

Four Fundamental Tests Every Stock Investor Should Use

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Article Highlights

- Four indicators are key to stock analysis: revenue and earnings, the price-earnings ratio, dividends per share, and the debt ratio trend.
- These indicators make comparisons easier and help evaluate a company's performance.
- Look at a combination of indicators and historical trends to improve the accuracy of your analysis.

Fundamental analysis is a sensible, valuable and sound system for comparing companies and for narrowing down the list of strong candidates.

But the problem for every investor remains: Out of the range of possible indicators, which fundamental tests should you use? More to the point, how do you know you are getting an accurate picture based on the indicators you rely on to pick value investments?

Everyone has a short list of their favorite indicators. However, there are four that virtually everyone needs; for some, a list of favorite indicators does not provide the full story of a company's financial strength or working capital trends. These four essential indicators not only make comparisons between companies easier and more revealing, they also help you study the company's recent history of results and judge operations and working capital to ensure that the company you put on your short list belongs there.

The four tests work together to avoid a common problem: focusing on one or two important tests while deeper and perhaps growing problems go unnoticed.

1. Revenue and Earnings

This combined study is essential and should be summarized for at least five years using dollar values as well as net profit margins (net income divided by revenues).

You want to watch out for companies whose revenues are



growing while profits are shrinking—a very negative trend. The same observation applies when revenues are on the decline but net profit margin is declining more rapidly, also a big negative.

The ideal outcome is growing net profit margin, even when revenues and the dollar value of earnings are falling. Even in weak market cycles, well-managed companies should be expected to produce improving net profit margins over time.

2. Price-Earnings Ratio (P/E)

The comparison between price per share and earnings per share is an oddity in analysis because it compares a technical analysis element (price) to a fundamental analysis element (earnings). The price-earnings ratio is calculated by simply dividing the price by earnings per share. The multiple represents how many years of per share net earnings are reflected in the current stock price.

A price-earnings ratio that is too high means the stock is probably overpriced; a price-earnings ratio that is too low indicates lack of interest in the company. As a general rule, the desirable middle ground is between 10 and 25.

However, there is another problem with the price-earnings ratio. The timing of each side in the equation is not identical. Price is current but earnings per share is historical. So, the farther away from latest reported earnings, the less reliable the price-earnings ratio. For this reason, the historical price-earnings ratio becomes more meaningful when analyzed as

Table 1. Financial Trend Analysis for Target (TGT)

Year	Revenue (\$ Mil)	Net Income (\$ Mil)
2010	65,357	2,488
2009	64,948	2,214
2008	63,367	2,849
2007	59,490	2,787
2006	52,620	2,408

Year	Revenue (\$ Mil)	Net Income (\$ Mil)	Net Profit Margin (%)
2010	65,357	2,488	3.8
2009	64,948	2,214	3.4
2008	63,367	2,849	4.5
2007	59,490	2,787	4.7
2006	52,620	2,408	4.6

Source: S&P Stock Reports.

a high-to-low range for a period of years, and not as a singular value at any one moment.

3. Dividends per Share

You will prefer to invest in companies whose dividend is growing each year. The dividend is easily overlooked, but it represents a major factor in your overall return from investing in stock.

You can also increase dividend yield by reinvesting dividends to purchase additional partial shares; this has the effect of creating compound returns of the dividend yield (you own more shares for the same initial investment).

The best-managed companies increase dividends each year, which is also a reflection of growing profits and well-managed working capital (assets minus liabilities). The company cannot increase its dividend if it has little or no liquidity.

Seek companies that increase dividends every year over the long term. These so-called “dividend achievers” tend to be better managed than average and fall into the category of value investments more than those companies with falling or skipped dividends.

4. Debt Ratio Trend

The debt ratio (long-term debt

divided by total capital, which is combined long-term debt and stockholder’s equity) can be overlooked, but it is the most important test of working capital.

The current ratio (current assets divided by current liabilities) can be misleading, especially if the company has allowed its long-term debt to grow in order to bolster cash, accounts receivable and inventory to keep the current test steady.

Looking only at the current ratio is also a problem because it does not reveal the real trend in debt. A growing long-term debt is a big problem, because it translates to ever-higher interest and debt service in the future, and that means less capital remains for expansion or dividends.

You want to see a steady or declining debt ratio from year to year, not growing levels.

Revenue and Earnings

The first test is a year-to-year comparison between revenue and earnings, including the dollar value of earnings as well as the net profit margin (net income divided by revenues). This is crucial because the relative changes in net income are difficult to spot if you limit the analysis to dollar values only. For example, look at Table 1, which shows the trend in results for Target (TGT).

