a)		$17.50
Number of units sold (b)		20,000
Total direct costs (a) × (b)		$350,000

2b. None of the manufacturing costs should be treated as indirect costs when the cost object is the Manufacturing Department.

Exercise 1-7 (continued)

3a. The first step in calculating the total direct selling expense is to determine the fixed portion of the sales representatives' compensation as follows:

Fixed selling expense per unit (a)..............	$3.50	
Number of units sold (b)...........................	20,000	
Total fixed selling expense (a) × (b)..........		$70,000
Total fixed selling expense (a)....................		$70,000
Advertising expenditures (b)......................		$50,000
Total fixed portion of the sales representatives' compensation (a) – (b)...		$20,000

The second step is to calculate the total direct selling expense that is traceable to individual sales representatives as follows:

Sales commissions per unit (a)..................	$1.00	
Number of units sold (b)...........................	20,000	
Total sales commission (a) × (b)...............		$20,000
Fixed portion of sales representatives' compensation.......................................		20,000
Total direct selling expense.......................		$40,000

3b. The total indirect selling expense that cannot be traced to individual sales representatives is $50,000. The advertising expenditures cannot be traced to specific sales representatives.

4. No. Kubin's administrative expenses could be direct or indirect depending on the cost object. For example, the chief financial officer's salary would be an indirect cost if the cost object is units of production; however, his salary would be a direct cost if the cost object is the Finance Department that he oversees.

Exercise 1-8 (20 minutes)

1.

Direct materials	$ 7.00	
Direct labor	4.00	
Variable manufacturing overhead	1.50	
Variable manufacturing cost per unit	$12.50	

Variable manufacturing cost per unit (a)	$12.50	
Number of units produced (b)	20,000	
Total variable manufacturing cost (a) × (b)		$250,000
Average fixed manufacturing overhead per unit (c)	$5.00	
Number of units produced (d)	20,000	
Total fixed manufacturing cost (c) × (d)		100,000
Total product cost		$350,000

Note: The average fixed manufacturing overhead cost per unit of $5.00 is valid for only one level of activity—20,000 units produced.

2.

Sales commissions	$1.00	
Variable administrative expense	0.50	
Variable selling and administrative per unit	$1.50	

Variable selling and admin. per unit (a)	$1.50	
Number of units sold (b)	20,000	
Total variable selling and admin. expense (a) × (b)		$30,000
Average fixed selling and administrative expense per unit ($3.50 fixed selling + $2.50 fixed administrative) (c)	$6.00	
Number of units sold (d)	20,000	
Total fixed selling and administrative expense (c) × (d)		120,000
Total period cost		$150,000

Note: The average fixed selling and administrative expense per unit of $6.00 is valid for only one level of activity—20,000 units sold.

Exercise 1-8 (continued)

3.

Direct materials	$ 7.00	
Direct labor	4.00	
Variable manufacturing overhead	1.50	
Variable manufacturing cost per unit	$12.50	
Variable manufacturing cost per unit (a)	$12.50	
Number of units produced (b)	22,000	
Total variable manufacturing cost (a) × (b)		$275,000
Total fixed manufacturing cost (see requirement 1)		100,000
Total product cost		$375,000

4.

Sales commissions	$1.00	
Variable administrative expense	0.50	
Variable selling and administrative per unit	$1.50	
Variable selling and admin. per unit (a)	$1.50	
Number of units sold (b)	18,000	
Total variable selling and admin. expense (a) × (b)		$27,000
Total fixed selling and administrative expense (see requirement 2)		120,000
Total period cost		$147,000

Exercise 1-9 (20 minutes)

1.

Direct materials	$ 7.00
Direct labor	4.00
Variable manufacturing overhead	1.50
Sales commissions	1.00
Variable administrative expense	0.50
Variable cost per unit sold	$14.00

2.

Direct materials	$ 7.00
Direct labor	4.00
Variable manufacturing overhead	1.50
Sales commissions	1.00
Variable administrative expense	0.50
Variable cost per unit sold	$14.00

3.

