

CHAPTER 2

HIGH DIVIDEND STOCKS: BONDS WITH PRICE APPRECIATION?

Sam's Lost Dividends

Once upon a time, there lived a happy and carefree retiree named Sam. Sam was in good health and thoroughly enjoyed having nothing to do. His only regret was that his hard-earned money was invested in treasury bonds, earning a measly rate of 3% a year. One day, Sam's friend, Joe, who liked to offer unsolicited investment advice, suggested that Sam take his money out of bonds and invest in stocks. When Sam demurred, saying that he did not like to take risk and that he needed the cash income from his bonds, Joe gave him a list of 10 companies that paid high dividends. "Buy these stocks", he said, "and you will get the best of both worlds – the income of a bond and the upside potential of stocks". Sam did so and was rewarded for a while with a portfolio of stocks that delivered a dividend yield of 5%, leaving him a happy person.

Barely a year later, troubles started when Sam did not receive the dividend check from one of his companies. When he called the company, he was told that they had run into financial trouble and were suspending dividend payments. Sam, to his surprise, found out that even companies that have paid dividends for decades are not legally obligated to keep paying them. Sam also found that four of the companies in his portfolio called themselves real estate investment trusts, though he was not quite sure what they did. He found out soon enough when the entire real investment trust sector dropped 30% in the course of a week, pulling down the value of his portfolio. Much as he tried to tell himself that it was only a paper loss and that he could continue to receive dividends, he felt uncomfortable with the knowledge that he had less savings now than when he started with his portfolio. Finally, Sam also noticed that the remaining six stocks in his portfolio reported little or no earnings growth from period to period. By the end of the third year, his portfolio had dropped in value and the dividend yield had declined to 2.5%. Chastened by his losses, Sam sold his stocks and put his money back into bonds. And he never listened to Joe again.

Moral of the story: High dividends do not a bond make.

If you are an investor who abhors risk, you probably prefer to invest your money in treasury bonds or safe corporate bonds, rather than stocks, because bonds offer a guaranteed income stream in the form of coupons. The trade off is that bonds have limited potential for price appreciation. A bond's price may increase, as interest rates go down, but most of the money you make on your investment must come from the coupons you receive over the bond's life. Notwithstanding your aversion to risk, you may sometimes be induced

to invest in stocks by what seems like an unbeatable combination – a stock that delivers dividends that are comparable to the coupons on bonds with the possibility of price appreciation. In this chapter, you will consider why some stocks pay high dividends, whether such dividends can be compared the coupons paid on bonds and the dangers that can sometimes lurk in these stocks.

The core of the story

When you buy a stock, your potential return comes from two sources. The first is the dividend that you expect the stock to pay over time and the second is the expected price appreciation you see in the stock. The dividends you will receive from investing in stocks will generally be lower than what you would have earned as coupons if you had invested the same amount in bonds and this sets up the classic trade off between bonds and stocks. You earn much higher current income on a bond but your potential for price appreciation is much greater with equity. Bonds are less risky but equities offer higher expected returns. But what if you could find stocks that deliver dividends that are comparable to the coupons paid on bonds? There are two different arguments made by those who believe that such stocks are good investments.

- *The Optimist Pitch: “You have the Best of Both Worlds”*: In this pitch, you are told that you can get the best of both bond and equity investments when you buy high dividend stocks. Summarizing the pitch: *These are stocks that deliver dividends that are comparable and, in some cases, higher than coupons on bonds. Buy these stocks and you can count on receiving the dividends for the long term. If the stock price goes up, it is an added bonus. If it does not, you still earn more in dividends than you would have earned by investing in bonds.* In fact, this story is bolstered by the fact that many stocks that pay high dividends are safer, larger companies where the potential risk is low.
- *The Pessimist Pitch: “Defensive Investments”*: This is the pitch that gains resonance in bear markets. In an environment where investors have seen their equity portfolios wither as the stock market declines, stocks that pay high dividends offer solace. Summarizing this argument: *Even though these stocks may lose value like other stocks, investors holding on to them can still count on receiving the dividends.* In fact, during crises, there is a general flight to safety that occurs across all markets. While it manifests itself immediately as a shift from stocks to government bonds, it also shows up within equity markets as investors shift from higher risk stocks (often high growth companies that pay no or little dividends) to low risk stocks (often stable companies that pay high dividends).

These sales pitches have the most appeal to investors who are not only risk averse but also count on their portfolios to deliver a steady stream of income. It should come as no surprise that older investors, often retired, are the most receptive audience.

The Theory: Dividends and Value

Can paying more in dividends make a company a more attractive investment? There is a surprising degree of disagreement about the answer to this question in corporate financial theory. One of the most widely circulated propositions in corporate finance – the Miller-Modigliani theorem – states that dividends are neutral and cannot affect returns.¹ How, you might wonder, is this possible? When a company pays more in dividends every year, say 4% of the stock price rather than the 2% it pays currently, does that not increase the total return? Not in a Miller-Modigliani world. In this world, the expected price appreciation on this stock will drop by exactly the same amount as the dividend increase, say from 10% to 8%, leaving you with a total return of 12%. While there remain numerous adherents to this view, there are theorists who disagree by noting that a firm may signal its confidence in its future earnings by increasing dividends. Accordingly, stock prices will increase when dividends are increased and drop when dividends are cut. To complete the discussion, there are still others who argue that dividends expose investors to higher taxes and thus should reduce value. Thus, dividends can increase, decrease or have no effect on value, depending upon which of these three arguments you subscribe to.

