

ANALYZING STOCK INVESTMENTS:

THE CONCEPT OF RELATIVE VALUE

By Marcus W. Robins

All the valuation yardsticks on the relative value curve represent valid investment approaches that can produce substantial gains. Investors just need to realize that each technique as you progress along the curve tends to pose a greater degree of risk, as measured by price volatility.

It always used to puzzle me: Portfolio managers invariably insist, "Of course, we invest in value." But it was the last word, "value," that really got my goat. If the investment teachings of Benjamin Graham were the ultimate definition of value, how could other, obviously successful managers with billions of dollars of assets dare to espouse conflicting beliefs? Low price-earnings ratio approaches, growth-at-a-reasonable-price (GARP), momentum opportunities—these are all doctrines that fly directly in the face of what Graham commended as value.

Then it hit me—it was relativity that would save the day, just as it rescued cosmology in the 20th Century. Einstein deduced that the outcome of observed phenomena entirely depends on "the positions relative to the body of reference." Likewise, value is relative.

THE VALUE CURVE

The concept of relative value is illustrated in Figure 1, in what I call the Red Chip Value Curve. The curve is essentially an elongated sine wave, which has no finite points of measurement or staked marks of absolute value, since one cannot ever really define the absolute truth in value. The axes are price, or the inverse of value ($1/\text{value}$), on the y-axis, and time on the x-axis, since increasing price usually occurs with the passage of time. The curve starts at the bottom, with price to replacement value and nearly peaks at the top of the curve with momentum.

The value curve describes the different stages of value a company's shares tend to go through over time. Each point on the curve represents one yardstick of value. The curve illustrates how each measure, depending on where it falls on the curve, tends to justify an increasing price. It also shows clearly how potential future gains in value diminish as you go up the curve.

In essence, all the valuation yardsticks on the curve represent valid investment approaches. All can produce substantial gains in wealth. Investors just need to realize that each technique as you progress along the curve tends to pose a greater degree of risk, particularly as measured by price volatility.

Most important, the curve provides a graphic sense of how big of a downside risk a particular investment may carry. Stock pickers are predominantly concerned with the potential upside in a stock; this model may help serious investors draw a better perspective on the risk/reward trade-off.

The curve is not meant to imply that the measure of worth is static; rather, it is an ever-changing statistic that can either climb up the curve to ever-increasing prices until it crests in enthusiasm and price and rolls over to a lower, less lofty position; or it can roll back down on the curve if the company disappoints and its hoped-for performance is dashed on the near-term rocks.

Of course, stock values need not ascend through all the phases—a coal company is always a coal company and may never sell at a growth-at-a-reasonable-price or momentum valuation. Nor do stock values have to move

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at all, but instead may remain static at a certain level—a tightly held, low-tech electronics operation may have such a rapid pace of increasing earnings that it never experiences an expansion of the multiple to become a growth-at-a-reasonable-price candidate.

NOTHING BUT NET

The following discusses the several steps of value as they are measured by balance sheet factors. As the presentation points move up along the curve, each notation represents incrementally lesser value to the potential investor.

Bankruptcy: How can there be value in bankrupt companies? One must remember there are really two types of bankruptcy. The first is true insolvency, where debts outmeasure all forms of value in assets and the only remedy is to liquidate all the assets and pay off debtors. This is marked by Chapter 7 and would not be included as part of the curve. The other point, Chapter 11 bankruptcy, can be a situation used as an investment opportunity.

Companies that have committed to Chapter 11 protection have a liquidity dilemma; that is, they owe money to creditors, but are unable to raise the necessary funds through either sales or the short-term disposal of assets. They shield themselves from a growing crowd of jackals while they reassemble their resources. Because of the uncertainty of the outcome, the potential of losing it all, some incredible investments can be made.

Replacement Value: The value curve starts with the point marked Chapter 11 and then descends even lower to the valuation level marked replacement value. There are times when a company may have even more worth when considering the cost of trying to replace its assets than the value resulting from a bankruptcy work-out. It also reflects lower risk/higher reward prospects faced by an investor as one might

consider the costs and managerial attention of forging through a legal settlement procedure versus just operating a business through tough economic times or industry downtrends—the typical reason firms are lowered to their financial value lows.

