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Chapter 2
Financial Statements

LEARNING OBJECTIVES (Slide 2-2)

1. Explain the foundations of the balance sheet and income statement
2. Use the cash flow identity to explain cash flow.
3. Provide some context for financial reporting.
4. Recognize and view Internet sites that provide financial information.

IN A NUT S HELL ….

Although many business students find accounting to be rather boring and dry as a subject, it is important to remind them that accounting is the official "language" of finance. It provides managers and business owners vital information via financial statements, which can be used to assess the current health of the business, figure out where it has been, how it is doing, and chalk up a planned route for its future performance.

In this chapter, we review the basic financial statements i.e. the income statement, the balance sheet, and the cash flow statement. However, unlike a formal course in Accounting, which trains students to actually prepare financial statements, the material in this chapter mainly helps students read financial statements and understand how they are linked together in calculating the cash flow of a company.

Publicly traded companies are required by law to file quarterly (10-Q), and annual (10-K), reports with the Securities Exchange Commission (SEC). Privately-held firms compile financial statements so as to keep track of their performance, file taxes, and provide information to t he owners. Thus, a knowledge of the the relationship between the three primary financial statements, i.e. The Income Statement, The Balance Sheet, and The Statement of Cash Flows, is essential for business students to assess the condition of the firms that they are associated with, and can help them immensely in planning and forecasting for future growth.

The value of a firm depends on the present value of its future cash flows. Thus, it is imperative that students learn how to estimate the cash flows of a firm. Accounting income that is reported in financial statements is typically not the same as the cash flow of a firm, since most firms use accrual accounting principles for recording revenues and expenditures. Under accrual accounting, firms may recognize revenues at the time of sale, even if cash is received at a later date. Similarly, the expenses recorded over a period may not be the same as the actual payments made, since firms are billed in units of calendar time, i.e. monthly or quarterly, while the actual usage and payment may follow a different pattern. As a result, accounting statements do not accurately reflect the actual cash inflows and outflows that have occurred over a period of time. The cash balance shown on the balance sheet is a true reflection of the cash available to a firm and the change in cash balance points out the net result of the cash receipts and payments that have occurred. Thus, by preparing a Statement of Cash Flows, a manager can track the sources and uses of cash from the operations, investment, and financing activities of the firm and understand what has caused the cash balance to change from the prior period.

It is important to stress the point that although almost all financial information for publicly traded firms is available on the internet at various websites like EDGAR.com, sec.gov, yahoo.com, etc., not all of the information is formatted in the same way. Sometimes it is necessary to dig through the financial statements to get the information necessary to examine the performance of a firm.

LECTURE OUTLINE (Slide 2-3)

2.1 Financial Statements

The focus of the discussion in this section should be on the inter-relationship between the 4 financial statements, i.e. The Income Statement, The Balance Sheet, The Statement of Retained Earnings, The Statement of Cash Flow, and on the process by which these statements can be used to project a firm's future cash flows, which in turn are essential for accepting or rejecting projects. Students as well as some instructors tend to be a bit rusty on their grasp of double-entry book-keeping, so a discussion of some ledger entries regarding cash and credit purchases/sales and how they are all tied into the basic accounting identity can be very helpful and is therefore included in an Appendix at the end of the Lecture Outline.

2.1 (A) The Balance Sheet: lists a firm's current and fixed assets, as well as the liabilities, and owner's equity accounts that were used to finance those assets. Thus, the total assets figure has to equal the sum of total liabilities and owner's equity of a firm. J.F. & Sons' Balance sheet for the recent two years is shown below along with the annual changes in each account item.

(Slides 2-4 to 2-6)

J.F. & Sons' Balance Sheet as at the end of This Year and Last Year

Assets	This Year	Last Year	Change
Cash	318,000	1,000,000	–682,000
Accounts Receivable	180,000		180,000
Inventory	50,000		50,000
Total Current Assets	548,000	1,000,000	452,000
			0
Gross Plant and Equipment	200,000		200,000
Land and Buildings	400,000		400,000
Truck	25,000		25,000

Less accumulated Dep.	-125,000		125,000
Net Fixed Assets	500,000		500,000
			0
TOTAL ASSETS	1,048,000	1,000,000	48,000
Liabilities & Owner's Equity			
Accounts payable	100,000	0	100,000
Accruals		0	
Deferrals		0	
Total Current Liabilities	100,000	0	100,000
Bank Debt	500,000	500,000	
Capital	500,000	500,000	
Retained Earnings	-52,000		–52,000
Owner's Equity	448,000	500,000	–52,000
			0
TOTAL LIABILITIES & OWNER'S EQUITY	1,048,000	1,000,000	48,000

The Balance Sheet has five sections:

- *Cash account*, which shows a decline of $682,000. An analysis of the Statement of Cash Flows will help determine why.

- *Working capital accounts*, which show the current assets and current liabilities that directly, support the operations of the firm. The difference between current assets (CA) and current liabilities (CL) is a measure of the net working capital (NWC) or absolute liquidity of a firm. For J.F. & Sons;

  This Year’s NWC = $548,000 - $100,000 = $448,000

  Last Year’s NWC = $1,000,000 - $0 = $ 1,000,000

indicating that the firm’s absolute liquidity, although positive in both years, has dropped by $552,000 this year.

- *Long-term capital assets accounts* - which show the gross and net book values of the long-term assets that the firm has invested into since its inception. The accumulated depreciation figure shows how much of the original value of the assets has already been expensed as depreciation.

- *Long-term liabilities (debt) accounts* - which include all the outstanding loans that the firm has taken on for periods greater than one year. As part of the loan is paid off this balance will decline. ForJ.F. & Sons it is assumed that the loan will be paid off after 10 years.
- *Ownership Accounts* - include the capital contributed by the owners (common stock account) and the retained earnings of the firm since its inception. The sum of both these components is known as owners' equity or stockholders' equity on the balance sheet. The year-end retained earnings figure is determined by adding net income for the year to the beginning retained earnings figure and subtracting dividends paid during the year (if any).

Note: It is important to stress the point to students that the retained earnings figure is an accumulated total of the undistributed earnings of a company since its inception and that it is not cash available for future expenses or investment, since it has already been used in the business

2.1 (B) The Income Statement: shows the expenses and income generated by a firm over a past period, typically over a quarter or a year. It can be thought of as a *video recording* of expenses and revenues. Revenues are listed first, followed by cost of goods sold, depreciation, and other operating expenses to calculate Earnings before Interest and Taxes (EBIT) or operating income. From EBIT, we deduct interest expenses to get taxable income or earnings before taxes (EBT), and finally after applying the appropriate tax rate, we deduct taxes and arrive at net income or Earnings after Taxes (EAT).