Variable cost per unit sold (a)	$14.00
Number of units sold (b)	18,000
Total variable costs (a) × (b)	$252,000

4.

Variable cost per unit sold (a)	$14.00
Number of units sold (b)	22,000
Total variable costs (a) × (b)	$308,000

Note: The key to answering questions 5 through 8 is to calculate the total fixed manufacturing overhead costs as follows:

Average fixed manufacturing overhead cost per unit (a)	$5.00
Number of units produced (b)	20,000
Total fixed manufacturing overhead (a) × (b)	$100,000

Note: The average fixed manufacturing overhead cost per unit of $5.00 is valid for only one level of activity—20,000 units produced.

Once students understand that total fixed manufacturing overhead is $100,000, questions 5 through 8 are answered as follows:

Exercise 1-9 (continued)

5. The average fixed manufacturing overhead per unit is:

Total fixed manufacturing overhead (a).....	$100,000
Number of units produced (b)..................	18,000
Average fixed manufacturing cost per unit produced (rounded) (a) ÷ (b)...............	$5.56

6. The average fixed manufacturing overhead per unit is:

Total fixed manufacturing overhead (a).....	$100,000
Number of units produced (b)..................	22,000
Average fixed manufacturing cost per unit produced (rounded) (a) ÷ (b)...............	$4.55

7. The total fixed manufacturing overhead remains unchanged at $100,000.

8. The total fixed manufacturing overhead remains unchanged at $100,000.

Exercise 1-10 (10 minutes)

1.

Direct materials	$ 7.00
Direct labor	4.00
Variable manufacturing overhead	1.50
Total incremental cost	$12.50

2.

Direct materials	$ 7.00
Direct labor	4.00
Variable manufacturing overhead	1.50
Sales commissions	1.00
Variable administrative expense	0.50
Variable cost per unit sold	$14.00

3. Because the 200 units to be sold to the new customer have already been produced, the incremental manufacturing cost per unit is zero. The variable manufacturing costs incurred to make these units have already been incurred and, as such, are sunk costs.

4.

Sales commission	$1.00
Variable administrative expense	0.50
Variable cost per unit sold	$1.50

Exercise 1-11 (20 minutes)

1. The company's variable cost per unit is:

$$\frac{\$180{,}000}{30{,}000 \text{ units}} = \$6 \text{ per unit.}$$

The completed schedule is as follows:

	Units produced and sold		
	30,000	*40,000*	*50,000*
Total costs:			
Variable cost..............	$180,000	$240,000	$300,000
Fixed cost..................	300,000	300,000	300,000
Total costs.................	$480,000	$540,000	$600,000
Cost per unit:			
Variable cost..............	$ 6.00	$ 6.00	$ 6.00
Fixed cost..................	10.00	7.50	6.00
Total cost per unit.......	$16.00	$13.50	$12.00

2. The company's contribution format income statement is:

Sales (45,000 units × $16 per unit)........................	$720,000
Variable expenses (45,000 units × $6 per unit).......	270,000
Contribution margin	450,000
Fixed expense...	300,000
Net operating income	$150,000

Exercise 1-12 (10 minutes)

1. The computations for parts 1a through 1e are as follows:

a. The cost of batteries in Raw Materials:

Beginning raw materials inventory	0	
Plus: Battery purchases	8,000	
Batteries available	8,000	
Minus: Batteries withdrawn	7,600	
Ending raw materials inventory (a)		400
Cost per battery (b)		$80
Raw materials on April 30th (a) × (b)		$32,000

b. The cost of batteries in Work in Process:

Beginning work in process inventory	0	
Plus: Batteries withdrawn for production ...	7,500	
Batteries available	7,500	
Minus: Batteries transferred to finished goods (7,500 × 90%)	6,750	
Ending work in process inventory (a)		750
Cost per battery (b)		$80
Work in process on April 30th (a) × (b)		$60,000

c. The cost of batteries in Finished Goods:

Beginning finished goods inventory	0	
Plus: Batteries transferred in from work in process (see requirement b)	6,750	
Batteries available	6,750	
Minus: Batteries transferred out to cost of goods sold (6,750 × (100% – 30%))	4,725	
Ending finished goods inventory (a)		2,025
Cost per battery (b)		$80
Finished goods on April 30th (a) × (b)		$162,000

Exercise 1-12 (continued)

d. The cost of batteries in Cost of Goods Sold:

Number of batteries (see requirement c) (a)	4,725
Cost per battery (b)	$80
Cost of goods sold for April (a) × (b)	$378,000

e. The cost of batteries included in selling expense:

Number of batteries (a)	100
Cost per battery (b)	$80
Selling expense for April (a) × (b)	$8,000

2. Raw Materials, Work in Process, and Finished Goods would appear on the balance sheet. Cost of Goods Sold and Selling Expense would appear on the income statement.

Exercise 1-13 (30 minutes)

1. True. The variable manufacturing cost per unit will remain the same within the relevant range.
2. False. The total fixed manufacturing cost will remain the same within the relevant range.
3. True. The total variable manufacturing cost will increase, so the total manufacturing cost will increase too.
4. True. The average fixed manufacturing cost per unit will decrease as the level of activity increases.
5. False. The total variable manufacturing cost will increase (rather than decrease) as the activity level increases.
6. False. The variable manufacturing cost per unit will remain the same, but the average fixed manufacturing cost per unit will decrease as the level of activity increases.
7. True. The variable manufacturing cost per unit of $28 will stay constant within the relevant range. The $28 figure is computed as follows:

Total manufacturing cost per unit (a)	$70.00
Variable manufacturing cost percentage (b)	40%
Variable manufacturing cost per unit (a) × (b)	$28.00

8. False. The total fixed manufacturing cost of $420,000 does not change within the relevant range. The $420,000 figure is computed as follows:

Total manufacturing cost per unit (a)	$70.00	
Variable manufacturing cost per unit (b)	28.00	
Average fixed manufacturing cost per unit (a) – (b)		$42.00
Number of units produced		× 10,000
Total fixed manufacturing cost		$420,000

Exercise 1-13 (continued)

9. True. The underlying computations are as follows:

Variable manufacturing cost per unit (see requirement 7) (a)	$28.00	
Number of units produced (b)	10,050	
Total variable manufacturing cost (a) × (b)		$281,400
Total fixed manufacturing cost (see requirement 8)		420,000
Total manufacturing cost		$701,400

10. True. The underlying computations are as follows:

Total fixed manufacturing cost (see requirement 8) (a)	$420,000
Number of units produced (b)	10,050
Average fixed manufacturing cost per unit (a) ÷ (b)	$41.79

11. False. The total variable manufacturing cost will equal $281,400, computed as follows:

Variable manufacturing cost per unit (see requirement 7) (a)	$28.00
Number of units produced (b)	10,050
Total variable manufacturing cost (a) × (b)	$281,400

12. True. The underlying computations are as follows:

Variable manufacturing cost per unit (see requirement 7)	$28.00
Average fixed manufacturing cost per unit (see requirement 10)	41.79
Total manufacturing cost per unit	$69.79

Exercise 1-14 (30 minutes)

	Cost Classifications for:			
Name of the Cost	*(1) Predicting Cost behavior*	*(2) Manufacturers*	*(3) Preparing Financial Statements*	*D...*
Rental revenue forgone, $30,000 per year	None	None	None	Oppo...
Direct materials cost, $80 per unit	Variable	Direct materials	Product	
Rental cost of warehouse, $500 per month	Fixed	None	Period	
Rental cost of equipment, $4,000 per month	Fixed	Manufacturing overhead	Product	
Direct labor cost, $60 per unit	Variable	Direct labor	Product	
Depreciation of the annex space, $8,000 per year	Fixed	Manufacturing overhead	Product	Su...
Advertising cost, $50,000 per year	Fixed	None	Period	
Supervisor's salary, $3,500 per month	Fixed	Manufacturing overhead	Product	
Electricity for machines, $1.20 per unit	Variable	Manufacturing overhead	Product	
Shipping cost, $9 per unit	Variable	None	Period	
Return earned on investments, $3,000 per year	None	None	None	Oppo...

