Chapter 1

Financial Statements and What They Reveal

The universal regard for money is the one hopeful fact in our civilization.

—George Bernard Shaw, *Major Barbara*, 1905

You are faced with a daunting task whenever you attempt to tackle a large body of information and digest it all at once. Advice to the overwhelmed: Begin at the beginning, proceed through to the end, and then stop. This explains why books are organized in chapters. An example of a very big body of information is *fundamental analysis* because it is broad, complex, and encompasses many different principles. This chapter "begins at the beginning" by looking at the best-known type of fundamental analysis, the financial statements.

For many analysts, the fundamentals are limited to a study of just the numbers. But if you confine your study and comparisons to the financial statements, then the study itself is flawed. Using financial statements as a starting point in a wider program of fundamental analysis, the broader study includes much more. In the post-Enron age, you need to be less trusting of even the audited financial statement; you need more than just the word of the company and its auditors to ensure that the conclusions you reach are based on *valid* information.

Financial Statements: A Starting Point

The financial statement is a starting point, in many respects. Often considered the most important form of what are broadly called the

Key Point

The financial statements are a *starting point* in analysis. They are most useful when they highlight questions you need to ask to get more details.

fundamental analysis

the study of a company's financial strength, based on historical data; sector and industry position; management; dividend history; capitalization; and the potential for future growth. The combination of historical information and fiscal status collectively represent all data not directly related to the price of stock, and this body of information is used to define value investing and to compare one stock to another.

ratio

an analytical expression of relationships between values, expressed in fractional or percentage form. The ratio clarifies numerical relationships and makes trend analysis easier to manage and understand.

"fundamentals," the formal statements are a centerpiece and anyone embarking on the selection of stocks needs to be able to read these statements. They cannot, however, be used exclusively. They give you a place to begin checking and judging the financial results. The statements also provide an investigative starting point to confirm an existing trend, or to show a deviation from that trend, or even to launch further searches. In other words, fundamental analysis should not be limited to a passive view of recent historical reports; it is the starting point for a dynamic investigation of the fiscal validity in what you are being told. (Chapters 3 and 5 examine aspects of this all-important question in greater detail.)

Analysts use a series of tools to make judgments about financial statements and the numbers they contain. The *ratio* is a valuable shorthand tool used to track financial trends and to summarize a report. It is valuable because it aids in comprehension. For example, "3 to 1" is easily comprehended, whereas "$40,494 to $13,498" is more difficult to grasp.

Ratios are explored in considerable details in Chapters 7 and 8. In fact, beyond the study of financial statements, effective use of ratios helps translate the numbers into useful analytical conclusions. The ratio is used to track information as part of a trend. It is not enough to try and draw conclusions from just looking at the numbers as they are reported this quarter or this year; to truly understand what is going on with a company, you want to look at the longer view, the *trend*. A trend shows what was going on

yesterday, what is going on today and—when properly studied—what is likely to go on tomorrow.

trend

a long-term tendency reflected in how a corporation's financial results change over time; how related accounts emerge as status changes; and how a previously established pattern of growth begins, often gradually, to change.

Thinking for a moment about how trends work, you come to realize that the use of these data in trend form is quite powerful. For example, a company may have reported ever-growing sales and profits over many years. Naturally, there comes a point where an established trend of annual growth cannot be sustained; the trend gradually flattens out; its rate of acceleration decreases; and sales and profits both "settle down" to a slower pace. This is not bad news, necessarily. In fact, trends do tend to even out over time as a statistical reality. If the company maintains related ratio-based aspects (such as a ceiling on expenses, for example) it is a sign that the growth curve, while slowing down, is being managed well by the company. On the other hand, if the sales levels begin to drop, but expenses keep rising, it means the company is heading for trouble.

In this situation it would not be revealing to simply look at the latest results from operations and draw conclusions. You need the larger long-term trend to understand what the latest numbers reveal. Without the trend, your analysis would be severely limited. This is what is meant by the use of the financial statements as a starting point, while also relying on much more.

The trend is also going to be revealing when managed through statistical tools. In the following section, some of these tools are explained in greater detail. Averaging of information over time is necessary because it is difficult to appreciate a trend in the moment. Moving averages are necessary to smooth out results. While many analysts do not like to admit it, financial results are chaotic. If you look at the immediate moment in terms of a company's sales, costs, expenses and profits, you see a lot of inconsistency; widely diverse reported results; and temporary aberrations from month to month. Even a full year's report is going to represent an averaging of 12 months' reports. This averaging absorbs cyclical changes from one season to the next; unusual activity (above or below the average) caused by numerous unforeseen events; and even unexplained changes due to accounting timing problems, monthly cycles, and even customer-based payments or order placement. The immediate trend is largely chaotic and impossible to read. This is why you need to base

analysis on a variety of averaging devices. The moving average is the most reliable among these because it smoothes out the chaos of what you see and read today.

Moving Averages—In Various Forms

An examination of reported results is always difficult to interpret when you look only at the raw data. Look at sales trends as an example. A particular company's reported results show that sales have been increasing at the rate of 12 to 15 percent every year over the past five years. Costs have remained consistently at around 59 percent of sales; and expenses have risen only slightly over the period. Thus, net profits have come in at around 4 percent each and every year. Table 1.1 shows a summary with the most recent years shown last.

Key Point

Moving averages reveal critical information. For example, if sales are rising but profits are falling—or worse, the company is reporting losses—that is a sign of poor management.

The sales, costs, expenses, and profit trend summarized here is one of the most valuable analyses you can perform. It displays a positive trend of ever-growing sales *and* increased dollar amount of profits, maintenance of cost, and expense and profit relationships to sales—which is a sign of a well-planned fiscal program—and perhaps most important of all, keeping expenses in check relative to the other numerical values.

