

A Dividend Approach to Judging the Value of Stocks

By Jaclyn N. McClellan and John Bajkowski

Article Highlights

- Comparing a stock's current dividend yield to its past range can provide a useful gauge of valuation for mature companies.
- The earnings payout ratio, the free cash flow payout ratio and cash per share measure the safety of the dividend.
- The relative dividend yields of the 30 Dow Jones industrial average components are analyzed.

Investors are always seeking undervalued stocks to add to their portfolios while pruning those that are overvalued.

However, by only following a stock's price it is impossible to determine its value. While one could argue that over the long term stock prices do truly reflect value (markets are efficient over the long term), it is reasonable to assume that price and true value have periods of mismatch.

Furthermore, a stock that is priced at \$5 per share is not necessarily a better value than a stock with a share price of \$105. Without a relative measure of value, it is impossible to tell. For mature dividend-paying companies, such as those that make up the Dow Jones industrial average, examining how a stock's current dividend yield compares to its past trends can provide a useful insight into value.

A stock's dividend yield is computed by taking the indicated dividend—the most recent quarterly dividend multiplied by four—and dividing it by the share price. Both the indicated dividend and the dividend yield can easily be found on financial websites such as Yahoo Finance, The Wall Street Journal, Google Finance and even AAI.com. If a stock's price rises much faster than its dividend, the yield will fall to a level indicative of a price having been bid up too far. This, in turn, can suggest that the stock is ready for a decline. Conversely, if the dividend yield rises to a historically high level, the stock may be poised for a run-up in price, provided the dividend is considered sustainable.

Value investors are drawn to stocks with high yields. As



investors begin purchasing shares, the dividend yield's denominator (price) increases, pushing the ratio lower. Once the price appreciation causes the yield to decline, investors begin to sell the stock because it is no longer an attractive investment on a dividend-yield basis. The downward pressure on price from investors exiting the stock pushes the dividend yield higher once more, making it an attractive purchase for value investors seeking yield. Value investors become enticed by the opportunity to realize a higher stream of cash payments relative to the price paid.

Dividend yield analysis works best with companies that have a meaningful yield of roughly 2% or greater (greater than or equal to the market yield). These are typically mature firms that are not expanding greatly and do not need to plow all of their earnings back into the company. These mature companies can afford to pay a dividend that attracts investors looking for steady current income. A young or very small company may struggle to continually pay and increase a dividend; the firm may rather continually invest in itself to fund growth. Investors who prefer dividend-rich firms must determine their opportunity costs between seeking dividend income or high potential capital gains from a firm that achieves high future growth. While there may be stable dividend-paying firms that also grow at double-digit rates every year, this is typically not the case.

Once a company starts paying a dividend, executives are hesitant to decrease the dividend payment because investors will interpret the action as a warning. The company's stock price will suffer if investors are surprised by a cut