This does not look bad at all. Revenues grew each year; in fact, revenue growth was both strong and consistent. Profits did not improve as much, but overall the picture seems fair. However, when you calculate the net profit margin, the picture is quite different, as can be seen in the bottom part of Table 1.

The small bump in the latest year does not offset the fact: In spite of strong revenue growth, net income was flat and net profit margin declined during this period. You can define growth in many ways, but this complete picture of Target’s results shows that even with a 24% increase in revenues over five years, the net profit margin fell. The seemingly positive trend is actually negative.

Analysis of revenue, income and

net profit margin takes on even more meaning when comparisons are made between two companies in the same industry. For example, two companies in the diversified chemicals sector are interesting when studied on their own, but even more revealing when their annual results are compared, as shown in Table 2.

Revenue and net income results for DuPont (DD) were relatively flat during the period; however, the most troubling aspect of these results is the net profit margin. Assuming that 2006 and 2007 were high points in the business cycle, the company reported higher revenue than the 2006–07 time frame during two out of the last three years, but lower profits and lower net profit margin.

Compare this to one of DuPont’s major competitors, Dow Chemical (DOW), whose results are shown in the lower half of Table 2.

Revenue levels were much higher than DuPont’s, but the net income trend was significantly lower. Even worse, net profit margin fell steadily over four of the five years—only the latest report bumped up. With the revenue levels somewhat flat from the beginning to

Table 2. Financial Trend Analysis for DuPont and Dow Chemical

Results for DuPont (DD)			
Year	Revenue (\$ Mil)	Net Income (\$ Mil)	Net Profit Margin (%)
2010	32,687	3,031	9.3
2009	27,328	1,755	6.4
2008	31,836	2,007	6.3
2007	29,378	2,988	10.2
2006	27,421	3,148	11.5

Results for Dow Chemical (DOW)			
Year	Revenue (\$ Mil)	Net Income (\$ Mil)	Net Profit Margin (%)
2010	53,674	2,321	4.3
2009	44,875	538	1.2
2008	57,514	579	1.0
2007	53,513	2,887	5.4
2006	49,124	3,724	7.6

Source: S&P Stock Reports.

the end of the period, it is noteworthy that the 7.6% net profit margin for 2006 declined to only 1.2% in 2009 before rebounding somewhat. Based on this test, DuPont was a much stronger company, even with its declining net profits.

Price-Earnings Ratio (P/E)

The second test is the price-earnings ratio. This test should involve multiple-year summaries of high and low price-earnings ratios rather than the just the latest calculation. The use of a forward price-earnings ratio (based on estimates of future earnings) has become popular, but this ratio is not an accurate fundamental test. Because earnings have to be estimated, the forward price-earnings ratio is much less reliable than most fundamental investors want and need to use in their analysis.

With the general rule of thumb that the price-earnings ratio should reside between 10 and 25, both DuPont and Dow Chemical reported ranges within generally acceptable levels for the five years, with one exceptional spike for Dow, as shown in Table 3.

The price-earning ratio range for Dow Chemical during 2008 indicates some disturbing volatility for part of the year. In 2009, net income was too low to register, a sign of volatility in the fundamentals as well as on the technical side. With these two years of results, how can you determine whether the current stock price is reasonable? For 2010, Dow Chemical's price-earnings ratio ranged between 13 and 20, which represents a return to the acceptable mid-range level. However, Dow's recent price-earnings ratio volatility makes it very difficult to estimate future changes on either the fundamental or technical side.

In these examples, the price-earnings ratio analysis for DuPont is reassuring, with its five-year record of consistent mid-range results. However, Dow Chemical's price-earnings ratio range spiking in 2008 (followed by low profits in 2009, making the price-earnings ratio non-existent) is not comforting at all. In this respect, the price-earnings ratio can also provide

Table 3. Price-Earnings Ratios for DuPont and Dow Chemical

Year	DuPont Price-Earnings Ratio		Dow Chemical Price-Earnings Ratio	
	High (X)	Low (X)	High (X)	Low (X)
2010	15	10	20	13
2009	19	8	nmf	nmf
2008	24	10	70	24
2007	17	13	16	13
2006	15	11	12	9

*nmf = no meaningful figure.
Source: S&P Stock Reports.*

an indication of volatility in both share price and fundamentals. Looking back at the revenue and profit analysis, it is apparent that recent activity in Dow Chemical makes it difficult to forecast ahead. For investors considering buying shares of any company, uncertainly like this is unsettling.