Dividends do not matter: The Miller Modigliani Theorem

The basis of the argument that dividends don't matter is simple. Firms that pay more dividends will offer less price appreciation and deliver the same total return to stockholders. This is because a firm's value comes from the investments it makes – plant, equipment and other real assets, for example – and whether these investments deliver high or low returns. If a firm that pays more in dividends can issue new shares in the market, raise equity and take exactly the same investments it would have made if it had not paid the dividend, its overall value should be unaffected by its dividend policy. After all, the assets it owns and the earnings it generates are the same whether it pays a large dividend or not.

You, as an investor, will also need to be indifferent between receiving dividends and capital gains for this proposition to hold. After all, if you are taxed at a higher rate on dividends than on capital gains, you will be less happy with the higher dividends, even

¹ Miller, M. and F. Modigliani, 1961, *Dividend Policy, Growth and the Valuation of Shares*, Journal of Business, 411-433.

though your total returns will be the same, simply because you will have to pay more in taxes. For dividends to not matter, you either have to no taxes or pay the same taxes on dividends and capital gains.

The assumptions needed to arrive at the proposition that dividends do not affect value may seem so restrictive that you will be tempted to reject it without testing it; after all, it is not costless to issue new stock and dividends and capital gains have historically not been taxed at the same rate. That would be a mistake, however, because the theory does contain a valuable message for investors: *A firm that invests in poor projects that make sub-standard returns cannot hope to increase its value to investors by just offering them higher dividends. Alternatively, a firm with great investments may be able to sustain its value even if it does not pay any dividends.*

Dividends are bad: The Tax Argument

Dividends have historically been treated less favorably than capital gains by the tax authorities in the United States. For much of the last century, dividends have been treated as ordinary income and taxed at rates much higher than price appreciation, which has been treated and taxed as capital gains. Consequently, dividend payments create a tax disadvantage for investors and should reduce the returns to stockholders after personal taxes. Stockholders should respond by reducing the stock prices of the firms making these payments, relative to firms that do not pay dividends. In this scenario, firms will be better off either retaining the money they would have paid out as dividends or repurchasing stock.

The double taxation of dividends — once at the corporate level and once at the investor level — has not been addressed directly in U.S. tax law until very recently², but it has been dealt with in other countries in a couple of ways. In some countries, like Britain, individual investors are allowed a tax credit for the corporate taxes paid on cash flows paid to them as dividends. In other countries, like Germany, the portion of the earnings paid out as dividends are taxed at a lower rate than the portion reinvested back into the firm.

Dividends are good: The Clientele and Signaling Stories

Notwithstanding the tax disadvantages, many firms continue to pay dividends and investors in these firms typically view such payments favorably. There are some academics and practitioners who argue that dividends are good and can increase firm value and provide at least three reasons.

² In early 2003, President Bush presented tax reform that essentially exempted all dividends from personal taxes. After negotiations, a compromise bill was ultimately passed in May 2003 reducing the tax rate on dividends to 15% - the same rate that capital gains will be taxed at.

- ❑ *Some investors like dividends.* These investors may not be paying much in taxes and consequently do not care about the tax disadvantage associated with dividends. Or they might need and value the cash flow generated by the dividend payment. Why do they not sell stock to raise the cash they need? The transactions costs and the difficulty of breaking up small holdings³ and selling unit shares may make selling small amounts of stock infeasible. Given the vast diversity of individual and institutional investors in the market, it is not surprising that, over time, stockholders tend to invest in firms whose dividend policies match their preferences. Stockholders in high tax brackets who do not need the cash flow from dividend payments tend to invest in companies that pay low or no dividends. By contrast, stockholders in low tax brackets who need the cash from dividend payments will usually invest in companies with high dividends. This clustering of stockholders in companies with dividend policies that match their preferences is called the *clienteles effect* and may explain why some companies not only pay dividends but increase them over time.
- ❑ *Markets view dividends as signals:* Financial markets examine every action a firm takes for implications for the future. When firms announce changes in dividend policy, they are conveying information to markets, whether they intend to or not. By increasing dividends, firms commit to paying these dividends in the long term. Their willingness to make this commitment indicates to investors that they believe they have the capacity to generate these cash flows in the long term. This positive signal should therefore lead investors to increase the stock price. Decreasing dividends is a negative signal, largely because firms are reluctant to cut dividends. Thus, when a firm takes this action, markets see it as an indication that this firm is in substantial and long-term financial trouble. Consequently, such actions lead to a drop in stock prices.
- ❑ *Some managers cannot be trusted with cash:* Not all companies have good investments and competent management. If a firm's investment prospects are poor and its managers are not viewed as careful custodians of stockholder wealth, paying dividends will reduce the cash in the firm and thus the likelihood of wasteful investments.

Looking at the Evidence

Over the last few decades, researchers have explored whether buying stocks based upon their dividend payments is a good strategy. Some of these studies look at the broad

³ Consider a stockholder who owns 100 shares trading at \$ 20 per share, on which she receives a dividend of \$0.50 per share. If the firm did not pay a dividend, the stockholder would have to sell 2.5 shares of stock to raise the \$ 5 that would have come from the dividend.

question of whether stocks with higher dividend yields deliver higher total returns. If the dividend story holds up, you would expect stocks with high dividend yields to also earn high returns. Others take a more focused approach of looking at only those stocks that have the highest dividend yields. One example is the Dow Dogs strategy, where you buy the 10 stocks in the Dow 30 that have the highest dividend yields. In recent years, a third strategy of buying stocks that have the biggest increases in dividends (rather than the highest dividends) has also been tested. In this section, the empirical evidence that has accumulated on all of these fronts will be presented.

