Financial Statements: the Balance Sheet, Income Statement, and Cash Flow Statement

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The owner of a business needs to know at all times how the business is doing financially. A majority of small business failures in the United States result from "financial illiteracy" on the part of the owners – either through lack of knowledge of profit and loss data or ignorance of standard accounting techniques.

The most widely accepted measure of financial performance is **net income**. This is simply the difference between revenues and expenses for a specified accounting period – usually a fiscal year. The details of revenues and expenses are shown in the **income statement** (also called the **profit and loss statement**). The income statement is the accountant's attempt to present a moving picture of how the business did over the period.

Another important financial statement is the **balance sheet**. This statement is a snapshot picture of the business at a specific moment in time, usually at the end of the fiscal year. It shows the **assets** of the business, the **liabilities** (claims on the business by other parties), and the owner's **equity or net worth**. These quantities are related by the equation:

Assets = Liabilities + Net Worth (Owner's Equity)

Here's a simplified example of a balance sheet:

Billy Bob Oil Well Supply	
Balance Sheet	
December 31, 20X2	
	20X2
Assets	
Cash	$ 151,800.00
Accounts Receivable	$ 61,000.00
Prepaid Expenses	$ 11,500.00
Total Current Assets	$ 224,300.00
Long-term Investments	$ 1,000.00
Land	$ 95,000.00
Building	$ 145,000.00
Accum. Depreciation - Building	$ (29,000.00)
Equipment	$ 129,700.00
Accum. Depreciation - Equipment	$ (25,940.00)
Total Fixed and Long-term Assets	$ 315,760.00
Total Assets	$ 540,060.00
Liabilities and Owner's Equity	
Accounts Payable	$ 93,000.00
Total Current Liabilities	$ 93,000.00
Notes Payable (5 yr. Maturity)	$ 276,000.00
Total Long-term Liabilities	$ 276,000.00
Owner's Equity	$ 171,060.00
Total Liabilities and Owner's Equity	$ 540,060.00

This “snapshot” of the business is for Dec. 31, 20X2. The balance of each major account is shown – hence, the name “balance sheet.” Note also that the accounting equation is valid: Total assets = Total Liabilities plus Owner’s Equity. The $171,060 amount in Owner’s Equity represents the “stake” or financial interest the owner has in the business. In other words, Owner’s Equity is the difference between assets and liabilities. This amount is the basis for withdrawals from the business by the owner – the owner’s compensation.

Important caveat: owner withdrawals from a proprietorship are **not** tax-deductible. In a corporation, salaries paid to corporate officers **are** tax-deductible.

A distinction is made between “current” accounts and “long term” accounts. “Current” refers to transactions that are settled within one year. For example, invoices to customers are due and payable within 30 days. So accounts receivable is shown as a current asset. “Long Term” or “Fixed” refers to accounts/transactions that are outstanding for more than one year. A building lasts for more than a year, so it appears as a Fixed Asset. The Note Payable has a maturity of 5 years, so it appears as a Long Term liability.

Also, the balance sheet usually shows accumulated depreciation for fixed assets, such as Building and Equipment. Depreciation is a means of charging off a portion of the initial cost of the fixed asset over each accounting period. In this way, the wear and tear of using the equipment is matched to the revenue period in which the wear and tear took place. That is, the wear and tear makes a marginal contribution to annual revenues and is a necessary expense in producing those revenues. The term “amortization” describes this process of charging part of the fixed asset cost as an expense each fiscal year. Accumulated depreciation is just the sum of these annual charges over the life of the asset. The difference between initial cost of the asset and accumulated depreciation is the net accounting value of the asset.

By long-established practice, accountants show assets at their historical acquisition cost. This practice, while conservative and objective, can often lead to distortions. In an area of rapidly increasing real estate prices, the original cost may be only a fraction of the market value, thereby undervaluing the firm.