Net, Net (P/Net): Skipping forward to price-to-net, net working capital, we come to the basis of value as originally defined by Benjamin Graham. We have placed this measure above Chapter 11 and replacement value, but still feel there are situations that can provide incredible returns.

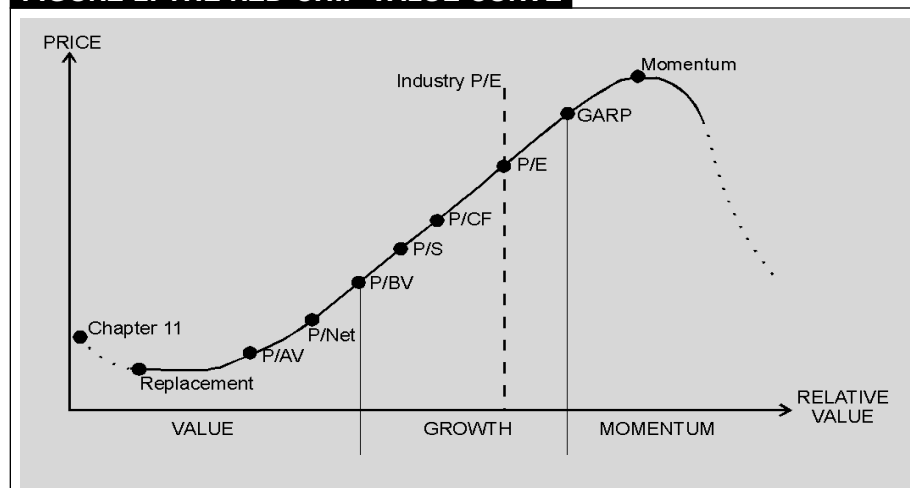
Graham advocated this method as a way to minimize risk and still achieve sizable returns. The measure is based on cash (and near-cash items) versus total indebtedness, the two items that managers of nearly every operation in the world can accurately measure and report. They are also items that auditors can specifically validate. By taking all the near-cash items on a balance sheet (cash, liquid investments, accounts receivable, and inventories) and subtracting all short- and long-term debt items, then dividing the net by number of shares outstanding, the investor has calculated price-to-net, net working capital. The real test for share value arises when this figure per share exceeds the company's share price. In this situation, you are buying the shares

of a company when the near-cash value exceeds the net share price of the firm. You are virtually getting the operation and long-term assets for free.

Believe it or not, there are still opportunities that sell this cheaply. They are a little more difficult to locate in this market, but they can be found. In our current universe of small-cap companies, American Vantage Companies (ACES) almost measures up as a net, net working capital investment. The current share price is about $\$1\frac{3}{8}$ per share and the net, net working capital value is \$0.89 per share. Now, the reason that such balance sheet values are possible is because operations are depressed and prospects are not rosy. American Vantage Companies provides casino management consulting services, a reasonable business that throws off substantial cash flow. However, the downside is that its specialty is helping to manage Indian reservation casinos, all of which happen to be in California, and it seems that the governor of that state wishes to close down the facilities—hence, the substantial discount in the share price.

Graham believed net, net was the true indicator of value since the balance sheet was so well-fortified that the company could outlast any market calamity and that the stock market would eventually understand its errors in analysis, thereby antic-

FIGURE 1. THE RED CHIP VALUE CURVE



ing buyers back into the shares.

Book Value (P/BV): The next value parameter is price-to-book-value. This is another measure of worth that depends on balance sheet factors, but it has a little different twist than the previous measures and is a more direct and easily understood gauge.

Price-to-book-value is calculated by netting all assets against all liabilities, resulting in what is known as net worth or net shareholder's equity. When this is divided by the number of shares outstanding, this term is then referred to as equity per share or book value.

The goal is to find companies that maintain a positive net worth to such an extent that it is greater than the market share price. Historically, investments made in firms that sold below their book value were sound investments and typically provided total returns greater than the market return.

The problem is that book value, as an accounting term, has no real direct correlation with the operating capability of the company. The benefit of using book value may be due to what the calculation does not tell investors. Quite honestly, book value is a product of an accountant's imagination, and the rules may let the range of values span anywhere from close to the mark to unbelievably understated.