TABLE 1.1 Sales Trends for One Company (in millions)

Year	*Sales*	*Costs*	*Expenses*	*Profits*
1	$4,775	$2,788	$1,796	$191
2	5,365	3,176	1,970	219
3	6,159	3,609	2,301	249
4	6,922	4,112	2,507	303
5	7,857	4,612	2,946	299

By the same argument, it is likely that a poorly managed company will experience deterioration of these relations specifically during periods of growth. Thus, costs rise as a percentage of sales; the dollar amount of expenses exceeds the rate of increase in sales, and, as a direct consequence, net profits decline. It is quite common to see a company's sales rising while profits decline, and even lead to net losses.

Because these trends are not easily spotted in the moment (for example, from one quarterly financial statement to the next), moving averages are popularly used in all types of stock market analysis. Technicians like moving averages to track and predict stock price changes over time and to prepare and study price charts. However, fundamental analysis benefits equally well from employing the *moving average* in its various forms.

moving average

a statistical tool used by market analysts, involving the use of a field of values over time. The moving average employs a specific number of field values and as a new value is added, an older one is dropped off.

To understand the advanced variations of moving averages, we begin by demonstrating how the *simple moving average* works. It is a study of the average using a set number of values. For example, if we look a series of entries in a field, we can develop a simple moving average.

A field of several values over a period of time is shown next. This may be sales, net profits, expenses, or any other financial value that you might want to study as part of a program of fundamental analysis. These fields are numbered from the oldest (i.e., 1) to the most recent:

Number	*Value*	*Number*	*Value*
1	427	6	1,113
2	833	7	800
3	619	8	634
4	211	9	1,005
5	952	10	716

simple moving average

the most basic variation of the moving average. A field of the most recent values is averaged and, as each new value is entered, the oldest value is dropped off so that the number of values studied remains constant.

The first aspect of this field worth mentioning is that the range is quite wide. With 10 different entries, it would be quite impossible to anticipate the next entry in this field, because it varies so much. However, if

you follow a moving average, you will gain a less volatile view of what is occurring in this trend. To compute a moving average, add up the values and then divide by the number of values.

Formula: Simple Moving Average

$$\frac{N_1 + N_2 + \ldots N_n}{T} = A$$

where

N = numerical; values in the field

T = total number of values

A = simple moving average

A simple moving average of the five most recent fields would show how averaging smoothes out even the most volatile trend:

Fields in Average	***Calculation***	***Average***
1–5	(427 + 833 + 619 + 211 + 952) ÷ 5	608
2–6	(833 + 619 + 211 + 952 + 1,113) ÷ 5	746
3–7	(619 + 211 + 952 + 1,113 + 800) ÷ 5	739
4–8	(211 + 952 + 1,113 + 800 + 634) ÷ 5	742
5–9	(952 + 1,113 + 800 + 634 + 1,005) ÷ 5	901
6–10	(1,113 + 800 + 634 + 1,005 + 716) ÷ 5	854

weighted moving average
a variation of moving average in which greater influence is given to more recent field values and less to older field values.

Figure 1.1 shows the range of all 10 fields *and* the moving average in this example. Note that the values in the field are quite volatile; but the moving average reduces that volatility, so that tracking the trend over time is made easier. This makes it easier for you to see the general direction of the trend over time.

Some variations on the moving average include the *weighted moving average* and the *exponential moving average*. You may consider the latest information to be more important than older

information, so more recent values may be weighted, for example.

exponential moving average a type of weighted moving average, the formula for which gives greater weight to the most recent field value, while accumulating the overall average by adding the latest value to the existing field.

Example of a Weighted Moving Average

You are studying a field of five values, as in the previous example. You want to weight the average so that the latest value has twice the influence on the moving average; so you count each field once in a five-part average, but you double the most recent field. The total is then divided by six:

Fields in Average	*Calculation*	*Average*
1–5	(427 + 833 + 619 + 211 + 952 + 952) ÷ 6	666
2–6	(833 + 619 + 211 + 952 + 1,113 + 1,113) ÷ 6	807
3–7	(619 + 211 + 952 + 1,113 + 800 + 800) ÷ 6	749
4–8	(211 + 952 + 1,113 + 800 + 634 + 634) ÷ 6	724
5–9	(952 + 1,113 + 800 + 634 + 1,005 + 1,005) ÷ 6	918
6–10	(1,113 + 800 + 634 + 1,005 + 716 + 716) ÷ 6	831

These recalculated moving average results change the outcome slightly when compared to the previous moving average. The distinction may appear minor, but it becomes important when it involves financial information, where most recent field importance can be a significant factor.

The exponential moving average is an example of a mathematical process that is often made more complicated in its explanation than it needs to be. It is simply a formulated moving average. It begins by calculating an exponent (or multiplier). For example, if you are calculating a moving average for a field of five values, you divide 2 by the number of values—or 5:

$$2 \div 5 = 0.4$$

Next, you calculate the simply moving average for the first five periods. Returning to the previous example:

$$(427 + 833 + 619 + 211 + 952) \div 5 = 608$$

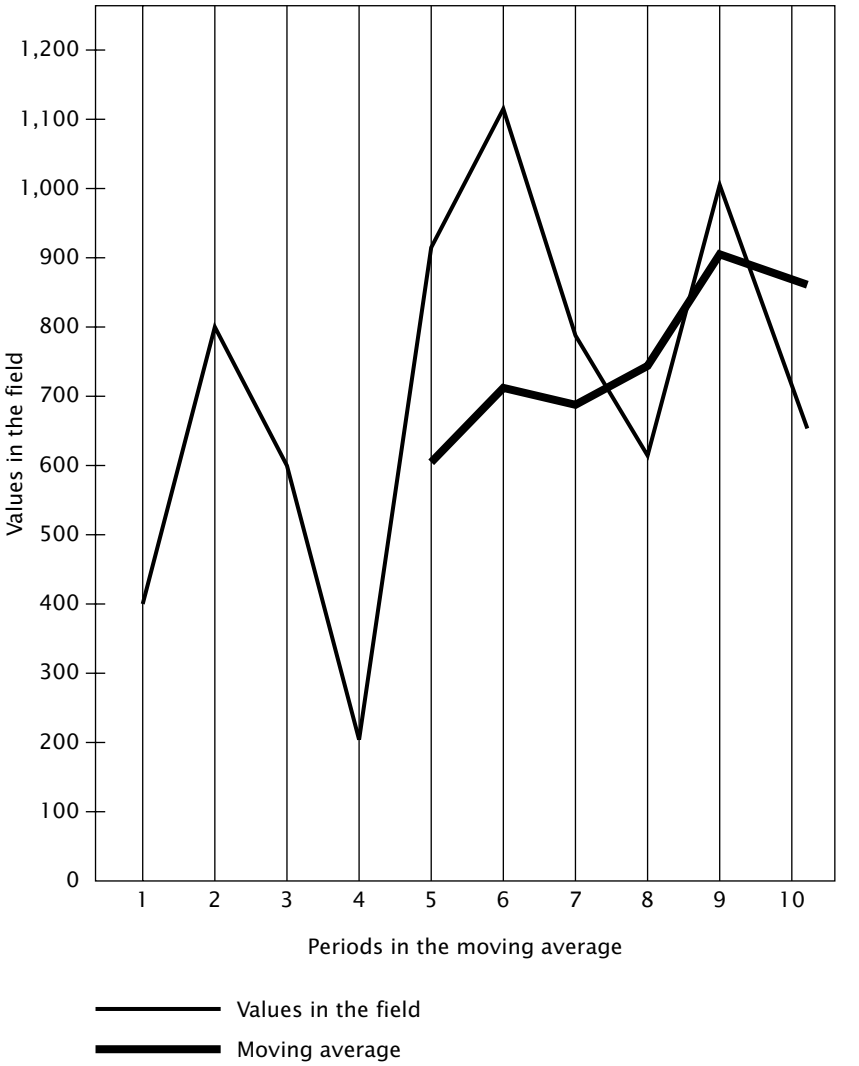

FIGURE 1.1 Range of All 10 Fields and Moving Average

The moving average is then subtracted from the next occurring field value (number 6):

$$1113 - 608 = 505$$

This remainder is multiplied by the exponent:

$$505 \times 0.4 = 202$$

This value is then added to the previous moving average (or, if negative, subtracted from it) to arrive at the sixth period's exponential moving average:

$$202 + 608 = 810$$

This process is carried through for each subsequent field:

Field	*Previous Value*	*New Average*	*New Difference*	*Exponent*	*Value*	*Average*
1–5	0.4	608	608			
6	1,113	608	505	0.4	202	810
7	800	810	–10	0.4	–4	806
8	634	806	–172	0.4	–69	737
9	1,005	737	268	0.4	107	844
10	716	844	–128	0.4	–51	793

The calculation of various types of moving averages may be programmed into a spreadsheet program such as Microsoft Excel; in that case you would need to only enter the latest field value to arrive at a new moving average. However, simplicity is often the best outcome to strive for and, if the results of a more complex calculation are not much different than an easier one, it makes sense to go with the easier one.

Key Point

When two different methods of calculating moving average produce little change in the outcome, go with the easier method. It saves time, reduces the chance for error, and is more easily comprehended.

The essential value of using moving averages is to remove volatility from an existing trend, so that its direction is more easily recognizable. One final statistical rule of thumb is to remove exceptionally big changes from a field of study when they are not typical. For example, if a field of outcomes over a period of quarters is generally within a narrow range, and one quarter's results are exceptionally high or low, you may want to exclude the exception, recognizing that it distorts the more "normal" range of outcomes. You should remove these spikes under the following guidelines:

1. The spike is far outside the normal range of outcomes.
2. The change is untypical of fields before and after. The range of results returns to a previously established level.
3. The causes of the spike are nonrecurring and do not represent an adjustment of previously reported results. (For example, if profits are reported far below the average because previous outcomes were incorrect, do not remove the spike. But if a one-time loss is reported due to a natural disaster, it should be removed because it is nonrecurring.)

Using averaging as a method for managing information makes sense. Financial statements, consisting of dollar values, are difficult to interpret. Averaging of data, combined with the use of ratios, help to make a trend recognizable and plain; this is far preferable to trying to make sense of columns of numbers. The financial statements, expressed in dollars, are difficult to interpret without applying these tools. In fact, you should never look at a single set of statements to draw conclusions about a corporation's capital strength or operating results; all fundamental analysis should be studied as part of a larger trend over time. Of course, to begin, you will need to understand the purpose of each of the three major financial statements. The next section explains these in detail.

balance sheet
one of three financial statements, reporting values of assets, liabilities, and net worth as of a specific date; that date is the ending date of a quarter or year. The total of assets (properties) is equal to the sum of liabilities (debts) and net worth (equity of the company).

Balance Sheet

The first of three financial statements is the *balance sheet*. This statement summarizes everything the

company owns and everything it owes to others, as well as its financial value.