(Slides 2-7 to 2-9)

J. F. & Sons' Annual Income Statement

Revenues		**300,000**
Cost of Goods Sold	**150,000**	
Wages	**20,000**	
Utilities	**5,000**	
Other Expenses	**2,000**	
Earnings Before Depreciation, Interest, Taxes		**123,000**
less Depreciation	**125,000**	
Earnings Before Interest & Taxes		**–2,000**
less Interest	**50,000**	
Earnings Before Taxes		**–52,000**
Taxes		**0**
Net Income (Loss)		**–52,000**

J.F. & Sons had earned an operating income of -$2,000 during their first year and after accounting for interest they would show a loss of $52,000, thus no taxes would be paid. Now, the net loss of $52,000 is not the same as their change in cash balance (-682,000) because of three reasons: accrual accounting, non-cash expense items, and interest being treated as a financing rather than an operating expense item.

- **Issue 1: Generally accepted accounting principles** *(GAAP)*. Based on GAAP, firms typically recognize revenues at the time of sale, even if cash is not received in the same accounting period. Similarly, firms are billed for expenses that may correspond to a later period. This is known as *accrual-based accounting*. Thus, the yearly net income figure could be different from the change in cash balance that has occurred during that year. As shown below, the cash account shows that the cash balance would have declined from $1,000,000 to $318,000 or a net decline of $682,000, while the net income figure shows a loss of only $52,000.
- **Issue 2: Non-cash expense items.** Some expenses shown on the income statement e.g. depreciation of $125,000, are actually annual charges (20%) being shown based on the initial year expense of $625,000 for acquiring the truck, the plant and equipment, and the land and buildings.

J.F. & Sons' Cash Account details for the year ended December 31, 20XX

	Debit		Credit
Owner's Capital	500,000	Plant & Equipment	200,000
Bank Loan	500,000	Land & Bldg	400,000
Revenues	120,000	Inventory	100,000
		Truck	25,000
		Wages	20,000
		Utilities	5,000
		Other Expenses	2,000
		Interest Expense	50,000
		Ending Balance	318,000

- **Issue 3: Classifying interest expense as part of the financing decision.** In finance, there is a preference to separate operating decisions (investment-related) from financing decisions. Thus, interest expense is not deducted as part of operating cash flow.

Thus, we can calculate J.F. & Sons' operating cash flow (OCF) by adding back depreciation and interest expense to its net income, i.e.

Operating Cash Flow = Net Income + Depreciation + Interest

$123,000 = $-52,000 + $125,000 + 50,000

or by using an alternative method, i.e.

Operating Cash Flow (OCF) = EBIT + Depreciation – Taxes

$123,000 = $-2000 + $125,000 - 0

Thus, although the firm is showing a negative net income (loss) of -$52,000 its cash flow from operations of $123,000 is positive and considerably higher.

2.1 (C) The Statement of Retained Earnings: is considered to be the 4th financial statement that firms prepare and report. It shows how the net income for the past period was allocated between dividends (if any) and retained earnings. For J.F. & Sons, the net loss of $52,000 for the year has resulted in negative retained earnings, since this is their first year of operation, and has caused a reduction in the owner's equity from $500,000 to $448,000. **(Slide 2-10)**

J. F. & Sons' Statement of Retained Earnings

Beginning balance		**500,000**
Add net income (Loss)	**(52,000)**	
Subtract dividends	**0**	
Ending balance		**448,000**

2.2 Cash Flow Identity and the Statement of Cash Flows (Slides 2-11 to 2-20)

The cash flow identity states that the cash flow from the left hand side of the balance sheet is equal to the cash flow on the right hand side of the balance sheet. That is,

Cash Flow from Assets ≡ Cash Flow to Creditors and Cash Flow to Owners

Where;

Cash Flow from Assets = Operating Cash Flow – Net Capital Spending - Change in Net Working Capital,

Operating Cash Flow = EBIT + Depreciation – Taxes **or** alternatively

Operating Cash Flow = Net Income + Depreciation + Interest Expense;

Net Capital Spending = Ending Net Fixed Assets - Beginning Net Fixed Assets + Depreciation

Change in Net Working Capital = Ending NWC – Beginning NWC

Net Working Capital = Current Assets – Current Liabilities

Cash Flow to Creditors = Interest Expense – Net New Borrowing from Creditors

Net New Borrowing = Ending Long-term Liabilities – Beginning Long-term Liabilities

Cash Flow to Owners = Dividends – Net New Borrowing from Owners

Net New Borrowing from Owners = Change in Equity

Change in Equity = Ending Common Stock and Paid-in-Surplus -
Beginning Common Stock and Paid-in-Surplus

For J.F. & Sons,

Operating Cash Flow = -\$2000+\$125,000-0 = \$123,000

Net Capital Spending = \$500,000 - 0 + \$125,000 = \$625,000

Change in Net Working Capital = \$448,000 - \$1,000,000 = -552,000

So, Cash Flow from Assets = 123,000 - 625,000 - (-552,000)

= 675,000 - 625,000 = \$50,000

Cash Flow to Creditors = \$50,000 - \$0 (since the loan amount was neither increased nor decreased)

Cash Flow to Owners = 0 (since no shares were issued or repurchased nor were any dividends paid)

Hence, the cash flow identity holds,

i.e., Cash Flow from Assets = \$50,000 = Cash Flow to Creditors and Owners

The Statement of Cash Flows, or the Sources and Uses of Cash Statement**,** as it is often called, is compiled by taking information from the Income Statement and the Balance Sheet and organizing it into three sections, i.e. cash flow from operating activities, cash flow from investment activities, and cash flow from financing activities, so as to reflect the change in the ending cash balance of the firm during that reporting period i.e., quarter or year. So the three sections of the cash flow identity explained above are related to the three sections of the statement of cash flows in the following manner:

Cash flow from Assets = Cash flow to Creditors + Cash flow to Owners

Cash flow from operating activities | Cash flow from investment activities | Cash flow from financing activities

Note: Remind students that based on the accounting identity and double-entry accounting principles explained earlier, an increase in an asset (except cash) would result in a use of cash, while a decrease (sale) of an asset would result in a source of cash. Similarly, an increase in a liability or owners' equity would bring in cash while a decrease would take away cash.

J. F. & Sons' Statement of Cash Flow

<u>Operating Cash Flow</u>	
EBIT	–2,000
Depreciation	125,000
Increase in Inventory (Use)	–50,000

Increase in Accounts Receivable (Use)	–180,000	
Increase in Accounts payable (Source)	100,000	
Cash Flow from Operating Activities		–7,000
Investment Cash Flow		
Invested in Plant & Equipment (Use)	–200,000	
Invested in a Truck (Use)	–25,000	
Land & Buildings (Use)	–400,000	
Cash Flow from Investment Activities		–625,000
Financing Cash Flow		
Interest Paid	–50,000	
Cash flow from financing activities		–50,000
Net Sources (Uses) or Change in Cash Account		– 682,000
Beginning Cash Balance		1,000,000
Net Cash Flow during current year		–682,000
Ending Cash Balance		318,000

Cash flow from operating activities - would include the firm's operating cash flow calculated as follows:

Operating Cash Flow (OCF) = EBIT + Depreciation – Taxes as well as the changes in the current assets (except cash) and current liabilities of the firm for that reporting period. For J.F. & Sons during the past year, cash flow from operations was -$7,000, indicating that the firm had to dip into it its cash account to fund its operations for the year.