The **Income Statement** is the accountant's effort to show a "moving picture" of the firm's financial performance over the fiscal year. Key components of the Income Statement are revenues, expenses, and net income. **Revenue** is the increase in owner's equity resulting from the sale of goods and/or services. Earned revenue is reflected in cash or accounts receivable. In contrast, **Expenses** decrease owner's equity. Expenses are the result of activities necessary to generate revenue. Examples are the purchase of inventory, payment of wages, and payment of rent or interest.

Net Income is the difference between revenues and expenses for the fiscal year. If positive, the **profit** is added to the owner's capital or equity. But if negative, the **loss** subtracts from the owner's capital.

Here is the income statement for Billy Bob Oil Well Supply for the fiscal year ending Dec. 31, 20X2:

Billy Bob Oil Well Supply
Income Statement
Year Ended Dec. 31, 20X2

INCOME STATEMENT	
Gross Revenues	$ 500,000.00
Cost Of Goods Sold	$ 250,000.00
Gross Profit	$ 250,000.00
Expenses:	
Employee Wages and Fringe Benefits	$ 62,610.00
Accounting and Legal Fees	$ 1,500.00
Advertising	$ 1,700.00
Depreciation	$ 54,940.00
Utilities	$ 4,000.00
Telephone	$ 2,400.00
Interest	$ 25,000.00
Insurance	$ 5,000.00
Dues, Chamber of Commerce and Sportsmen's Club	$ 500.00
Repairs to Casing Equipment	$ 5,450.00
Motor Vehicle Expense	$ 25,000.00
Office Supplies and Postage	$ 3,000.00
Bad Debts	$ 11,840.00
Total Expenses:	$ 202,940.00
Net Profit	$ 47,060.00

The line at the top, "Gross Revenues," is the amount of sales made by the business for the fiscal year – from Jan. 1, 20X2 until Dec. 31, 20X2. **Cost of Goods Sold** is the amount paid to wholesalers (or other vendors) for the merchandise sold to Billy Bob's customers. For example, Billy Bob may have paid $3000 for used casing and sold it for $6000. His CGS on ***this specific transaction*** is $3000. His gross profit would be $3000, and CGS would equal 50% of revenue. The merchandise acquired for sale is an example of a **variable cost**, or a cost that is related to the volume sold. As sales volume increases, the amount of merchandise purchased for resale has to increase, so CGS **varies** (in the same direction) with sales volume.

But many business expenses have little or no relation to the amount of merchandise sold. For example, insurance and interest expense are the same whether sales are $1,000 or $1,000,000. These costs are known as **fixed cost or overhead**. They are the expenses necessary for keeping the door open.

The breakeven point is that quantity of merchandise sold which sets total revenues equal to total expenses for a given period – e.g., six months. For the simple case of one product selling at price P, the breakeven quantity may be found by the following expressions:

Qe = breakeven quantity
P = retail price per unit
Vu = variable cost per unit of product

QeP = QeVu + total fixed cost for period

A **comparative balance sheet** shows the balance sheets for two separate points in time (usually one year apart). This format allows the owner or analyst to track major changes in assets and liabilities:

Billy Bob Oil Well Supply					
Comparative Balance Sheet					
20X1/20X2					
	20X2	**20X1**	**Change**	**Inc/Dec**	**Inc/Decr Cash**
Assets					
Cash	$ 151,800.00	$ 98,000.00	53800	Increase	
Accounts Receivable	$ 61,000.00	$ 72,000.00	-11000	Decrease	11000
Prepaid Expenses	$ 11,500.00	$ -	11500	Increase	-11500
Total Current Assets	$ 224,300.00	$ 170,000.00			
Long-term Investments	$ 1,000.00	$ 2,000.00	-1000	Decrease	1000
Land	$ 95,000.00	$ -	95000	Increase	-95000
Building	$ 145,000.00	$ -	145000	Increase	-145000
Accum. Depreciation - Building	$ (29,000.00)	$ -	-29000	Increase	29000
Equipment	$ 129,700.00	$ -	129700	Increase	-129700
Accum. Depreciation - Equipment	$ (25,940.00)	$ -	-25940	Increase	25940
Total Fixed and Long-term Assets	$ 315,760.00	$ 2,000.00			
Total Assets	$ 540,060.00	$ 172,000.00			
Liabilities and Owner's Equity					
Accounts Payable	$ 93,000.00	$ 12,000.00	81000	Increase	81000
Total Current Liabilities	$ 93,000.00	$ 12,000.00			
Notes Payable	$ 276,000.00	$ -	276000	Increase	276000
Total Long-term Liabilities	$ 276,000.00	$ -			
Owner's Equity	$ 171,060.00	$ 160,000.00			
Total Liabilities and Owner's Equity	$ 540,060.00	$ 172,000.00			
Billy Bob Oil Well Supply					
Statement of Capital					
For Year Ended December 31, 20X2					
Owner's Equity, January 1			$ 160,000.00		
Net Income for the Year	$ 47,060.00				
Less: Owner's Withdrawals	$ 36,000.00				
Increase in Capital			$ 11,060.00		
Capital, December 31			$ 171,060.00		

