

**FINANCIAL ACCOUNTING PRIMER**  
**July 2010**

**Dr. Alison KIRBY JONES**  
**School of Management**  
**Boston University**

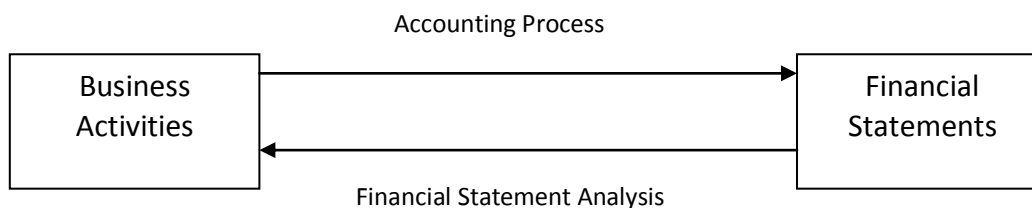
Terminology	2
<u>Part I: THE BALANCE SHEET</u>	3
Practice Problems (A), (B) and (C)	16
<u>Part II: INCOME STATEMENT,</u>	19
<u>STATEMENT OF RETAINED EARNINGS and</u>	
<u>STATEMENT OF CASH FLOWS</u>	
Practice Problems (D), (E) and (F)	32
Solutions to Practice Problems (A)-(E)	33
Blank Spreadsheets	43

## Terminology Check

Before reading this primer check that you understand the following general business terms. (The textbook also has an expansive glossary at the back.)

- **Accounts Payable**  
Liability. Amounts we (the company) owe to suppliers/vendors
- **Accounts Receivable**  
Asset. Amounts owed to us by customers who purchased from us on credit
- **Inventory**  
Asset. Types of inventory: finished goods (waiting to be sold), and supplies (waiting to be used for administrative purposes). Manufacturers will also have raw materials inventory and partially completed work-in-process inventory.
- **P.P. & E.**  
Asset. Short for Plant, Property and Equipment – includes all tangible assets which have a useful life longer than one year.
- **Advances from Customer**  
Liability. Payments received from customers before we ship the product to them or perform the service for them
- **Prepaid Expenses**  
Asset. Payments we make to “service providers” in advance of receiving the corresponding service (commonly seen in the case of insurance and rent)
- **Contributed Capital**  
Owners’ Equity. Equity contributions received from the owner(s) in a partnership or sole proprietor’s business.
- **Common Stock**  
Owners’ Equity. Equity contributions received by a company when it issues its shares in a public offering. (This is unaffected by subsequent transactions of shares bought and sold between shareholders.)
- **Forms of Financing**
  - **Debt Financing -- Liabilities**  
Funding received from lenders in exchange for a commitment to repay principal at a specific date, with a specific interest rate (e.g. loan, note, bond)
  - **Equity Financing – Owners’ Equity**  
Funding received from owners in exchange for shares in the company, which may provide dividends and change in share value.

The **accounting process** translates business transactions into financial statements. Investors read and analyze financial statements to try and infer the actions that the company took. This reverse process is called **financial statement analysis**. Successful financial analysts need to understand the accounting process well.



**Part I:**  
**THE BALANCE SHEET: Investing and Financing Activities**

The balance sheet describes two things:

1. What a company owns, (a list of ASSETS) and
2. Who has claim to the company's assets (a list of LIABILITIES and OWNERS' EQUITY).

**ASSETS are items that have been purchased and will generate future cash flows for the company.** They include cash in the bank, inventory of different kinds, accounts receivable, land, buildings, machinery, investments in other companies and some intangible assets (e.g. purchased patents). Assets are listed on the left side of the balance sheet:

**Balance Sheet as at 12/31**

<u>Assets:</u> Cash Accounts Receivable Inventory P.P. & E. Intangible Assets TOTAL ASSETS	
--	--

All these assets together are owned by various "claimants". Each claimant has a claim on some of the company's assets.

Suppliers and lenders have a claim on a specific dollar amount at a specific future time of the company's assets. These are the liabilities of the company. **LIABILITIES are obligations that a company has to another party, to pay a specific amount at a specific future point in time.**

All other assets belong to the owners and the amount is called the OWNERS' EQUITY. Thus the owners are the residual claimants, and **OWNERS EQUITY= Total Assets – Total Liabilities**. If the company does well and builds up a lot of assets relative to the level of liabilities then the owners' equity is built up. Conversely, if the company simply burns through cash without generating sales, then assets reduce, the liabilities stay the same and the owners' equity reduces, possibly even becoming negative. (If prospects really do not look good for a turnaround, the lenders (liability holders) may demand that the remaining assets are used to pay off the lenders – thereby limiting the lenders' losses.)

Thus all assets are claimed by someone: if not by a lender or supplier, then by the owners. The claims by lenders and the residual claims by owners are listed on the right side of the balance sheet:

<b>Balance Sheet as at 12/31</b>	
<u>Assets:</u>	<u>Liabilities:</u> Claims by suppliers: Accounts Payable Claims by lenders: Bank Loan Payable  <u>Owners' Equity:</u> Residual claim by owners

Therefore, it will always be the case that the balance sheet's total assets equal the total of liabilities and owners' equity:  $A = L + OE$ . They are in essence two sides of the same coin: the assets and who has claim to them.

The balance sheet describes the combined effect of:

1. Financing activities – the raising of resources from and returning of resources to lenders and/or owners. Financing activities therefore affect the mix of claim holders on the right hand side of the balance sheet.
2. Investing activities – the purchase and sale of PP&E, Investments and other non-current assets. Investing activities therefore affect the mix of assets on the left side of the balance sheet.

#### **EXAMPLE: Kiwi Clothiers**

It is midnight on New Year's Eve. Kiwi Clothiers (KC) has not yet entered into any transactions. What is their balance sheet at this point in time?

<b>Balance Sheet as at 12/31</b>			
<u>Assets:</u>	\$0	<u>Liabilities:</u>	\$0
		<u>Owners' Equity (OE):</u>	\$0
Total Assets	\$0	Total Liabs and OE	\$0

The company owns no assets and there are no claims against the company by lenders. Thus the balance sheet balances:  $\$0 = \$0 + \$0$  reflecting the fact that Assets (A) = Liabilities (L) + Owners' Equity (OE).

During January the owner invests \$10,000 of her own money into a bank account in the name of the company. Is this a financing activity or an investing activity – **from Kiwi Clothiers Company's point of view**? It is a financing activity because KC is raising resources from an investor. What is KC's balance sheet at midnight on January 31? This transaction means that there will be a new balance sheet at 1/31. Cash is now at \$10,000, there are still no liabilities, and therefore the assets all belong to the owners in the form of Owners' Equity – specifically Contributed Capital from the owners. Again:  $\$10,000 (A) = \$0 (L) + \$10,000 (OE)$ .

Balance Sheet as at 1/31			
<u>Assets:</u>		<u>Liabilities:</u>	\$ 0
Cash	\$10,000	<u>Owners' Equity:</u>	
		Contributed Capital	\$10,000
Total Assets	\$10,000	Total Liabs & OE	\$10,000

During February the company purchases a computer for \$2,000 in cash. What is KC's balance sheet at midnight on February 29? By the end of February the cash balance has dropped to \$8,000, while there is now a new asset (a computer) whose balance at the end of the month is \$2,000, leaving Total Assets unchanged at \$10,000. Was this a financing or an investing activity? Investing. KC altered its mix of assets. This is shown below.

Balance Sheet as at 2/29			
<u>Assets:</u>		<u>Liabilities:</u>	\$ 0
Cash	\$ 8,000	<u>Owners' Equity:</u>	
Computer	\$ 2,000	Contributed Capital	\$10,000
Total Assets	\$10,000	Total Liabs & OE	\$10,000

During March the owner/manager purchases a delivery truck for \$14,000 with \$2,000 cash down, and a bank loan for the remainder. What is KC's balance sheet at midnight on March 31? By the end of the month the cash balance will be: \$6,000, there will be a new asset (the truck) on the books valued at its purchase price, and there will be a new liability on the books: bank loan payable with a balance of \$12,000.

**Balance Sheet as at 3/31**

<u>Assets:</u>		<u>Liabilities:</u>	
Cash	\$ 6,000	Bank Loan Payable	\$12,000
Computer	\$ 2,000		
Truck	\$14,000	<u>Owners' Equity:</u>	
		Contributed Capital	\$10,000
Total Assets	<b>\$22,000</b>	Total Liabs & OE	<b>\$22,000</b>

It is still true that: \$22,000 (A) = \$12,000 (L) + \$10,000(OE).

In March there were both a financing transaction (namely the bank loan) and an investing transaction (namely the purchase of the truck).

In this simple example (with only one or two transactions per month) it was very easy to immediately produce a new balance sheet at the end of each month. Usually there will be many, many transactions in a month and we will need additional "technology" to record all the transactions before we can produce a new balance sheet. Beginning on page 10, we will introduce this additional technology: it is a spreadsheet which allows us to record all the mechanics of accounting. First, however, we'll review some of the basics about accounts, balances and flows.

