

Value investing

*From Graham to Buffett
and Beyond*

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For Virginia Greenwald
who now only need find a ship
and Anne Rogin
who need not

Chapter 3

Valuation in Principle, Valuation in Practice

Adherents to value investing as an investment discipline believe that financial securities, like all other assets, have an *intrinsic value* that can be determined by careful analysis. Opportunities for profitable investment emerge when the current market price of the securities deviates significantly from this intrinsic value. The essential task of the successful value investor is to determine intrinsic value with enough accuracy to take advantage of the market's mispricing. There are methods in abundance for estimating an asset's true value, but some work better than others. This chapter argues that the methods pioneered by Graham and Dodd possess significant practical advantages over the commonly used alternatives. Therefore, the historical success of the value approach has not been an accident.

The Present Value of Current and Future Cash Flows

There is wide agreement in theory that the intrinsic value of any investment asset—whether an office building, a gold mine, a company selling groceries at the corner or groceries over the Internet, a government bond, or a share of General Motors stock—is determined by the present value of the distributable cash flows that the asset supplies to its owner. Present value is properly calculated as the sum of present and future cash flows, both outlays and receipts, with each dollar of future cash flow appropriately

discounted to take into account the time value of money (see Appendix to this chapter). Graham and Dodd disciples accept the concept and the calculation of present value, as do all other fundamental investors. The techniques are taught at every undergraduate and graduate school of business. Investment bankers and corporate financial officers use them. Governments depend on them to evaluate the returns from potential capital projects and other investments. Calculators are programmed to produce present value figures, and electronic spreadsheets have financial functions that will do the work. Present value analysis is inescapable. But what is true in theory need not provide an appropriate model for finding intrinsic value in actual practice. (Perhaps we should say that the practical value of present value analysis should be discounted.)

The standard way of calculating present values, and hence intrinsic value, is to begin by estimating the relevant cash flows for the current and future years out to a reasonable date, perhaps 10 years in the future. Then one selects (estimates) a rate for the cost of capital that is appropriate to the riskiness of the asset in question. With these two figures it is possible to calculate the present value of each annual cash flow; summing them gives us the present value of all the cash flows for the years in question.

The customary practice for dealing with the cash flows in the distant future is to come up with what is called a terminal value. The terminal value is invariably calculated by assuming that beyond year 10 (or whatever year is the last for which we have done annual cash flow calculations) cash flow grows perpetually at a constant proportional rate. Under this assumption, the value of those cash flows, looking forward from the end of year 10, will be the projected cash flow for year 11 times a multiple. This multiple is equal to 1 divided by the difference between the cost of capital and the perpetual growth rate. (For example, if we project a cost of capital of 10 percent and a growth rate of 5 percent a year, then the multiple is $1/(10\% - 5\%) = 20$.) Since we won't see this terminal value until we look forward from the end of year 10, we need to discount the terminal value back to the present. We add that to the present value of our first 10 years of cash flows to get an intrinsic value for the current and all future cash flows.

We should be struck here by a glaring inconsistency between the pre-

cision of the algebra and the gross uncertainties infecting the variables that drive the model. We estimate rates of growth for 10 years and then another growth rate from the end of year 10 to forever. This is a heroic, not to say foolhardy, exercise. Suppose that in two or three years, the company faces more competition, technological challenges, a spike in its costs of materials that it cannot pass on to customers, or any of a host of reasonable possibilities that will curtail, and may even eliminate, the growth of its cash flow. Imagine how accurate our estimates are likely to be for even a stable company like General Motors, much less for dynamic firms like Microsoft or Cisco Systems. We also assume that our company will have access to long-term financing at a predictable cost of capital on an ongoing basis. Yet who knows today what lenders will demand in five years, or how much potential share purchasers will require to buy new stock? Profit margins and required investment levels, which are the foundations for cash flow estimates, are equally hard to project accurately into the far distant future.

Worse still, valuations vary significantly if the underlying assumptions are off by only small amounts. Consider the terminal value and the cash flow multiple. If future perpetual growth is 4 percent and the future cost of capital is 8 percent, then the terminal value multiple is $25(1/[8\% - 4\%] = 25)$. If our estimate is wrong by only 1 percent in either direction for the cost of capital, the growth rate, or both, the terminal value multiple can vary from a high of 50 (7 percent cost of capital minus 5 percent growth rate) to a low of 16 (9 percent cost of capital less 3 percent growth rate). This is a range greater than three-to-one. In many—probably most—valuations, the terminal value is the largest component of the total present value.