Exercise 1-15 (20 minutes)

1. Traditional income statement

The Alpine House, Inc.
Traditional Income Statement

Sales		$150,000
Cost of goods sold		
($30,000 + $100,000 – $40,000)		90,000
Gross margin		60,000
Selling and administrative expenses:		
Selling expenses (($50 per unit × 200 pairs of skis*) + $20,000)	$30,000	
Administrative expenses (($10 per unit × 200 pairs of skis) + $20,000)	22,000	52,000
Net operating income		$ 8,000

*$150,000 sales ÷ $750 per pair of skis = 200 pairs of skis.

2. Contribution format income statement

The Alpine House, Inc.
Contribution Format Income Statement

Sales		$150,000
Variable expenses:		
Cost of goods sold		
($30,000 + $100,000 – $40,000)	$90,000	
Selling expenses		
($50 per unit × 200 pairs of skis)	10,000	
Administrative expenses		
($10 per unit × 200 pairs of skis)	2,000	102,000
Contribution margin		48,000
Fixed expenses:		
Selling expenses	20,000	
Administrative expenses	20,000	40,000
Net operating income		$ 8,000

Exercise 1-15 (continued)

3. Since 200 pairs of skis were sold and the contribution margin totaled \$48,000 for the quarter, the contribution margin per unit was \$240 (\$48,000 ÷ 200 pair of skis = \$240 per pair of skis).

Exercise 1-16 (10 minutes)

1. The differential cost is computed as follows:

Cost of a new model 300 (a)	$313,000
Cost of a new model 200 (b)	$275,000
Differential cost (a) – (b)	$38,000

2. The sunk cost is the cost of the machine purchased seven years ago for $319,000.

3. The opportunity cost is the $374,000 that could have been earned by pursuing the forgone option.

Exercise 1-17 (15 minutes)

	Cost Classifications for:	
Cost Item	*(1) Predicting Cost Behavior*	*(2) Preparing Financial Statements*
1. Hamburger buns at a Wendy's restaurant ...	Variable	Product
2. Advertising by a dental office.......................	Fixed	Period
3. Apples processed and canned by Del Monte	Variable	Product
4. Shipping canned apples from a Del Monte plant to customers.................	Variable	Period
5. Insurance on a Bausch & Lomb factory producing contact lenses	Fixed	Product
6. Insurance on Nucor's corporate headquarters	Fixed	Period
7. Salary of a supervisor overseeing production of printers at Ricoh...................	Fixed	Product
8. Commissions paid to automobile salespersons............	Variable	Period
9. Depreciation of factory lunchroom facilities at a General Electric plant	Fixed	Product
10. Steering wheels installed in Tesla electric vehicles........	Variable	Product

Problem 1-18 (10 minutes)

1. The direct costs of the Apparel Department are as follows:

Apparel Department cost of sales—Evendale Store	$ 90,000
Apparel Department sales commission—Evendale Store..	7,000
Apparel Department manager's salary—Evendale Store..	8,000
Total direct costs for the Apparel Department........	$105,000

2. The direct costs of the Evendale Store are as follows:

Apparel Department cost of sales—Evendale Store	$ 90,000
Store manager's salary—Evendale Store	12,000
Apparel Department sales commission—Evendale Store..	7,000
Store utilities—Evendale Store.............................	11,000
Apparel Department manager's salary—Evendale Store..	8,000
Janitorial costs—Evendale Store	9,000
Total direct costs for the Evendale Store	$137,000