It's standard practice to show **current assets** and **current liabilities** separately from **Fixed/Long term** assets and liabilities. In general, the term **current** means less than one year. For example, accounts receivable are usually paid within 90 days. Accounts that remain unpaid after 90 days represent delinquent accounts and the firm may institute collection procedures to obtain payment. Similarly, accounts payable represent short-term obligations of the firm to suppliers and vendors. The firm's credit rating depends largely on how it handles its accounts payable.

The term **fixed** means a life or term of more than one year. Buildings, land and production machinery fall into this category. As mentioned before, fixed assets are written down each year through a depreciation allowance (often determined by tax regulations) and the net amount (original cost minus accumulated depreciation) is shown on the balance sheet. A long-term liability might be a bank loan with a term of 5 years

The reconciliation of Owner's Equity appears at the bottom. Net income for the year represents an **increase** in Owner's Equity over the current year. Owner's Withdrawals represent a **decrease.** In the example, the owner did not withdraw the entire amount of net income, so Owner's Equity increased.

The Cash Flow Statement

The cash flow statement shows all of **the cash** that flowed into and out of a business during a specified period of time. In contrast, the income statement shows all the revenues and expenses of the firm, whether cash or noncash. The cash flow statement is just as important as the income statement to managers and lenders. For one thing, it shows how the firm's cash position changes over time. Even very profitable firms can encounter financial problems if they run short of cash – e.g., they may experience difficulties in paying suppliers or meeting the payroll. Also, attention to the cash flow statement allows the firm's managers and outsiders to determine whether the firm is building up or drawing down its cash and to understand why. Rapidly growing, profitable firms often run short of cash and have trouble meeting their financial obligations.

The income statement is based on accrual accounting methods. Thus, not every revenue is an inflow of cash and not every expense is an outflow – e.g., depreciation. A firm's reported net income is affected by subjective judgments on the part of management about how to value inventory, how quickly to depreciate tangible assets and how to amortize intangible assets. These decisions are also influenced by tax regulations.

The statement of cash flows is independent of these accrual accounting decisions. Therefore, by examining the differences between the firm's cash flow statement and its income statement, analysts are able to determine the impact of accounting decisions.

In general, there are four items that explain the difference between a firm's net income and its cash flow from **operations**: depreciation charges, the change in accounts receivable, the change in inventories, and the change in accounts payable.

Depreciation is **a noncash** expense deducted from revenues in computing net income. The cash outlays for the plant and equipment occurred when they were originally purchased. But the contribution to revenues made by these assets goes on for several years. It would be an extreme distortion to charge the whole cost as an expense in the year incurred. Rather, it makes more sense to charge a fixed portion of the total cost each year, and to offset this portion against the **marginal revenues** produced by the plant and equipment in a given year. No attempt is made to calculate the actual marginal revenue. Instead, a fixed fraction is simply charged each year. Frequently, tax laws determine the actual amount of this fraction. So to get from net income to cash flow from operations, we have to add back the depreciation charges.