## BASICS: ACCOUNTS, BALANCES (LEVELS) AND FLOWS

Think of a water reservoir. On January 1 at 1 minute past midnight there is a particular level of water in the reservoir. During the course of the year there are inflows into the reservoir (in the form of rainfall and snowmelt) and outflows from it (when the reservoir's gates are opened). Inflows and outflows occur throughout the year, and by midnight on December 31 there is a likely different level of water left in the reservoir.

One of the building blocks of accounting is an account. Accounts act in the same way as the reservoir. At the beginning of an accounting period (e.g. a month or a year), the account has a beginning level or balance. During the accounting period, there are inflows into the account and outflows from the account, leaving an ending balance at the end of the accounting period. All accounts behave in this way: asset accounts, liability accounts and owners' equity accounts. For example, if the company's cash account has a beginning balance of \$300, cash inflows during the month of \$1,200 and outflows of \$1,000, then the ending balance is \$500. In other words:

$$\boxed{\text{Beginning cash balance}} + \boxed{\text{Cash INFLOWS}} - \boxed{\text{Cash OUTFLOWS}} = \boxed{\text{Ending cash balance}}$$

The accounts receivable (A/R) account behaves in a similar way.

$$\boxed{\text{Beginning A/R balance}} + \boxed{\text{A/R INFLOWS}} - \boxed{\text{A/R OUTFLOWS}} = \boxed{\text{Ending A/R balance}}$$

The A/R account has a beginning balance, reflecting credit sales from last period which have not yet been paid up by the customer. Next, what type of transaction would cause an inflow to the A/R account this period? Sales made on credit this period create an inflow to the A/R account. What type of transaction would cause an outflow to the A/R account? The A/R account balance decreases when credit customers pay up during the period. (By contrast, the cash account will experience an inflow when a credit customer pays up.) Thus:

$$\boxed{\text{A/R balance on January 1}} + \boxed{\text{Credit Sales during January}} - \boxed{\text{Cash Collections from Credit Customers during January}} = \boxed{\text{A/R balance on January 31}}$$

For each of the following accounts, figure out what types of transactions will act as inflows and outflows to the account during the period:

	<b><u>Inflows</u></b> What transaction causes this account balance to <b><u>increase?</u></b>	<b><u>Outflows</u></b> What transaction causes this account balance to <b><u>decrease?</u></b>
Inventory		
Property, Plant and Equipment (PP&E)		
Accounts Payable		
Long Term Debt		
Contributed Capital		

(See bottom of page 9 for answers.)

### **Capturing the Relationship between Balances and Flows:**

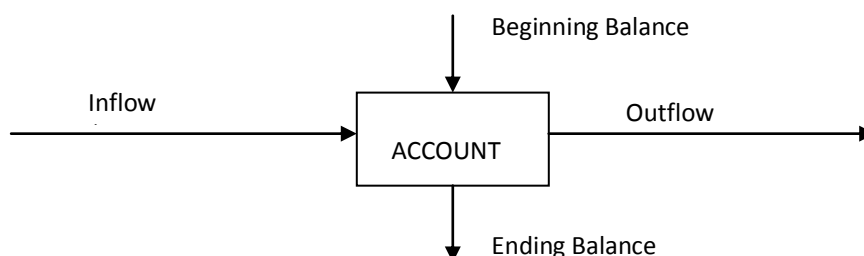
We can describe this relationship in a variety of ways: (a) an equation, (b) a box diagram, (c) a T-account, or (d) a spreadsheet row.

#### **(a) Equation:**

As we used above:

$$\boxed{\text{Beginning Balance} + \text{Inflows} - \text{Outflows} = \text{Ending Balance}}$$

#### **(b) Box Diagram:**

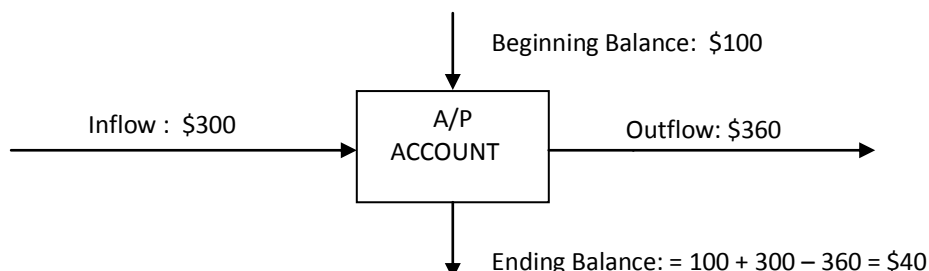


In this box diagram, suppose that the account is the accounts payable (A/P) account. This describes what one owes to one's suppliers. Suppose the beginning balance on January 1 is \$100. This means that as at January 1 there are \$100 worth of unpaid bills – for example to the power company and to some suppliers. During January the company purchases \$300 worth of additional supplies on credit. This means that during the month there is an inflow into the A/P account of \$300. During January the company also pays \$360 to some of its suppliers. This transaction causes there to be an outflow from the A/P account. (Of course there is also simultaneously an outflow from the cash account when one pays suppliers.)



What then is the balance in the A/P as at January 31? The ending balance in the A/P account is:  $\$100 + \$300 - \$360 = \$40$ .  $\$40$  is owed to suppliers at the end of the month.

Inserting these numbers on the diagram above, we have:



The arrows in the box diagram help accentuate the relationships. Note that the two arrows into the box sum to  $\$400$ . This total must either flow out during the year or be left in the ending balance. Thus the two arrows out of the box also sum to  $\$400$ . Note that if three of the arrow amounts are given, the fourth can always be deduced. This box diagram is useful in the analysis of financial statements.

**(c) T- Account:**

The T-account is another way for capturing this relationship between flows and balances. See below. This may be familiar to some of you already, but we will not refer to it further.

Accounts	Payable
	BB: 100
Inflow 360	Outflow 300
	EB: 40

**(d) Spreadsheet Row:**

We will use a spreadsheet row to capture the above relationship between flows and balances in the next section.

Answers to the problem on page 8:

	Inflows/Increases to the Account	Outflows/Reductions to the Account
Inventory	Purchases of inventory	Sale of inventory
PP&E	Purchases of new PP&E	Sale of PP&E
Accounts Payable	Purchases made on credit	Payments made to suppliers
Long Term Debt	Issuance of debt	Repayment of debt
Contributed Capital	Issuance of shares	Repurchasing of shares

## PREPARING A BALANCE SHEET

Consider the following transactions that took place during January:

1. Jan 1: Merwin Jones contributes \$10,000 in cash to start Merwin.com.
2. Jan 10: The company pays for and receives \$2000 worth of raw materials.
3. Jan 15: The company receives \$500 worth of supplies it purchased on credit.
4. Jan 19: Joyce Huleatt joins Merwin as a partner in the company, by contributing her truck to the company. The value of the truck is \$5,000.
5. Jan 20: The company pays its supplier (of Transaction #3).
6. Jan 27: Merwin.com orders office furniture with a purchase price of \$3000, to be delivered on 15 February.

### Required:

- a. Record the transactions into a worksheet.
- b. Prepare a correctly formatted balance sheet as of 31 January.

**We use a 4-step process:**

- (1) Prepare a worksheet.
- (2) Enter the transactions into the worksheet.
- (3) Accumulate the effects of all the transactions.
- (4) Use the data to prepare a correctly formatted balance sheet.

### STEP 1: PREPARE A WORKSHEET

We begin by preparing a worksheet as below. It has a skeleton set of typical accounts: cash, inventory, PP&E, Accounts payable, contributed capital, etc. Each account becomes a row in the worksheet, each transaction a column. Note the black dividing line separating the asset accounts (above) from the liability and owners' equity accounts (below).

WORKSHEET	Beg. Bal.	T1	T2	T3			End. Bal.
<b>ASSETS</b>							
Cash	0						
Raw Material Inventory	0						
Supplies Inventory	0						
PP&E	0						
<b>Total Assets</b>	<b>0</b>						
<b>LIABILITIES</b>							
A/c Payable	0						
<b>OWNERS' EQUITY</b>							
Contributed Capital	0						
<b>Total Liabs &amp; OE</b>	<b>0</b>						

We can add to this set of accounts by inserting additional rows. The first column after the account titles contains the beginning balances for each account. Since the company is founded in January the beginning balance for all the accounts is \$0. (If you are viewing this primer electronically in Word, click on any of the tables to reveal it as an Excel spreadsheet.)

## **STEP 2: ENTER TRANSACTIONS INTO THE WORKSHEET**

We now enter the consequences of each of the 6 transactions. Each transaction will be entered in a new column, affecting only some rows (accounts).

### **Transaction 1: (T1) Jan 1: Merwin Jones contributes \$10,000 in cash to start Merwin.com.**

This financing transaction causes the assets of the company (specifically cash) to increase by \$10,000. Who has a claim to these assets? Lenders? No. The owner of the company? Yes. Thus the owners' equity needs to be increased – specifically the account titled Contributed Capital -- also by 10,000. Summarizing, we make the following entries in the worksheet:

↑	Cash account by \$10,000	↑	Assets (A)
↑	Contributed Capital by \$10,000	↑	Owners' Equity (OE)

Thus this transaction affects both "sides" of the balance sheet equally: the asset "side" above the black line, and the liability and owners' equity "side", below the black line. This transaction is entered in column T1 in the worksheet. It affects only 2 rows (i.e. 2 accounts). See page 14 for the worksheet with entries in it.