Do higher yield stocks earn higher returns?

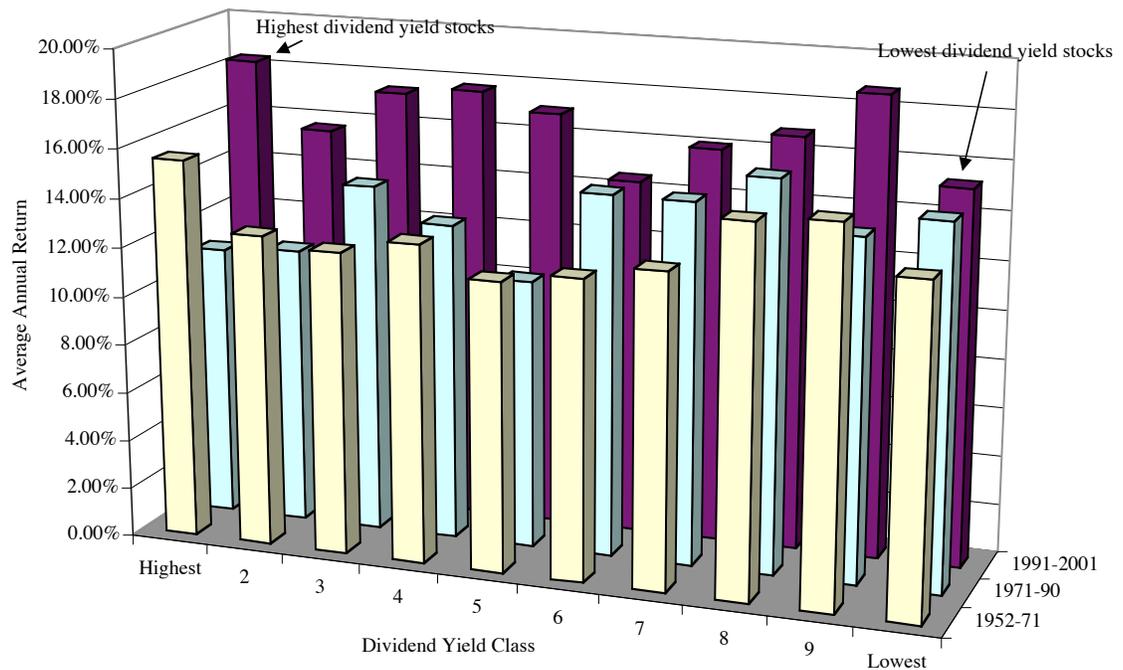
The dividend yield is usually computed by dividing the dividends per share by the current stock price. Thus, it is defined to be-

$$\text{Dividend yield} = \text{Annual dividends per share} / \text{Current Stock price}$$

However, there are variations in how the annual dividends per share are computed, leading to different estimates of the dividend yield for the same stock. Some use the dividends paid in the last financial year, others use dividends paid over the last four quarters and there are some who use expected dividends per share over the next financial year. If higher dividends make stocks more attractive investments, stocks with higher dividend yields should generate higher returns than stocks with lower dividend yields.

Over the last four decades, researchers have tried to examine whether higher dividend yield stocks are superior investments. The simplest way to test this hypothesis is to create portfolios of stocks based upon their dividend yields and examine returns on these portfolios over long periods. In Figure 2.1, the average annual returns – these include price appreciation and dividend yields – are computed on ten portfolios created based upon dividend yields at the beginning of every year from 1952 and 2001. Looking at sub-periods, the highest dividend yield portfolio earned an annual return of about 16% between 1952 and 1971, about 3% more than the returns on the lowest dividend yield portfolio. During this period, the lowest returns were earned by the firms in the intermediate dividend yield classes. Between 1971 and 1990, the lowest dividend yield stocks earned a higher annual return than the highest dividend yield stocks. Between 1991 and 2001, the advantage shifts back to higher dividend yield stocks. Over the entire period, higher dividend yield stocks generate a slightly higher annual return than lower dividend yield stocks.