Dividends per Share

The third indicator everyone can use to narrow down the list of stock choices is the history of dividends per share. Dividend yield is an important portion of overall return even though you might easily forget or overlook it. The truth is that some investors treat dividends as insignificant or unimportant. This is a mistake.

It is not enough to look only at the dividends per share. A \$1.00 per share dividend for a \$40 stock is twice as valuable as a \$1.00 per share dividend for an \$80 stock, for example. You need to compare the yield, based not only on current price per share, but also on your basis in the stock for shares already in your portfolio. This is important because yield changes every time the stock price changes. The dividend yield commonly listed on stock quote pages is indicated dividend (expected dividends over the next year) divided by price.

For example, consider the change in yield for a stock currently priced at \$50 per share that you bought at \$35 per share. The dividend payment is \$1.00 per year. Your observed dividend yield was 2.9% (\$1/\$35) even though current

dividend yield is only 2.0% (\$1/\$50). This is true because you realize the yield based on your purchase price and not on current price per share. Your true yield is most accurate when calculated on this basis. However, for shares of stock you do not yet own, dividends per share and dividend yield are important comparative tests. In the case of DuPont and Dow Chemical, five years of dividends per share are shown in Table 4.

Based solely on the record of dividends per share, the DuPont record is positive. Its dividend increased even while net income and net profit margin both fell. (Dividend data for the most recent year was not available as of publication date.) As satisfying as it is to receive higher dividends, what are the consequences of paying a higher dividend every year while profits fall? The next indicator, the debt ratio, provides an answer to this troubling question.

Dow Chemical increased its dividend for the first three out of the five

Table 4. Dividends per Share for DuPont and Dow Chemical

Year	DuPont Div/Share (\$)	Dow Chemical Div/Share (\$)
2010	na	na
2009	1.64	0.60
2008	1.64	1.68
2007	1.52	1.64
2006	1.48	1.50

*na = not available.
Source: S&P Stock Reports.*

Table 5. Balance Sheet Analysis for DuPont and Dow Chemical

Year	DuPont		Dow Chemical	
	Debt Ratio (%)	Current Ratio (X)	Debt Ratio (%)	Current Ratio (X)
2010	51.0	2.0	45.0	1.7
2009	55.5	1.8	46.3	1.5
2008	49.8	1.6	35.2	1.2
2007	32.5	1.5	25.9	1.5
2006	37.2	1.6	29.3	1.6

Source: S&P Stock Reports.

years and in 2009 cut back (2010 is not yet known). Stockholders invariably view this as a strong negative; however, like DuPont, Dow experienced greatly reduced net income and net profit margin. Cutting the dividend might have been the most prudent decision based on poor results in operations.

The dividend yield itself varies with ever-changing stock prices. As of mid-August 2010, the yield for DuPont was about 4%, an exceptionally good dividend yield. At the same time, Dow Chemical's dividend yield was about 2.4%. So strictly on the basis of dividend yield, DuPont was more attractive based on outdated but available data.

However, this analysis is not complete without also considering the trend in the debt ratio. In a sense, comparing dividend yield during periods of falling earnings with the debt ratio trend is an important form of reading between the lines of the fundamental trend.

Debt Ratio Trend

To some analysts, the ratio of long-term debt to total capital is esoteric and far in the future and thus of little immediate interest. They may believe it does not apply to the rather immediate concern of working capital strength (the extent to which current assets exceed current liabilities), meaning they can ignore the debt ratio without consequence. However, the debt ratio is not esoteric at all; it is one of the most reliable trend indicators concerning working capital. If the level of long-term debt increases

each year, it is very negative. This means the future profits have to go increasingly to debt service and less to dividends or expansion.

Analysts may be able to explain increasing dividends during times of declining profits by also looking at the company's decision to acquire more long-term debt. Contrary to the belief that bigger dividends are always better, it may be much wiser in weak economic conditions to cut back the dividend and hold the long-term debt level stable.

Another motive for accumulating more long-term debt is to keep the current ratio artificially high. If a company is losing money, or if its expenses outpace the increases in revenues, internal management may be poor. If the current ratio (current assets divided by current liabilities) remains at "acceptable" levels (usually 1.0 or higher, but this varies by industry) in such times, check the levels of current assets. If debts are rising but the company is simply increasing its current assets to match growing current liabilities, the current ratio is meaningless.

An example of this problem can be seen in the debt ratio and current ratio figures for both DuPont and Dow Chemical in Table 5.

These results are revealing. If you study only the current ratios, the favorite standard for working capital, you would conclude that both companies are doing a fine job of keeping liquidity mostly at exceptional levels, evidenced by ratios of 1.5 or higher and rising, even while profits fell throughout the entire period. That fact betrays the apparent working capital health.