### **(T2) Jan 10: The company pays for and receives \$2000 worth of raw materials.**

This transaction increases the raw materials inventory asset account by \$2000, since the materials have already been delivered. (If the inventory had been ordered but not yet received, then the accounting rules do not allow the inventory account to be increased.) Since this was paid for, the cash account experiences an outflow, i.e. decreases by \$2000. Summarizing, we make the following entry into the worksheet:

↑	Raw Materials Inventory account by \$2000	(↑ A)
↓	Cash account by \$2000	(↓ A)

Thus this transaction again affects both "sides" of the balance sheet equally: no net change to the assets above the black line and no change at all to the liability and owners' equity accounts below the black line.

(Notice, that each time we record a transaction we enter inflows and/or outflows into at least two accounts. It will sometimes be three or four accounts. If the balance sheet is to still balance after each transaction is entered, then the inflows and/or outflows for each transaction should also balance above and below the black line.)

### **(T3) Jan 15: The company receives \$500 worth of supplies it purchased on credit.**

This is recorded by increasing the asset account called supplies inventory by \$500. Again, this is entered once the supplies are received, not at the time of order. (By the way *supplies* usually refers to items consumed in the administrative side of the business as opposed to *raw materials* which are used to create a product for sale.) Since these supplies have not yet been paid for, cash will not be decreased. However, the supplier now has a claim on our assets to the tune of \$500. Stated another way there is now an

outstanding obligation to pay the supplier – i.e. a liability account (the accounts payable account) has experienced an inflow. It increases by \$500. Thus, we have:

↑	Supplies Inventory account by \$500	(↑ A)
↑	Accounts Payable account by \$500	(↑ L)

Check: Since both assets and liabilities increase by \$500, the balance sheet equation is preserved.

**(T4) Jan 19: Joyce Huleatt joins Merwin as a partner in the company, by contributing her truck to the company. The value of the truck is \$5,000.**

When Merwin’s friend Joyce joins him as a partner in the company, by contributing her truck to the company, the assets of the company increase by \$5,000, specifically the assets called Property, Plant and Equipment (PP&E). Was this paid for by giving up some other kind of asset? NO. Does the “seller” of the truck expect repayment as they would in the case of providing a loan? No. Does the seller of the truck expect a share in the ownership of the company’s assets? Yes. Thus the owners’ equity account “Contributed Capital” experiences an inflow as a result of this transaction. It increases by \$5000. We record the effects of this transaction as follows:

↑	PP&E account by \$5000	(↑ A)
↑	Contributed Capital account by \$5000	(↑ OE)

Check: Both sides of the balance sheet increase by \$5,000.

**(T5) Jan 20: The company pays its supplier (of T3).**

Paying its supplier reduces the cash account by \$500, and also reduces the accounts payable account by \$500.

↓	Accounts payable account by \$500	(↓ L)
↓	Cash account by \$500	(↓ A)

Check: Both sides of the balance sheet are decreased by \$500.

**(T6) Jan 27: Merwin.com orders office furniture with a purchase price of \$3000, to be delivered on 15 February.**

This was the placement of an order. No cash was paid, no furniture has been received. Consequently this will not yet be shown as an entry to the *accounting* system. We don’t yet record it into the worksheet. (It will however be tracked by the *ordering* system.) We will record something in the worksheet when the furniture is delivered and when a payment is made.

**STEP 3: ACCUMULATE THE EFFECTS OF ALL THE TRANSACTIONS FOR THE PERIOD**

Now that the transactions have been entered into the accounting system (the worksheet), we accumulate their combined effect the current accounting period.

**(A) Compute ending balances for each balance sheet account**

First, for each row, combine the effects of all the transactions on that account. This is easy to do in Excel by inserting the @sum(..) function and highlighting all the cells in the row starting with the beginning balance column. Thus, for cash, the beginning balance

of \$0 was increased by one inflow of \$10,000 and reduced by two outflows, one for \$2,000 and the other for \$500, leaving an ending balance in the cash account of \$7500. Cross-total each account in the worksheet.

(B) Compute totals for each “side” of the balance sheet

Down-total each side of the balance sheet. Check that the combined ending balance for the asset accounts equals the combined ending balance for the liability and owners’ equity accounts. Both down-totals equal \$15,000.

**STEP 4: PREPARE A CORRECTLY FORMATTED BALANCE SHEET**

Generate the balance sheet using the data in the ending balance column of the worksheet. See page 14. Format the balance sheet correctly, so that:

- The title indicates 3 things:
  1. the company name,
  2. name of the accounting statement, (in this case the Balance Sheet), and
  3. the date

The date format on a balance sheet is always as of or AS AT A POINT IN TIME – in this case “As of January 31” – as of a specific day. Actually, it is AT the close of business on that given day. (It is NOT the balance sheet for a PERIOD OF TIME, such as “January”.)
- Assets are classified into Current and Non-Current Assets.
  - **Current** means that the asset/liability will typically be converted into cash within one year.
  - Provide a subtotal of Total Current Assets.
- Liabilities are classified into Current and Non-Current Liabilities.
  - Provide a subtotal of Total Current Liabilities.
  - Provide a subtotal of Total Liabilities.
- Provide a subtotal of Total Owners’ Equity.

<b>WORKSHEET Merwin.com</b>	<b>Beg. Bal.</b>	<b>T1</b>	<b>T2</b>	<b>T3</b>	<b>T4</b>	<b>T5</b>	<b>T6</b>	<b>End. Bal.</b>
<b>ASSETS</b>								
Cash	0	10,000	-2,000				-500	7,500
Raw Material Inventory	0		2,000					2,000
Supplies Inventory	0			500				500
PP&E	0				5,000			5,000
<b>Total Assets</b>	<b>0</b>							<b>15,000</b>
<b>LIABILITIES</b>								
A/c Payable	0			500			-500	0
<b>OWNERS' EQUITY</b>								
Contributed Capital	0	10,000			5,000			15,000
<b>Total Liabs &amp; OE</b>	<b>0</b>							<b>15,000</b>

<b>Merwin.com Balance Sheet as of January 31</b>				
<b>ASSETS</b>			<b>LIABILITIES</b>	
Cash	7,500		A/c Payable	0
Raw Material Inventory	2,000		<b>Total Current Liabilities</b>	0
Supplies Inventory	500			
<b>Total Current Assets</b>	<u>10,000</u>		<b>OWNERS' EQUITY</b>	
PP&E	5,000		Contributed Capital	15,000
<b>Total PP&amp;E</b>	5,000		<b>Total Owners' Equity</b>	<u>15,000</u>
<b>Total Assets</b>	<u><u>15,000</u></u>		<b>Total Liabs &amp; Owners' Equity</b>	<u><u>15,000</u></u>

Suppose you are the part owner of a small company, but are not able to easily visit and inspect the company's premises.

Why might you as an owner want to periodically see a balance sheet?

At a very basic level, a balance sheet potentially gives you some assurance that your ownership stake in the company is still there! If there are more assets than liabilities then your stake still has some value. If you have someone else managing the business you may be concerned that even though the inventory is stated at a combined value of \$2500 that it might have been damaged and actually be valueless (or worse yet have been pocketed by those closer to the operations and sold to finance their personal yachts!) To allay this concern, you might hire a local auditor to provide an opinion on the fairness of the balance sheet. They would contact the bank to check on the stated level of the company's bank account, and they might perform an inventory check to see that the inventory really exists. After all if these assets are no longer owned by the company, then you, the residual claimant, will have no assets to claim!

At a less paranoid level, if you trust the integrity of your hired staff to ethically run the business, you might want some evidence that they are making sound business decisions. You would check that the company has an appropriate mix of assets; for example, enough current assets to cover its current liabilities – which it certainly does in this case. You would also want to check on any long-term debt that the manager has been taking on to finance the business. Debt (although considered cheap because interest is tax-deductible) commits the company to pay interest and repay principal, making debt risky to hold. Capital contributed by owners has no strings attached – there is no mandatory dividend rate or repayment requirement. It is therefore considered a less risky source of financing for the company.

These are some of the clues that readers of financial statements look for when they examine the balance sheet. The particulars depend on the given user. For example, a banker is more concerned with ability to repay debts, while an owner/investor in the company is concerned about the nature of the company's mix of assets: long-term productive assets versus current assets such as inventory, accounts receivable and cash.

## **Practice Problems for Part I**

There are blank ruled pages at the back of this primer, if you prefer to produce a manual rather than an Excel spreadsheet.

### **Problem A**

Friends Elizabeth Gu and Tessa Jones opened a bakery business on August 1, operating under the name La Farine. La Farine engages in the following transactions during August:

1. Elizabeth and Tessa each contributed \$2,500 cash into the business.
2. La Farine purchased and paid \$700 for used baking ovens.
3. Purchased and paid \$400 for baking supplies.
4. Purchase \$340 of additional baking supplies on account. La Farine did not pay the supplier until September for this amount.
5. Received insurance bill of \$900 for coverage beginning September 1. No transaction occurred.