Figure 2.1: Returns on Dividend Yield Classes - 1952 - 2001

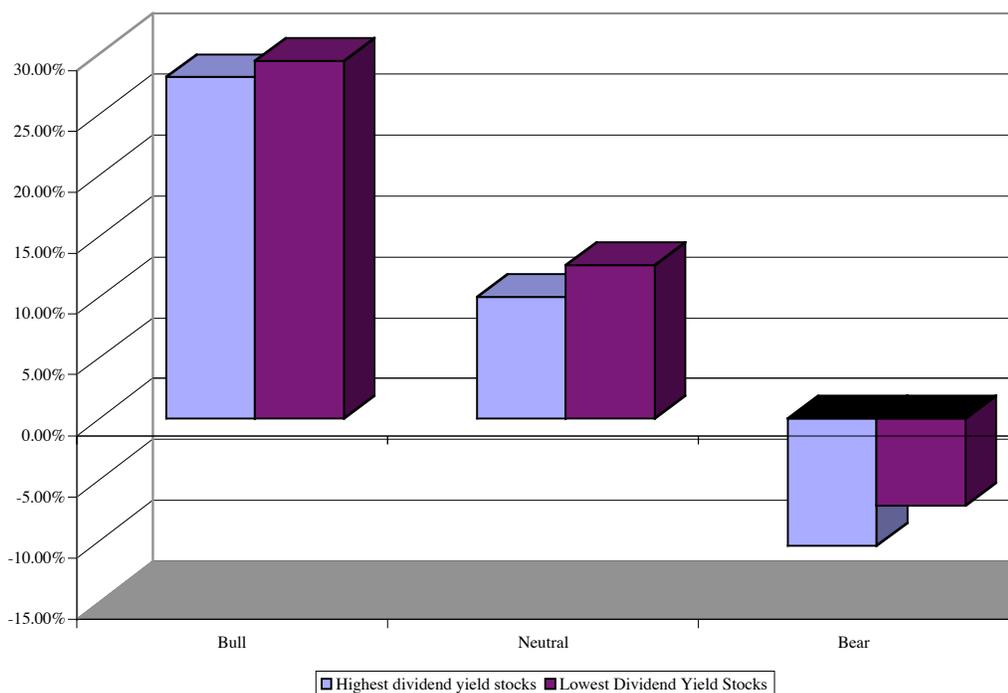


Data from Ken French at Dartmouth. The stocks were categorized into classes based upon the dividend yields at the beginning of each year and the annual returns in the following year were calculated. This figure represents the average annual return over the period.

What are you to make of this shifting in advantage across periods? First, you should consider the volatility a cautionary note. A strategy of investing in high dividend yield stocks would have delivered mixed results over the sub-periods, working well in some periods and not in others. Second, you could look at the periods where high dividend yield stocks did best and try to find common factors that may help you fine-tune this strategy. For instance, high dividend stocks may behave much like bonds in periods of high inflation and rising interest rates and lose value. This would explain why they underperformed the rest of the market between 1971 and 1990.

In a test of whether high dividend stocks are good defensive investments, you can see whether high dividend paying stocks hold up better than non-dividend paying stocks during bear markets. Using data from 1927 to 2001, the returns on highest dividend yield stocks (top 20%) were compared to returns on the lowest dividend yield stocks (bottom 20%) in bull market years (where total market return exceeded 10%), bear market years (where total market return was negative) and neutral years (where total market return was between 0 and 10%). The results are summarized in Figure 2.2:

Figure 2.2: Are high dividend yield stocks better defensive investments?



Data from French. These are the average annual returns on high dividend yield and low dividend yield stocks in bull market years (stocks up more than 10%), neutral market years (stocks up between 0 and 10%) and bear market years (stocks down for the year).

There is little evidence for the claim that high dividend stocks are better defensive investments, especially in bear markets. Between 1927 and 2001, high dividend yield stocks actually delivered more negative total returns than low dividend yield stocks during bear markets.

The Dividend Dogs

An extreme version of a high dividend portfolio is the strategy of investing in the “Dow Dogs”, the ten stocks with the highest dividend yields in the Dow 30. Proponents of this strategy claim that they generate high returns from it, but they base this claim on a comparison of the returns that you would have made on the strategy to what you would have made investing in the Dow 30. For instance, a web site dedicated to this strategy (dogsofthedow.com) claims that you would have earned 17.7% a year from 1973 to 2002 investing in the ten highest dividend yield stocks in the Dow, a much higher return than the 11.9% you would have made on the rest of the Dow.

Not only is this comparison an extraordinarily narrow one – after all, there are several thousands stocks that are not part of the Dow - but it can be misleading. Many of the Dow Dog stocks are riskier than the rest of the Dow 30 stocks, and the higher returns they make could be just compensation for the higher risk. In addition, any investor investing

over these stocks over the periods covered (the sixties and the seventies) would have faced a substantial tax liability from the high dividends. It should come as no surprise that those studies that do control for the risk differences and factor in the tax effects conclude that the superior performance of the Dow Dog stocks is a mirage.⁴

Perhaps, the best test of a strategy is to look at the stocks that would be picked based upon the strategy and ask yourself whether you would be comfortable with these stocks. After ranking the Dow 30 stocks by dividend yield, in May 2003, the following stocks emerged as the Dow Dogs:

Table 2.1: Dow Dogs : May 2003

<i>Company</i>	<i>Price</i>	<i>Yield</i>
Altria	42.31	6.05%
General Motors	33.26	6.01%
Eastman Kodak	30.28	5.94%
SBC Communications	25.15	4.49%
JP Morgan Chase	30.9	4.40%
AT&T	19.25	3.90%
DuPont	40.99	3.42%
Honeywell	24.47	3.06%
ExxonMobil	35.98	2.78%
General Electric	27.64	2.75%

As an investor considering this portfolio, you should ask yourself the following questions:

1. Would you want your entire wealth to be invested in only ten stocks, two of which are telecomm companies? From the standpoint of spreading your risks and diversifying, this does not seem prudent.

⁴ McQueen, G., K. Shields and S.R. Thorley, 1997, *Does the Dow-10 Investment Strategy beat the Dow statistically and economically?* Financial Analysts Journal, July/August, 66-72. This study examined this strategy and concluded that while the raw returns from buying the top dividend paying stocks is higher than the rest of the index, adjusting for risk and taxes eliminates all of the excess return. A study by Hirschey (Hirschey, M., 2000, The "Dogs of the Dow" Myth, Financial Review, v35, 1-15.) in 2000 also indicates that there are no excess returns from this strategy after you adjust for risk.

2. Why would ten of the most highly followed stocks in the world be so seriously misvalued by investors? In other words, why are other investors not seeing the same opportunities that you do in these stocks?
3. Many of the stocks on this list have at least one big concern weighing them down – Altria (the former Philip Morris) has tobacco lawsuits and J.P. Morgan Chase faced legal problems associated with Enron. Will these companies continue to pay their dividends if these concerns turn into financial liabilities?