This statement is called a "balance sheet" for two reasons. First of all, it is a summary of the balances in all asset, liability, and net worth accounts as of a specific date. Second, the various sections are balanced to one another; the total of all assets is always equal to the sum of all liability and net worth accounts.

The properties of the company, its *assets*, constitute the first part of the balance sheet.

assets
the properties owned by a company, listed on the balance sheet in dollar value and making up the first of three sections on the balance sheet.

Assets fall into several subgroups and later on, when it comes time to look at specific ratios of the balance sheet, these subgroups will make sense. They are arranged to classify assets according to their attributes and degree of *liquidity*. This is a critical distinction. So one set of assets is highly liquid (cash and assets that can be converted to cash within one year) and other assets are not liquid at all (such as equipment and real estate, for example).

liquidity
an attribute of an asset relating to its convertibility to cash. Some assets can be quickly and easily converted to cash and are considered highly liquid; other assets cannot be easily or quickly converted, and those assets have low liquidity.

The most common subgroups of assets are described in the following list:

- *Current assets* exist in the form of cash or as assets that can be converted to cash within 12 months (accounts receivable, notes receivable, marketable securities, and inventory, for example)
- *Long-term assets,* which are also called "fixed" assets, include any *capital assets* that cannot be deducted in the year purchased but must be depreciated over several years. These are shown on the balance sheet at purchase price, minus *accumulated depreciation*.
- *Deferred assets* and *prepaid assets* are special classes of assets. These categories are used to manage timing differences. For example, if a company pays for merchandise this year, but that cost belongs in the following year, it would be improper to report that as a cost for this year; it would

current assets
those assets in the form of cash or that are convertible to cash within 12 months, including accounts and notes receivable, marketable securities, and inventory.

long-term assets
also called "fixed" assets, are the purchased value of assets that cannot be deducted in the year purchased but must be depreciated over time. On the balance sheet, long-term assets are reported at purchase price minus accumulated depreciation.

capital assets
expenditures that are required by tax law to be capitalized (reported as assets on the balance sheet) rather than written off as current-year expenses in the year purchased. These are reported at net value (purchase price minus accumulated depreciation).

distort the numbers. So instead of recognizing this cost in the current year, the payment is set up as a deferred asset. In the following year it is reversed and recorded in the applicable period.

Prepaid assets are similar. In some instances a corporation pays an expense that extends over more than one year, so the portion applying to the future is set up as a prepaid asset. For example, a three-year insurance premium may be paid in advance; the current portion is recorded as an expense but the remainder is placed in the "prepaid assets" account and amortized over the period to which the expense applies.

- *Intangible assets* are assets without physical value. This is perhaps the most difficult class of assets to understand. Typical are accounts such as goodwill—that is, the value of reputation and brand-name recognition often assigned a value at the time a company or division is originally bought—and other nontangible assets such as certain kinds of contractual matters. A "covenant not to compete" is a contract in which one company promises to not open competing outlets for a specified period of time after a sale; this would be recorded as an intangible asset. It provides value to the purchasing company, but there is no physical asset.

The second section of the balance sheet is used for recording liabilities. There are usually two major sections:

- *Current liabilities* are those payable within one year. In this group companies include accounts payable, taxes payable, and the next 12 months' obligation for payments on all notes and contracts.

The distinction between current and long-term is crucial to many balance sheet ratios.

- *Long-term liabilities* include all debts that are payable beyond the next 12 months. These include long-term lease payments (except the current portion), note or loan payments due after the next 12 months, bond repayments, and other recorded debts of the company.
- *Deferred credits*, a third category, is included with liabilities. While these are not technically debts, they are listed in this section of the balance sheet. Normally these are sales receipts received in the current year yet belonging in the following year. It would distort the operating results to simply report these as sales, so they are classified as deferred credits. Next year, the deferred credit is removed and the credit is recorded as a sale.

accumulated depreciation
the value of all depreciation claimed on fixed assets from the date of purchase through the latest balance sheet date. Long-term assets are reported at purchase price minus accumulated depreciation and remain on the balance sheet until those assets are sold. Eventually, fully depreciated assets will report a net value of zero—once the full purchase price has been completely depreciated. At that point, the accumulated depreciation will be equal to the purchase price of the asset.

The third and final section of the balance sheet records the company's *net worth*, also called *stockholders' equity*. The way that the double-entry bookkeeping system records transactions—with everything involving a debit and a credit—the balance sheet always ties the three sections together in a basic formula:

Assets – Liabilities = Net worth

On the form itself, there are two major sections. Assets are reported on the top; and liabilities plus net worth are reported below. The sum of these two sections is always exactly the same.

deferred assets
the value of costs and expenses paid currently but applying to a future period. Those payments are deferred so that they can be booked as costs or expenses in the future. In the following year or years, the deferred asset is reduced and the applicable amount transferred to the income statement.

prepaid assets
the net value of expenses paid this year when all or part applies to the future. In the applicable period, a portion of the prepaid asset is reduced and recorded as an expense, so that it is recognized in the correct reporting year.

Within the net worth section, several specific classifications are going to be found. Many complex subaccounts may be found for multiple classes of stock and other items such as dividends and taxes payable. The primary segments of the equity section include:

- *Capital stock* is the original issued value of stock, which may include several different classes. Common stock, preferred stock, and multiple issues might be involved. As the original issue value, capital stock's current value is not adjusted; it remains on the books at its initial value. For example, if a corporation issued one million shares at $10 per share, then the capital stock value in this section will also be reported at $10 million, even if current market value is much higher.
- *Retained earning* is the accumulated net value of reported profits and losses over a company's entire history. Each year's profit is added to retained earnings (or losses subtracted).
- *Profit or loss* is the current year's net profit; this amount will tie to the reported net profit on the operating statement.