3. The direct costs in the Apparel Department that are also variable with respect to departmental sales is computed as follows:

Apparel Department cost of sales—Evendale Store	$90,000
Apparel Department sales commission—Evendale Store..	7,000
Total direct costs for the Apparel Department that are also variable costs	$97,000

Problem 1-19 (30 minutes)

1. Contribution format income statement

Todrick Company
Contribution Format Income Statement

Sales		$300,000
Variable expenses:		
Cost of goods sold ($20,000 + $200,000 – $7,000)	$213,000	
Selling expense	15,000	
Administrative expense	12,000	240,000
Contribution margin		60,000
Fixed expenses:		
Selling expense	30,000	
Administrative expense	12,000	42,000
Net operating income		$ 18,000

The variable administrative expense shown above ($12,000) is computed as follows:

Sales (a)	$300,000	
Contribution margin (b)	$60,000	
Total variable costs (a) – (b)		$240,000
Total variable costs (a)		$240,000
Cost of goods sold	$213,000	
Variable selling expense	15,000	
Cost of goods sold plus variable selling expense (b)		$228,000
Variable administrative expense (a) – (b)		$12,000

Problem 1-19 (continued)

The fixed selling expense shown above ($30,000) is computed as follows:

Contribution margin (a)	$60,000	
Net operating income (b)	$18,000	
Total fixed costs (a) – (b)		$42,000

Total fixed costs (a)	$42,000
Fixed administrative expense (b)	$12,000
Fixed selling expense (a) – (b)	$30,000

2. Traditional income statement

Todrick Company
Traditional Income Statement

Sales		$300,000
Cost of goods sold ($20,000 + $200,000 – $7,000)		213,000
Gross margin		87,000
Selling and administrative expenses:		
Selling expense ($15,000 + $30,000)	$45,000	
Administrative expense ($12,000 + $12,000)	24,000	69,000
Net operating income		$ 18,000

3. The selling price per unit is $300,000 ÷ 1,000 units sold = $300.

4. The variable cost per unit is $240,000 ÷ 1,000 units sold = $240.

5. The contribution margin per unit is $300 – $240 = $60.

6. The contribution format is more useful because it organizes costs based on their cost behavior. The contribution format enables managers to quickly calculate how variable costs will change in response to changes in unit sales.

Problem 1-20 (20 minutes)

Item	Description	Direct or Indirect Cost of the Meals-On-Wheels Program: Direct	Direct or Indirect Cost of the Meals-On-Wheels Program: Indirect	Direct or Indirect Cost of Particular Seniors Served by the Meals-On-Wheels Program: Direct	Direct or Indirect Cost of Particular Seniors Served by the Meals-On-Wheels Program: Indirect
a.	The cost of leasing the Meals-On-Wheels van	X			X
b.	The cost of incidental supplies such as salt, pepper, napkins, and so on...........................	X			X*
c.	The cost of gasoline consumed by the Meals-On-Wheels van..	X			X
d.	The rent on the facility that houses Madison Seniors Care Center, including the Meals-On-Wheels program...		X		X
e.	The salary of the part-time manager of the Meals-On-Wheels program............................	X			X
f.	Depreciation on the kitchen equipment used in the Meals-On-Wheels program.......................	X			X
g.	The hourly wages of the caregiver who drives the van and delivers the meals......................	X			X*
h.	The costs of complying with health safety regulations in the kitchen..............................	X			X
i.	The costs of mailing letters soliciting donations to the Meals-On-Wheels program..................	X			X

*These costs could be direct costs of serving particular seniors.

Problem 1-21 (45 minutes)

1.