Investors are certainly aware of these difficulties, and there are ways of attempting to deal with them. One method is to simplify the valuation process by relying on multiple-based value calculations. Here one chooses a measure of cash flow, such as net income, operating income (EBIT), or operating income plus depreciation and amortization (EBITDA), and multiplies that by an appropriate factor, like the price to earnings (P/E) ratio, the EBIT multiple, or the EBITDA multiple, taken from market valuations of other, supposedly comparable, companies. The problems with this approach are legion: the secondary origins of the valuation, dependent on

someone else's uncertain projections for other companies; the noncomparability of the companies chosen to provide the multiple factor; and the failure to use much current, short-term information on the company's competitive position, its margins, its cyclical sensitivity, and other available data. However, the key shortcoming of this approach is that multiple-based valuations are nothing more than present value calculations with some simplifying assumptions tacked on. In effect, they are terminal value calculations as of today. They do not avoid the problems with present value calculations; they merely sweep them under the rug.

Another widely employed approach to dealing with the uncertainties of present value is to perform an exhaustive number of sensitivity analyses. Here the analyst varies the company's projected operating parameters that determine the future cash flows—growth rates in sales, profit margins, investments required per dollar of sales, the cost of capital—and then looks at the corresponding variations in the company's valuation. The purpose is to capture the full range of valuation possibilities. The problem here is that the range is usually quite large. Because the underlying parameters are linked together in complicated ways, it is not clear which of the many possible valuations is the likely one. Sensitivity analysis has the virtue of making explicit the unreliability of present value estimates, but pointing out the problem is not the same as solving it.

In fact, the unreliability problem is intrinsic to the practice of present value analysis as a means of determining intrinsic value. As commonly applied, that approach suffers from two fundamental defects. First, present value is the sum of individual cash flows from now into the distant future. It may be possible to make correct projections for the next few years; as the time lengthens, the projections invariably become less accurate. In present value calculations, however, all these terms are simply added together. As every engineer knows, adding inaccurate to accurate information produces inaccurate information. An improved approach to valuation would attempt to protect reliable information from being corrupted; the present value method does not.

Second, the present value approach in practice relies on information—parametric values for operating variables—that is often simply not knowable, especially in the far distant future. Even the best informed ana-

lyst covering the auto industry will be unable to say with certainty whether Ford's return on sales will be 10 or 12 percent in the years after 2010. Yet there are predictions that the professional analyst should be able to make about those far future years: whether the auto industry is likely to be economically viable, whether Ford will continue to operate at whatever competitive advantage (or disadvantage) it may enjoy today relative to its major rivals (GM, Toyota, DaimlerChrysler, etc.), and whether Ford will develop any new competitive advantage in the future. These are broad strategic judgments, and thoughtful analysts are better at making them than at predicting operating margins or costs of capital. Yet the present value approach cannot be readily adapted to incorporate the implications of these judgments for a valuation of the company.

The Graham and Dodd approach to valuation avoids both of these problems. It segregates information affecting valuation by reliability class, so that good information is not contaminated by poor information. It also directly uses the valuation implications of broad strategic judgments.

A Three-Element Approach to Valuation: Assets, Earnings Power, and Profitable Growth

The skepticism with which Graham and Dodd investors regard present value calculations of future cash flows might be nothing more than a worldly cynicism toward all systematic efforts at valuation if these investors did not offer an alternative approach that avoids the pitfalls of present value. Fortunately for them, and for us, they have developed another valuation method. It is based on a thorough grasp of the economic situation in which a company finds itself. It puts more emphasis on information about the firm that is solid and certain, and it values the company's future prospects with more realism and less optimism than is customary on Wall Street. It refuses to pay anything for even the rosiest prediction that has no current or historical foundation. Charlie Munger of Berkshire Hathaway said that if he were giving a test calling for an analyst to value a new dot-com internet company, he would fail anyone who answered the question. To quote Wittgenstein, "Whereof one cannot speak, thereof one must be silent."

Of what then can we speak? Let's go back and look at Ford Motor Company. It would be rash to predict its cash flow in 2010, but there are some things we can state with confidence.