The problem remains that the value represented in assets is based on historical costs while liabilities are measured on a current basis. If these terms were static, the measure might be more accurate, but they aren't and this is where the diligent outperform the hasty.

An example: Longview Fibre Company (LFB) owns tree farms and operates the largest liner board paper mill west of the Mississippi. The tree farms were acquired back in the 1920s for the most part, and the plant has been expanded almost nonstop since the company's founding. The value of the forest lands has been depleted, according to the

accounting rules, as trees were cut and logs sold. So, the initial cost of the investment has declined over time. But, fir in the Pacific Northwest grows about 3% to 5% per year, the trees are replanted as the harvests are made, and the overall value of standing timber, not to mention the timberland itself, has appreciated with time. This is not to say one should run out and buy Longview today. But there were times when the shares sold at an appreciable discount to book value and certainly a discount to asset value.

CADAVER ACCOUNTING

Up to this point, we have only focused on a company's value as measured by its balance sheet. That's a little like shooting a racehorse so that you can microscopically examine the entrails of the cadaver, test the strength of its bones and the elasticity of its meat, to see if it has what it takes to win the Kentucky Derby.

Not a pretty comparison, but entirely apt. The trouble is, any investor looking for capital appreciation is missing something vital. They are ignoring the perhaps unquantifiable value of a living, breathing, operating organism—the going enterprise. Given the reality of the stock market and the long-term trend of the U.S. economy, increasing individual wealth and industrial expansion lead us to believe in growth and to place value on this aspect of a company. To measure it takes a whole new set of tools, using data from the income statement as well as the flow of funds statement to measure it—at least as embodied in an individual small-cap company and its stock.

Price-to-Cash-Flow (P/CF): Cash flow is an income statement item whose significance in valuations requires some reverse logic to comprehend. Cash flow, or net cash generated from operations, is not the same as income. This is because

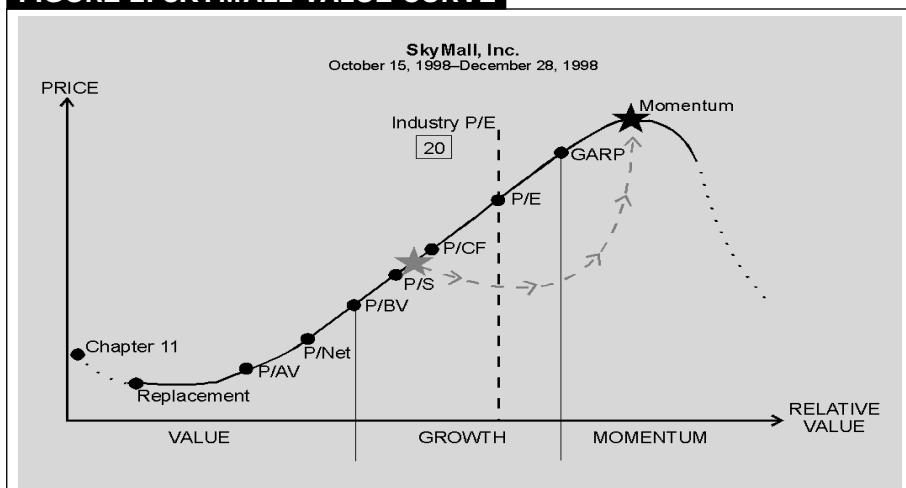
accountants have decreed that a number of charges are better expensed over the life of an asset. When Mobile Mini, Inc., (MINI) purchases another one of its steel freight containers, for example, it pays cash to acquire or construct the container. It is an investment requiring complete payment for the transaction, but the funds may either come out of the company's coffers or may be borrowed, so this transaction requires either cash or indebtedness to be adjusted (down for the former, up for the latter), and the offsetting adjustment is the addition of a new asset.

When the container is pressed into service, it suffers wear and tear over time, and accountants require that Mobile Mini charge its income statement for the depreciation. The expense for a corporation is deducted right off of revenues, thus diminishing profits. But the cash was spent when the asset was bought, and Mobile Mini is now getting paid for the use of the container. So, this gives rise to cash flow, which is different than net income or profit.

Accountants like to accrue expenses and recognize revenues as they occur to match the accounting record with the actuality of the business operation. It is a basic tenet of accountancy that books are constructed in the most conservative manner. It makes sense. But it also creates unusual opportunities for investors.