#### **Required:**

- (a) Enter these transactions into a worksheet.
  - (b) Prepare a balance sheet for La Farine as of August 31.
- (The solution to this problem is on pages 33/34.)

### **Problem B**

Gentyne Enterprises began business on October 1. During October it engages in the following transactions:

1. Issues 12,000 common shares to investors for \$20 in cash each. (We call this form of contributed capital: Common Stock.)
2. Acquires land, buildings and equipment costing \$325,000. Pays \$180,000 in cash with the remainder payable over 20 years.
3. Acquires on account materials costing \$15,000.
4. Discovers that materials costing \$1,200 are defective and returns them to the supplier. The firm had not yet made a payment to this supplier.
5. Obtains an insurance policy for a one-year period beginning November 1. Pays the premium of \$1,800 for the one-year period on October 30. (Since this payment will provide future benefits, record it as the purchase of an asset – call the asset Prepaid Insurance.)
6. Pays suppliers in #3 \$12,000 of the amount due. The firm will pay the remaining suppliers in November.

#### **Required:**

- (a) Enter these transactions into a worksheet.
  - (b) Prepare a balance sheet for Gentyne as of October 31.
- (The solution to this problem is on pages 35/36.)



**Problem C**

Charles River Consulting (CRC) is founded on April 1. The firm engages in the following transactions during April:

1. Issues 100,000 shares of common stock for a total of \$200,000 in cash.
2. Pays \$100,000 for land and a building.
3. Acquires computers costing \$40,000. Pays \$8,000 in cash and issues an 8 percent note, due in one year, for the balance.
4. Acquires supplies inventory costing \$10,000 on account.
5. Prepays license fees of \$1,100 for the year beginning May 1.
6. Discovers that some of the supplies (priced at \$600) from the acquisition in #4 are defective and returns them to the supplier for full credit. CRC had not yet paid this account.
7. Customer prepays for a \$5,000 consulting job to be performed in May.
8. Pays invoices totaling \$8,000 from the purchases in #4.

**Required:**

- (a) Enter these transactions into a worksheet.
- (b) Prepare a balance sheet for CRC as of April 30.  
(The solution to this problem is on page 37/38.)

**Part II:**  
**THE INCOME STATEMENT: Operating Activities**  
**STATEMENT OF RETAINED EARNINGS**  
**STATEMENT OF CASH FLOW**

In Part I of this primer we considered transactions that involved either financing activities (raising funds – usually cash) or investing activities (changing the mix of assets by investing that cash in productive assets such as equipment and inventories.) Now we'll also consider the third type of managerial activity -- the operating activities of a company. **Operating activities involve manufacturing (or purchasing) and selling the good or providing the service that is the company's product. Operating activities also include the necessary administrative activities to support manufacturing and sales efforts.**

As an owner one wants to know if the company is progressing towards its financial goals. Is the company **operating** successfully? Is it able to make a profit on its sales?

A financially successful business purchases inventory for a low cost (say \$10m) and then sells it at a higher price (say \$18m). This results in the assets of the business expanding – by \$8m. If operating activities lead to an increase in the amount of assets owned by the business, who has the claim to that \$8m increase? The residual claimants do – the owners. And how will this show up in the owners' equity section of the balance sheet? It shows up as a separate line or account – namely accumulated retained earnings – commonly known as just **retained earnings**. There will be an increase in the retained earnings account from the beginning to the end of the period. Conversely, if we compare two balance sheets and see that the retained earnings amount increased during the intervening period by \$8m, then we can deduce (at least initially) that \$8m was the profit or earnings for the period.

Continuing the case of Merwin.com, see below the Owners' Equity section of the Balance Sheet at four points in time:

<b>Merwin.com</b>				
<b>as of</b>	31-Jan	28-Feb	31-Mar	30-Apr
<b>OWNERS' EQUITY</b>				
Contributed Capital	15,000	15,000	15,000	15,000
Retained Earnings	-	1,800	5,800	7,000
<b>Total Owners' Equity</b>	<b>15,000</b>	<b>16,800</b>	<b>20,800</b>	<b>22,000</b>

In February Merwin.com opened its “doors” for operating activities (as opposed to just the financing and investing activities of January). It started selling product, and also purchased more inventory. At the end of February, the balance sheet shows that the Owners' Equity was \$16,800, compared with \$15,000 at the end of January. The Contributed Capital account shows that no new capital was contributed by the owners during February. However, the change in the (accumulated) Retained Earnings account indicates that profits

for February must have been \$1800.

Therefore, one way to initially figure out the profit for the current period is to compute the change in retained earnings from the end of the prior period to the end of the current period. We can estimate the profits for March by noting that the retained earnings account increased by  $\$5,800 - \$1,800$  or  $\$4,000$ . Thus, assuming no dividends, we can infer that March's profits were  $\$4,000$ . Thus the (accumulated) Retained Earnings at the end of March equal the accumulated profits of March, February and the zero profits in January.

More generally, **Retained Earnings refers to accumulated earnings that are still held as assets (retained) by the business and have not (yet) been distributed to the owners as dividends.**

Suppose that in April, operations continued to be profitable and the owners decided to pay themselves a cash dividend – namely, they distributed some of the earnings of the business back to the individual owners rather than keeping all the assets in the name of Merwin.com. Joyce Huleatt was paid a dividend of  $\$500$  and Merwin Jones a dividend of  $\$1,000$  reflecting their different ownership stakes in the business.

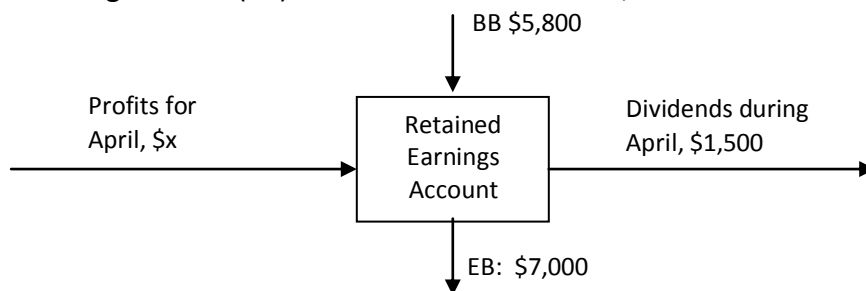
This would be recorded in the worksheet as:

↓	Cash	$\$1,500$ (↓ A)
↓	Retained Earnings	$\$1,500$ (↓ OE)

This entry balances and shows that paying a dividend shrinks the size of the company (as measured by total assets) by paying out some of the assets.

Now, if the Retained earnings account at the end of April shows a balance of  $\$7,000$ , what was the level of profits earned by the company during April?

We capture this information in the box diagram below. April's beginning balance (BB) of retained earnings was  $\$5,800$ . The inflow into the retained earnings account is the unknown  $\$x$  amount of April profit, while the outflow was the  $\$1,500$  dividend paid to the owners. April's ending balance (EB) in retained earnings is  $\$7,000$ .



Since  $BB + \text{Inflow} - \text{Outflow} = EB$ , we have  $\$5,800 + x = 1,500 + 7,000$ . Therefore:  
 $x = \$8,500 - \$5,800 = \$2,700$ . The retained earnings balance rose by net  $\$1,200$  reflecting April profits of  $\$2,700$  of which  $\$1,500$  were *distributed* as dividends (i.e. NOT *retained*).

**Thus by comparing the retained earnings balance on two successive balance sheets, and adjusting for dividends during the period, one can deduce the profits for the period.** But what does this really tell us about the success of the operating activities of the firm?

Something, but not a lot. For example, it provides no detail on the level of revenues needed to generate those \$1,200 of profits. Such detail is instead provided on the Income Statement, sometimes also referred to as the Results of Operations statement, or the Profit and Loss Statement (P&L for short).

To create an Income Statement we add new accounts into our worksheet to describe our operations in more detail: we call these **revenue and expense accounts**. They provide detail on the changes in the retained earnings account. Unlike the balance sheet accounts, these revenue and expense accounts begin and end every period with a zero balance. We highlight this by blacking out the BB and EB cells for these accounts. These accounts only accumulate operating activities during the current accounting period, and are closed to zero at the end of the current accounting period, whether it is a month, a quarter or a year. This gives us a picture of the operations of each period separately, just like a taxi driver who wants to know the total for a trip, and then sets the trip meter back to zero at the start/end of each trip.

## PREPARING AN INCOME STATEMENT

### Example:

Consider the following balance sheet for BU.com at the end of its first year of operations.