Element 1: The Value of the Assets

First, we can speak about the present condition of the company. Following Graham and Dodd, we are going to start with an asset value for the firm. We begin with the balance sheet and examine the value of the company's assets at the end of the most recent operating period, as determined by the company's accountants. We know that these accounting values are going to be more accurate for some assets than for others. Thus, as we work down the balance sheet, we accept or adjust the stated numbers as experience and analysis dictate. We do the same for the liabilities side of the balance sheet. At the end, we subtract liabilities from assets to obtain the current net asset value. There is no need for us to forecast the future. The assets and liabilities exist today. Many of them are tangible (or quasi-tangible, like money in the bank account as confirmed by the bank), and these can be valued directly with great precision.

Starting at the top of the balance sheet has another advantage. As we work down the asset list from cash at the top, whose value is unambiguous, to various intangible assets like goodwill, whose value is often highly problematic, we are made naturally aware of the decreasing reliability of the stated values. Graham himself preferred to rely totally on current assets that could be realized within a year and whose accounting values did not vary far from the actual cash that could be obtained by selling them. From these current assets he subtracted all the firm's liabilities to arrive at his famous net-net working capital figure for the value of the company.

Another aspect of asset valuation of which we may speak concerns the principle we employ to assign a value to each asset type. For our Ford example, the choice depends on a strategic judgment regarding the future of the automobile industry in which the company operates. If the industry is not economically viable, if it is in the process of terminal decline, then the assets must be valued at what they are likely to yield in liquidation. The more specialized the assets are for use in the automobile industry, the greater is the discrepancy between what the balance sheet says and the ac-

tual cash they will bring in a sale. Cash and accounts receivable will be fully valued, more or less, while plants, equipment, and even some units in the inventory will be valued at scrap. Any goodwill or other intangibles the company lists on its balance sheet, representing what it paid for customer relationships or product designs bought when it acquired other companies, will be worth nothing.

On the other hand, if the automobile industry is not going away, then these assets should be valued at *reproduction* costs, meaning the amount Ford or a competitor would have to pay to replace them today, at the currently most efficient way of producing them. They are still used in an economically viable industry, and as they wear out, they will be reproduced at some cost. Again, the reproduction costs of cash, accounts receivable, and inventory are relatively easy to calculate and are close to accounting book value. The farther down the list, the harder it is to make an accurate estimate of the value. But there are appraisers who make a living by valuing plant and equipment, so we are still dealing with a more solid item than the earnings growth rate 10 years into the future.

Another judgment we may be qualified to make—especially if we are at all expert in the automobile industry—is a strategic judgment about where Ford will fit within the industry. We may say something like “Ford is unlikely to enjoy significant competitive advantages or suffer from significant competitive disadvantages, relative to other global auto companies, of which we are not already aware.” Given the mature, highly competitive nature of the industry, this prediction is no surprise. But the implications of this strategic situation—no competitive advantage or disadvantage for the firm—are important. In these cases, the reproduction cost of the assets is going to be the most appropriate measure—the intrinsic value—of the company's worth.

Competitive advantages enjoyed by incumbent firms in any industry are equivalent to barriers to entry against potential competitors. In fact, the two terms are simply different ways of identifying an identical situation. If there are no barriers, we have a level economic playing field. All the firms, both those already in the business and new entrants who might like to take part, have equal access to production technologies, resources, and customers. There is nothing to prevent either existing competitors from trying to expand or new players from joining in.

Imagine that we find a company, First-In, operating on a level playing

field. The reproduction costs of its assets (including intangibles not necessarily listed on the balance sheet) are \$1 billion. Its market value is \$2 billion. What happens? Existing competitors and new entrants will calculate that by spending \$1 billion to reproduce the assets, they can create an enterprise with a market value of \$2 billion. Why should they have a different economic experience from First-In, since there is nothing it can do that they can't do as well? So we see First-In confronted by newcomers, expanding competitors, or both. A load of new capacity starts to come on line. As the level of customer demand hasn't changed much, there is now more competition for the same business. Either prices fall or, for differentiated products, each producer sells fewer units. In both cases, profits decline, and market value drops with them.

Capacity continues to expand, and profits and market value continue to sink. The game is over when the market value of First-In has been driven down to the \$1 billion reproduction costs of its assets. Competitors suffer the same fate; everybody sinks. Certainly this process doesn't happen as smoothly or automatically as we have described, but things do ultimately turn out this way. The incentives to get into the business and take advantage of the market's excessively generous valuation are too powerful, until the market takes back its free money.