Matria Healthcare (MATR) offers a perfect New Year's example of an income statement that, because of accounting conventions, just doesn't reflect the operating results it is generating. In early 1996, this firm merged with Tokos Medical Corporation at a price that was at a premium to Tokos' book value. Because of the manner in which the merger was transacted, the combination was accounted for as a purchase. The resulting operation was saddled with goodwill (essentially, the premium paid over book), which must be amortized over time much

FIGURE 2. SKYMALL VALUE CURVE



the way an asset is depreciated. So every quarter, Matria Healthcare has included a very large, non-cash, amortization charge in its operating figures. Interestingly, the company's reported loss was nearly \$0.60 per share for 1997 and \$0.40 for 1998.

When the figures are adjusted for the non-cash amortization charge, the company was actually profitable to the tune of \$0.43 for 1997 and projected to have a profit of \$0.35 in 1998. This year, our estimate of actual reported cash earnings is nearly \$0.50, since the company decided to write-off all the aforementioned goodwill.

What does this mean to an equity investor? One, the company is actually throwing off cash, which it is using to fund its growing operations. Two, this cash flow is sufficient to pay down both long- and short-term debt. Three, while outsiders are not paying attention because of the reported danger signs, the company can build other balance sheet reserves and repair various operations that are not quite up to snuff. Four, when the amortization charge goes away, the shares should show a substantial pop in per-share profits and a subsequent jump in the share price because the market would not yet have understood the accounting shell game until it is too late.

The opportunity with enterprises that have high cash flow compared

to the market price of their shares (say, cash flow that is one-third to one-fifth of the stock price) is several-fold. Companies can fund growth without diluting current shareholders. They can buy back shares using the flow of cash to finance the transaction. They can more easily purchase other operating entities to capture a competitor, or expand into new markets, or vertically integrate production. Yes, a firm that is considered a cash cow may pay (increasing) dividends. But with a strong cash flow from operations, management can afford to be incredibly flexible, which oftentimes means an ability to show improving growth and, hence, market value.

Price-to-Earnings (P/E): This is the industry's tried and true measure of value. It is relatively simple to understand, and even novice investors can quickly grasp the meaning of the valuation multiple and can easily apply the general rule-of-thumb guides to investment decisions.

Everyone understands that profits are good when it comes to commerce. And given the level of interest rates and the expectation of earnings, shares of profitable companies should sell at some multiple of the net income per share level. Those involved in the financial markets generally understand that a price-earnings ratio in the mid-single digits

represents a fairly inexpensive share price. When a company's stock is selling at 100 times current year's earnings (or even next year's estimates), it's a signal to most that the shares are expensive. But, what guides us to generally understand these relationships, and how it is that we know when something is cheap or rich?

The war horse contingent among market professionals use a simple price-earnings ratio approach to projecting stock prices. Using current interest rates, particularly the five-year Treasury note yield, some investors take the inverse of its yield and calculate the market capitalization rate. For example, a while ago the five-year Treasury note was selling at an 8% yield. Given that parameter, the market would have been fairly priced if the S&P 400 sold at 12.5 times—that is, 1 divided by 0.08. As interest rates have declined over the last five years, the overall market multiple has risen until it has surpassed 25 times, which from a historical standpoint (using our recent experience of the past 20 years) seems high. But if one can remember back to the early 1960s and 1950s, interest rates were actually much lower (30-year rates as low as 3%), and today's experience may not be that much out of line.

How this rule-of-thumb approach works with stocks that you and I hold concerns how our stocks differ from the make-up of the S&P. For example, Monaco Coach Corporation (MNC) has produced exemplary results over the last 36 months and sells at a discount to the market indexes—according to the January 4 close, about 11.0 times our estimate for 1998 earnings of \$2.40 per share. Given our earnings projection for 1999 of nearly \$2.80 per share, or up almost 16%, it seems severe that a cyclical, heavy industry manufacturer of super-motor homes sells at almost a 50% discount to the S&P.