Cash flow from investing activities - includes the cash used/generated in purchasing/disposing fixed assets and other investments. For J.F. & Sons, given that this has been its first year of operations, a fairly large use of cash ($625,000) has resulted from the purchase of its plant, equipment, land, buildings, and a delivery truck.

**Note: Since we have already added back depreciation for the year ($125,000) as part of the sources of funds from operations, we account for the change in gross value of the assets
(–$625,000) in this section. Sometimes, the Balance Sheet shows only net fixed assets and accumulated depreciation figures. In such a case we would add together the change in value in each of the 2 items to represent the change in gross fixed assets.**

Cash flow from financing activities- includes the payment of interest, dividends, reduction of the principal balance on debt, repurchase of stock, floating of new issues of stock and/or bonds and increase/decrease in treasury stock. For J.F. & Sons, this past year, the only cash flow from financing in the payment of interest of $50,000 on its outstanding loan.

Free Cash Flow: is another term used in conjunction with the cash flow from assets of a firm. It refers to the cash available to pay the creditors and owners once the firm has made the investments in working capital and capital assets necessary for continuing and growing the business. The timing and amount of free cash flow generated by a firm is critical to its valuation.

2.3 Financial Performance Reporting (Slide 2-21)

Publicly traded companies provide current and potential shareholders financial performance information, company highlights, and management perspectives by compiling annual reports. In addition, they are required to file quarterly (10-Q) and annual (10-K) reports with the SEC

Regulation Fair Disclosure (Reg. FD): requires companies to release all material information (which would include financial statements)to all investors at the same time so that no single investor or group of investors has privileged access to the information and is able to profit from it at the expense of others.

Notes to the Financial Statements are included to provide details and clarifications regarding the various items and methods use to report a firm’s financial performance. Unusual items such as sudden increases in debt, losses, or financial impact from lawsuits are clarified in the Notes section.

2.4 Financial Statements on the Internet (Slide 2-22)

EDGAR (Electronic Data Gathering Analysis and Retrieval) is the SEC’s website (www.sec.gov/edgar.shtml) for obtaining financial reports and filings of all publicly listed companies, free of charge. The internet is replete with other sites such as finance.yahoo.com, etc. that offer similar financial statement data for publicly listed companies. It is important to note that often times the formatting and grouping of the data can be different and some adjustments would have to be made so as to standardize the data.

Appendix

A Review of Double Entry Book-Keeping

The basic rules of double entry book-keeping are as follows:

1. Debit what comes in; credit what goes out.
2. Debit an expenditure item; credit a revenue item
3. Debit an asset; credit a liability.

Thus, let's say a firm purchased $300 worth of finished goods inventory on credit on January 2nd, paid for it on February 2nd, sold it on credit for $350 on February 15th, and received payment on April 14th.

The ledger entries would be as follows:

Date			Debit	Credit
Jan. 2	Inventory (Asset)		$300	
		Accounts Payable (Liability)		$300
(Recording of inventory purchased on credit)				
Feb. 2	Accounts Payable		$300	
		Cash (since cash goes out)		$300
(Recording of payment for inventory purchased)				
Feb. 15	Accounts Receivable (Asset)		$350	
		Credit sales (Revenues)		$350
(Recording of credit sale)				
April 14th	Cash (Asset)		$350	
		Accounts Receivable		$350
(Recording of receipt of payment for credit sale)				

A Comprehensive Example to show how the 3 statements are prepared from the ledger entries

Let's say that J.F. & Sons decide to start a business by contributing $500,000 of their own money and borrowing $500,000 from a bank (10-year note) at the rate of

10%, per year. It is the last week in December.

During the first quarter of the following year, they complete the following transactions:

Amount	**Transaction**
200,000	**Bought Equipment**
400,000	**Bought Land & Bldg**
100,000	**Paid Cash for Raw Materials**

100,000	**Bought Raw Materials on Credit**
25,000	**Bought Truck for cash**

By the end of the year, they have made the following transactions as well…

First Year transactions		
Sales	**300,000**	**[40% (Cash); 60% (Credit)]**
CGS	**150,000**	**Assume 50% of Sales**
Wages	**20,000**	
Utilities	**5,000**	
Other Exp	**2,000**	
Interest	**50,000**	
Selling & Adm. Exp.	**50,000**	
Depreciation	**120,000**	**20% of Fixed Assets**

Let's start by preparing the journal entries:

Journal Entries

		Debit	**Credit**
1)	**Cash**	**500,000**	
	Owner's Equity		**500,000**
2)	**Cash**	**500,000**	
	Bank Loan		**500,000**
3)	**Plant & Equipment**	**200,000**	
	Cash		**200,000**
4)	**Land & Bldg**	**400,000**	
	Cash		**400,000**
5)	**Inventory**	**100,000**	
	Cash		**100,000**
6)	**Inventory**	**100,000**	
	Accounts Payable		**100,000**

Journal Entries

		Debit	Credit
7)	Truck	25,000	
	Cash		25,000
8)	Cash	120,000	
	Revenues		120,000
9)	Accounts Receivable	180,000	
	Revenues		180,000
10)	Cost of Goods Sold	150,000	
	Inventory		150,000
11)	Wages	20,000	
	Cash		20,000
12)	Utilities	5,000	
	Cash		5,000
13)	Other Exp.	2,000	
	Cash		2,000
14)	Interest Exp.	50,000	
	Cash		50,000
15)	Selling & Adm. Exp.	50,000	
	Cash		50,000
16)	Depreciation	120,000	
	Accumulated Dep.		120,000

Now, keeping in mind the accounting identity

Assets ≡ Liabilities + Owners' Equity

i.e. investment in assets is made by either borrowing funds or by using the owner's funds; and the cash flow identity, i.e.

Cash Flow from Assets ≡ Cash Flow to Creditors + Cash Flow to Owners

i.e. Cash flow generated from the investment in assets is paid back to creditors and the owners, we can prepare the Income Statement, the Balance Sheet, and the Statement of Cash Flows for the year.

Questions

1. **In what type of accounting system must debits always equal credits? What is the accounting identity? What is the connection between "debits always equal credits" and the accounting identity?**

   Debits must always equal credits in a double-entry book-keeping (accounting) system. This system is based on the accounting identity that Total Assets (i.e. the total amount of money invested to fund assets) must equal Total Liabilities (the amount owed/borrowed by the firm's owners) plus Shareholders' Equity (the amount contributed by the firm's owners). Thus, the accounting identity is intricately connected to the double-entry accounting system. It ensures that the Balance Sheet will always balance out.