<b>BU.com</b>			
<b>Balance Sheet</b>			
<b>as at end of Year 1</b>			
ASSETS		LIABILITIES	
Cash	115	Accounts Payable	<u>15</u>
Accounts Receivable	20	Total Current Liabilities	15
Inventory	<u>25</u>		
Total Current Assets	160	Bank Loan Payable	<u>40</u>
		Total Liabilities	55
		OWNERS' EQUITY	
		Contributed Capital	20
Land	<u>40</u>	Retained Earnings	<u>125</u>
		Total Liabilities and	
Total Assets	<u>200</u>	Owners' Equity	<u>200</u>

Consider the following transactions in Year 2 for BU.com:

1. Acquired inventory on account for \$30.
2. Sold inventory costing \$30 for \$80 to credit customers.
3. Paid wages during the year of \$25. As of 12/31/Year 2 no wages were owed.
4. Paid \$27 to suppliers.
5. Collected \$75 cash from customers.
6. Paid interest at 10% on bank loan as due annually on 12/31. The loan principal is due on 12/31/Year 5.
7. On December 31, BU.com purchased a building for \$50, having separately arranged with a bank for a mortgage for \$35.

### Required:

- a. Record the transactions into a worksheet (manually or using Excel).
- b. Prepare the Year 2 Income Statement, Statement of Retained Earnings, Statement of Cash Flows and the Balance Sheet as at end of Year 2.

Learn how to solve problems like this one by following through the solution below.

**Solution:**

We follow through the same basic four steps as we did for the example in Part I.

**STEP 1: PREPARE A WORKSHEET**

Create a **worksheet of accounts**, arranged in balance sheet **order**.

Insert opening balances off the prior period's ending balance sheet.

Revenue and expense accounts of the income statement are included as "detail" about changes in the retained earnings account. They have no beginning or ending balance, since they record the activity of the current period only. Black out their cells in the BB and EB columns.

WORKSHEET	Beg. Bal.	T1	T2	T3	T4	T5	T6
<b>BU.com</b>							
<b>ASSETS</b>							
Cash	115						
A/c Receivable	20						
Inventory	25						
Land	40						
<b>TOTAL ASSETS</b>	<b>200</b>						
<b>LIABILITIES</b>							
A/c Payable	15						
Bank Loan Payable	40						
<b>OWNERS' EQUITY</b>							
Contributed Capital	20						
Retained Earnings	125						
Revenues							
Expense							
Expense							
Expense							
<b>TOTAL LIABS &amp; OE</b>	<b>200</b>						
Check Row:	0						

**Note**

1. This worksheet will end up containing all the information needed to prepare all four financial statements.
2. The check row at the bottom of the worksheet helps identify if errors have been made in entering the transactions. For each cell in that row, look at the corresponding column, and enter the sum of effects on the asset accounts for that column minus the sum of effects on the Liability and Owners' Equity accounts.

**STEP 2: ENTER TRANSACTIONS INTO THE WORKSHEET**

Check page 28 for the completed worksheet as you work through each transaction.

**(T1) Purchase of inventory on account** means that the company took delivery of inventory, but that they have not yet paid the supplier. They have purchased on credit and have promised to pay in the future. This transaction will therefore show as:

↑	Inventory account by \$30	(↑ A)
↑	Accounts Payable account by \$30	(↑ L)

Since both assets and liabilities increase by \$30, the balance of the balance sheet is retained.

**(T2) Sold on credit to customers for \$80 inventory which had cost \$30**

Selling product (or services) is at the heart of operating activities. It is how a business hopes to make a profit.

In making a sale two things happened. First, the customer provided us a promise to pay in the future. Second, we delivered the product to the customer thus depleting our inventory. We therefore record this sale as two transactions:

- (a) A balanced REVENUE transaction at \$80, recognizing the accounts receivable that we earned from the customer, and
  - (b) A balanced EXPENSE transaction at \$30, reflecting the inventory that we shipped from our business to earn the revenue.
- (The difference of  $\$80 - \$30 = \$50$  is of course the profit on this sale.)

(a) The revenue transaction sometimes provides us cash immediately, but frequently (as in this case) with a different asset – namely an Account Receivable – a promise by the customer to pay us within a few days. Thus it is recorded as an increase in assets (specifically accounts receivable) of \$80.

↑	Accounts Receivable account by \$80	(↑ A)
---	-------------------------------------	-------

Next, what makes this transaction balance? Who has the claim to these new assets? The suppliers or a lender? No – then they must belong to the residual claimants – the **owners**. Thus owners' equity needs to be increased.

How? Should the contributed capital part of OE be increased? No, since no new capital is being contributed. Should the retained earnings part of OE be increased? Must be. This is true ultimately, but temporarily we record this as a revenue. Think of recording revenue as ultimately increasing profits and therefore retained earnings and therefore **owners'** equity. This is an important chain of effects to understand:

Record a Revenue

⇒ Increases Profits

⇒ Increases Retained Earnings

⇒ Increases Owners' Equity (OE)

Thus the balancing part of the revenue transaction is what we will loosely call an increase to revenue (more correctly called recognition of revenue). Thus we have the balanced REVENUE entry:

↑	Accounts Receivable account by \$80	(↑ A)
↑	Sales <b>Revenue</b> by \$80	(↑ OE)





cash) has been used up in the process of earning revenue, and that owners have a smaller residual claim as a result.

**(T4) Paid \$27 to suppliers:**

The accounting entry into the worksheet is:

↓	Cash by \$27	(↓ A)
↓	Accounts Payable by \$27	(↓ L)

Both sides of the balance sheet equation decrease by \$27.

**(T5) Collected \$75 cash from customers:**

↑	Cash by \$75	(↑ A)
↓	Accounts Receivable by \$75	(↓ A)

Collecting cash from the credit customers simply means that one form of asset (an account receivable) was converted into a different asset (cash). It does not result in recognizing revenue. That was done when the sale was originally made and the product delivered. The net effect of this transaction is no net change to either side of the balance sheet.

**(T6) Paid Interest at 10% on Bank Loan:**

At 10% per year, BU.com must have paid  $10\% * \$40 = \$4$  in interest charges. (Note: Interest rates are always expressed on an annual basis, even if the loan is for a period of time other than one year.) Interest is another cost of doing business this year that results in a decrease in assets and a reduction in the owners' residual claim. It is therefore also recognized as an expense for the year.

↓	Cash by \$4	(↓ A)
↑	Interest Expense by \$4	(↓ OE)

Both sides of the balance sheet decrease by \$4.

**(T7) Purchased building for \$50 utilizing a mortgage for \$35:**

The company received cash of \$35 in mortgage financing and paid out \$50 to the seller of the building. This can be recorded as two separate transactions:

↑	Cash by \$35	(↑ A)
↑	Mortgage Payable by \$35	(↑ L)

And:

↓	Cash by \$50	(↓ A)
↑	Building by \$50	(↑ A)

Alternatively this could equivalently be entered as one transaction affecting three accounts:

↓	Cash by \$15	(↓ A)
↑	Building by \$50	(↑ A)
↑	Mortgage Payable by \$35	(↑ L)

Either way, the net effect is that both sides of the balance sheet equation increase by \$35.

### **STEP 3: ACCUMULATE THE EFFECTS OF ALL THE TRANSACTIONS FOR THE PERIOD**

Now that all the transactions (and, in future, also all adjusting entries) have been entered into the accounting system (the worksheet), we accumulate the data into summary figures.

#### (A) Accumulate the profit for the period into the Retained Earnings account

The retained earnings account row so far only contains only a beginning balance, and no inflows or outflows. The inflow to the retained earnings account is the net income or profit for the current period. To “close” the revenue and expense accounts into the retained earnings account, calculate the net profit from the revenue and expense accounts by summing all the numbers in the green shaded area and enter it into the **Close/Rev and Exp** column of the retained earnings row. (For those of you bothered by the fact that this column does not appear to be a balancing entry, rest assured that we will now “turn off” the Revenue and Expense accounts and black out their ending balance cells. In other words, all the action in those accounts is now summarized and replaced by the one \$21 inflow into the Retained Earnings account. (If there had been a net loss during the year, then it would show up as an outflow – a negative item – in the retained earnings row.)

#### (B) Compute ending balances for each **balance sheet** account

In the final **Ending Balance** column of the worksheet, compute the sum across each account row. This sum will add the beginning balance plus all inflows and outflows for that account, to give the ending balance for the account. Complete this for each balance sheet account. (Remember that you won’t do this for the temporary revenue and expense accounts because their net flow has already just been accumulated and transferred out and into the retained earnings account. Instead just black out the ending balance cells for the revenue and expense accounts.)

#### (C) Compute totals for each “side” of the balance sheet

Down-total each side of the balance sheet. Check that the combined ending balance for the asset accounts equals the combined ending balance for the liability and owners’ equity accounts. (Identify any problem entries by looking for non-zero entries in the Check Row of the worksheet.)

### **STEP 4: PREPARE CORRECTLY FORMATTED FINANCIAL STATEMENTS**

These are shown on pages 29-30 using data from the worksheet on page 28.

#### **(A) Income Statement**

Use the data in the revenue and expense account rows – it is color coded in green.

Correctly formatting the title for the Income Statement includes 3 things:

1. the company name,
2. name of the accounting statement, and
3. the date

The date format on an income statement is always for a PERIOD OF TIME for which operating activities are being reported – in this case “Year 2”, or

“For the year ending December 31, Year2.” (It is NOT the income statement AS AT December 31, Year2. Contrast this with earlier comments on the date format for the balance sheet.)