Table 1. Dividend Yields for DJIA Stocks

Company (Ticker)	Current Div Yld (%)	10-Yr Avg Div Yield (%)	% Above (Below) Avg Yield	Div Chg: 2015 to 2016 (%)	10-Yr Cpd Div Grth Rate (%)	Payout Ratio (%)		Div to Free Cash Flow (%)		Cash to Div Ratio 2016 (X)	Div Increases Y11 to Y1	Cash Div Paid Each Year Since
						2015	2016	2015	2016			
3M (MMM)	2.5	2.6	(3.8)	8.3	9.2	53	53	52	51	0.9	10	1916
American Express (AXP)	1.7	1.6	6.3	8.2	7.6	22	21	12	16	3.0	7	1870
Apple (AAPL)	1.6	na	na	10.1	na	21	26	16	23	0.8	5	2012
Boeing (BA)	3.2	2.6	23.1	22.8	14.1	51	61	38	38	3.1	9	1942
Caterpillar (CAT)	3.2	2.8	14.3	4.8	10.4	70	nmf	51	67	4.0	10	1914
Chevron (CVX)	3.9	3.6	8.3	0.2	7.9	174	nmf	(80)	(153)	0.9	10	1912
Cisco Systems (CSCO)	3.5	na	na	14.1	na	44	42	35	36	2.5	6	2011
Coca-Cola (KO)	3.5	2.6	34.6	6.6	8.3	77	91	71	91	1.4	9	1893
Disney (DIS)	1.4	1.3	7.7	(21.5)*	16.4	37	25	46	27	1.6	6	1957
E I du Pont de Nemours & Co (DD)	1.9	3.8	(50.0)	(11.6)	0.3	79	53	224	58	3.5	5	1904
Exxon Mobil (XOM)	3.6	2.6	38.5	3.5	8.8	75	159	314	210	0.3	10	1882
General Electric (GE)	3.2	3.6	(11.1)	1.1	(1.0)	nmf	103	73	(113)	5.9	8	1899
Goldman Sachs (GS)	1.1	1.1	0.0	2.0	6.4	21	16	19	41	112.8	7	1999
Home Depot (HD)	2.4	2.7	(11.1)	16.9	15.1	43	43	38	42	0.8	8	1987
IBM (IBM)	3.3	2.2	50.0	10.0	17.5	37	44	38	41	1.5	10	1916
Intel (INTC)	3.0	3.1	(3.2)	8.3	10.0	40	48	39	40	1.2	9	1992
Johnson & Johnson (JNJ)	2.6	3.1	(16.1)	6.8	8.0	53	52	51	55	2.2	10	1944
JP Morgan Chase (JPM)	2.3	2.5	(8.0)	9.3	3.3	28	30	9	34	3.6	8	1827
McDonald's (MCD)	2.9	3.1	(6.5)	4.9	13.7	71	66	68	76	0.4	10	1976
Merck (MRK)	3.0	3.8	(21.1)	2.2	1.9	114	130	46	58	1.3	5	1935
Microsoft (MSFT)	2.4	2.2	9.1	14.9	14.8	81	66	43	44	0.8	9	2003
Nike (NKE)	1.3	1.2	8.3	15.4	15.1	27	27	24	52	4.0	10	1984
Pfizer (PFE)	3.8	4.2	(9.5)	7.1	2.3	99	101	52	53	0.3	8	1901
Procter & Gamble (PG)	3.0	2.9	3.4	2.5	8.7	104	70	65	59	0.9	10	1891
Travelers Companies (TRV)	2.2	2.5	(12.0)	10.3	9.7	21	25	21	18	0.4	9	2003
United Technologies (UTX)	2.3	2.4	(4.2)	2.3	9.9	29	42	52	120	3.4	10	1936
UnitedHealth (UNH)	1.5	1.1	36.4	26.7	54.8	31	32	22	28	4.6	7	1990
Verizon (VZ)	4.8	5.5	(12.7)	2.6	3.4	51	71	81	181	0.3	10	1984
Visa (V)	0.7	na	na	16.7	na	19	23	19	26	4.5	9	2008
Wal-Mart (WMT)	2.8	2.4	16.7	2.0	11.6	43	46	40	30	1.1	10	1973

*Decrease in payment is not comparable, as it reflects transition from annual to semiannual dividend payment between calendar-years 2014 and 2015.
Source: AAI's Stock Investor Pro/Thomson Reuters. Data as of 4/10/2017.

or suspension, which is why dividend investing is usually for the investor seeking *steady* current income. Paying a steady dividend and regularly increasing the dividend payment shows investors that executives are confident in the company's ability to generate profit to pay the dividend. This has given rise to the phrase "dividends are sticky."

Increasing dividend payments are needed to maintain a given dividend yield level when a stock's price is rising. If a stock's price a year ago was \$100, and its annual indicated dividend was

\$2, its yield would have been 2% ($\$2 \div \100). If the stock's price last week was \$120 and the annual indicated dividend has not changed, the yield would have fallen to 1.7% ($\$2 \div \120). In order to increase the dividend yield and keep the yield attractive for value investors, the company must boost its dividend as its price increases.

When examining a firm's past dividend record, the best approach is to use enough historical price and dividend information to observe the pattern over several market cycles, preferably 10 to

15 years. A longer time period allows you to get a better idea of the typical range of the yield. To determine when a security is undervalued or overvalued using a valuation ratio requires one to develop a "baseline." If only years during a bull market are analyzed, an incorrect conclusion may be drawn about the typical range of the valuation.

It is also helpful to use information that is presented on a calendar-year basis to allow direct comparison between companies. Keep in mind that not all companies have fiscal years that

correspond with calendar years.