This could be compared to, say,

SkyMall, Inc. (SKYM). The company is a participant in the exciting E-Commerce arena, maintaining a growth strategy that leverages off its in-plane catalog business, its acquisition growth, and its nascent Internet efforts. SkyMall is generating legitimate profits and growth around 20% to 30% and is led by a dynamic management team. The stock at \$20 with a calendar estimate of earnings of \$0.25 for 1998, and maybe as much as \$0.35 to \$0.45 for the new year, signals to me that the stock seemed cheap by as much as 100% when it was priced at \$4.00, but now at \$20, whatever the prospects of the Internet, is rich.

Price-to-Sales (P/S): In a valuation approach that plays-off somewhere between the price-earnings and price-to-cash-flow area of the value curve, price-to-sales is a handy method for a quick rule-of-thumb guide to potential winners. The basis for this gauge is that companies are ultimately limited by competition as to how far they can push their gross profit margins, and hence bottom-line profits. But the reverse is also true. Companies that are marginally profitable but maintain substantial sales often have the ability to ratchet costs downward, and sometimes sneak prices upward. If the sales leverage is substantial, managerial success can be translated into a snap-up in earnings per share and subsequently a higher share price.

The point is to find companies that have a strong and growing base of revenues (and low price-to-sales ratio) and a management team with the foresight and toughness to wring out the excess expenses and forward the top-line through brand development.

LAND OF OZ

To this point, we have addressed valuation techniques based either on balance sheet items or the income statement returns.

Now it is time to focus on the uppermost reaches of the curve and

on two valuation techniques that are easy to explain, but defy the logical value. However nebulous to define, they are the foundation of investment styles used quite successfully by investment professionals.

Growth at a Reasonable Price (GARP) from an intuitive standpoint seems to make sense—more growth is always better. Indeed, in the world of finance, growth is one determinant that not only can give outsiders volumes of information about an operation, but also can hide a world of operating problems or cushion the destructive impact of inflation.

Most investors subconsciously use this method of investment and, truthfully, with spotty success because of the lack of fixed guidelines. Institutional managers believe it represents a valid investment style and claim that growth-at-a-reasonable-price is descriptive of their process. The approach is quite straightforward—growth is naturally good, and just buy stocks that are not expensive. Of course, this is sensible, but putting it into practice is a bit tricky.

The strategy is to buy growth stocks, but at a discount to their price-earnings multiples. For example, if a company is growing its earnings at a 40%-per-year clip, the stock is considered inexpensive (I don't feel right calling this cheap) if it sells at a price-earnings multiple less than 40 times—say 30 times.

In fact, today's market suggests that this valuation may be fair. With the S&P selling somewhere around the 25-times level, this price suggests the stock in question is not a bad buy when compared to market valuations and the prospects of 9% to 12% overall growth in 1998. Relative to the current market, the comparable valuation makes this look appealing.

There is another market precedent that helps support the GARP philosophy. Over time, stocks have a tendency to sell at their growth rate (a 15% compounded annual growth rate should foster the expansion of

the multiple to 15 times, 20% translates into a 20-times multiple, 25% into 25-times). As companies succeed and their profiles become better known, their valuation proceeds through the asset valuations and then income statement valuations (up the curve, if you will), until the shares are bid up to premium, growth-at-a-reasonable-price, prices (think Starbucks). As the numbers get increasingly larger, the likelihood that firms can keep up their growth pace diminishes. Further appreciation becomes less and less likely. Offsetting the companies that hit this speed barrier are firms with return on equity in excess of the high-teens and burdened with little debt, whose above-average operating performance keeps investor loyalty from flagging—for example, Wal-Mart.

You have also witnessed the weakness in the process: At what point is GARP cheap versus expensive? When the ratio of multiple to growth is 15 times at 25% growth, this seems like a respectable venture. But what about 26 times at 13% growth, as with ABM Industries (ABM)? The rule gets fuzzier and more problematic as compromises become necessary, the investment list broadens, and markets become extended. It is for this reason that the climb up the value curve begins to decelerate.

Momentum: Investors who use the momentum style are really the ultimate believers in the adage "the trend is your friend." Based on my 20 years of professional experience, I have yet to discover the basis of value on which these investments are grounded.

The process is very straightforward. Momentum investors are looking for companies recording advancing sales, earnings, share price, and transaction volumes. A combination of these traits, based on a certain level of hurdle-rate growth, indicates whether a stock is a buy or not. Once targeted and purchased, the investors hang on to the shares

until the first sign that the wave is faltering. I liken it to the Big Kahuna surfing in the tropics—surfers work to gain speed until the wave is caught and then hold on until it virtually withers away.