### **(B) Statement of Retained Earnings**

Use the data in the retained earnings account row – it is color coded yellow.  
The Statement of Retained Earnings also reflects activities for a PERIOD OF TIME (over all the columns) and therefore has the same date format in the title as the income statement.

### **(C) Balance Sheet**

Use the data in the final column of the worksheet – it is color coded in purple. Since the balance sheet displays balances at a POINT IN TIME, the date format is “As at December 31, Year 2.” Correct formatting of the balance sheet requires insertion of subtotals for Current Assets, Current Liabilities, Total Liabilities and Total Owners’ Equity, as well as combined totals for each side of the balance sheet.

### **(D) Statement of Cash Flows**

The data for the Statement of Cash Flows is in the cash account row – it is color coded in brown. Classify each cash flow as an operating (Op), investing (Inv) or financing (Fin) transaction.

Payment for Wages	-25	(Op)
Payment to Suppliers	-27	(Op)
Cash Collections from Credit Customers	75	(Op)
Payment of Interest	-4	(Op)
Received mortgage financing	+35	(Fin)
Payment for Building	-50	(Inv)

Format the above data to show the following subtotals:

Cash from/for Operating Activities  
Cash from/for Investing Activities  
Cash from/for Financing Activities  
Net Change in Cash  
+ Beginning Balance of Cash  
Ending Balance of Cash

Check that this computed ending cash balance, agrees with the ending cash balance on your worksheet.

The Statement of Cash Flows reflects activities over a PERIOD of time (across several columns) and therefore has the same date format as in the income statement title.

WORKSHEET		Beginning	T1	T2	T3	T4	T5	T6	T7	Close	Ending
BU.com		Balance	Purchase	Sell	Pay	Pay	Collect	Pay	Building &	Rev/Exp	Balance
			Inventory	Product	Employees	Supplier	Receivable	Interest	Mortgage	Accounts	
<b>ASSETS</b>											
Cash		115			-25	-27	75	-4	35	-50	119
					Op	Op	Op	Op	Fin	Inv	
A/c Receivable		20		80			-75				25
Inventory		25	30	-30							25
Land		40									40
Building									50		50
<b>TOTAL ASSETS</b>		<b>200</b>									<b>259</b>
<b>LIABILITIES</b>											
A/c Payable		15	30			-27					18
Bank Loan Payable		40									40
Mortgage Payable									35		35
<b>OWNERS' EQUITY</b>											
Contributed Capital		20									20
Retained Earnings		125								21	146
	Revenues			80							
	COGS Exp			(30)							
	Wages Exp				(25)						
	Interest Exp							(4)			
<b>TOTAL LIABS &amp; OE</b>		<b>200</b>									<b>259</b>
Check Row:		0	0	0	0	0	0	0	0	0	-21
											0

- Data for Income Statement
- Data for Statement of Retained Earnings
- Data for Balance Sheet
- Data for Statement of Cash Flows

INCOME STATEMENT for BU.com for Year 2	
Revenues	80
COGS Expense	30
Wages Expense	25
Interest Expense	4
<b>Net Income</b>	<u><u>21</u></u>

STATEMENT OF RETAINED EARNINGS for BU.com for Year 2	
Beginning Balance of Retained Earnings	125
Net Income for Year 2	21
Dividends Declared During Year 2	0
Ending Balance of Retained Earnings	<u><u>146</u></u>

BALANCE SHEET for BU.com as at end of Year 2	
<b>ASSETS</b>	
Cash	119
A/c Receivable	25
Inventory	25
Total Current Assets	<u>169</u>
Land	40
Building	50
Total PP&E	<u>90</u>
<b>TOTAL ASSETS</b>	<u><u>259</u></u>
<b>LIABILITIES</b>	
A/c Payable	18
Total Current Liabilities	18
Bank Loan Payable	40
Mortgage Payable	35
Total Liabilities	<u>93</u>
<b>OWNERS' EQUITY</b>	
Contributed Capital	20
Retained Earnings	146
Total Owners' Equity	<u>166</u>
<b>TOTAL LIABILITIES &amp; OWNERS' EQUITY</b>	<u><u>259</u></u>

<b>STATEMENT OF CASH FLOWS for BU.com for Year 2</b>	
<b>Cash from Operating Activities</b>	
Cash from Customers	75
Cash to Suppliers	(27)
Cash to Employees	(25)
Cash paid as Interest	(4)
Net Cash from Operations	19
<b>Cash for Investing Activities</b>	
Purchase of Building	(50)
<b>Cash from Financing Activities</b>	
Mortgage Financing	35
<b>Net Change in Cash</b>	4
<b>+ Beginning Cash Balance</b>	115
<b>Ending Cash Balance</b>	119

**Note:**

1. Brackets ( ) around a number indicate a negative amount.
2. The ending cash balance on the Statement of Cash Flows checks with the ending cash balance on the Balance Sheet.
3. On the formatted Income Statement, note that there are no brackets for the expense items. Since expenses are known to be negative amounts, the negative is not indicated.
4. The Net Cash from Operations of \$19 does not equal the Net Income (from Operations) of \$21 on the Income Statement. This is typical. It is not an error.
5. This Statement of Cash Flows has been prepared using the so-called DIRECT method for calculating the Cash Flows from Operations. In other words each item in the Cash from Operations subsection is a cash inflow or outflow. This is in contrast to the INDIRECT method for calculating the Cash Flows from Operations, which we cover later in the semester. Both methods produce the identical final number for Net Cash from Operations.

## Why do Owners Want to See Financial Statements?

First, as indicated on page 15, the **Balance Sheet** provides some comfort that the owners' stake in the business is still intact in the form of **sufficient assets**. This of course assumes that the numbers have been reliably prepared, and that real assets exist behind the numbers. Auditors help provide that assurance.

Second, the **Income Statement** is of interest to owners (and potential owners or investors) as an indication of the **operating efficiency** of the business – whether it can generate a profit for the owners. In the case of BU.com, comparison of 12/31/Year 1 and 12/31/Year 2 balance sheets indicates that retained earnings increased from 125 to 146. Knowing that no dividend was paid, we can further deduce that profits for Year 2 were 21. However, the income statement tells us much more. It shows that this 21 in net income was generated off sales revenues of 80 – a profit margin of 26% ( $=21/80$ ). Such ratios enable easy comparison of operating performance (as measured by profitability) between firms of differing sizes. Later in the semester we will examine several ratios used to understand firms' operating success.

A third concern is a company's **liquidity**. While a company may have plenty of total assets, they may not be in liquid (cash) form and therefore not be available to pay for the above purposes. Employees, suppliers and lenders want to be paid with cash, and not spare units of inventory, office furniture or other company assets! So the liquidity question is: Does the company have sufficient cash flow coming in to make cash payments to suppliers, to employees, and to lenders when they are due? The **Statement of Cash Flows** helps us understand the liquidity situation. It clarifies whether the company has sufficient cash coming in (a) for daily operations and (b) to invest in necessary new productive equipment. BU.com showed a positive total cash flow from operations of \$19 during Year 2. Positive is good. It meant that the company did not need additional financing to pay for daily operations. However, during the year BU.com purchased a new building. Unfortunately there was not sufficient net cash from operations to finance this investment. (We say that the Free Cash Flow was negative:  $19-50= -31$ .) To pursue this expansion the company had to instead find an external source of cash. In this case, it was mortgage financing of \$35. This mortgage allowed the company to pay for the investment. (Another potential source of cash flow is the beginning balance of cash, which can be run down – students in MBA programs are all too familiar with this source of cash flow!)

**Practice Problems for Part II**

For each of the problems below:

- (a) Prepare a worksheet to record the transactions.
- (b) Prepare the following correctly formatted financial statements:
  - i. Income Statement
  - ii. Statement of Retained Earnings
  - iii. Balance Sheet
  - iv. Statement of Cash Flows

Solutions to problems (D) and (E) are provided at the back of this primer.

**Problem (D)**

George began a business, and engaged in the following transactions:

1. Collected \$6,000 from an equity investor.
2. Borrowed \$5,000 from a bank.
3. Purchased a piece of land for \$8,000.
4. Leased the land to Sheila and received \$3,000 in cash.
5. Paid \$2,500 cash for expenses during the year.
6. Paid an \$800 dividend to the equity investor.

Qn: What did George do that may have concerned the bank?

**Problem (E)**

Assume that Cathedral Enterprises, which is in its first year of operations, entered into the following transactions:

1. Shareholders contributed \$10,000 cash.
2. Performed services for \$8,000, receiving \$6,000 in cash and a \$2,000 receivable.
3. Incurred expenses of \$6,000. Paid \$3,000 in cash and \$3,000 is still payable.
4. Purchased land for \$12,000. Paid \$2,000 in cash and signed a long-term note for the remainder.
5. Paid the shareholders \$400 in the form of a dividend.
6. Sold one-half of the land purchased in (4) for \$6,000.