Marwick's Pianos, Inc.
Traditional Income Statement
For the Month of August

Sales (40 pianos × $3,125 per piano)		$125,000
Cost of goods sold		
(40 pianos × $2,450 per piano)		98,000
Gross margin		27,000
Selling and administrative expenses:		
Selling expenses:		
Advertising	$ 700	
Sales salaries and commissions		
[$950 + (8% × $125,000)]	10,950	
Delivery of pianos		
(40 pianos × $30 per piano)	1,200	
Utilities	350	
Depreciation of sales facilities	800	
Total selling expenses	14,000	
Administrative expenses:		
Executive salaries	2,500	
Insurance	400	
Clerical		
[$1,000 + (40 pianos × $20 per piano)]	1,800	
Depreciation of office equipment	300	
Total administrative expenses	5,000	
Total selling and administrative expenses		19,000
Net operating income		$ 8,000

Problem 1-21 (continued)

2. Marwick's Pianos, Inc.
Contribution Format Income Statement
For the Month of August

	Total	Per Piano
Sales (40 pianos × \$3,125 per piano)	\$125,000	\$3,125
Variable expenses:		
Cost of goods sold		
(40 pianos × \$2,450 per piano)	98,000	2,450
Sales commissions (8% × \$125,000)	10,000	250
Delivery of pianos (40 pianos × \$30 per piano)	1,200	30
Clerical (40 pianos × \$20 per piano)	800	20
Total variable expenses	110,000	2,750
Contribution margin	15,000	\$ 375
Fixed expenses:		
Advertising	700	
Sales salaries	950	
Utilities	350	
Depreciation of sales facilities	800	
Executive salaries	2,500	
Insurance	400	
Clerical	1,000	
Depreciation of office equipment	300	
Total fixed expenses	7,000	
Net operating income	\$ 8,000	

3. Fixed costs remain constant in total but vary on a per unit basis inversely with changes in the activity level. As the activity level increases, for example, the fixed costs will decrease on a per unit basis. Showing fixed costs on a per unit basis on the income statement might mislead management into thinking that the fixed costs behave in the same way as the variable costs. That is, management might be misled into thinking that the per unit fixed costs would be the same regardless of how many pianos were sold during the month. For this reason, fixed costs generally are shown only in totals on a contribution format income statement.

Problem 1-22 (45 minutes)

1. The total manufacturing overhead cost is computed as follows:

Direct labor cost (a)	\$15,000
Direct labor as a percentage of total conversion costs (b)	30%
Total conversion cost (a) ÷ (b)	\$50,000

Total conversion cost (a)	\$50,000
Direct labor cost (b)	\$15,000
Total manufacturing overhead cost (a) – (b)	\$35,000

2. The total direct materials cost is computed as follows:

Direct labor cost (a)	\$15,000
Direct labor as a percentage of total prime costs (b)	40%
Total prime cost (a) ÷ (b)	\$37,500

Total prime cost (a)	\$37,500
Direct labor cost (b)	\$15,000
Total direct materials cost (a) – (b)	\$22,500

3. The total amount of manufacturing cost is computed as follows:

Direct materials cost	\$22,500
Direct labor cost	15,000
Manufacturing overhead cost	35,000
Total manufacturing cost	\$72,500

4. The total variable selling and administrative cost is computed as follows:

Total sales (a)	\$120,000
Sales commission percentage (b)	5%
Total variable selling and administrative cost (a) × (b)	\$6,000

Problem 1-22 (continued)

5. The total variable cost is computed as follows:

Direct materials cost	$22,500
Direct labor cost	15,000
Sales commissions	6,000
Total variable cost	$43,500

6. The total fixed cost is computed as follows:

Total selling and administrative expenses (a)	$18,000	
Sales commissions (b)	$6,000	
Total fixed selling and administrative expense (a) – (b)		$12,000
Total fixed manufacturing overhead		35,000
Total fixed cost		$47,000

7. The total contribution margin is calculated as follows:

Sales (a)	$120,000
Variable costs (b)	$43,500
Contribution margin (a) – (b)	$76,500

Problem 1-23 (30 minutes)

Note to the Instructor: There may be some exceptions to the answers below. The purpo
problem is to get the student to start *thinking* about cost behavior and cost purposes; t
lengthy discussions about how a particular cost is classified.