The problem with this investment style is pretty well depicted by the value curve illustration. The curve tops out with these investors and, too often, the price spills over the crest of the curve and falls substantially. Incidentally, the fall from grace, if you will, is of such magnitude that the price decline, exacerbated by the retreat of momentum investors dumping shares and running for cover, overreacts to the reason for the sell-off. These sell-offs turn into panics, which bring the price cascading down, oftentimes by two-thirds from the previous high.

A REAL-TIME EXAMPLE

Now how can you use this in your investment efforts on a day-to-day basis?

An example is SkyMall, which I was particularly attracted to in October. The stock had done nothing but decline since the summer—actually, it had done nothing but decline since it went public. It appeared that earnings would be flat, but up on a pretax basis, and growth for the year would come from a combination of internal growth, new relationships, and acquisitions—a confluence of opportunities that looked as if they were really taking this company to a higher limit.

The firm has an established approach of marketing its merchandise by placing their catalogs in the seatbacks of most domestic airliners, and the catalogs generate respectable revenue and profits. However, in a talk to investors this fall, the SkyMall president announced that the company had just spent \$500,000 on an Internet ordering system for internal use, which could

also be used to handle orders from outside customers, as well.

At the time, SkyMall shares were \$2.13, it was an established business that already generated profits quarterly, it had customers that could be made aware of their Internet site with little incremental advertising costs, and there was no premium in the share price for its Internet potential.

I performed a little valuation test working through the various value ranges to see where the company's shares should rest on the relative value curve. Net, net working capital equaled \$0.71—so, at two-plus times, this stock would be higher up on the relative value curve. The book value for the company was \$1.24, so the star belongs above this. Sales per share are nearly \$7.50, or better than 3.5 times the share price—still moving up the curve. Lastly, cash flow per share was \$0.35, and with the stock priced at \$2.13, the rough parameters of the valuation screen indicated that SkyMall shares were a little pricey for this point on the relative value curve.

But finding out that the company is investing at least \$0.10 per share in new growth strategies each year confirmed our belief that the point on the curve should be no higher than at the price-to-cash-flow level. So, given the range between price-to-sales and price-to-cash-flow, I positioned the SkyMall stock market (the star) between these two points (see Figure 2).

In the figure, I have included a vertical dotted line representing the average price-earnings ratio for the industry in which SkyMall participates—the catalog retailer industry sells at roughly 20 times; the adjoining box states the specific industry price-earnings ratio figure. Given the equity market and the current state of valuations, this industry price-earnings ratio point anchors the curve at a certain phase of values and helps place the stock in question

relative to its industry peers.

On December 24, 1998, the traders independently got wind of the company's Internet connection and the shares rallied to a high of \$20. On the December 28, it hit a high of \$48. From a Red Chip Value Curve standpoint, the firm would have been appropriately priced as it rallied through the \$5.00 to \$6.00 level (20 times the earnings per share estimate of \$0.25 to \$0.30). It may have been acceptably priced, as a catalog retailer, as it passed the \$8.00 level (25 times to 30 times the estimate based on the firm's long-term [four-year] growth trajectory of 25%). However, it obviously transcended its gravitational ties as a simple retailer and became an Internet darling when it landed on December 23, at \$20 per share. Even here (using a bit of hindsight), the stock might have been acceptably priced as a growth-at-a-reasonable-price valuation given that the pure, Internet sales companies are selling well above the 100-times earnings level. But above this level, anything else would be considered certainly a momentum situation and signaling certain caution—after rising to \$48, it rolled over the valuation hump and has headed downward ever since searching for its appropriate level.

This single example illustrates both the value and shortcomings of the relative value curve—it is probably too conservative when it comes to run-away enthusiasm, but is pretty handy when evaluating downside risk.

This statement also accurately states the usefulness of the curve and how it may be applicable in the investment arena. An A-rated stock selling at a growth-at-a-reasonable-price level is a far different equity opportunity than if it were selling below a price-earnings ratio valuation.

I guess all new millennium Microsofts are created equally. ♦