2. **What is the difference between a current asset and a long-term asset? What is the difference between a current liability and a long-term liability? What is the difference between a debtor's claim and an owner's claim?**

   A current asset is cash or items such as accounts receivable and inventory that would normally be turned into cash during the business cycle. Long-term assets are assets of the firm used to make the products of the firm but are not expected to turn into cash during the business cycle. These assets are items such as buildings and equipment. A current liability is an obligation of the company that the company expects to pay off during the coming business cycle. Long-term liabilities are obligations that will be paid off in future business cycles or years. A debtor's claim is a liability and has a fixed dollar amount to the claim. An owner's claim is a residual claim and this claim is for all the remaining value of the company once the debtor's are satisfied.

3. **Why is the term *residual claimant* applied to a shareholder (owner) of a business?**

   The term "residual claimant" is applied to a shareholder because the value of their claim is what is left over from the company assets once the creditors' claims have been satisfied. The positive side of this is that if the company value is high and the creditors' claims low, a substantial amount of value goes to the owners (shareholders).

4. **What is the difference between net income and operating cash flow?**

   To arrive at net income, companies record non-cash expense items and record revenue and expenses on an accrual basis. Therefore, net income does not reflect the true cash flow for the current period.

5. **What is the purpose of the statement of retained earnings?**

The Statement of Retained Earnings explains the distribution of the net income from the past year. Net income is either retained in the company or paid out to owners in the form of dividends.

6. **Why do financial notes accompany the annual report? Give an example of a financial note from an annual report. (Look up the annual report of a company on its web site and read its financial notes.)**

Notes to the financial statements help explain many of the details necessary to gain a more complete picture of the firm's performance. An example from PepsiCo's financial notes is on how they account for employee stock options. In note #6 the final paragraph with the heading "Method of Accounting and Our Assumptions" states:

"We account for our employee stock options under the fair value method of accounting using the Black-Scholes valuation method to measure stock-based compensation expense at the date of grant." (Page 62 of 2005 Annual Report)

7. **What are the three components of the cash flow from assets?**

The three components of the cash flow from assets include: operating cash flow, capital spending, and change in net working capital.

8. **What does an increase in net working capital mean with regard to cash flow?**

An increase in net working capital means that there has been a net increase in cash outflows since the increases in current assets have outweighed the increases in sources of funds resulting from an increase in current liabilities.

9. **How does a company return money to debt lenders? How do you determine how much was returned over the past year?**

Companies return money to debt lenders by paying the interest (cost of the borrowed money) and principal. The interest expense paid from the income statement and the change in the long-term debt account shows how much was returned to debtors over the past year. It is also shown in the Cash Flow to Creditors section of the Statement of Cash Flow.

10. **Who receives the annual reports of a company? What effect does regulation fair disclosure have on the distribution of financial information?**

The annual report of a company is sent to current owners (shareholders) and the SEC and is also made available to prospective owners, financial analysts, and others interested in a company's performance. As a result of the Fair Disclosure regulation, companies are required to release all material information to all investors at the same time.

Prepping for exams

1. b.
2. c.
3. d.
4. d.
5. c.
6. a.

7. c.
8. c.
9. a.
10. a.

Problems

1. From the balance sheet accounts listed below:
   a. construct a balance sheet for 2013 and 2014.
   b. list all the working capital accounts.
   c. find the net working capital for the years ending 2013 and 2014.
   d. calculate the change in net working capital for the year 2014.

Balance Sheet Accounts of Roman Corporation

Account	**Balance 12/31/2013**	**Balance 12/31/2014**
Accumulated Depreciation	$2,020	$2,670
Accounts Payable	$1,800	$2,060
Accounts Receivable	$2,480	$2,690
Cash	$1,300	$1,090
Common Stock	$4,990	$4,990
Inventory	$5,800	$6,030
Long-Term Debt	$7,800	$8,200
Plant, Property & Equipment	$8,400	$9,200
Retained Earnings	$1,370	$1,090

ANSWER

a. The Balance Sheets for the two years are:

Assets:	2013	2014
Current Assets		
Cash	$1,300	$1,090
Accounts Receivable	$2,480	$2,690
Inventory	$5,800	$6,030
Total Current Assets	$9,580	$9,810
Long-Term Assets:		
Plant, Prop. & Equip	$8,400	$9,200
Minus Acc. Depreciation	($2,020)	($2,670)
Net P P & E	$6,380	$6,530
TOTAL Assets	$15,960	$16,340
Liabilities		
Current Liabilities		
Accounts Payable	$1,800	$2,060
Long-Term Liabilities		
Long-term Debt	$7,800	$8,200

Total Liabilities	$9,600	$10,260
Owner's Equity		
Common Stock	$4,990	$4,990
Retained Earnings	$1,370	$1,090
Total Owner's Equity	$6,360	$6,080
TOTAL Liab. & O.E.	$15,960	$16,340

b. The Working Capital Accounts are:

Cash, Accounts Receivable, Inventory, and Accounts Payable

c. The Net Working Capital for 2013 and 2014:

Net Working Capital = Cash + Accounts Receivable + Inventory – Accounts Payable

2013 Net Working Capital = $1,300 + $2,480 + $5,800 - $1,800 = $7,780

2014 Net Working Capital = $1,090 + $2,690 + $6,030 - $2,060 = $7,750

d. The Change in Net Working Capital for 2014 is, $7,750 - $7,780 = -$30 or a decrease in Net Working Capital of $30.

2. From the income statement accounts on the next page:

a. produce the income statement for the year
b. produce the operating cash flow for the year

Income Statement Accounts for the Year Ending 2014

Cost of Goods Sold	$345,000
Interest Expense	$ 82,000
Taxes	$ 42,000
Revenue	$744,000
SG&A Expenses	$ 66,000
Depreciation	$112,000

ANSWER

a. Income Statement

Revenue	$744,000
-Cost of Goods Sold	$345,000
-SG&A Expenses	$ 66,000
-Depreciation	$112,000
EBIT	$221,000
-Interest Expense	$ 82,000
Taxable Income	$139,000
-Taxes	$ 42,000
Net Income	$97,000

b. Operating Cash Flow

OCF = EBIT – Taxes + Depreciation

OCF = $221,000 - $42,000 + $112,000 = $291,000

3. From the following balance sheet accounts:
   a. construct a balance sheet for 2013 and 2014
   b. list all the working capital accounts
   c. find the net working capital for the years ending 2013 and 2014
   d. calculate the change in net working capital for the year 2014

Balance Sheet Accounts of Athens Corporation

Account	Balance 12/31/2013	Balance 12/31/2014
Accumulated Depreciation	$4,234	$4,866
Accounts Payable	$2,900	$3,210
Accounts Receivable	$3,160	$3,644
Cash	$1,210	$1,490
Common Stock	$4,778	$7,278
Inventory	$4,347	$5,166
Long-Term Debt	$3,600	$2,430
Plant, Property & Equipment	$8,675	$9,840
Retained Earnings	$1,880	$2,356