The organization of the balance sheet is uniform in format. This format is summarized in Figure 1.2.

Statement of Operations

The balance sheet summarizes account balances and values as of a specific date, usually the end of the quarter or fiscal year. The *statement of operations*, in comparison, summarizes a series of transactions over a period of time (a year or a quarter, normally), with the ending date identical to the date of the balance sheet. So the balance sheet reports balances

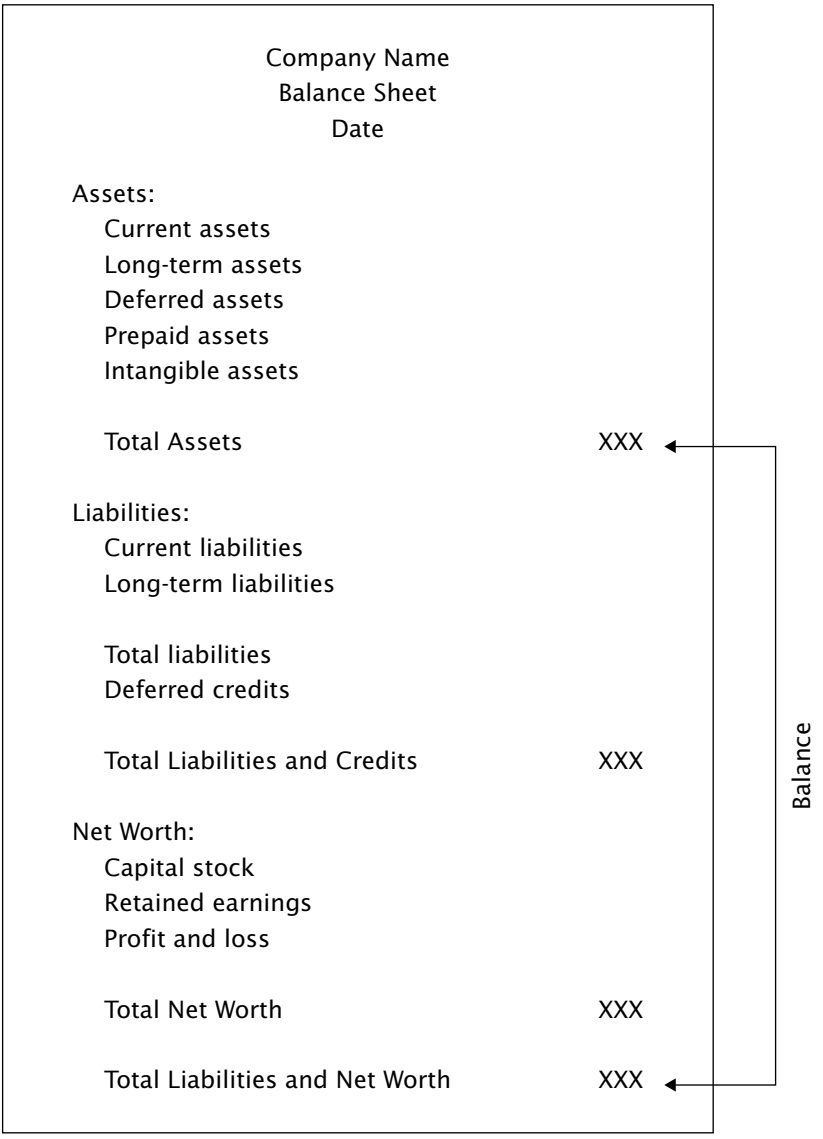

FIGURE 1.2 Organization of the Balance Sheet

as of December 31, while the statement of operations summarizes activity for the year *ending* December 31.

The statement of operations usually includes comparative reports including the current period and the period preceding (last year or the same quarter in the last year). It runs from top to bottom and includes the following major sections:

- *Revenues* may also be called "sales" or "gross sales." This is the amount received or earned during the reporting period. (Revenues normally consist of a combination of cash payments as well as charged sales; so this value is not always the same as cash receipts.) Revenues are also reduced by "returns and allowances" or "discounts granted" to customers.
- *Cost of goods sold* is a summary of changes in inventory; merchandise purchased; and other "direct" costs such as labor and freight. Costs are distinguished from expenses by the fact that costs are directly attributable to the generation of revenues. The percentage of cost of goods sold is expected to remain fairly consistent as sales rise and fall. Costs are normally reported to capture changes in inventory, along the following format:

Beginning inventory	XXXXX
Plus: Merchandise purchased	XXXXX
Plus: Direct labor	XXXXX
Plus: Other direct costs	XXXXX
Subtotal	XXXXX
Minus: Ending inventory	XXXXX
Net Cost of goods sold	XXXXX

intangible assets

the recorded value of assets that have no physical existence, such as goodwill or incomplete agreements. These are recorded along with other assets, but these would be excluded from the calculation of *tangible* book value of a company.

current liabilities

all of the debts of a company that are payable within the next 12 months, including accounts and taxes payable, lease payments, and payments on loans and notes.

long-term liabilities

all debts of a company extended beyond the next 12 months, including payments on contracts, notes and loans; bonds; and other liabilities not due within the coming 12 months.

The cost of goods sold is deducted from revenues to arrive at *gross profit*, which may also be described as profit before expenses.