A Look at the Dow

Table 1 displays the current dividend yield and the 10-year average dividend yield for the stocks in the Dow Jones industrial average (DJIA). The wide range for both current yields and their 10-year averages is a reflection of the diverse nature of the 30 Dow components. Rather than a homogenous set of blue-chip companies, the Dow is composed of companies with varying financial strength that operate in a wide range of industries, many of which are not “industrial.” The Dow is price-weighted, and to compensate for the effects of stock splits and other adjustments, it is currently a scaled average. There are no specific rules for inclusion in the Dow Jones industrial average; stocks are selected merely based on a broad set of guidelines requiring large, respected, substantial enterprises that represent a significant portion of the economic activity in the United States. The Dow is often used as a proxy for the market’s dividend yield valuation, because historically most of the components pay a dividend.

To find potentially attractive securities among this list, we compared the current dividend yield of each stock to its historical average yield, being careful to select a time period that covers at least one complete economic/market cycle.

There are currently 13 companies trading with yields below their 10-year averages, 13 trading with above-average yields and one trading at a yield in line with its historical average. All the stocks in the Dow Jones industrial average currently pay a dividend, but three constituents don’t have a 10-year history [Apple (AAPL), Cisco Systems (CSCO) and Visa (V)].

In searching for undervalued securities, you should consider firms whose current dividend yields are substantially above their historical average yield. Table 1 shows four Dow components with current yields at least 25% above their historical averages: Coca-Cola (KO), Exxon Mobil (XOM), IBM (IBM) and

UnitedHealth (UNH). As an example, IBM’s current yield of 3.3% is 50.0% above its 10-year average of 2.2%.

How Safe Is the Dividend?

Every stock has a unique profile of value, and its dividend yield can help investors determine how relatively undervalued or overvalued its share price is. Undervaluation is not synonymous with low price; it is when price is low in relation to the dividend payment. But there’s another caveat to be aware of: A stock isn’t necessarily undervalued solely because its yield is high in relation to its historical average. One must also verify the sustainability of the dividend payment and the financial health of the company before determining if the stock is actually undervalued, or if it is deserving of a lower price due to concerns about the company’s profitability or sustainability going forward. For a high relative current dividend yield to be considered a sign of an undervalued stock, the company must be expected to continue to pay and expand the dividend in the future. A high dividend yield may be a sign that the market expects the company to cut its dividend. While corporate executives typically go to extensive lengths to avoid cutting the dividend because of the negative connotation, it does happen. What matters is not the yield but the ability to pay.

If you buy a stock based solely on its attractive dividend yield, you may find yourself in what some investors refer to as a “value trap.” A value trap occurs when investors purchase shares of a stock based on its low valuation multiple, but find that its share price never “reverts back to the mean.” Rather, the stock stays undervalued because it was deserving of a lower price. Value stocks are purchased when investors believe they may be *temporarily* out of favor, but being out of favor may turn out not to be temporary. This concept applies to valuation analysis in general, beyond just dividend yield valuation.

There are a couple ways to determine if the dividend payment is stable. One is to look at the earnings payout

ratio (often just called the payout ratio). The payout ratio is calculated by dividing annual dividends per share by annual earnings per share. Generally, the lower the payout, the more secure the dividend. Ratios above 50% are harder to maintain. However, for some industries, such as utilities, it is common to have payout ratios as high as 75%. A 100% payout ratio indicates that a firm is paying out all of its earnings to its shareholders. Figures above 100% indicate that the payout is greater than earnings; firms cannot afford to pay out more than they earn in the long run without destroying their balance sheet and long-term growth opportunities.

Four of the stocks in Table 1 have 2016 payout ratios above 100%: Exxon Mobil, General Electric (GE), Merck (MRK) and Pfizer (PFE).

Caterpillar (CAT) and Chevron (CVX) both have “nmf”—non-meaningful figure—for their 2016 payout ratios due to profit losses. The payout ratio is calculated using earnings based on generally accepted accounting principles (GAAP), and for these two firms, GAAP earnings were negative. If Caterpillar’s payout ratio were instead calculated using its full-year 2016 adjusted earnings of \$3.42 per share, its payout ratio would be 90% (2016 dividend payment of \$3.08 per share divided by \$3.42 adjusted earnings per share). Caterpillar has faced significant headwinds in recent years due to a global industrial slump. The company has engaged in significant restructuring initiatives, which is why adjusted earnings differ so significantly from GAAP earnings (along with a goodwill impairment charge and deferred tax valuation allowance).