This basic process also works in the opposite direction. If the market value of First-in falls substantially below the \$1 billion asset reproduction cost, then existing producers will stop replacing their assets. Capacity will decline until either prices rise or sales increase to generate enough profit so that the market raises the value of First-In back to \$1 billion. Asset value in strategic terms corresponds, therefore, to the free-entry (no competitive advantage, level playing field) value of the firm—a circumstance that probably characterizes a substantial share of all industries and markets.¹ For these firms, the intrinsic value is the asset value.

¹“Free-entry” is not the same as “commodity product.” We will make the distinction clear in Chapter 5 when we discuss franchise values. There is often free-entry into industries with differentiated products, but the same asset valuations hold. We did not indicate whether First-In produces a commodity or a differentiated product; without a sustainable competitive advantage, it makes no difference.

Thus, for Ford, calculating the reproduction value of the assets in the spirit of Graham and Dodd enables us to say a number of important things with reasonable confidence. Unless mismanagement of the company impairs their worth—a situation not unheard of—the Ford Motor Company is worth at least this identifiable asset value. But without barriers to entry or competitive advantages, it is worth no more.

Element 2: Earnings Power Value

The second most reliable measure of a firm's intrinsic value is the second calculation made by Graham and Dodd, namely, the value of its current earnings, properly adjusted. This value can be estimated with more certainty than future earnings or cash flows, and it is more relevant to today's values than are earnings in the past. To transform current earnings into an intrinsic value for the firm requires us to make assumptions both about the relationship between present and future earnings and about the cost of capital. Because we need to rely on these assumptions, intrinsic value estimates based on earnings are inherently less reliable than estimates based on assets.

The traditional Graham and Dodd earnings assumptions are (1) that current earnings, properly adjusted, correspond to sustainable levels of distributable cash flow; and (2) that this earnings level remains constant for the indefinite future. Using these assumptions, the equation for the earnings power value (EPV) of a company is $EPV = \text{Adjusted Earnings} \times 1/R$, where R is the current cost of capital. Because the cash flow is assumed to be constant, the growth rate G is zero. The adjustments to earnings, which we discuss in greater detail in Chapter 5, include

1. Rectifying accounting misrepresentations, such as frequent “one-time” charges that are supposedly unconnected to normal operations; the adjustment consists of finding the average ratio that these charges bear to reported earnings before adjustments, annually, and reducing the current year's reported earnings before adjustment proportionally.
2. Resolving discrepancies between depreciation and amortization, as

reported by the accountants, and the actual amount of reinvestment the company needs to make in order to restore a firm's assets at the end of the year to their level at the start of the year; the adjustment adds or subtracts this difference.

3. Taking into account the current position in the business cycle and other transient effects; the adjustment reduces earnings reported at the peak of the cycle and raises them if the firm is currently in a cyclical trough.
4. Considering other modifications we discuss in Chapter 5.

The goal is to arrive at an accurate estimate of the current distributable cash flow of the company by starting with earnings data and refining them. To repeat, we assume that this level of cash flow can be sustained and that it is not growing. Although the resulting earnings power value is somewhat less reliable than the pure asset-based valuation, it is considerably more certain than a full-blown present value calculation that assumes a rate of growth and a cost of capital many years in the future. And while the equation for EPV looks like other multiple-based valuations we just criticized, it has the advantage of being based entirely on currently available information and is uncontaminated by more uncertain conjectures about the future.

Also, there is an important and close connection between the EPV of a firm and its strategic situation, and the line of connection runs through the reproduction cost of the assets. When we consider economically viable industries, there are three possible situations. In the first, the firm's EPV may fall substantially below the reproduction value of its assets. In this case, management is not using the assets to produce the level of earnings that it should. The cure is to make changes in what management is doing. In the second, the EPV and the asset value are more or less equal. This is the situation we would expect to see in industries where there are no competitive advantages. If a careful analysis of the structure of costs and customer demand supports this conclusion (we discuss this type of competitive advantage in Chapter 5), then the asset valuation and EPV reinforce one another, and our confidence in both is increased.