Cost Item	*Variable or Fixed*	*Selling Cost*	*Administrative Cost*
1. Property taxes, factory	F		
2. Boxes used for packaging detergent produced by the company........................	V		
3. Salespersons' commissions	V	X	
4. Supervisor's salary, factory	F		
5. Depreciation, executive autos	F		X
6. Wages of workers assembling computers	V		
7. Insurance, finished goods warehouses	F	X	
8. Lubricants for production equipment	V		
9. Advertising costs...	F	X	
10. Microchips used in producing calculators	V		
11. Shipping costs on merchandise sold	V	X	
12. Magazine subscriptions, factory lunchroom...	F		
13. Thread in a garment factory	V		
14. Executive life insurance	F		X

Problem 1-23 (continued)

Cost Item	*Variable or Fixed*	*Selling Cost*	*Administrative Cost*
15. Ink used in textbook production...................	V		
16. Fringe benefits, materials handling workers..	V		
17. Yarn used in sweater production..................	V		
18. Wages of receptionist, executive offices	F		X

Problem 1-24 (30 minutes)

1a. The total product cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Total manufacturing overhead	43,000
Total product cost	$147,000

1b. The total period cost is computed as follows:

Total selling expense	$30,000
Total administrative expense	29,000
Total period cost	$59,000

2a. The total direct manufacturing cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Total direct manufacturing cost	$104,000

2b. The total indirect manufacturing cost is computed as follows:

Variable manufacturing overhead	$15,000
Fixed manufacturing overhead	28,000
Total indirect manufacturing cost	$43,000

3a. The total manufacturing cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Total manufacturing overhead	43,000
Total manufacturing cost	$147,000

Problem 1-24 (continued)

3b. The total nonmanufacturing cost is computed as follows:

Total selling expense	$30,000
Total administrative expense	29,000
Total nonmanufacturing cost	$59,000

3c. The total conversion cost is computed as follows:

Direct labor	$35,000
Total manufacturing overhead	43,000
Total conversion cost	$78,000

The total prime cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Total prime cost	$104,000

4a. The total variable manufacturing cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Variable manufacturing overhead	15,000
Total variable manufacturing cost	$119,000

4b. The total amount of fixed cost for the company as a whole is computed as follows:

Fixed manufacturing overhead	$28,000
Fixed selling expense	18,000
Fixed administrative expense	25,000
Total fixed cost	$71,000

Problem 1-24 (continued)

4c. The variable cost per unit produced and sold is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Total variable manufacturing overhead	15,000
Variable selling expense	12,000
Variable administrative expense	4,000
Total variable cost (a)	$135,000
Number of units produced and sold (b)	1,000
Variable cost per unit produced and sold (a) ÷ (b)	$135

5a. The incremental manufacturing cost is computed as follows:

Direct materials	$ 69,000
Direct labor	35,000
Variable manufacturing overhead	15,000
Total incremental cost (a)	$119,000
Number of units produced and sold (b)	1,000
Incremental cost per unit produced (a) ÷ (b)	$119

Problem 1-25 (30 minutes)

1\.

Milden Company
Contribution Format Income Statement
For the Next Quarter

Sales (12,000 units × $100 per unit)		$1,200,000
Variable expenses:		
Cost of goods sold		
(12,000 units × $35 unit)	$420,000	
Sales commission (6% × $1,200,000)	72,000	
Shipping expense		
(12,000 units × $9.10 per unit)	109,200	
Total variable expenses		601,200
Contribution margin		598,800
Fixed expenses:		
Advertising expense	210,000	
Shipping expense	28,000	
Administrative salaries	145,000	
Insurance expense	9,000	
Depreciation expense	76,000	
Total fixed expenses		468,000
Net operating income		$ 130,800

Problem 1-25 (continued)

2.

