Building a Better Income Portfolio

Geoff Considine, Ph.D.
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One of the greatest concerns for income-oriented investors is the possibility that dividends will be cut. The financial crisis showed that traditional metrics, such as a stock's dividend history and its payout ratio, failed to warn investors of impending dividend cuts. By evaluating stocks based on volatility, however, investors can select securities that are more likely to maintain or improve their dividend rates.

A major challenge for income investors, who are always seeking ways to divine the reliability of dividends, is the sea change in dividend policy over the past 50 years. There has been a long-term decline in the percentage of earnings paid back to investors in the form of dividends, especially when measured by dividend yield (the ratio of dividends to price). A long-term rise in price-to-earnings ratios and a shift in corporate policies regarding dividends have both contributed to the trend, as have changes in the composition of the major indexes. Specifically, technology firms have gained increasing weight in stock indexes in recent decades, and these firms tend to pay lower dividends.

The general shift away from dividends notwithstanding, many firms have a long history of maintaining and increasing dividends. Standard and Poors' Dividend Aristocrats index provides a well-known list of companies that have at least a 25-year track record of raising dividends every year. Even among these firms, however, there is a real risk that dividends may fall. Pfizer (PFE) and General Electric (GE), two firms that had previously been on the list of Dividend Aristocrats prior to 2009, dramatically reduced their dividends in that year, as did several other firms on the list. In all, ten of the Dividend Aristocrats were removed from the list at the end of 2009, 20% of the total.

Volatility as an additional screen

In research published over the past year, I have used the volatility of a stock, ETF, or portfolio as a key variable in judging the attractiveness of a yield-focused investment strategy. My research has used historical volatility, expected volatility from simulations, and implied volatility from options prices, all of which are closely related, of course. Volatility is considerably persistent through time, and the implied volatility from options prices is a key signal for determining the probability of corporate distress. The higher the implied volatility, the higher the probability of distress.

Along the same lines, the lower the volatility of a stock, the more sustainable should be its dividend. Research confirms that stock risk is significantly related to a firm's propensity to pay a dividend. Firms with high volatility are less likely to pay a dividend, and vice versa. Firms that become riskier through time are less likely to maintain or raise their dividends. Among the range of possible explanations for this effect is that both corporate managers

and the market are aware of the relative risk in future earnings. Higher expected risk is reflected in higher volatility, and managers are more likely to hoard cash (rather than paying dividends) when future earnings are highly uncertain. A related explanation is that a company with high volatility is likely to have a harder time raising money by issuing debt, and thus its management will retain earnings rather than pay or raise dividends. The amount of interest that a company pays when it issues bonds increases with the price of credit default swaps, which themselves become more expensive as volatility increases.

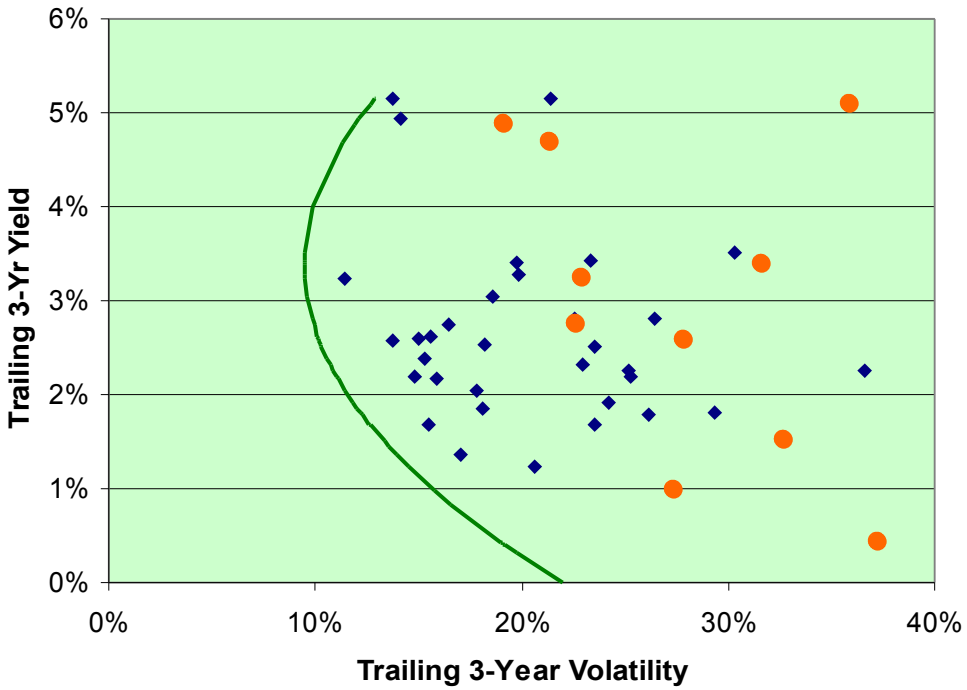
The relationship between volatility and dividend cuts also makes intuitive sense. Companies don't cut their dividends, in general, until they are in such dire straits that a cut is required, which means the probability of distress is naturally linked to the sustainability of dividends.