We have ignored here the value of the future growth of earnings. But

we are justified in paying no attention to it because in evaluating companies operating on a level playing field, with no competitive advantages or barriers to entry, growth has no value. The return these companies earn on the capital invested in them just equals the cost of acquiring that capital, and there is nothing left over for the previous investors. Thus, the EPV that equals the asset value defines the intrinsic value of the company, regardless of its growth rate in the future.

In the third situation, if the EPV, properly calculated, is significantly higher than the reproduction costs of the assets, then we are looking at an industry setting in which there must be strong barriers to entry. Firms within the barriers will earn more on their assets than will firms exposed to the humbling experience of seeing new entrants join the party with no handicap for arriving late. For the EPV to hold up, the barriers to entry must be sustainable at the current level for the indefinite future.

The difference between the EPV and the asset value is the value of the franchise enjoyed by the company in question. Competitive advantages enjoyed by incumbent firms constitute barriers to entry that protect the incumbents from profit-eroding competition. These advantages and barriers are responsible for the firm's franchise. In fact, the three terms all describe the same basic phenomenon. The defining character of a franchise is that it enables a firm to earn more than it needs to pay for the investments that fund its assets. The EPV is greater than the asset value; the difference between the two, as we said, is the value of the franchise. Therefore, the intrinsic value of a firm is either the reproduction costs of the assets, which should equal the EPV, or those assets plus the competitive advantages of the firm that underlie its franchise.

The initial judgment that has to be made in this connection is whether the firm currently has a competitive advantage, and, if so, how strong and sustainable it is. This is a judgment that we can sensibly make. For Ford, we forecast that no competitive advantage was likely to emerge over the next two or three decades. We might be proven wrong, but given the history of competition in the motorcar world, that is the way to bet. The opposite would be true for Coca-Cola. It has had 100 years of higher-than-normal profitability. It makes sense to believe that its competitive advantage will persist, neither more nor less powerful, into the foreseeable future.

no competitive advantages \Rightarrow growth projects are zero-NPV projects
 \Rightarrow ex. gets larger, but no addl S/H wealth created

Element 3: The Value of Growth

When does growth contribute to intrinsic value? We have isolated the growth issue for two reasons. First, this third and last element of value is the most difficult to estimate, especially if we are trying to project it for a long period into the future. Uncertainty regarding future growth is usually the main reason why value estimations based on present value calculations are so prone to error. By isolating this element, we can keep it from infecting the more reliable information incorporated into the asset and earnings power valuations.

Second, under many commonly encountered strategic situations, growth in sales and even growth in earnings add nothing to a firm's intrinsic value. This statement seems to contradict an article of faith about a company's sales and profits—growth is good. However, as we explained earlier, growth on a level economic playing field creates no value. It will be useful to review why. Growth in sales that finds its way to the bottom line (net income) would seem to imply that there is more money available to investors. But growth generally has to be supported by additional assets: more receivables, more inventory, more plant and equipment. These extra assets that are not offset by higher spontaneous liabilities² have to be funded by extra investment, whether from retained earnings, new borrowings, or sales of additional shares. That cuts into the amount of cash that can be distributed and thereby reduces the value of the firm. For firms that are not protected by barriers to entry and thus do not enjoy sustainable competitive advantages over their rivals, the new investment produces returns that are just enough to offset the costs of the new investment. The net gain is zero.

Recall the example of the firm operating on a level playing field. With

² *Spontaneous liabilities* is our term for those liabilities the company incurs in the course of its business: accounts payable, wages payable, accrued expenses, accrued taxes, and occasionally a few other items. They are not the result of formal contracts, and they generally don't require that the company pay for their use with interest or a share of the profits. When business expands, so do accounts receivable and accounts payable. To the extent that the growth of accounts payable offsets the growth of accounts receivable, no additional capital is required.

free entry, a \$1 billion investment should produce \$1 billion in added value. For the firm that raises an additional \$1 billion to expand operations, its cost of capital eats up all the additional earnings that the new investment produces. Its intrinsic value has grown not at all. For firms operating at a competitive disadvantage (i.e., those outside the barriers to entry but still insisting on staying in the game), additional growth will actually destroy value. We shall discuss this phenomenon in more detail in Chapter 5. The only growth that creates value is growth in markets where the firm enjoys a competitive advantage.