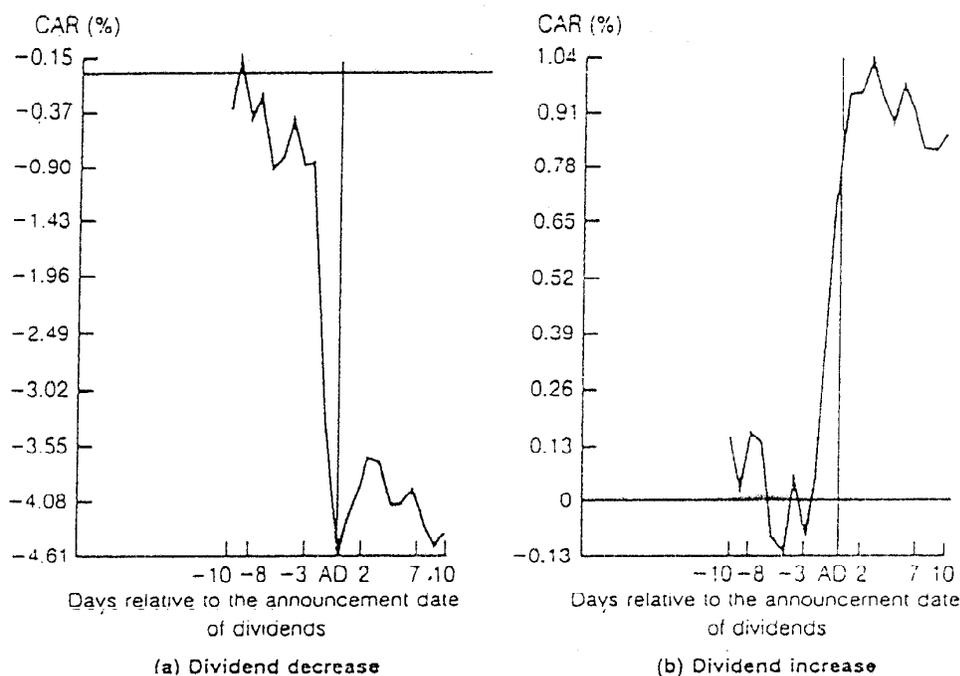
You may very well conclude that the reward is worth the risk, but that should not be a conclusion made in haste and without analysis.

Dividend Increases

In a different version of the dividend story, stocks that have increased their dividends over time are viewed as better investments than stocks than stocks than stocks where dividends have been stagnant or gone down. There are two ways in which this proposition has been tested. The first set of studies has examined the stock price reaction when a company announces an increase or a cut in dividends. The consensus from this research is that stock prices increase when dividends are increased and drop when dividends are cut. Figure 2.3 looks at what happens to stock prices of companies that announce dividend increases and decreases.⁵

⁵ Aharony, J. and I. Swary, 1981, *Quarterly Dividends and Earnings Announcements and Stockholders' Returns: An Empirical Analysis*, Journal of Finance, Vol 36, 1-12.

Figure 2.3: Stock Price Reaction to Dividend Changes: U.S. companies



Source study: Aharony and Swary. They looked at hundreds of dividend announcements made by firms in the 1970s in this study.

When dividends are cut, stock prices drop by about 4.5%, on average, whereas stock prices increase about 1%, on average, on the announcement of a dividend increase. The asymmetry between the two responses can be explained by the fact that far more firms increase dividends than decrease dividends in a typical year.

The second set of studies document the longer-term returns on portfolios constructed of companies that increase their dividends the most. Here, the results are mixed. After the initial price jolt created by the dividend increase, there is some evidence of continued price increases⁶ for a few weeks after the announcement but the price increase is modest. In other words, buying stocks that have boosted dividends recently does not deliver higher returns in the long term.

⁶ Michaely, R, R.H. Thaler and K.L. Womack, 1995, *Price Reactions to Dividend Initiations and Omissions: Overreaction or Drift?* Journal of Finance, v50, 573-608. This study looked at returns on stocks that increase dividends in the months after the dividend increase and concludes that stocks that increase dividends continue to do well whereas stocks that decrease dividends are poor investments.