Using volatility as a screen for income-paying securities has another very straightforward benefit: it avoids stocks that have substantial yields because their stock prices have plummeted. Yields that are high simply because prices have dropped a great deal often warn that the dividend will soon be cut – the so-called 'dividend trap.'

The history of the Dividend Aristocrats

To use volatility as a screening tool for selecting dividend-paying stocks, we need to establish a reference point for the range of yields that are available for a given level of volatility. In the chart below, I show the trailing three-year average dividend yield for S&P's Dividend Aristocrats vs. the trailing three-year historical volatility as of the end of November 2008. The Dividend Aristocrats list is announced in December of each year, so November is the last full month of returns that are available for making any analysis of possible changes. The stocks shown here are the Dividend Aristocrats for 2009 (announced in December 2008):

Figure 1. Dividend Aristocrats as of the end of 2008



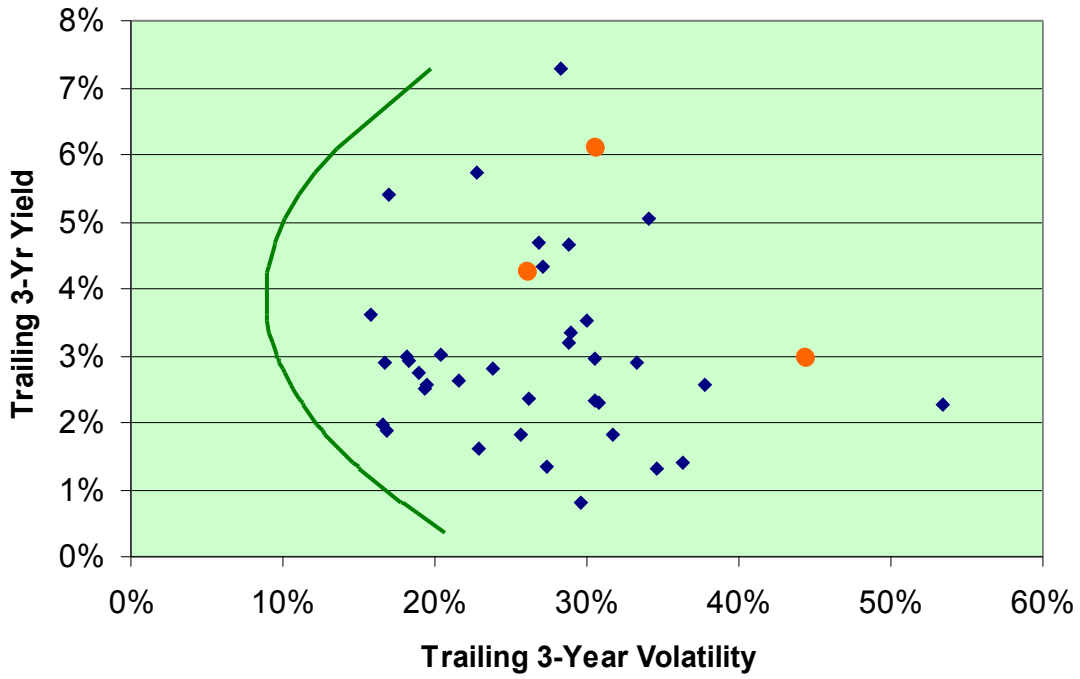
Circles are aristocrats that were dropped at the end of 2009. The solid line is the estimated maximum yield possible by combining these stocks at each level of risk.