- *Expenses* is often subdivided between "selling" and "general and administrative" (overhead) expense classifications. These are amounts spent or obligated that are not directly tied to generation of revenues. As a general rule, analysts expect expenses to remain within a relatively narrow range even as revenues rise. Increased dollar value of profits is the result when costs remain consistent in relation to sales; and when expenses are held in check.
- *Net operating profit or loss* is the difference between gross profit and expenses. The "operating" profit or loss is distinguished from the true *net* profit or loss, which takes other, nonoperational income or expenses into account (see below).
- *Other income and expense* will include all nonoperating adjustments to operating profit or loss. These include profit or loss from currency exchange; interest income or expense; and federal tax liabilities, for example. The net operating profit is increased or decreased for the net difference between "other" income and expense.
- *Net profit or loss* is the "bottom line," the net remaining when other income and expense is deducted from the operating profit or loss.

A summary of the statement of operations is shown in Figure 1.3

deferred credits
sales and other credits received in advance of the applicable reporting period, recorded in the liability section of the balance sheet pending transfer in the future to the operating statement.

net worth
the value of a corporation; the difference between assets and liabilities, consisting of capital stock, retained earnings, current profit or loss; and minus obligation for dividend payments.

shareholders' equity
(also called *stockholders' equity*) the net worth of a company, consisting of several accounts but essentially the net remaining after liabilities are subtracted from assets.

Company Name
Statement of Operations
For the period beginning _____ and ending _____

Revenues	XXX
Cost of Goods Sold:	
Beginning inventory	
Plus: Merchandise	
Plus: Direct labor	
Plus: Other direct costs	
Subtotal	
Less: Ending inventory	
Less: Cost of Goods Sold	XXX
Gross Profit	XXX
Less: Expenses	XXX
Operating Profit or Loss	XXX
Other Income or Expense	XXX
Net Profit or Loss	XXX

FIGURE 1.3 Statement of Operations

Statement of Cash Flows

The third of the three major financial statements is the *statement of cash flows*. This is the least understood of the three statements. It reports on the inflow and outflow of cash over a specified period of time (that period is identical to the reporting period of the statement of operations).

The statement has two distinct sections. First is a detailed summary of the cash-based transactions for the year, including "sources" of funds, "applications" of funds, and the net increase or decrease for the period. By "cash-based," this means the line items make adjustments to remove all noncash entries. For example, depreciation is a noncash expense prepared by way of journal entry. A debit is entered on the statement of operations as an expense, and an offsetting credit is entered in the balance sheet under "long-term assets," where the gross value of capital assets is reduced. On the statement of cash flows, the first two lines of this section are usually involved with net profits and adjustments for noncash expenses (like depreciation). The "sources of funds" section may further include other sources, such as proceeds from the sale of capital assets, income from selling an operating unit or subsidiary, payments received for an issue of corporate bonds or proceeds from new loans. A simplified summary of sources of funds (the column heading $000 indicates that reported totals are shown in millions of dollars):

capital stock
the reported issue value of all outstanding stock at original value, shown as the first item in a corporation's net worth section of the balance sheet.

retained earnings
the accumulated net profits or losses a company has reported over its history; profits are added and losses are subtracted, from the previous year's net retained earnings.

profit or loss
the net reported annual profits earned by a corporation. The reported net profit or loss on the operating statement also appears as a single item on the net worth section of the corporation's balance sheet and, upon closing the books for the year, net profit or loss is added to the accumulated retained earnings.

statement of operations
(also called *income statement* or *profit and loss statement*) the financial statement summarizing activity for a specific period of time, usually a quarter or fiscal year. The major sections of the statement are revenues, costs, expenses, and profits.

Sources of Funds ($000)

Net profit	$13,466
Plus: noncash expenses included above	1,044
Proceeds from the sale of capital assets	6,440
Receipts from the sale of subsidiary companies	3,050
Newly issued bond proceeds	4,000
Proceeds, newly acquired notes and loans	550
Total sources of funds	$28,550

revenues
(also called *sales*) gross earnings of a corporation before costs and expenses; the first line on the statement of operations.

Applications (payments) of funds may also involve numerous sources, including the cost to acquire capital assets, payments for acquisitions of new companies, retirement of a bond issue, repayment of loans and notes, dividends paid, and decreases in other long-term liabilities (increases in long-term liabilities would be reported as a source of funds). For example:

Applications of Funds ($000)

Acquisition of capital assets	$ 8,065
Paid for acquisition of new subsidiaries	2,882
Retirement of existing bond issue	5,000
Repayment of loans and notes	338
Dividends paid to shareholders	4,007
Decreases in long-term liabilities	884
Total applications of funds	$21,176

A final line follows these two sections, summarizing the net increase or decrease in funds for the period:

Net increase in funds	$7,374

The first section includes these detailed explanations, essentially revealing (1) where cash came from and (2) where it was spent. In this example, the corporation increased funds for the year by $7.374 billion. (Remember, the $000 tells you that the last section is excluded and the financial statement reports in millions of dollars.)

cost of goods sold
the section on the statement of operations following reported revenues. Cost of goods sold consists of changes in inventory levels; merchandise purchased; direct labor; and other costs attributable directly to generating revenues. The cost of goods sold is deducted from sales to arrive at gross profit.

The second section of the statement of cash flows summarizes the changes in current assets and current liabilities for the period. The definition of the difference between these current accounts is *working capital*, and this is used to study the effectiveness of a corporation's use of its money. The net changes in current assets and liabilities will always equal the net increase or decrease in funds reported in the first section. To those not familiar with double-entry bookkeeping, this is a mystery. But it really is not that complex to understand. Because all transactions involve equal value of debits and credits, the statement of cash flows is simply a division between accounts. In the first section, sources and applications of funds involve all noncurrent assets and liabilities and changes in net worth (which also includes the current-year net profit or loss). The second section shows changes in everything else as shown in Table 1.2.