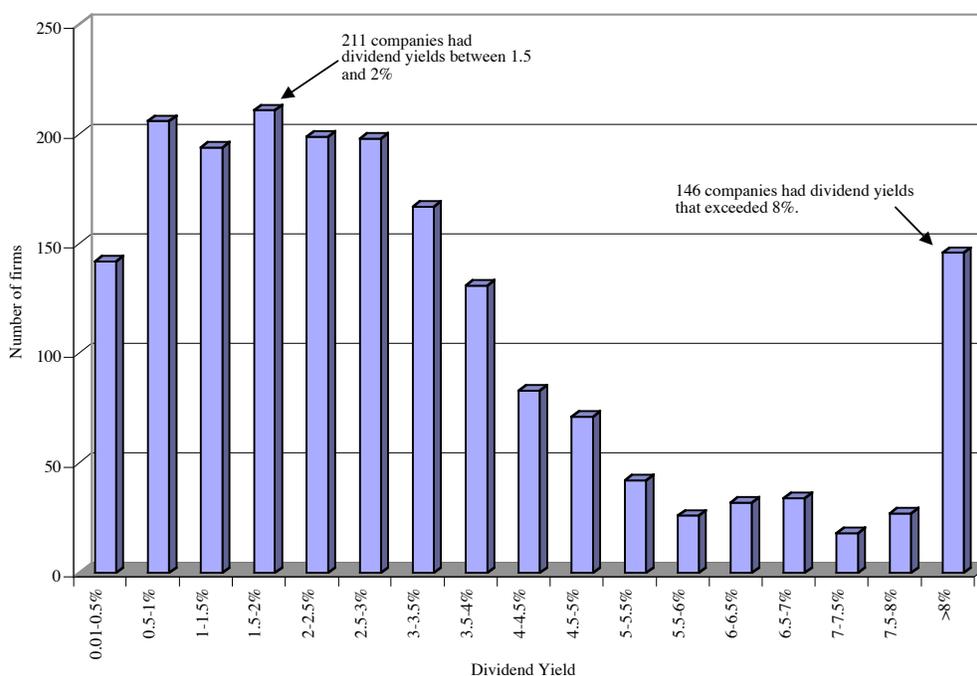
Crunching the numbers

For purposes of analysis, accept the argument that stocks that have high dividend yields are good investments. In this section, you will begin by first looking at dividend yields across companies in the United States to see what would comprise a low or a high dividend yield, and then at changes in dividend yields for the entire market over time. You will then look at the stocks that would have been identified as potential investments in the United States in October 2002, based upon their dividend yields.

Dividend Yields: Across Companies and Over Time

What is a typical dividend yield for a company and how has it changed over time? It is worth answering this question before you consider investment strategies based upon it. In Figure 2.4, the distribution of dividend yields on companies that pay dividends in the United States in October 2002 is presented.

Figure 2.4: Dividend Yields across U.S. Stocks



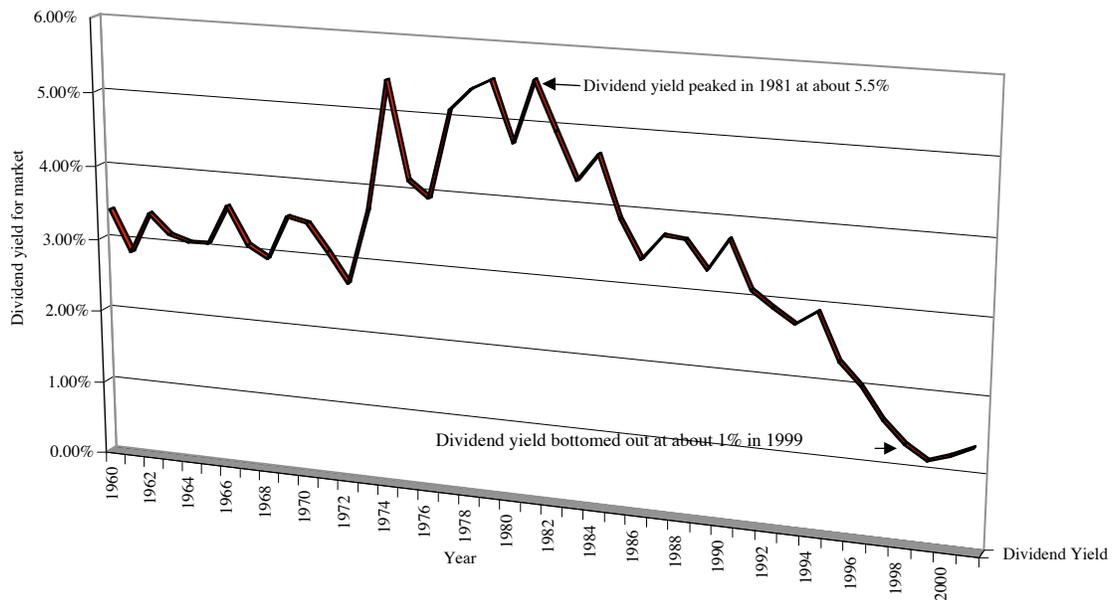
Data from Value Line. The dividend yield for each stock is the annual dividends per share over the last four quarters divided by the stock price at the time of the analysis.

The first and perhaps most interesting statistic is the number of companies that do not pay dividends. Of the 7100 companies in the sample, 5173 did not pay dividends. The second is the variation in dividend yields among the companies that pay dividends. While the average dividend yield across stocks that pay dividends is about 3.32%, this number is

pushed upwards by the presence of a few companies that have very high dividend yields (8% or more). A more meaningful statistic is the median dividend yield among dividend paying stocks, which is 2.54%.

Much has been said about how dividends paid by U.S. stocks have decreased over time. In Figure 2.5, the dividend yield for U.S. stocks from 1960 to 2001 is reported:

Figure 2.5: Dividend Yields in the United States: 1960 - 2001

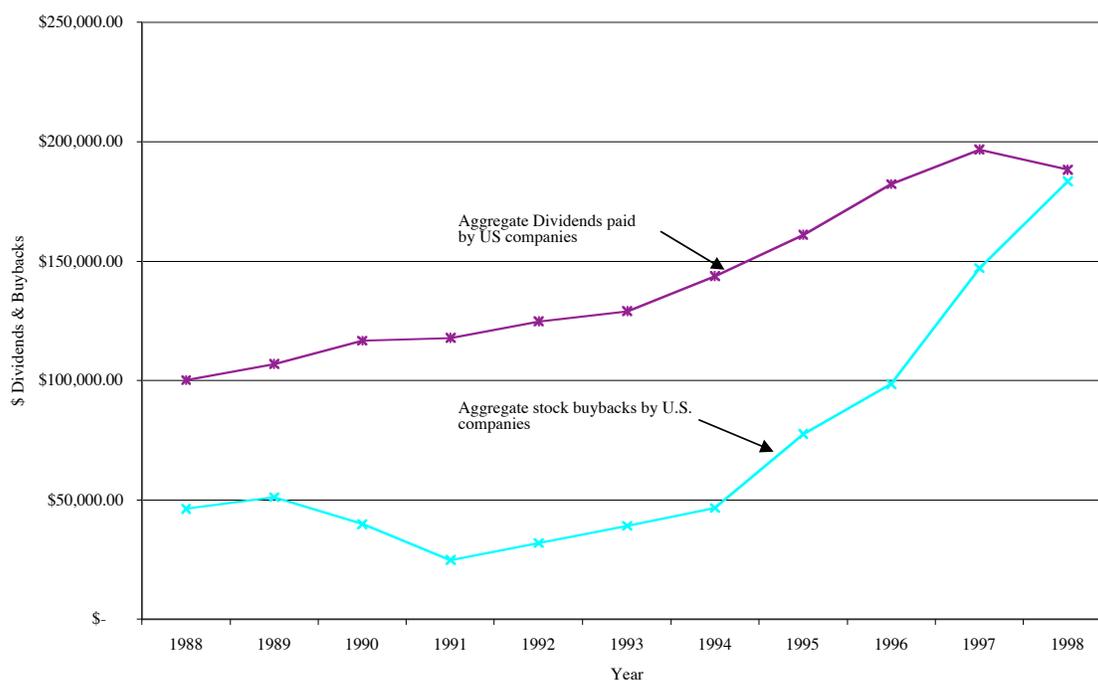


Data from Bloomberg. This is the average dividend yield across all U.S. stocks at the end of every year from 1960 to 2001.

The dividend yield for U.S. stocks dropped from 3-4% in the 1950s to 1-2% in the late 1990s. Even with the drop in stock prices from 1999 to 2002, the dividend yield remained low at 1.37% at the end of 2001.

There is one important aspect of corporate behavior that is missed when you focus on dividends alone. During the 1980s and 1990s, companies increasingly turned to stock buybacks as a way of returning cash to stockholders. In Figure 2.6, the aggregate dividends paid and aggregate stock buybacks for U.S. firms from 1989 to 1998, is reported.

Figure 2.6: Stock Buybacks and Dividends: Aggregate for US Firms - 1989-98



Data from Compustat. The stock buybacks and dividends represent the aggregate dollar values across all U.S. companies.

Note that almost as much cash was returned in the form of stock buybacks in 1998 as was paid out in dividends that year. Since this represents a quantum leap over buybacks ten years prior, adding it to the dividend yield to come up with a consolidated measure of cash returned to stockholders may provide you with a more reasonable measure of cash payouts than looking at just the dividend yield.

Sector Differences in Dividend Policy

There are clear differences in dividend policy across sectors. In some sectors such as banking and utilities, it has long been customary for firms to pay out large dividends relative both to earnings (dividend payout ratios) and to market value (dividend yields). In other sectors, such as technology, firms have traditionally paid out little or no dividends. In Table 2.2, the 5 sectors with the highest and lowest dividend yields in the United States in October 2002 are listed.

Table 2.2: Sectors with high and low dividend yields

<i>Lowest Dividend Paying Sectors</i>		<i>Highest Dividend Paying Sectors</i>	
<i>Industry</i>	<i>Average yield</i>	<i>Industry</i>	<i>Average yield</i>
Biotechnology	0.00%	Bank	2.22%

E-Commerce	0.00%	Petroleum	2.41%
Internet	0.00%	Maritime	2.61%
Semiconductor Cap Eq	0.00%	Water Utility	2.69%
Telecom. Equipment	0.00%	Chemical (Basic)	2.99%
Educational Services	0.02%	Electric Utility	4.11%
Cable TV	0.04%	Natural Gas	4.40%
Wireless Networking	0.06%	Tobacco	5.48%
Information Services	0.07%	Investment Cos	6.30%
Computer Software	0.07%	R.E.I.T.	6.63%

These differences across sectors matter for two reasons. First, what comprises a high or low dividend yield may depend upon the sector. Thus, a dividend yield of 2% may be viewed as a low yield for an electric utility but would be a high yield for a software firm. Second, picking the stocks that have the highest dividend yields in the market will result in a portfolio that is over-weighted in financial service, utility and real estate investment trusts (REIT) stocks. While this is not necessarily a negative, investors have to be aware of this fact when they construct these portfolios.

As noted earlier in this chapter, different dividend policies attract different clientele. Not surprisingly, investors who buy stocks in high dividend paying sectors tend to view more dividends as a good thing and to reward companies that pay higher dividends. The same cannot be said about investors who buy technology or biotechnology stocks.

Why do some sectors pay more in dividends than others? While part of the reason may lie in the history of these sectors, a great deal of the differences in dividend policy can be explained by differences in fundamentals. Sectors with higher growth potential and more volatile earnings tend to pay less in dividends, especially relative to market value. Firms in these sectors often have to reinvest their earnings to grow and are also wary of paying out dividends that they may not be able to sustain. Sectors with more stable income and less growth potential tend to pay more dividends. Real estate investment trusts offer a special case since they are required by statute to pay 95% of their earnings in dividends.⁷

⁷ Real estate investment trusts do not have to pay corporate taxes but they are required to pay high dividends.