Milden Company
Traditional Format Income Statement
For the Next Quarter

Sales (12,000 units × $100 per unit)		$1,200,000
Cost of goods sold		
(12,000 units × $35 per unit)		420,000
Gross margin		780,000
Selling and administrative expenses:		
Advertising	$210,000	
Sales commissions		
(6% × $1,200,000)]	72,000	
Shipping expense		
[$28,000 + (12,000 units × $9.10 per unit)]	137,200	
Administrative salaries	145,000	
Insurance expense	9,000	
Depreciation expense	76,000	
Total selling and administrative expenses		649,200
Net operating income		$ 130,800

Case 1-26 (45 minutes)

1.

Cost Item	Cost Behavior Variable	Cost Behavior Fixed	Selling or Administrative Cost	Di
Direct labor	$118,000			$118
Advertising		$50,000	$50,000	
Factory supervision		40,000		
Property taxes, factory building		3,500		
Sales commissions	80,000		80,000	
Insurance, factory		2,500		
Depreciation, administrative office equipment		4,000	4,000	
Lease cost, factory equipment		12,000		
Indirect materials, factory	6,000			
Depreciation, factory building		10,000		
Administrative office supplies	3,000		3,000	
Administrative office salaries		60,000	60,000	
Direct materials used	94,000			94
Utilities, factory	20,000			
Total costs	$321,000	$182,000	$197,000	$212

Case 1-26 (continued)

2. The average product cost for one patio set would be:

Direct	$212,000
Indirect	94,000
Total	$306,000

$306,000 ÷ 2,000 sets = $153 per set

3. The average product cost per set would increase if the production drops. This is because the fixed costs would be spread over fewer units, causing the average cost per unit to rise.

4. a. Yes, the president may expect a minimum price of $153, which is the average cost to manufacture one set. He might expect a price even higher than this to cover a portion of the administrative costs as well. The brother-in-law probably is thinking of cost as including only direct materials, or, at most, direct materials and direct labor. Direct materials alone would be only $47 per set ($94,000 ÷ 2,000 = $47 per set), and direct materials and direct labor would be only $106 per set (($94,000 + $118,000) ÷ 2,000 = $106 per set).

   b. The term is opportunity cost. The full, regular price of a set might be appropriate here, because the company is operating at full capacity, and this is the amount that must be given up (benefit forgone) to sell a set to the brother-in-law.

Case 1-27 (30 minutes)

1. A cost that is classified as a period cost will be recognized on the income statement as an expense in the current period. A cost that is classified as a product cost will be recognized on the income statement as an expense (i.e., cost of goods sold) only when the associated units of product are sold. If some units are unsold at the end of the period, the costs of those unsold units are treated as assets. Therefore, by reclassifying period costs as product costs, the company is able to carry some costs forward in inventories that would have been treated as current expenses.

2. The discussion below is divided into two parts—Gallant's actions to postpone expenditures and the actions to reclassify period costs as product costs.

   The decision to postpone expenditures is questionable. It is one thing to postpone expenditures due to a cash bind; it is quite another to postpone expenditures in order to hit a profit target. Postponing these expenditures may have the effect of ultimately increasing future costs and reducing future profits. If orders to the company's suppliers are changed, it may disrupt the suppliers' operations. The additional costs may be passed on to Gallant's company and may create ill will and a feeling of mistrust. Postponing maintenance on equipment is particularly questionable. The result may be breakdowns, inefficient and/or unsafe operations, and a shortened life for the machinery.

   Gallant's decision to reclassify period costs is not ethical—assuming that there is no intention of disclosing in the financial reports this reclassification. Such a reclassification would be a violation of the principle of consistency in financial reporting and is a clear attempt to mislead readers of the financial reports. Although some may argue that the overall effect of Gallant's action will be a "wash"—that is, profits gained in this period will simply be taken from the next period—the trend of earnings will be affected. Hopefully, the auditors would discover any such attempt to manipulate annual earnings and would refuse to issue an unqualified opinion due to the lack of consistency. However, recent accounting scandals may lead to some skepticism about how forceful auditors have been in enforcing tight accounting standards.