In the accompanying chart, the horizontal axis is risk (volatility) and the vertical axis is average yield over the three-year period. The orange circles are aristocrats that were dropped when the list was rebalanced at the end of 2009. The solid green line is the estimated maximum yield that we could achieve by combining aristocrats at each level of risk (using data available only through November 2008). For an income-seeking investor, this curve is ideally where the portfolio will end up, and it is analogous to the efficient frontier of risk vs. return, which measures the maximum total return relative to a given level of risk.

The Dividend Aristocrats fared poorly in 2009, with 10 stocks being dropped from the list at the end of the year. Those 10 (the circles in figure 1) were 65% farther from the yield-risk frontier than the average retained aristocrat. The average surviving aristocrat had 9.4% in volatility beyond the level of the frontier at the same dividend yield. The average dropped aristocrat has 15.6% in volatility beyond the frontier level.

Similar results occurred at the end of 2009. The three stocks that were dropped from the aristocrats list at the end of 2010 (TEG, LLY, and SVU) were further from the risk-yield frontier than the average aristocrat (see chart below).

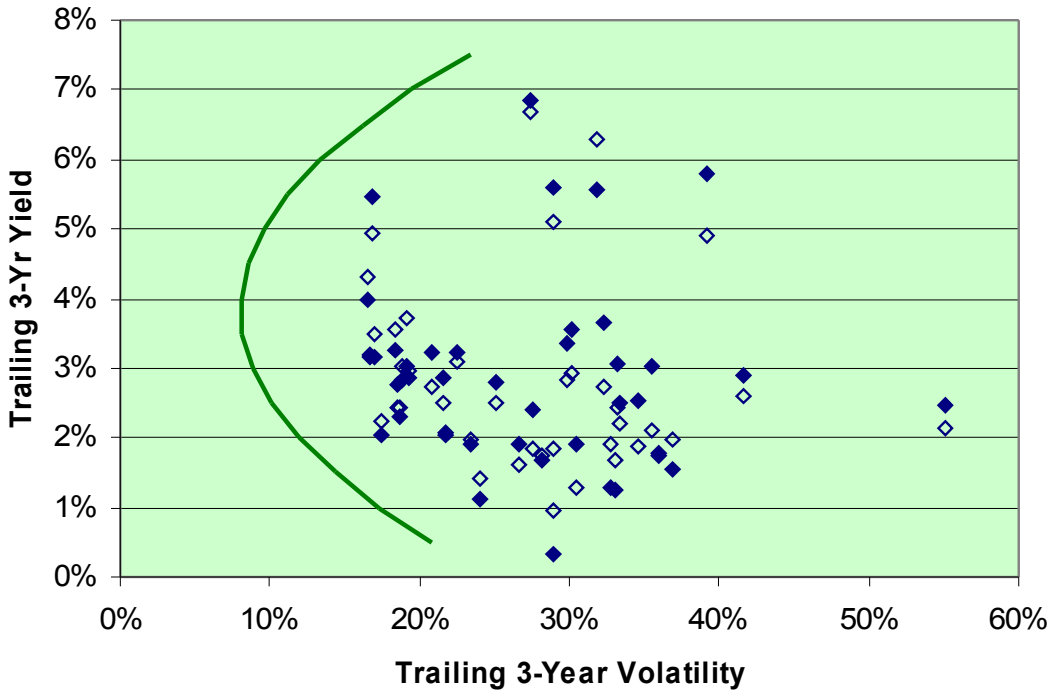
Figure 2. Dividend Aristocrats as of the end of 2009



Circles are aristocrats that were dropped at the end of 2009. The solid line is the estimated maximum yield possible by combining these stocks at each level of risk.

I have used the trailing three-year dividend yield, but the results would be consistent if I had used the current dividend. Figure 3 shows the risk-yield relationship for the Dividend Aristocrats as of the end of November 2010 for both trailing yield and current yield.