Situations in which growth has value arise when the firm's EPV substantially and sustainably exceeds its asset value. In the language we used earlier, only franchise value creates growth value. Thus, judging the existence and sustainability of a company's franchise/competitive advantages/barriers to entry is central to assessing the value of future growth. Again, there is a direct connection between strategic industry conditions and the sources of a firm's intrinsic value. The magnitude of this last element of value is not easy to calculate when it is positive. The growth-related uncertainties of valuation cannot be eliminated completely. However, we know that in many—if not most—situations, the value is zero (no franchise) or even less (competitive disadvantages). By paying careful attention to the strategic underpinnings of a franchise, we may actually obtain superior estimates of the value of growth (as we discuss in Chapter 7). Nevertheless, growth is the most uncertain source of value and is, therefore, the element of value for which the Graham and Dodd-oriented investor is least willing to pay full price.

Integrating the Elements and Strategic Valuation within the Graham and Dodd Framework

The elements of the Graham and Dodd approach to valuation are summarized in Figure 3.1 for a firm with a powerful franchise. The first slice represents the asset value. Under conditions of free entry and no competitive advantage, this is all the value there is.

The second slice, which is the difference between the asset value and

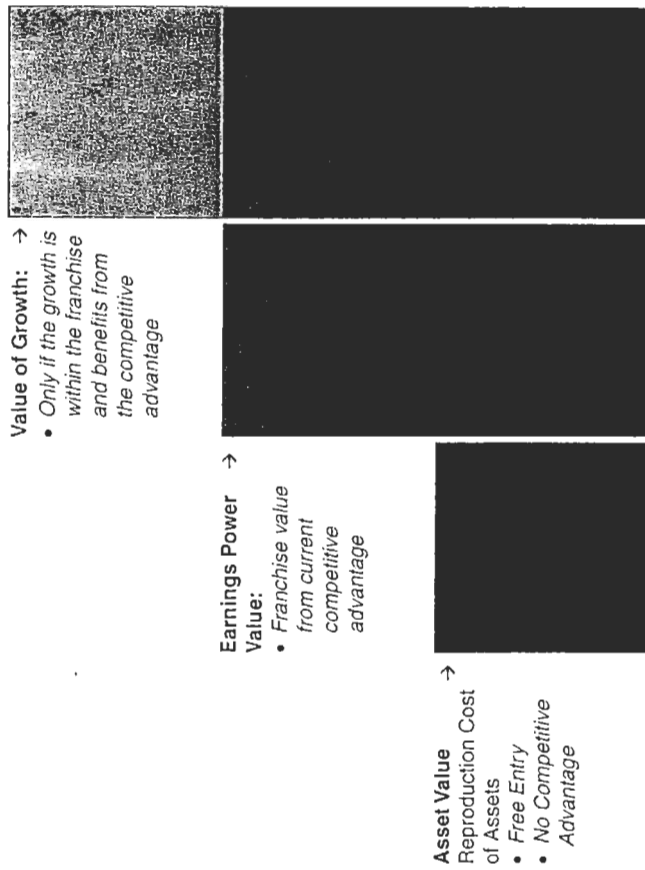


Figure 3.1 Three Slices of Value

EPV, represents the franchise value of the firm. Superior management may be considered here as a variety of franchise value, though it is probably less durable than a competitive advantage in its pure form. Estimates about the value of this slice are less reliable than estimates of asset value.

The third and last slice is the difference between the EPV and the full value of growth within the franchise. Of all the estimates, this one is the most difficult to make and therefore the least reliable. A value investor may in fact conclude that the intrinsic value of the firm lies somewhere within this slice, and then compare that (after a suitable reduction to provide for a margin of safety) to the market price to see if a purchase makes sense. But our investor will understand how much detailed knowledge of the industry and good judgment this decision requires. He or she will have a far better idea of what he or she is paying for than will someone relying on a net present value calculation, even one that includes every conceivable sensitivity analysis.

cf. *Shubertson - CAP analysis*

Each of the elements of valuation—assets, earnings power, and growth—is useful in its own right, but the best insights into a firm's value come from comparisons among them, especially the direct comparison between the asset value and the EPV. Consider the case in which the asset value of a company—the reproduction costs of the assets—is greater than its EPV, properly calculated. There are only two conditions in which we are likely to find these results. In the first, the firm's management is doing a poor job by failing to earn as much on the assets as it should. In the second, the industry is operating with more than normal excess capacity. Either it has expanded too rapidly ahead of an anticipated increase in demand or it has not shrunk quickly enough to adjust to a permanent decline.