ANSWER

a. The Balance Sheets for the two years are:

Assets:	2013	2014
Current Assets		
Cash	$1,210	$1,490
Accounts Receivable	$3,160	$3,644
Inventory	$4,347	$5,166
Total Current Assets	$8,717	$10,300
Long-Term Assets		
Plant, Prop. & Equip	$8,675	$9,840
Minus Acc. Depreciation	($4,234)	($4,866)
Net P P & E	$4,441	$4,974
TOTAL Assets	$13,158	$15,274
Liabilities		
Current Liabilities		
Accounts Payable	$2,900	$3,210
Long-Term Liabilities		
Long-term Debt	$3,600	$2,430
Total Liabilities	$6,500	$5,640
Owner's Equity		
Common Stock	$4,778	$7,278
Retained Earnings	$1,880	$2,356

Total Owner's Equity	$6,658	$9,634
TOTAL Liab. & O.E.	$13,158	$15,274

b. The Working Capital Accounts are:

Cash, Accounts Receivable, Inventory, and Accounts Payable

c. The Net Working Capital for 2013 and 2014:

Net Working Capital = Cash + Accounts Rec. + Inventory – Accounts Pay.

2013 Net Working Capital = $1,210 + $3,160 + $4,347 - $2,900 = $5,817

2014 Net Working Capital = $1,490+ $3,644 + $5,166 - $3,210 = $7,090

d. The Change in Net Working Capital for 2014 is, $7,090 - $5,817 = $1,273 or an increase in Net Working Capital of $1,273.

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4. From the following income statement accounts

a. produce the income statement for the year

b. produce the operating cash flow for the year

Income Statement Accounts for the Year Ending 2014	
Cost of Goods Sold	$1,419,000
Interest Expense	$ 288,000
Taxes	$ 318,000
Revenue	$2,984,000
SG&A Expenses	$ 454,000
Depreciation	$ 258,000

ANSWER

a. Income Statement

Revenue	$2,984,000
Cost of Goods Sold	$1,419,000
SG&A Expenses	$ 454,000
Depreciation	$ 258,000
EBIT	$ 853,000
Interest Expense	$ 288,000
Taxable Income	$ 565,000
Taxes	$ 318,000
Net Income	$ 247,000

b. Operating Cash Flow

OCF = EBIT – Taxes + Depreciation

OCF = $853,000 - $318,000 + $258,000 = $793,000

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5. Find the operating cash flow for the year for Harper Brothers Incorporated if they had sales revenue of $300,000,000, cost of goods sold of $140,000,000, sales and

administrative costs of $40,000,000, depreciation expense of $65,000,000, and a tax rate of 40%.

ANSWER

Using income statement format we have,

Sales	$300,000,000
COGS	$140,000,000
SG&A	$ 40,000,000
Depreciation	$ 65,000,000
EBIT	$ 55,000,000
Taxes (@ 40%)	$ 22,000,000
Net Income	$ 33,000,000

Operating Cash Flow = EBIT + Depreciation – Taxes

Operating Cash Flow = $55,000,000 + $65,000,000 - $22,000,000 = $98,000,000

6. Find the operating cash flow for the year for Robinson and Sons if they had sales revenue of $80,000,000, cost of goods sold of $35,000,000, sales and administrative costs of $6,400,000, depreciation expense of $7,600,000, and a tax rate of 30%.

ANSWER

Using income statement format we have,

Sales	$80,000,000
COGS	$35,000,000
SG&A	$ 6,400,000
Depreciation	$ 7,600,000
EBIT	$31,000,000
Taxes (@ 30%)	$ 9,300,000
Net Income	$21,700,000

Operating Cash Flow = EBIT + Depreciation – Taxes

Operating Cash Flow = $31,000,000 + $7,600,000 - $9,300,000 = $29,300,000

For problems 7 through 14 use the data from the following financial statements:

Partial Income Statement Year Ending 2014

Sales Revenue	$350,000
COGS	$140,000
Fixed Costs	$ 43,000
SG&A Expenses	$ 28,000
Depreciation	$ 46,000

Partial Balance Sheet 12/31/2013

Assets:		Liabilities:	
Cash	$ 16,000	Notes Payable	$ 14,000
Accounts Rec.	$ 28,000	Accounts Payable	$ 19,000
Inventories	$ 48,000	Long-Term Debt	$190,000
Fixed Assets	$368,000	Owners' Equity:	
Acc. Depreciation	$142,000	Retained Earnings	$???????
Intangible Assets	$ 82,000	Common Stock	$130,000

Partial Balance Sheet 12/31/2014

Assets:		Liabilities:	
Cash	$ 26,000	Notes Payable	$ 12,000
Accounts Rec.	$ 19,000	Accounts Payable	$ 24,000
Inventories	$ 53,000	Long-Term Debt	$162,000
Fixed Assets	$448,000	Owners' Equity:	
Acc. Depreciation	$???????	Retained Earnings	$??????
Intangible Assets	$ 82,000	Common Stock	$180,000

7. Complete the partial income statement if the company paid interest expense of $18,000 for 2014 and had an overall tax rate of 40% for 2014.

ANSWER

Income Statement for the Year Ending 12/31/2014

Sales Revenue	$350,000
COGS	$140,000
Fixed Costs	$ 43,000
SG&A Expenses	$ 28,000
Depreciation	$ 46,000
EBIT	$ 93,000
Interest Expense	$ 18,000
Taxable Income	$ 75,000
Taxes @ 40%	$ 30,000
Net Income	$ 45,000

8. Complete the balance sheet (Hint, find accumulated depreciation for 2014 first).

ANSWER

To complete the balance sheet for 2013 add up all the asset accounts and subtract off the accumulated depreciation (contra asset account) for a total of $400,000. Now balance the balance sheet by determining the total liabilities and owner's equity accounts ($353,000) and filling in the difference between this total and Total Assets as the balance in Retained Earnings, i.e. $47,000.

Balance Sheet 12/31/2013

Assets:		Liabilities:	
Cash	$ 16,000	Notes Payable	$ 14,000
Accounts Rec.	$ 28,000	Accounts Payable	$ 19,000
Inventories	$ 48,000	Long-Term Debt	$190,000
Fixed Assets	$368,000	Owner's Equity	
Acc. Depreciation	$142,000	Retained Earnings	$ 47,000
Intangible Assets	$ 82,000	Common Stock	$130,000
Total Assets	$400,000	Total Liab. & OE	$400,000

Do the same for the year 2014 but now we must first find accumulated depreciation total. The prior year was $142,000 and the current year's depreciation from the income statement is $46,000 so the accumulated depreciation for 2014 is $188,000. Now balance the balance sheet by finding the Retained Earnings that makes the total liabilities and the owner's equity equal $440,000.