TABLE 1.2 Working Capital Changes Section in a Statement of Cash Flow (in millions)

	Changes in Working Capital ($000)		
	Jan 1	*Dec. 31*	*Change*
Cash	$ 6,442	$ 7,200	$ 758
Accounts Receivable	14,637	19,462	4,825
Notes Receivable	2,000	2,000	0
Marketable Securities	12,838	12,235	(603)
Inventory	7,112	8,440	1,328
Accounts Payable	(6,729)	(5,117)	1,612
Notes Payable	(618)	(702)	(84)
Taxes Payable	(5,580)	(6,042)	(462)
Net Working Capital	$30,102	$37,476	$7,374

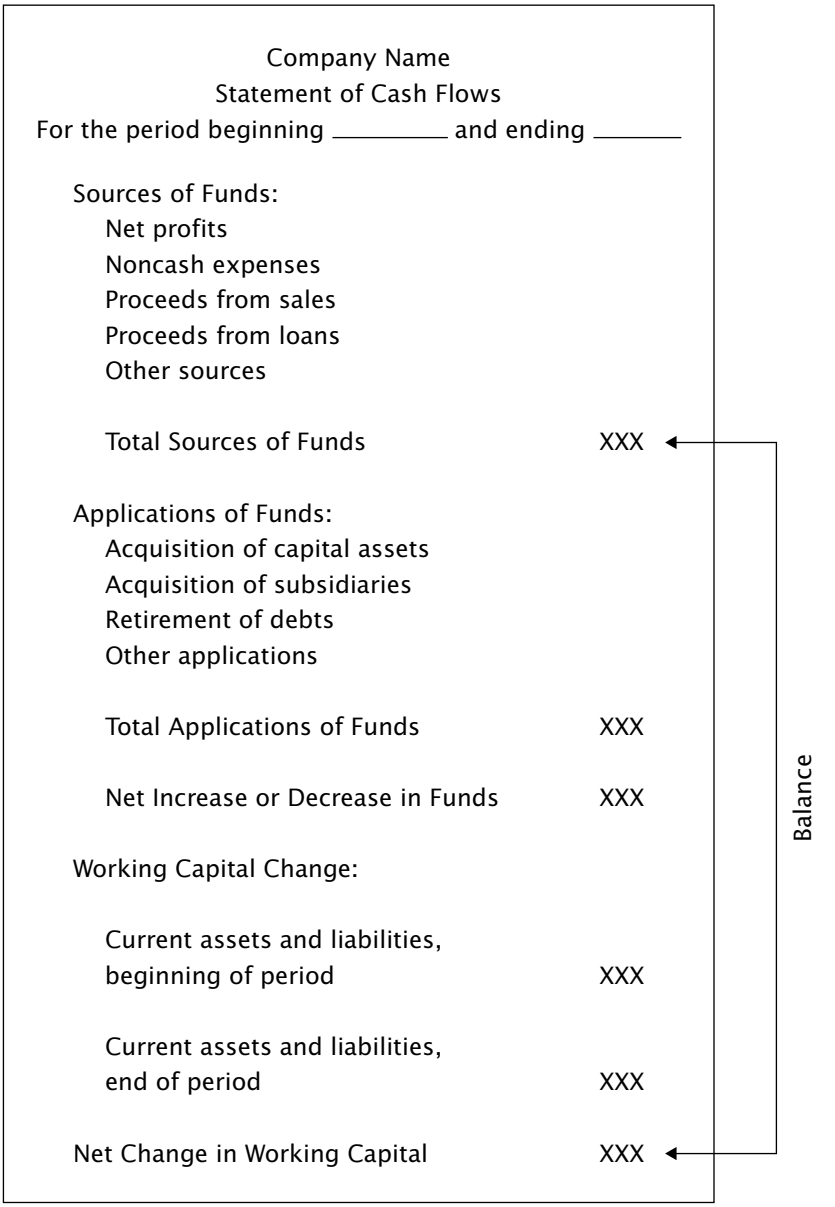

FIGURE 1.4 Statement of Cash Flows

The sections and organization of the statement of cash flows is summarized in Figure 1.4.

Comparative Financial Statements

In the beginning of this chapter, the importance of taking a broad view was emphasized. You cannot look at a single financial statement and judge a company's strength on that basis. Instead, you need to look at long-term trends, well designed analytical ratio-based programs, and to develop a series of tests. These quantify capital strength, working capital, internal controls, and profits, among other fundamental attributes.

The financial statement itself is rarely prepared as a stand-alone, isolated document. It is invariably prepared as a *comparative statement*, letting you look at today's results next to other, past results as well.

Key Point

Analysis is most valuable when it allows you to look at comparative information over time. Long-term trends are the key to discovering what is going on, but a single current statement by itself does not reveal much.

Comparisons are made on several bases, including:

1. *Year-to-year.* The most popular and best-known comparative financial statement is one that compares the most recent full year, to the year before. As with all comparative financial statements, any treatment of income, costs, or expenses that has changed requires a revision to past statements. This places all reported periods on the same premise; without this restated basis, a comparative statement would be misleading.

gross profit
the net difference between revenues and direct costs, or profit before expenses. It is a line item on the statement of operations following direct costs and preceding general and administrative expenses.

expenses
the grouping of spending reported on the statement of operations, for obligations not directly tied to generation of revenues. These include both selling expenses and general and administrative expenses and are the focus of internal controls, especially during periods of rapid sales expansion.

net operating profit or loss
the net remaining when expenses are deducted from gross profit, representing profit or loss from operations but excluding nonoperating income or expenses.

other income or expense

the adjustments made to operating profit or loss for nonoperating items, including currency exchange, interest income and expense, and income tax liabilities. The operating profit or loss is adjusted for the net difference, resulting in overall net profit.

net profit or loss

the net sum of operating profit or loss adjusted for other income and expense. It is the reported net amount that will be added to or subtracted from retained earnings and carried forward on the permanent books of the corporation.