A change in accounts receivable is an adjustment that has to be made to net income. This is the difference between revenue recognized during the year (sales) and the actual cash received from customers. Thus, if sales were $200 million and accounts receivable $10 million, this would mean that $200 million in goods and services were shipped, but only $190 million was collected. So the **increase** in accounts receivable must be **subtracted** as we derive cash flow from operations.

An increase in inventories is a use of cash. But this increase is not considered in computing net income. Therefore, the increase in inventories must be **subtracted** from net income to derive cash flow from operations.

An increase in accounts payable represents the difference between Cost of Goods Sold and the amount of cash paid to suppliers. Thus, if CGS amounted to $110 million and accounts payable were $12 million, this would mean that only $98 million in cash was deducted in arriving at net income. Therefore, the $12 million should be added back.

Investing activities can also affect cash flow. For example, payment of dividends in a corporation is a cash outflow and must be subtracted from net income. (Billy Bob Oil Supply is a sole proprietorship, so there is no common stock and no dividends). An increase in debt is a cash inflow, which is added to net income.

The next page shows an example of a cash flow statement:

PRESENTATION OF THE CASH FLOW STATEMENT –

A cash flow statement is usually presented in the "indirect format." This method starts with net income and reconciles it to net cash flow from operating activities. The cash flow from operating activities is found by adjusting net income from (1) changes in current assets and current liabilities and (2) depreciation expense. Depreciation expense is not a cash flow. But because it **decreases** net income, it is added back to net income in order to arrive at the operating cash flow. The following summarizes the process:

Change	Adjustment to Net Income to Derive Net Cash Flow
Decrease in a current asset	Add
Increase in a current asset	Subtract
Decrease in a current liability	Subtract
Increase in a current liability	Add

The indirect method is more widely used, because it shows the relationship between the income statement and the balance sheet and therefore aids in the analysis of these statements. The cash flow statement that follows is an example:

Billy Bob Oil Well Supply		
Statement of Cash Flows		
Year ended Dec. 31, 20X2		
Cash Flows from Operating Activities:		
Net Income		$ 47,060.00
Add: Adjustments to Reconcile Net Income to Net Cash Earnings:		
Depreciation Expense	$ 54,940.00	
Decrease in Accounts Receivable	$ 11,000.00	
Increase in Prepaid Expenses	$ (11,500.00)	
Increase in Accounts Payable	$ 81,000.00	$ 135,440.00
Net Cash Flow Produced by Operating Activities		$ 182,500.00
Cash Flows from Investing Activities:		
Cash Paid to Purchase Land	$ (95,000.00)	
Cash Paid to Purchase Building	$ (145,000.00)	
Cash Paid to Purchase Equipment	$ (129,700.00)	
Sale of Long Term Investments	$ 1,000.00	
Net Cash Used in Investing Activities		$ (368,700.00)
Cash Flows from Financing Activities:		
Cash Received from Notes Payable	$ 276,000.00	
Owner's Withdrawal	$ (36,000.00)	
Net Cash Provided by Financing Activities		$ 240,000.00
Net Increase in Cash Equivalents		$ 53,800.00
Cash and Cash Equivalents at the Beginning of the Year		$ 98,000.00
Cash and Cash Equivalents at the End of the Year		$ 151,800.00

The adjustments recorded in the cash flow statement appear also in the comparative balance sheet on page 4. The changes in asset accounts reflect the cash flows – e.g., decrease in accounts receivable, increase in prepaid expense, increase in accounts payable, etc.

Depreciation is usually the most significant noncash expense that has to be added to net income to arrive at the cash flow. Funds advanced by financial institutions are another important source of cash inflow. In fact, a business often has to resort to credit when the cash flow from operations is not sufficient to meet current obligations (liabilities). From a management perspective, it's far better to anticipate cash deficiencies than to wait until after they occur before applying for bank credit or selling fixed debt instruments (such as bonds).

After all these adjustments are made, the bottom line shows the actual cash position of the firm at the end of the fiscal year. This amount must reconcile to the amount shown for cash in the balance sheet. The item "Cash and Cash Equivalents at the End of the Year" equals $151,800. This equals the amount shown for Cash on the balance sheet dated December 31, 20X2.