Balance Sheet 12/31/2014

Assets:		Liabilities:	
Cash	$ 26,000	Notes Payable	$ 12,000
Accounts Rec.	$ 19,000	Accounts Payable	$ 24,000
Inventories	$ 53,000	Long-Term Debt	$162,000
Fixed Assets	$448,000	Owner's Equity	
Acc. Depreciation	$188,000	Retained Earnings	$ 62,000
Intangible Assets	$ 82,000	Common Stock	$180,000
Total Assets	$440,000	Total Liab. & O.E.	$440,000

9. Complete the statement of retained earnings for 2014 and determine the dividends paid last year.

ANSWER

Retained Earnings increases by Net Income minus dividends paid and we have an increase of $15,000 for retained earnings ($62,000 - $47,000). Net Income is $45,000 so if $15,000 went to Retained Earnings then the rest, $30,000 was paid out in dividends.

Statement of Retained Earnings for 2014

Beginning Balance	$47,000
Add Net Income	$45,000
Minus Dividends	$30,000
Ending Balance	$62,000

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10. What are the net fixed assets for the years 2013 and 2014?

ANSWER

Net Fixed Assets = Fixed assets minus accumulated depreciation

For 2013,

Net Fixed Assets = $368,000 - $142,000 = $226,000

For 2014,

First find the new accumulated depreciation for 2014 which is the accumulated depreciation balance in 2013 plus the depreciation expense for 2014:

Accumulated Depreciation 2014 = $142,000 + $46,000 = $188,000

Net Fixed Assets = $448,000 - $188,000 = $260,000

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11. Find the cash flow from assets for 2014 and break it down into its three parts: operating cash flow, capital spending, and change in net working capital.

ANSWER

Find the three parts that make up Cash Flow from Assets, i.e. Operating Cash Flow, Change in Net Working Capital and Capital Spending.

Operating Cash Flow is EBIT – Taxes + Depreciation so,

OCF = $93,000 - $30,000 + $46,000 = $109,000

Change in Net Working Capital is 2014 NWC – 2013 NWC

Net Working Capital is Current Assets minus Current Liabilities

2013 NWC = $16,000 + $28,000 + $48,000 - $14,000 - $19,000 = $59,000

2014 NWC = $26,000 + $19,000 + $53,000 - $12,000 - $24,000 = $62,000

Change in NWC = $62,000 - $59,000 = $3,000

Capital spending for 2014 is the Change in Net Fixed Assets (Fixed Assets minus Depreciation) plus 2014 Depreciation Expense. Note there is no change in Intangible Assets so we need only Fixed Assets and Accumulated Depreciation.

Capital Spending = ($448,000 - $188,000) – ($368,000 - $142,000) + $46,000
=$80,000

And Cash Flow from Assets is:

CF from Assets = OCF - Increase in NWC - Increase in Capital Spending

CF from Assets = $109,000 - $3,000 - $80,000 = $26,000

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12. Find the cash flow to creditors for 2014 by parts and total, with the parts being interest income paid and increases in borrowing.

ANSWER

First the Interest Paid to Creditors comes from the income statement and is $18,000 for the year. Second, the change in Long-Term Debt reflects an increase or decrease in cash flows to creditors. Here we have a decrease from 2013 to 2014 reflecting a reduction or retirement of debt, a cash flow to creditors:

Decrease in Long-Term Debt 2014 = $190,000 – $162,000 = $28,000

Cash Flow to Creditors for 2014 = $18,000 + $28,000 = $46,000

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13. Find the cash flow to owners for 2014 by parts and total, with the parts being dividends paid and increase in borrowing.

ANSWER

Dividends Paid for 2014 were $30,000 and the Common Stock account changed from $130,000 in 2013 to $180,000 in 2014 for an increase of $50,000 so we have the following Cash Flow to Owners:

2014 CF to Owners = $30,000 - $50,000 = -$20,000

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14. Verify the cash flow identity: cash flow from assets = cash flow to creditors + cash flow to owners.

ANSWER

$26,000 ≡ $46,000 - $20,000

For problems 15 through 17, obtain the balance sheet, income statement, and statement of cash flow for PepsiCo (ticker symbol PEP) for the most recent year from Yahoo! Finance and answer the following questions.

15. Provide the following amounts for PepsiCo:

    a. net income
    b. depreciation (see cash flow statement)
    c. cash flow from operating activities
    d. cash flow from investing activities
    e. cash flow from financing activities
    f. change in cash and equivalents

ANSWER: All value in ('0 00 s)

a. Net Income for 2013 is $6,740, 000
b. Depreciation Expense for 2013 is $2,663,000
c. Cash Flow From Operating Activities is (source) $9,688,000
d. Cash Flow From Investing Activities is (use) - $2,625,000
e. Cash Flow From Financing Activities is (use) - $3,789,000
f. Change in Cash and Equivalents for 2013 is an increase of $3,078,000

16. For PepsiCo for the most recent year explain the difference between net income and the change in cash and equivalents. In other words, why is the profit or loss of PepsiCo different from the change in their cash and equivalents account?

ANSWER:

Pepsi generated $9.688 billion from operating activities. It had a cash outflow of $3.789 billion from financing activities (due to dividends being paid and repurchase of common stock) for the year and spent $2.625 billion investing in new assets. Thus, after adjusting for exchange rate losses of $196 million, it ended up with a net increase in cash of $3.078 billion.

i.e. Cash Flow From Operating Activities – Cash Flow From Financing Activities – Cash Flow from Investment Activities – Adjustment for Exchange rate losses = Change in Cash Balance.

$9.688b - $3.789b - $2.625b -) - $0.196b = $3.078b

17. Using the cash flow statement find the dividends paid to the PepsiCo owners in the most recent year.

ANSWER:

Dividends in 2013 for PepsiCo were $3,434 billion

For problems 18 through 20, obtain the balance sheet, income statement, and statement of cash flow for Pfizer (ticker symbol PFE) for the most recent year from Yahoo! Finance and answer the following questions.

18. Provide the following amounts for Pfizer:

   a. net income
   b. depreciation (see cash flow statement)
   c. cash flow from operating activities
   d. cash flow from investing activities
   e. cash flow from financing activities
   f. change in cash and equivalents

ANSWER: : All value in (‘ 00 0s)

a. Net Income 2013 $22,003,000
b. Depreciation Expense for 2013 is $6,410,000
c. Cash Flow From Operating Activities is (source) $17,765,000
d. Cash Flow From Investing Activities is (use) - $10,625,000
e. Cash Flow From Financing Activities is (use) -$14,975,000
f. Change in Cash and Equivalents for 2013 is a decrease of $7,898,000

19. Explain the difference between net income and the change in cash and equivalents for Pfizer. In other words, why is the profit or loss of Pfizer different from the change in their cash and equivalents account?