Earnings do not always accurately reflect cash generation and use within a firm. Since dividends are paid from cash, cash generation is important for dividend-paying firms. Furthermore, earnings can often be manipulated by management. As we saw with Caterpillar in the example above, GAAP earnings and adjusted earnings can differ significantly based on what the company considers “ongoing operations.”

Dogs of the Dow

The Dogs of the Dow strategy invests in the 10 highest yielding stocks within the Dow Jones industrial average (DJIA). At the start of each calendar year, an investor invests equal dollar amounts in each of the 10 highest-yielding Dow components and holds the portfolio for the entire year. On the first trading day of the next calendar year, the process repeats.

The Dogs of the Dow strategy only considers the highest-yielding stocks; it does not consider relative dividend yield. In other words, it doesn't require an investor to compare a stock's current dividend yield to its historical average range to determine whether or not its valuation is attractive on a relative yield basis. The strategy simply calls for investing in stocks with the highest absolute dividend yields, with no other analysis conducted. As such, it can prompt an investor to buy a stock whose valuation isn't attractive or whose dividend may be at risk of being cut.

Tables 2 and 3 below compare and contrast the "Dogs" with the 10 Dow components trading with the highest relative dividend yields (most attractive valuation).

Apple (AAPL), Cisco Systems (CSCO) and Visa (V) were excluded from relative yield options because a 10-year yield isn't available for them (they started paying dividends less than 10 years ago). However, Cisco Systems is among the highest-yielding Dow stocks and is displayed in the Dogs of Dow table.

Because the universe is small (30 stocks), it is not surprising to see overlap between the two lists: Boeing (BA), Caterpillar (CAT), Chevron (CVX), Coca-Cola (KO), Exxon Mobil (XOM), and IBM (IBM) appear in both tables.

Verizon (VZ) is the highest-yielding stock of the Dow Jones industrial average components, so it would be selected if an investor were to follow the Dogs of the Dow strategy. However, the stock's current dividend yield is 12.7% below its historical 10-year average, signaling overvaluation on a dividend yield basis. Pfizer (PFE) and General Electric (GE) are two other Dow components that make the Dogs of the Dow list, but have current yields below their 10-year averages.

Table 2. Dogs of the Dow: Absolute Dividend Yield

Company (Ticker)	Dividend Yield		Percent Above (Below) Avg Yield
	Current (%)	10-Yr Avg (%)	
Verizon (VZ)	4.8	5.5	(12.7)
Chevron (CVX)	3.9	3.6	8.3
Pfizer (PFE)	3.8	4.2	(9.5)
Exxon Mobil (XOM)	3.6	2.6	38.5
Cisco Systems (CSCO)	3.5	na	na
Coca-Cola (KO)	3.5	2.6	34.6
IBM (IBM)	3.3	2.2	50.0
Boeing (BA)	3.2	2.6	23.1
Caterpillar (CAT)	3.2	2.8	14.3
General Electric (GE)	3.2	3.6	(11.1)

Table 3. Dow Components With Highest Relative Dividend Yield

Company (Ticker)	Dividend Yield		Percent Above (Below) Avg Yield
	Current (%)	10-Yr Avg (%)	
IBM (IBM)	3.3	2.2	50.0
Exxon Mobil (XOM)	3.6	2.6	38.5
UnitedHealth (UNH)	1.5	1.1	36.4
Coca-Cola (KO)	3.5	2.6	34.6
Boeing (BA)	3.2	2.6	23.1
Wal-Mart (WMT)	2.8	2.4	16.7
Caterpillar (CAT)	3.2	2.8	14.3
Microsoft (MSFT)	2.4	2.2	9.1
Nike (NKE)	1.3	1.2	8.3
Chevron (CVX)	3.9	3.6	8.3

Another measure of dividend safety is the free cash flow payout ratio. Free cash flow adds back to earnings any non-cash expenditures (such as depreciation), but subtracts capital expenditures and, if paid, preferred stock dividends. A dividend-to-free-cash-flow ratio measures whether enough cash is being generated to cover the dividend payments. The lower the ratio, the more secure the dividend. In Table 1, the free cash flow payout ratio is calculated pre-dividend

(free cash flow is not adjusted to reflect dividends paid on common stock). By analyzing the pre-dividend free cash flow payout ratio, you can determine how much free cash flow is available to pay the dividend. Chevron has a negative free cash flow payout ratio for 2015 and 2016 and General Electric (GE) has a negative free cash flow payout for 2016. The ratio becomes negative when free cash flow is negative and indicates the need for the company to use existing cash or look to

outside financial resources to fund not only operation and capital expenditures, but dividends as well.