**Problem (F)**

Ryan Hope, controller of Hope, Inc. provides you with the following information concerning all transactions during 2009. Hope, Inc. began operations on January 1, 2009.

1. Issued 1,000 shares of common stock at \$95 per share.
2. Paid \$2,600 every month to rent office and warehouse space. Rent was paid on the last day of each month.
3. Made total sales for services of \$190,000: \$65,000 for cash and \$125,000 on account.
4. Purchased land for \$32,000 in cash.
5. Borrowed \$75,000 on December 31. The note payable matures in two years.
6. Salaries totaling \$80,000 were paid during the year.
7. Other expenses totaling \$40,000 were paid during the year.
8. \$56,000 was received from customers as payment on account.
9. Declared and paid a dividend of \$26,000.

(The solution to Problem (F) will be made available separately.)



**PROBLEM (A)**

La Farine

**WORKSHEET**

	Beginning Balance	T1 Capital Contributed	T2 Purchased Ovens	T3 Purchased Baking Supplies	T4 Purchased Baking Supplies on Account	5. Received insurance bill: No entry	Ending Balance
<b>ASSETS</b>							
Cash	0	5,000	-700	-400			3,900
Inventory	0			400	340		740
Property, Plant & Equipment	0		700				700
<b>Total Assets</b>	<b>0</b>						<b>5,340</b>
<b>LIABILITIES</b>							
A/c Payable	0				340		340
<b>OWNERS' EQUITY</b>							
Contributed Capital	0	5,000					5,000
<b>Total Liabs &amp; OE</b>	<b>0</b>						<b>5,340</b>

<b>La Farine</b>			
<b>Balance Sheet</b>			
<b>as of August 31</b>			
<b>ASSETS</b>			
Cash	3,900		
Inventory	<u>740</u>		
<b>Current Assets</b>		4,640	
Property, Plant & Equipment		700	
<b>Total Assets</b>		<u><u>5,340</u></u>	
		<b>LIABILITIES</b>	
		A/c Payable	<u>340</u>
		<b>Current Liabilities</b>	340
		<b>OWNERS' EQUITY</b>	
		Contributed Capital	<u>5,000</u>
		<b>Total Owners' Equity</b>	5,000
		<b>Total Liabs &amp; Owners' Equity</b>	<u><u>5,340</u></u>

**PROBLEM (B)****Gentyne Enterprises****WORKSHEET**

	Beginning Balance	T1 Issued Common Shares	T2 Acquired PPE with cash & note	T3 Purchased supplies on account	T4 Returns defective supplies	T5 Prepays insurance policy	T6 Pays supplier	Ending Balance
<b>ASSETS</b>								
Cash	0	240,000	-180,000			-1,800	-12,000	46,200
Inventory	0			15,000	-1,200			13,800
Prepaid Insurance	0					1,800		1,800
Property, Plant & Equipment	0		325,000					325,000
<b>Total Assets</b>	<b>0</b>							<b>386,800</b>
<b>LIABILITIES</b>								
A/c Payable	0			15,000	-1,200		-12,000	1,800
Note Payable			145,000					145,000
<b>OWNERS' EQUITY</b>								
Common Stock	0	240,000						240,000
<b>Total Liabs &amp; OE</b>	<b>0</b>							<b>386,800</b>

**Gentyme Enterprises**  
**Balance Sheet**  
**as of October 31**

ASSETS

Cash	46,200	
Inventory	13,800	
Prepaid Insurance	<u>1,800</u>	
<b>Total Current Assets</b>		<b>61,800</b>

Property Plant & Equipment		325,000
----------------------------	--	---------

<b>Total Assets</b>	<u><u>386,800</u></u>	
---------------------	-----------------------	--

LIABILITIES

A/c Payable	<u>1,800</u>	
<b>Total Current Liabilities</b>		<b>1,800</b>

Note Payable	<u>145,000</u>	
<b>Total Non-Current Liabilities</b>		<b>145,000</b>

OWNERS' EQUITY

Common Stock	<u>144,000</u>	
<b>Total Owners' Equity</b>		<b>144,000</b>

<b>Total Liabs &amp; Owners' Equity</b>		<u><u>290,800</u></u>
---	--	-----------------------

**PROBLEM (C)****Charles River Consulting****WORKSHEET**

	<b>Beginning Balance</b>	<b>T1 Issued common stock</b>	<b>T2 Purchased land &amp; building</b>	<b>T3 Purchases computers</b>	<b>T4 Purchases inventory on account</b>	<b>T5 Prepays license fees</b>	<b>T6 Returns supplies</b>	<b>T7 Customer prepays</b>	<b>T8 Paid supplier</b>	<b>Ending Balance</b>
<b>ASSETS</b>										
Cash	0	200,000	-100,000	-8,000		-1,100		5,000	-8,000	87,900
Inventory	0				10,000		-600			9,400
Prepaid License Fees	0					1,100				1,100
Property, Plant & Equipment	0		100,000	40,000						140,000
<b>Total Assets</b>	<b>0</b>									<b>238,400</b>
<b>LIABILITIES</b>										
A/c Payable	0				10,000		-600		-8,000	1,400
Short Term Note Payable	0			32,000						32,000
Advance from Customer	0							5,000		5,000
<b>OWNERS' EQUITY</b>										
Common Stock	0	200,000								200,000
<b>Total Liabs &amp; OE</b>	<b>0</b>									<b>238,400</b>

<b>Charles River Consulting</b>			
<b>Balance Sheet</b>			
<b>as of April 30</b>			
<b>ASSETS</b>			<b>LIABILITIES</b>
Cash	87,900		A/c Payable
Inventory	9,400		Short Term Note Payable
Prepaid License Fees	1,100		Advance from Customer
<b>Total Current Assets</b>		98,400	<b>Total Current Liabilities</b>
PP&E		140,000	<b>OWNERS' EQUITY</b>
			Common Stock
			<b>Total Owners' Equity</b>
<b>Total Assets</b>		<b>238,400</b>	<b>Total Liabs &amp; Owners' Equity</b>
			<b>238,400</b>

### PROBLEM (D)

George's Company

WORKSHEET		Beginning Balance	T1	T2	T3	T4	T5	T6	Close	Ending Balance
<b>Assets</b>									Rev/Exp	
Cash		-	6,000	5,000	(8,000)	3,000	(2,500)	(800)		2,700
	Op?Inv?Fin?		F	F	I	O	O	F		
Land		-			8,000					8,000
<b>TOTAL ASSETS</b>		-								<b>10,700</b>
<b>Liabilities</b>										
Bank Loan Payable		-		5,000						5,000
<b>Owners' Equity</b>										
Contributed Capital		-	6,000							6,000
Retained Earnings		-						(800)	500	(300)
	Revenues					3,000				
	Expenses						(2,500)			
<b>TOTAL L&amp;OE</b>		-								<b>10,700</b>

- Data for Income Statement
- Data for Statement of Retained Earnings
- Data for Statement of Cash Flows
- Data for Balance Sheet

(Adapted from Pratt E2-12)

By paying a dividend of \$800, George returned to investors some of their earned capital as well as some of their contributed capital. The bank as a lender has higher priority in having its stake in the business and may be concerned about whether it will be able to be repaid.





### PROBLEM (E)

Cathedral Enterprises

WORKSHEET	Beg. Bal.	T1	T2	T3	T4	T5	T6	Close	End. Bal.
<b>Assets</b>									
Cash	-	10,000	6,000	(3,000)	(2,000)	(400)	6,000	Rev/Exp	16,600
Op?Inv?Fin?		F	O	O	I	F	I		
A/c Receivable	-		2,000						2,000
Land	-				12,000		(6,000)		6,000
<b>TOTAL ASSETS</b>	-								<b>24,600</b>
<b>Liabilities</b>									
A/c Payable	-			3,000					3,000
LT Note Payable	-				10,000				10,000
<b>Owners' Equity</b>									
Contributed Capital	-	10,000							10,000
Retained Earnings	-					(400)		2,000	1,600
Revenues			8,000						
Expenses				(6,000)					
<b>TOTAL L&amp;OE</b>	-								<b>24,600</b>

Check Row:

- Data for Income Statement
- Data for Statement of Retained Earnings
- Data for Statement of Cash Flows
- Data for Balance Sheet

(Adapted from Pratt E4-4)