ANSWER:

Pfizer generated $17.765 billion in operating activities for the year. It used10.625 billion for investing in fixed assets and other investments and an additional 14.975 billion dollars for financing activities such as paying dividends, buying back stock, and paying off debt, leaving it with a reduction in cash of $7.898 billion, after adjusting for a currency translation loss of $63 million

CF from Operating Activities – CF from Investing Activities – CF from Financing Activities = Change in Cash Balance.

$17.765b - $10.625b - $14.975b - $0.063b = -$7,898b

20. Using the cash flow statement find the dividends paid to the Pfizer owners in the most recent year.

ANSWER:

Dividends in 2013 paid to Pfizer stockholders ➔$6.58 billion

Solutions to Advanced Problems for Spreadsheet Application

Note: Shaded portions are the inputs provided in the textbook.

1. Income Statements Part (A)

Company A	Information	Company B	Information
Units sold	847,000	Units sold	1,388,000
Revenue per unit	$ 16.98	Revenue per unit	$ 11.98
Cost per unit	$ 8.17	Cost per unit	$ 6.69
Fixed costs	$ 1,245,788.00	Fixed costs	$ 1,354,218.00
SG&A costs	$ 785,038.00	SG&A costs	$ 584,431.00
Depreciation Expense	$ 1,489,374.00	Depreciation Expense	$ 1,137,890.00
Interest Expense	$ 501,030.00	Interest Expense	$ 698,540.00
Tax Rate	0.375	Tax Rate	0.375
	Income Statement		Income Statement
Revenue	$ 14,382,060.00	Revenue	$ 16,628,240.00
COGS	$ 6,919,990.00	COGS	$ 9,285,720.00
Gross Margin or Profit	$ 7,462,070.00	Gross Margin or Profit	$ 7,342,520.00
Fixed Costs	$ 1,245,788.00	Fixed Costs	$ 1,354,218.00
SG&A costs	$ 785,038.00	SG&A costs	$ 584,431.00
Depreciation Expense	$ 1,489,374.00	Depreciation Expense	$ 1,137,890.00
EBIT	$ 3,941,870.00	EBIT	$ 4,265,981.00
Interest Expense	$ 501,030.00	Interest Expense	$ 698,540.00
Taxable Income	$ 3,440,840.00	Taxable Income	$ 3,567,441.00
Taxes	$ 1,290,315.00	Taxes	$ 1,337,790.38
Net Income	$ 2,150,525.00	Net Income	$ 2,229,650.63
Operating Cash Flow	$ 4,140,929.00	Operating Cash Flow	$ 4,066,080.63

Company B has the higher Net Income but lower Operating Cash Flow.

Part (B)

Company A	Information	Company B	Information
Units sold	847,000	Units sold	1,179,800
Revenue per unit	$ 16.98	Revenue per unit	$ 14.98
Cost per unit	$ 8.17	Cost per unit	$ 7.89
Fixed costs	$ 1,245,788.00	Fixed costs	$ 1,354,218.00
SG&A costs	$ 785,038.00	SG&A costs	$ 1,168,862.00
Depreciation Expense	$ 1,489,374.00	Depreciation Expense	$ 1,137,890.00
Interest Expense	$ 501,030.00	Interest Expense	$ 698,540.00
Tax Rate	0.375	Tax Rate	0.375
	Income Statement		Income Statement
Revenue	$ 14,382,060.00	Revenue	$ 17,667,505.00
COGS	$ 6,919,990.00	COGS	$ 9,313,577.16
Gross Margin or Profit	$ 7,462,070.00	Gross Margin or Profit	$ 8,353,927.84
Fixed Costs	$ 1,245,788.00	Fixed Costs	$ 1,354,218.00
SG&A costs	$ 785,038.00	SG&A costs	$ 1,168,862.00
Depreciation Expense	$ 1,489,374.00	Depreciation Expense	$ 1,137,890.00
EBIT	$ 3,941,870.00	EBIT	$ 4,692,957.84
Interest Expense	$ 501,030.00	Interest Expense	$ 698,540.00
Taxable Income	$ 3,440,840.00	Taxable Income	$ 3,994,417.84
Taxes	$ 1,290,315.00	Taxes	$ 1,497,906.69
Net Income	$ 2,150,525.00	Net Income	$ 2,496,511.15
Operating Cash Flow	$ 4,140,929.00	Operating Cash Flow	$ 4,332,941.15

Company B's Net Income and Operating Cash Flow are both higher than those of Company A.

2. Balance Sheets (Part A)

Reach Manufacturing	2013	2014	Change	Verification
Assets:				
Current Assets				
Cash	$ 23,000.00	$ 26,000.00	$ 3,000.00	$ 3,000.00
Marketable Securities	$ 62,000.00	$ 58,000.00	$ (4,000.00)	$ (4,000.00)
Accounts Receivable	$ 518,000.00	$ 796,000.00	$ 278,000.00	$ 278,000.00
Inventory	$ 639,000.00	$ 910,000.00	$ 271,000.00	$ 271,000.00
Total Current Assets	$ 1,242,000.00	$ 1,790,000.00	$ 548,000.00	$ 548,000.00
Long-term Assets				
Fixed Assets	$ 4,387,000.00	$ 4,975,000.00	$ 588,000.00	$ 588,000.00
Accumulated Depreciation	$(1,009,000.00)	$(1,364,000.00)	$ (355,000.00)	$ (355,000.00)
Intangible Assets	$ 465,000.00	$ 431,000.00	$ (34,000.00)	$ (34,000.00)
Total Long-Term Assets	$ 3,843,000.00	$ 4,042,000.00	$ 199,000.00	$ 199,000.00
TOTAL ASSETS	$ 5,085,000.00	$ 5,832,000.00	$ 747,000.00	$ 747,000.00
Liabilities:				
Current Liabilities				
Accounts Payable	$ 419,000.00	$ 679,000.00	$ 260,000.00	$ 260,000.00
Notes Payable	$ 390,000.00	$ 210,000.00	$ (180,000.00)	$ (180,000.00)
Total Current Liabilities	$ 809,000.00	$ 889,000.00	$ 80,000.00	$ 80,000.00
Long-Term Liabilities				
Long-Term Debt	$ 3,540,000.00	$ 3,912,000.00	$ 372,000.00	$ 372,000.00
TOTAL LIABILITIES	$ 4,349,000.00	$ 4,801,000.00	$ 452,000.00	$ 452,000.00
Owner' Equity:				

Common Stock	$ 330,000.00	$ 330,000.00	$ -	$ -
Retained Earnings	$ 406,000.00	$ 701,000.00	$ 295,000.00	$ 295,000.00
TOTAL OWNER's EQUITY	$ 736,000.00	$ 1,031,000.00	$ 295,000.00	$ 295,000.00
TOTAL LIAB. AND O.E.	$ 5,085,000.00	$ 5,832,000.00	$ 747,000.00	$ 747,000.00

Part (B)

PART B:	2013	2014	Change
Net Working Capital	$ 433,000.00	$ 901,000.00	$ 468,000.00
Capital Spending			
2011 Fixed Assets	$ 4,975,000.00		
plus 2011 Intangible Assets	$ 431,000.00		
minus 2010 Fixed Assets	$ 4,387,000.00		
minus 2010 Intangible Assets	$ 465,000.00		
Change In Capital Spending	$ 554,000.00		
Cash Flow From Assets:			
OCF	$ 389,000.00		
minus increase in NWC	$ 468,000.00		
minus increase in capital sp.	$ 554,000.00		
Cash Flow From Assets	$ (633,000.00)		

Solutions to Mini-Case Questions

Hudson Valley Realty

This case focuses on the interpretation rather than the preparation of financial statements. Students should understand how the statements are important for outside stakeholders who need to make decisions concerning a company. The case reinforces the chapter's emphasis on cash flow rather than accrual-based measures of income. The statements are loosely based on Ethan Allen Co., but have been modified to eliminate complexities that are not important at this level.