If the analysis includes both the current ratio and the debt ratio, the true picture emerges. Both companies allowed their long-term debt to grow during the five-year period, along with corresponding growth in the year-end levels of current assets. There is nothing fraudulent about this; in fact, GAAP rules acknowledge that corporations have every right to make decisions concerning appropriate levels of debt, both current and long-term, without criticism and without the need for disclosure

beyond the passive annual statement explanations. This means that a true test of working capital cannot be restricted to the current ratio; it is more accurate to study the long-term debt trend as well and to track how both the debt ratio and current ratio evolve over several years. This gives you the true picture.

When you see profits declining each year but the current ratio remaining strong and consistent, something is wrong. The two trends are contradictory. The answer is, invariably, that long-term debt is growing to offset declining profitability each year.

Putting It All Together

Indicators and trends are the lifeblood of fundamental analysis. However, two realities have to come into the analysis in order to ensure accuracy:

- **You cannot study any single indicator by itself; the trend is what really counts.** You need at least three to five fiscal years of study to spot a trend, and the longer the period, the better. You need to watch the trend and summarize the dollars-only results in percentage terms to grasp how matters are evolving. For example, you will understand the net income trend most completely when you reduce it to net profit margin percentage result (net income divided by revenue). The same is true for all fundamental indicators. Percentages and ratios reduce dollar values to easily tracked and comprehended trends.
- **Trends take on accuracy when you review related indicators at the same time.** If you look only at the annual trend in revenue (without also tracking earnings), or only the current ratio (without also following the debt ratio), you do not get the full story. You need to find related indicators and track them together as parts of a larger picture. The four major indicators explained here give you good examples of this. Although they approach the

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How Your Age Affects Diversification and Rebalancing

How you allocate your portfolio depends on age, health and wealth. The longer the period of time before you need to withdraw cash and the smaller the proportion of total savings that will be withdrawn, the greater your tolerance for risk.

Investors in their 20s will not need their retirement savings for several decades. Therefore, they can withstand a lot of volatility within their portfolios and should have a very high allocation to stocks.

Retirees, conversely, usually need to withdraw from their portfolios. The amount of the withdrawal will depend on lifestyle, health and other sources of income (e.g., a pension). Such investors may need a higher allocation to bonds than is suggested in the Moderate Investor profile.

Both kinds of investor will need to factor in their age and changes in their lives as they rebalance. A rule

of thumb is to increase the allocation to bonds by 1% each year. This measure must be adjusted, however, for any changes in financial needs.

An investor needing to withdraw money should use annual rebalancing to free up cash. Proceeds from the best-performing asset classes should first be used to fund the withdrawal. The portfolio is then rebalanced.

Finally, be sure to consider tax issues when diversifying and rebalancing. The most tax-efficient assets—including municipal bonds and stock index funds—should be held in taxable accounts. Investments that are more likely to incur taxes should be held in tax-deferred accounts. Similarly, income-producing investments—including dividend-paying stocks—may be more suitable for a traditional IRA than a Roth IRA because they produce cash for required minimum distributions (RMDs).

set price within a given time period) subjects you to the risks of market timing.

Conclusion

Both diversification and rebalancing

are long-term strategies, and they should be treated as such. A common mistake that investors make is abandoning the strategies rather than sticking with them. Failing to stick with these strategies increases your portfolio's exposure to

the whims of the market, as the data in this article has shown.

There is no magical formula to building and preserving wealth. Rather, it requires patience, discipline and a sound portfolio strategy. ▲

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analysis of capital and earnings strength from different points of view, they provide you with essential insights into the trend a company is undergoing.

A combined study of revenues and earnings, the price-earnings ratio, dividends, and the debt ratio trend paints an accurate picture of the companies you are tracking. By watching all of these trends over a period of years, you can spot those companies that

are consistently outperforming their competitors. Of equal value, you can also spot gradual changes in the trends. For example, had investors in General Motors (GM) been tracking these four trends over time, they would have been able to see a declining profile and get out years before the stock price collapsed. Before General Motors was liquidated, its debt ratio was over 100% (meaning debt was higher than total stockholder's equity), but the current ratio for 2005 was 2.9—not bad on the surface.

This was but one example of the current ratio failing to reveal the truth about a company's status. A more comprehensive analysis is essential to reveal the entire truth about operating trends and working capital.

The traditional indicators—often reported in isolation rather than as part of a trend—may satisfy the need among investors for an endless supply of good news, but anyone who wants the full truth will want to dig deeper and look at the entire picture. ▲

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