Careful investigation can determine which of these conditions, poor management or excess capacity, is responsible. If it is poor management, then potential value may be unlocked by a catalyst, such as a takeover or even the threat of one, that will either bring in new faces or concentrate the attention of the incumbents. If the problem is overcapacity, the firm's value will increase no faster than the rate at which the excess capacity is absorbed by new demand or eliminated as assets decay and are not replaced. In both situations, the true value investor will ignore the higher asset value and use the lower earnings power figure as his or her measure of the firm's intrinsic value. He or she will also look to purchase shares when the market prices them far enough below this intrinsic value to provide a sufficient margin of safety. Discrepancies between asset value and EPV suggest both an opportunity and a caution. If the gap can be closed because of better management, then the intrinsic value of the firm will increase, which should be quickly reflected in its market price because the earnings will grow (i.e., return to normal). On the other hand, the fact that the assets are not producing the earnings they should may indicate that the firm is operating at a competitive disadvantage. If the firm raises additional capital to invest for growth, that investment will tend to destroy rather than add to value.

When separate valuations of the assets and of the earnings power produce figures that are approximately the same, we have confirmation of the accuracy of the intrinsic value estimate. The agreement between the two approaches suggests that the quality of the management is average and that

the firm enjoys no competitive advantages over its rivals. These conditions may be directly verified. Do newcomers regularly enter the industry to take advantage of overvaluation or poor management, or are conditions more stable? Does current management produce average returns on invested capital, or are they consistently better or worse? Value investors will purchase shares when there is a margin of safety between this intrinsic value and the market price, and they will assign no value to any future growth.

Finally, if the EPV is substantially greater than the asset value, that difference is due to either superior management or the fact that the firm benefits from significant competitive advantages. In any reasonably large group of competing firms, a few will be blessed with exceptional management. Their virtue is already reflected in the higher earnings power. It can only decline with any fall off in the quality of management in the future. Therefore, a realistic value investor will make a negative adjustment to EPV, realizing that management is not going to get better and that it may certainly deteriorate. In the short run, this superior management may squeeze some value out of growth, provided that growth is in areas where it has expertise. But a value investor is not likely to pay for the full EPV of this firm in the hope that future profitable growth will provide the margin of safety, unless he or she is convinced that this superior management is young, healthy, loyal, and deep.

The more common condition that explains an EPV that is greater than the asset value is when a firm enjoys substantial competitive advantages over potential rivals, thanks to barriers to entry, and thus can earn more on its assets than is possible in a more competitive environment. We have called this extra earnings power the *franchise value* of the firm. The critical question here is the franchise's strength and sustainability. We will discuss franchise value and how its durability can be assessed in Chapter 5.

The value of the franchise lies not only in its current earnings power but also in the possibilities for profitable growth. The only kind of growth that adds to the firm's intrinsic value is *growth within the franchise*—growth that, because of the competitive advantages of the firm, can earn more than the cost of the capital necessary to support it. If the value investor identifies a firm with a franchise and good prospects for growing the fran-

chise, then he or she might pay for the full EPV of the firm, in the expectation that the margin of safety will be created by the difficult-to-measure but clearly genuine value of growth.

We have described a situation in which one approach to valuation—net present value calculations—is theoretically correct and precise and can be applied equally well to any asset that produces a flow of income or cash to its owner. Unfortunately, this approach has two defects: (1) it lumps together estimates based on good information with those based on very uncertain assumptions, tainting the lot; and (2) it relies on making accurate estimates of events that are a long way in the future. The other approach to valuation puts more emphasis on current information and on fundamental competitive conditions. It depends on specific knowledge about particular industries and assets, and it places less faith in projections of rosy futures unless substantiated by current hard data. This is the discipline of value investing in the Graham and Dodd tradition. During periods of investor euphoria, value investing will appear stingy and pessimistic in its estimates of intrinsic value. Its requirements that value be found in assets and earnings power will seem antediluvian when radically new technologies or other innovations are promising a boundless future for cutting-edge companies whose first profitable quarter is always a few quarters away. Value investors understand that there are some games at which they are not adept, and the only sensible course is to decline to play. A canon they rely on is, "Use knowledge to reduce uncertainty." This canon has served them well, and it would be foolish to jettison it and buy into tenuous projections of future wealth, no matter how seductive they might be.