1. **Look at Vermont Heritage's sales revenue, EBIT, and net income over the three-year period. Would you classify it as a growing, diminishing, or a stable company?**

   Sales were up a little in 2013, down a little in 2014. Overall, sales are trendless. EBIT and net income also remain remarkably stable, indicating that the company can adjust expenses as a response to falling sales. The company appears to be stable, but not growing.

2. **Look at Vermont Heritage's expense accounts, cost of goods sold, and selling and administrative expenses. Do they seem to be roughly proportional to sales? Do any of these categories seem to be growing out of control?**

   Cost of goods sold decreases when sales decrease, which suggests that sales revenue is responding to lower volume. Selling and administrative expenses are increasing relative to sales, and this is a matter for some concern. Perhaps the company is making an extra marketing effort to increase sales.

3. **Depreciation expense is the same for all three years. What does that tell you about Vermont Heritage's growth?**

   It is highly unusual for depreciation expense to remain the same, at least when the figures are rounded to millions, for three years in a row. It would suggest that the company is not selling off assets, but neither is it investing in new assets. At most, it is replacing assets as needed.

4. **Look at Vermont Heritage's EBIT, interest expense, and debt accounts (current liabilities, long-term debt, and other liabilities) over the three-year period. Comparing debt to equity, do you think the company seems to have excessive debt? Would you expect the company to have any problems meeting its interest payments?**

   Interest expense is minimal compared to EBIT, which shows that the company is in a strong financial position. Vermont Heritage has been using surplus cash to reduce long-term liabilities over the last few years. The company is now almost entirely equity-financed.

5. **Dividends have increased as a percentage of net income. Why do you think the company decided to pay out more of its earnings to shareholders?**

   The company has paid off most of its debt and seems to have limited growth opportunities at the present time, so it is appropriately returning cash to the stockholders.

6. **Compare current assets with current liabilities. Would you expect Vermont Heritage to have any problems meeting its short-term obligations?**

   Current assets are approximately 10 times current liabilities, implying that the company is highly liquid. Excess liquidity may imply inefficiency, but since Peter Cortland is only concerned with safety, it is a good thing from his point of view.

7. **Overall, do you think Vermont Heritage will be a relatively safe tenant for Hudson Valley's building?**

Vermont Heritage should be a very safe and stable tenant for Hudson Valley's building. Although it doesn't seem to be growing rapidly, it has very low debt, stable profits, excellent liquidity, and low interest obligations.

Additional Problems with Solutions

1. ***Balance Sheet.*** Chuck Enterprises has current assets of $300,000, and total assets of $750,000. It also has current liabilities of $125,000, common equity of $250,000, and retained earnings of $85,000. How much long-term debt and fixed assets does the firm have?

ANSWER (Slides 2-23 to 2-24)

Current Assets + Fixed Assets = Total Assets

➔$300,000+Fixed Assets = $750,000

➔Fixed Assets = $750,000 - $300,000 = $400,000

➔Total Assets = Current Liabilities + Long-term debt + Common equity + Retained Earnings

➔$750,000 = $125,000 + Long-term debt + $250,000 + 85,000

➔Long-term debt = $750,000 - $125,000-$250,000 - $85,000

➔Long-term debt = $290,000

2. ***Income Statement.*** The Top Class Company had revenues of $925,000in 2014. Its operating expenses (excluding depreciation) amounted to $325,000, depreciation charges were $125,000, and interest costs totaled $55,000. If the firm pays a marginal tax rate of 34 percent, calculate its net income after taxes.

ANSWER (Slides 2-25 to 2-26)

Revenues	$925,000
Less operating expenses	325,000
= EBITDA	600,000
Less depreciation	125,000
= EBIT	475,000
Less interest expenses	55,000
= Taxable Income	420,000
Less taxes (34%)	142,800
= Net Income after taxes	277,200

3. ***Retained Earnings:*** The West Hanover Clay Co. had, at the beginning of the fiscal year, November 1, 2013, retained earnings of $425,000. During the year ended October 31, 2014, the company generated net income after taxes of $820,000 and

paid out 35 percent of its net income as dividends. Construct a statement of retained earnings and compute the year-end balance of retained earnings.

ANSWER (Slides 2-27 to 2-28)

Statement of Retained Earnings for the year ended October 31, 2014

Balance of Retained Earnings, November 1, 2013	$425,000
Add: Net income after taxes, October 31, 2014	$820,000
Less: Dividends paid for the year ended October 31, 2014	$287,000
Balance of Retained Earnings, October 31, 2014	$958,000

4. ***Working Capital:*** D.K. Imports Incorporated reported the following information at its last annual meeting:

   Cash and cash equivalents = $1,225,000; Accounts payables = $3,200,000

   Inventory = $625,000; Accounts receivables = $3,500,000;

   Notes payables = $1,200,000; other current assets = $125,000;

   Calculate the company's net working capital.

ANSWER (Slides 2-29 to 2-30)

Net Working Capital = Current Assets - Current Liabilities

➔(Cash & Cash Equivalents + Accts. Rec. + Inventory + other current assets) - (Accounts payables + Notes Payables)

➔($1,225,000+$3,500,000+$625,000+$125,000) - ($3,200,000+$1,200,000)

➔$5,475,000 - $4,400,000

Net Working Capital ➔$1,075,000

5. ***Cash Flow from Operating Activities.*** The Mid-American Farm Products Corporation provided the following financial information for the quarter ending September 30, 2014:

   Depreciation and amortization - $75,000

   Net Income - $225,000

   Increase in receivables - $ 95,000

   Increase in inventory - $69,000

   Increase in accounts payables - $80,000

   Decrease in marketable securities - $34,000.

   What is the cash flow from operating activities generated during this quarter by the firm?

(Slides 2-31 to 2-32)

Net Income	$225,000
Add depreciation and amortization	75,000
Add decrease in marketable securities	34,000
Add increase in accounts payables	80,000
Less increase in accounts receivables	95,000
Less increase in inventory	69,000
Cash flow from operating activities	$250,000