2. *Quarter-to-quarter.* When a financial statement is prepared during the year, a comparative basis would involve comparisons on two formats: Current quarter to year-to-date is a popular method. A second is current quarter's year-to-date results compared to the same period in the past year.
3. *Long-term summary, key financial results.* Often seen in annual reports, the five-year or longer financial summary may be quite detailed. However, it is more likely to report key ingredients. These include gross sales, cost of goods sold, expenses, and profits. In addition, the long-term comparative summary may also show *earnings per share* (EPS) each year, dividends declared and paid, and other specialized information. (For example, if the corporation is primarily involved in retail sales, yearly information may show the number of stores opened or closed and even the year-end total number of retail sales space expressed in square feet.)
4. *Division-to-division.* A diversified company may be expected to be involved in numerous related or unrelated business ventures. When this occurs, it is difficult to judge the results of each division when a *consolidated statement* is all that is offered. With this in mind, some diversified corporations provide breakdowns and comparative statements for its major divisions. For example, in the case of Altria Corporation (symbol *MO*, also known as Philip Morris), a program of fundamental analysis would want to study separately the revenues and profits for domestic tobacco, international tobacco, and

the food division (Kraft Foods and more). All of these divisions have dissimilar attributes, and the trends in each should be analyzed separately. The consolidated results are far less revealing because specific trends are difficult to spot.

Footnotes

A major complaint made by stockholders—notably those without an accounting education—is that financial statements are too complex to understand. Indeed, most of the valuable information you need to perform in-depth fundamental analysis is going to be found in the *footnotes* to the financial statements.

The financial statements are only three pages. But the footnotes can expand the financial statement to over 100 pages in especially complicated situations. These are not easy to read or to comprehend. However, key explanations and disclosures may be found there. The most sensible way to deal with the high volume of complex material is to limit your search. Once you decide on a short list of what you consider important financial analyses you should perform, you can reduce the footnote-reading task to only a few pages.

For example, if you decide to analyze only five or six features of the financial statement and use less than 10 ratios, you can find verifying information within the footnotes, and scan for these selectively. It is rarely necessary to read all of the footnotes, so the problems come down to the question: Which of the footnotes must you read?

statement of cash flows
the financial statement used to summarize the movement of cash in and out of a business over a period of time, also called the cash flow statement or statement of sources and applications of funds.

comparative statement
a financial statement that summarizes results from year to year, between the same quarter-ending of subsequent years, or in some other breakdown such as between divisions and operating units of a larger corporation.

consolidated statement
a type of financial statement including combined results from all subsidiaries, even those in dissimilar lines of business.

footnotes
a series of explanatory notes, often including detailed narrative and financial breakdowns, to disclose important information and to expand upon the summarized data provided in the financial statements. Footnotes exist for dozens of purposes and are included as part of a complete set of financial statements.

transparency
a concept in corporate management defining the desirability of making full disclosures to stockholders so that operations, financial results, and accounting decisions are made in the open; the idea that nothing should be hidden from the investor or stockholder.

By reducing the overall examination of financial data to only a few important tests, you solve the problem once and for all. Unless you are happy to undertake a graduate study of accounting and auditing, you will not enjoy tackling a book-length and highly technical set of disclosures, so you need to develop means for coping with these notes.

It should be the task of auditors and corporate management to achieve *transparency* in their reports to stockholders. Unfortunately, little sincere effort has been put forth on the part of corporate management and auditing firms to provide stockholders with all of the information they need. In fact, the accounting rules in the United States are so complex that it is possible to manipulate the numbers to achieve a desired result without committing any outright fraud. The rules allow liberal interpretations and decisions that have important impact on the financial statement, while often leaving out important information as well.

This is where the value of fundamental analysis becomes so crucial. Even when corporations manipulate their results to make outcomes look as favorable as possible (and even when auditors cooperate with management in this practice), you can apply a limited number of financial ratios and track a few key trends. These allow you to follow results for yourself and to spot the emerging changes over time that may not be readily apparent in a study of the financial statements. Fundamental analysis is not merely an exercise in accounting; it can be and should be a method you can use to make value judgments about the stock of a number of corporations; to use intelligent tests to narrow down your list; and to pick the timing for buying and for selling shares based on the financial results.

This chapter explained the basic tools of fundamental analysis and also showed how the major financial statements are organized; what they report; and how they can be used as a starting point in an expanded program. In the next chapter, the basic stock market theories are explained and compared. These are valuable to you in your program of fundamental analysis, even though these "valuation theories" are usually discussed in terms of *technical analysis*, which is a study of stock prices and trends.

Most people familiar with these theories will be surprised to hear that stock market theories are valuable in fundamental analysis. In fact, though, the most important developer of one of these—the *Dow Theory*—originally developed his ideas for application in the financial realm. While his theories are employed today to track prices, you will discover that the relationship between the fundamental and the technical is much closer than most people believe. These theories are explored in depth in the next chapter.

technical analysis

a series of techniques employed to anticipate price movement in stocks; to study the causes and patterns of price and volume; and to anticipate the direction price is likely to move in the near future. Unlike fundamental analysis, which is rooted in financial reports of the corporation, technical analysis is primarily involved in prices and trends of a company's stock.