### FINANCIAL STATEMENTS FOR PROBLEM (E)

<b>Cathedral Enterprises Income Statement for Year 1</b>	<b>Cathedral Enterprises Statement of Retained Earnings for Year 1</b>	<b>Cathedral Enterprises Balance Sheet as of December 31, Year 1</b>																																																																								
<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Revenues</td><td style="text-align: right;">8,000</td><td></td></tr> <tr><td>Rent Expense</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td><b>Net Income</b></td><td style="text-align: right;"><b>2,000</b></td><td></td></tr> </table>	Revenues	8,000		Rent Expense	6,000		<b>Net Income</b>	<b>2,000</b>		<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Beg. Bal. of Retained Earnings</td><td style="text-align: right;">-</td><td></td></tr> <tr><td>+ Net Income in 2000</td><td style="text-align: right;">2,000</td><td></td></tr> <tr><td>-Dividends in 2000</td><td style="text-align: right;">(400)</td><td></td></tr> <tr><td><b>End. Bal. of Retained Earnings</b></td><td style="text-align: right;"><b>1,600</b></td><td></td></tr> </table>	Beg. Bal. of Retained Earnings	-		+ Net Income in 2000	2,000		-Dividends in 2000	(400)		<b>End. Bal. of Retained Earnings</b>	<b>1,600</b>		<table style="width: 100%; border-collapse: collapse;"> <tr><td colspan="3"><b>Assets</b></td></tr> <tr><td>Cash</td><td style="text-align: right;">16,600</td><td></td></tr> <tr><td>A/c Receivable</td><td style="text-align: right;">2,000</td><td></td></tr> <tr><td>Total Current Assets</td><td></td><td style="text-align: right;">18,600</td></tr> <tr><td>Land</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td>Total PP&amp;E</td><td></td><td style="text-align: right;">6,000</td></tr> <tr><td><b>TOTAL ASSETS</b></td><td></td><td style="text-align: right;"><b>24,600</b></td></tr> <tr><td colspan="3"><b>Liabilities</b></td></tr> <tr><td>A/c Payable</td><td style="text-align: right;">3,000</td><td></td></tr> <tr><td>Total Current Liabilities</td><td></td><td style="text-align: right;">3,000</td></tr> <tr><td>LT Note Payable</td><td></td><td style="text-align: right;">10,000</td></tr> <tr><td>Total Liabilities</td><td></td><td style="text-align: right;">13,000</td></tr> <tr><td colspan="3"><b>Owners' Equity</b></td></tr> <tr><td>Contributed Capital</td><td style="text-align: right;">10,000</td><td></td></tr> <tr><td>Retained Earnings</td><td style="text-align: right;">1,600</td><td></td></tr> <tr><td>Total Owners' Equity</td><td></td><td style="text-align: right;">11,600</td></tr> <tr><td><b>TOTAL LIABS &amp; OE</b></td><td></td><td style="text-align: right;"><b>24,600</b></td></tr> </table>	<b>Assets</b>			Cash	16,600		A/c Receivable	2,000		Total Current Assets		18,600	Land	6,000		Total PP&E		6,000	<b>TOTAL ASSETS</b>		<b>24,600</b>	<b>Liabilities</b>			A/c Payable	3,000		Total Current Liabilities		3,000	LT Note Payable		10,000	Total Liabilities		13,000	<b>Owners' Equity</b>			Contributed Capital	10,000		Retained Earnings	1,600		Total Owners' Equity		11,600	<b>TOTAL LIABS &amp; OE</b>		<b>24,600</b>
Revenues	8,000																																																																									
Rent Expense	6,000																																																																									
<b>Net Income</b>	<b>2,000</b>																																																																									
Beg. Bal. of Retained Earnings	-																																																																									
+ Net Income in 2000	2,000																																																																									
-Dividends in 2000	(400)																																																																									
<b>End. Bal. of Retained Earnings</b>	<b>1,600</b>																																																																									
<b>Assets</b>																																																																										
Cash	16,600																																																																									
A/c Receivable	2,000																																																																									
Total Current Assets		18,600																																																																								
Land	6,000																																																																									
Total PP&E		6,000																																																																								
<b>TOTAL ASSETS</b>		<b>24,600</b>																																																																								
<b>Liabilities</b>																																																																										
A/c Payable	3,000																																																																									
Total Current Liabilities		3,000																																																																								
LT Note Payable		10,000																																																																								
Total Liabilities		13,000																																																																								
<b>Owners' Equity</b>																																																																										
Contributed Capital	10,000																																																																									
Retained Earnings	1,600																																																																									
Total Owners' Equity		11,600																																																																								
<b>TOTAL LIABS &amp; OE</b>		<b>24,600</b>																																																																								
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: #fce4d6; padding: 5px;"><b>Cathedral Enterprises Statement of Cash Flows for Year 1</b></td> <td style="padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Cash from Operations</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Cash from Customers</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Cash Paid for Misc.</td><td style="text-align: right;">(3,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Operations</td><td></td><td style="text-align: right;">3,000</td></tr> <tr><td>Cash For Investing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Purchase of Land</td><td style="text-align: right;">(2,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Sale of Land</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash for Investing</td><td></td><td style="text-align: right;">4,000</td></tr> <tr><td>Cash From Financing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Issuing equity</td><td style="text-align: right;">10,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Paid dividend</td><td style="text-align: right;">(400)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Financing</td><td></td><td style="text-align: right;">9,600</td></tr> <tr><td>Net change in cash</td><td></td><td style="text-align: right;">16,600</td></tr> <tr><td>+ Beginning balance of cash</td><td></td><td style="text-align: right;">-</td></tr> <tr><td>= Ending balance of cash</td><td></td><td style="text-align: right;"><b>16,600</b></td></tr> </table> </td> <td style="padding: 5px;"> <p><b>Checks with Balance Sheet Cash Balance</b></p> </td> </tr> </table>			<b>Cathedral Enterprises Statement of Cash Flows for Year 1</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Cash from Operations</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Cash from Customers</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Cash Paid for Misc.</td><td style="text-align: right;">(3,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Operations</td><td></td><td style="text-align: right;">3,000</td></tr> <tr><td>Cash For Investing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Purchase of Land</td><td style="text-align: right;">(2,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Sale of Land</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash for Investing</td><td></td><td style="text-align: right;">4,000</td></tr> <tr><td>Cash From Financing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Issuing equity</td><td style="text-align: right;">10,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Paid dividend</td><td style="text-align: right;">(400)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Financing</td><td></td><td style="text-align: right;">9,600</td></tr> <tr><td>Net change in cash</td><td></td><td style="text-align: right;">16,600</td></tr> <tr><td>+ Beginning balance of cash</td><td></td><td style="text-align: right;">-</td></tr> <tr><td>= Ending balance of cash</td><td></td><td style="text-align: right;"><b>16,600</b></td></tr> </table>	Cash from Operations			Cash from Customers	6,000		Cash Paid for Misc.	(3,000)		Net Cash from Operations		3,000	Cash For Investing			Purchase of Land	(2,000)		Sale of Land	6,000		Net Cash for Investing		4,000	Cash From Financing			Issuing equity	10,000		Paid dividend	(400)		Net Cash from Financing		9,600	Net change in cash		16,600	+ Beginning balance of cash		-	= Ending balance of cash		<b>16,600</b>	<p><b>Checks with Balance Sheet Cash Balance</b></p>																								
<b>Cathedral Enterprises Statement of Cash Flows for Year 1</b>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">Cash from Operations</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Cash from Customers</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Cash Paid for Misc.</td><td style="text-align: right;">(3,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Operations</td><td></td><td style="text-align: right;">3,000</td></tr> <tr><td>Cash For Investing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Purchase of Land</td><td style="text-align: right;">(2,000)</td><td></td></tr> <tr><td style="padding-left: 20px;">Sale of Land</td><td style="text-align: right;">6,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash for Investing</td><td></td><td style="text-align: right;">4,000</td></tr> <tr><td>Cash From Financing</td><td></td><td></td></tr> <tr><td style="padding-left: 20px;">Issuing equity</td><td style="text-align: right;">10,000</td><td></td></tr> <tr><td style="padding-left: 20px;">Paid dividend</td><td style="text-align: right;">(400)</td><td></td></tr> <tr><td style="padding-left: 20px;">Net Cash from Financing</td><td></td><td style="text-align: right;">9,600</td></tr> <tr><td>Net change in cash</td><td></td><td style="text-align: right;">16,600</td></tr> <tr><td>+ Beginning balance of cash</td><td></td><td style="text-align: right;">-</td></tr> <tr><td>= Ending balance of cash</td><td></td><td style="text-align: right;"><b>16,600</b></td></tr> </table>	Cash from Operations			Cash from Customers	6,000		Cash Paid for Misc.	(3,000)		Net Cash from Operations		3,000	Cash For Investing			Purchase of Land	(2,000)		Sale of Land	6,000		Net Cash for Investing		4,000	Cash From Financing			Issuing equity	10,000		Paid dividend	(400)		Net Cash from Financing		9,600	Net change in cash		16,600	+ Beginning balance of cash		-	= Ending balance of cash		<b>16,600</b>	<p><b>Checks with Balance Sheet Cash Balance</b></p>																											
Cash from Operations																																																																										
Cash from Customers	6,000																																																																									
Cash Paid for Misc.	(3,000)																																																																									
Net Cash from Operations		3,000																																																																								
Cash For Investing																																																																										
Purchase of Land	(2,000)																																																																									
Sale of Land	6,000																																																																									
Net Cash for Investing		4,000																																																																								
Cash From Financing																																																																										
Issuing equity	10,000																																																																									
Paid dividend	(400)																																																																									
Net Cash from Financing		9,600																																																																								
Net change in cash		16,600																																																																								
+ Beginning balance of cash		-																																																																								
= Ending balance of cash		<b>16,600</b>																																																																								

1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
21											
22											
23											

1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
21											
22											
23											