Figure 3. Dividend Aristocrats as of the end of 2010



The solid line is the estimated maximum yield possible by combining these stocks at each level of risk. The solid diamonds use trailing 3-year yield and the open diamonds use current yield

I have calculated the distance from the risk-yield frontier for the Dividend Aristocrats as of the end of November 2010, and the 12 stocks whose dividends are closest to the frontier are below:

Rank	Company	Ticker	Trailing Volatility	Current Yield
1	Walmart	WMT	17%	2.2%
2	Con Ed	ED	17%	4.9%
3	McDonalds	MCD	17%	3.2%
4	McCormick	MKC	19%	2.4%
5	Kimberly Clark	KMB	16%	4.3%
6	Exxon	XOM	19%	2.5%
7	Johnson & Johnson	JNJ	17%	3.5%
8	Ecolab	ECL	24%	1.4%
9	Hormel	HRL	22%	2.1%
10	Procter & Gamble	PG	19%	3.0%
11	Clorox	CLX	18%	3.5%
12	Centurylink	CTL	27%	6.7%

Safest dividends for 2011, ranked using distance to yield-risk frontier (1=safest)

A number of interesting questions arise from this list. The average and median historical volatilities of the aristocrats are approximately 27%. All but one (CTL) of the 'safest' dividend payers on this list has volatility below this level. These low-volatility aristocrats are not the lowest-yielding stocks among this list, however. Con Ed and Kimberly Clark are both in the top five stocks in terms of our measure of safety, and both have current yields above 4%. Why wouldn't investors invariably prefer lower-volatility aristocrats over higher-volatility aristocrats? Either they are indifferent with respect to risk, or they want the higher potential price appreciation that the higher-volatility stocks may provide.

Conclusions

As recent history has underscored, a long history of maintaining and raising dividends is far from a guarantee that a dividend will persist. Moreover, to limit ourselves to companies with 20+ years of maintaining and raising their dividends (as does S&P for the Dividend Aristocrats) needlessly constrains the universe of companies we might consider. Certainly, many firms are in the process of building these long track records. Similarly, companies that have long histories of raising dividends may have changed their business model so substantially that these past achievements are not indicative of the future stability of their earnings. The evolution of GE's business model to emphasize finance over the last 10 years is a prime example.

Nor is the payout ratio is an adequate measure of dividend safety, because periods when stocks have higher payout ratios have been great times to buy stocks. While it is also quite possible for companies to pay unsustainably high dividends, payout ratios can be high because a company is maintaining its dividend through a patch of low earnings and that substantial earnings recovery will bring payout ratios back to a reasonable level.

To supplement dividend history and payout ratio, one should look at the 'frontier' of yield that is available for a given level of risk. Both yield and volatility are observable variables. The yield-risk frontier shows the amount of yield that we can obtain for a given level of risk. While individual stocks will not necessarily be located close to this frontier, stocks with a high level of risk for a given level of income (i.e. far from the frontier) are likely to have excess risk in their earnings and, by extension, are less likely to maintain dividends.

For a given yield, why would we consider buying stocks with higher risk? Owning some allocation to higher-risk stocks can provide diversification benefits, but one can reach the risk-yield frontier without these stocks.

I have shown examples using data from the past few years – far from an exhaustive study – but I offer compelling evidence of a relationship between stock volatility and the safety of the dividend. What's more, the broader case for a relationship between dividend sustainability and volatility can be built using other research (cited earlier) and financial theory.

To ignore volatility – historical and implied – in selecting dividend stocks is to ignore one of the most fundamental observable measures of risk. Given the evidence that links the probability of corporate distress to volatility, volatility should never be ignored when determining the sustainability of dividends.

The yield-risk frontier provides valuable information for income investors seeking to build portfolios with sustainable dividends. The 12 Dividend Aristocrats with the best volatility-based safety measure will help income-oriented investors to reduce the risk of dividend cuts.

Geoff Considine is the author of a new book, ***Survival Guide for a Post-Pension World****, as well as a book on the use of options strategies in wealth management. More information is available at www.quantext.com.*

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