Equally important as the generation of free cash flow is the pool of cash available to a firm. A measure of cash on hand to pay dividends is the cash per share (cash plus all marketable securities divided by the number of shares outstanding) divided by the most recent fiscal year's dividend (2016). The ratio shows how many times the dividends can

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have asked you that I haven't?

SN: I think the most important thing I would stress is that when people hear the word “quant,” they think it’s some computer doing crazy things on its own. It’s not, because even when people use very automated processes, there’s a human being who gives the computer instructions on what to do. Humans write a program to do that.

All these processes are driven by human beings and it’s all a matter of how much automation you want, whether you want to meet management or not, whether you want to use metrics that are available in the firm’s financials or whether you want to use all sorts of other metrics.

Our fundamental quant approach involves a very structured way of looking

at stocks and a very systematic way of constructing portfolios. That’s something that is important. A lot of quants spend a lot of time on portfolio construction in addition to stock selection.

I’ll give an example. When I was a professor in my previous life, a friend of mine who was a professor with me said he had a diversified portfolio. I said, “That’s great. Let me look at your portfolio.”

I looked at it. He had a portfolio of 30 technology stocks. He thought it was diversified, but it really wasn’t because there were 30 tech stocks in it. So I think another thing individual investors should look at is whether their portfolios are truly diversified or not. Do they have different types of stocks in their portfolios?

When I say “quant,” it’s really saying, “How do I construct a diversified portfolio that not only maximizes return, but also maximizes return per unit of risk?” So I am not just trying to get you the highest return, I am trying to get a high return given a certain level of risk. That’s something very important not only for a quant, but also for any individual investor: Look at the risk in their portfolios and not just look at the return. ▲

See the online version of this article to learn why Nanda thinks cash flow is a good measure of valuation and how he defines earnings quality. Plus, listen to bonus audio of Nanda’s guidance to individual investors on incorporating quantitative strategies into the stock-picking process.

Sudhir Nanda is the head of T. Rowe Price’s Quantitative Equity Group as well as a portfolio manager for the company’s QM U.S. Small-Cap Growth Equity (PRDSX) and QM Global Equity Fund (TQEX) mutual funds. Find out more about Nanda at www.aaii.com/authors/sudhir-nanda. Charles Rotblut, CFA, is a vice president at AAI and editor of the AAI Journal. Follow him on Twitter at twitter.com/CharlesRAAI.

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be paid from the current cash pool; the higher the number, the more secure the dividend. UnitedHealth’s (UNH) cash to dividend ratio is 4.6, indicating that there is enough cash on hand to cover the dividend more than four times. In the case of General Electric, the company could cover its dividend almost six times with cash, which is a good cushion considering that the company’s free cash flow payout ratio is negative. The cash to dividend ratio may not be applicable for financial stocks, as demonstrated by Goldman Sachs (GS) in Table 1.

Finally, another aspect to consider when determining the continuity of dividends is the number of consecutive years a dividend has been paid. This figure may be listed in the Investor Relations section

of a company’s website, but if it is not you can usually call Investor Relations and ask. The longer the dividend has been paid, the more management will be hesitant to stop paying it.

Conclusion

Screening for stocks with dividend yields above their five-year average can help you find potentially undervalued stocks with downside protection (the dividend payment), provided the dividend is secure and expected to grow, and the firm is financially sound. Some metrics that can be used to determine if a dividend is sustainable is the earnings payout ratio, the free cash flow payout ratio and the ratio of cash per share to

dividend per share.

For a stock with an appreciating price, dividend growth is key. As the stock’s price increases, the dividend yield decreases (holding the dividend payment steady). When the dividend payment is increased, the yield will increase (holding price steady). If a stock’s price goes up in value and the company does not increase the dividend distribution, its yield will not be attractive relative to historical levels.

This is an update to the article “A Dividend Approach to Judging the Value of Stocks” by John Bajkowski in the February 1991 AAI Journal. ▲

John Bajkowski is president of AAI. Find out more at www.aaii.com/authors/john-bajkowski. Jaclyn N. McClellan is associate financial analyst at AAI and editor of Computerized Investing. Find out more at www.aaii.com/authors/jaclyn-mcclellan.