A Portfolio of High Dividend Stocks

The best way to understand what a portfolio driven by high dividend yields would look like is to construct one and then analyze its characteristics. Looking across the 7100 companies for which information was available in October 2002, you can develop a list of the 100 companies with the highest dividend yields. The portfolio is presented in Table 2.3. Given the discussion about differences in dividend policy across sectors, it should come as no surprise that a few sectors are disproportionately represented in this sector. Real estate investment trusts represent 40% of the stocks in the portfolio with utilities (electric and gas) and financial service firms (banks, investment companies and insurance) representing about 20% each.

Another striking aspect of this table is the magnitude of the dividend yields. Many of these stocks have dividend yields in excess of 10%. Since the treasury bond rate was about 4% in October 2002 and investment grade corporate bonds were yielding in the 5-6% range, you can see the allure of these stocks to investors in search of high cash yields on their investments. It is worth noting, however, that the dividends represent dividends paid over the last financial year whereas the stock price is the current price. The price will therefore reflect more updated information about the firm. If bad news has come out about the firm recently, the price will have dropped and the resulting dividend yield will be high. This is especially so for the stocks with dividend yields of 20% or higher. Investors should exercise due diligence by examining more recent news releases before they plunge into these stocks.

Table 2.3: Stocks with the highest dividend yields in the United States- October 2002

Company Name	Industry Name	Dividend Yield	Company Name	Industry Name	Dividend Yield	Company Name	Industry Name	Dividend Yield
Koger Equity Inc.	R.E.I.T.	8.87%	Heritage Propane	Oilfield Services/Equip.	9.83%	TECO Energy	Electric Utility (East)	12.77%
Telesp Celular Participacoes	Telecom. Services	8.91%	U S Restaurant Pptys	R.E.I.T.	9.83%	Advanced Tobacco Products	Tobacco	12.82%
Equity Inns Inc.	Hotel/Gaming	8.92%	Mid-Amer Apt Cmnty	R.E.I.T.	9.98%	Thornburg Mtg.	R.E.I.T.	12.83%
Plains All American Pipeline L	Oilfield Services/Equip.	8.96%	Aberdeen Asia-Pac. Fd.	Investment Co.	10.00%	Amer. Elec. Power	Electric Util. (Central)	13.06%
Apartment Invnt & Mgmt Co	R.E.I.T.	9.00%	San Juan Basin Rlty.	Natural Gas (Diversified)	10.00%	Sharp Corporation	Electronics	13.07%
Arden Rlty Group	R.E.I.T.	9.02%	Crescent Real Est.	R.E.I.T.	10.01%	Post Pptys Inc.	R.E.I.T.	13.12%
Entertainment Pptys	R.E.I.T.	9.07%	JDN Realty Corp.	R.E.I.T.	10.14%	American Cap Strategies	Financial Svcs. (Div.)	13.63%
DNP Select Inc. Fund	Investment Co.	9.08%	Ferrellgas Partners L P	Natural Gas (Distrib.)	10.16%	MICROWAVE FILTER	Electronics	13.86%
Glenborough Rlty Trust	R.E.I.T.	9.11%	British Airways ADR	Air Transport	10.22%	MFA Mortgage	R.E.I.T.	14.45%
National Health Rlty Inc	Medical Services	9.17%	Kramont Realty Trust	R.E.I.T.	10.32%	Knightsbridge Tankers	Maritime	15.00%
Great Northern Iron Ore	Steel (General)	9.18%	CMS Energy Corp.	Electric Util. (Central)	10.36%	Cornerstone Realty Income	R.E.I.T.	15.09%
EPCOS AG	Electronics	9.19%	TCW Conv. Sec. Fund	Investment Co.	10.37%	AmeriServ Finl Inc	Bank	15.25%
Ramco-Gershenson Pptys	R.E.I.T.	9.20%	Allied Capital Corp.	Financial Svcs. (Div.)	10.39%	Airlease Ltd.	Trucking/Transp. Leasing	15.39%
National Health Invs Inc.	R.E.I.T.	9.23%	Plum Creek Timber	Paper & Forest Products	10.49%	Annaly Mortgage Mgmt.	R.E.I.T.	16.19%
Tanger Factory Outlet	R.E.I.T.	9.26%	Gables Residential Tr.	R.E.I.T.	10.60%	Gabelli Equity	Investment Co.	16.22%
iStar Financial Inc	R.E.I.T.	9.27%	American First Apt Inv L P	Investment Co.	10.66%	NovaStar Financial	R.E.I.T.	16.42%
PICO Hldgs Inc	Insurance (Prop/Casualty)	9.30%	Permian Basin Rly Tr	R.E.I.T.	10.90%	Associated Estates	R.E.I.T.	16.56%
Town & Ctry tr	R.E.I.T.	9.33%	Summit Pptys Inc.	R.E.I.T.	11.05%	NorthWestern Corp.	Electric Util. (Central)	17.28%
Kilroy Rlty Corp	R.E.I.T.	9.38%	Glimcher Rlty Trust	R.E.I.T.	11.08%	Fila Hldgs S P A ADR	Shoe	17.62%
AMLI Res. Prop. Tr.	R.E.I.T.	9.39%	Highwood Pptys Inc.	R.E.I.T.	11.25%	Bovar Inc.	Environmental	18.00%
Great Lakes REIT	R.E.I.T.	9.39%	Nationwide Health Pptys Inc.	R.E.I.T.	11.36%	Aquila Inc.	Electric Util. (Central)	19.18%
First Indl Rlty Tr Inc.	R.E.I.T.	9.41%	Alliant Energy	Electric Util. (Central)	11.65%	Terra Nitrogen	Chemical (Specialty)	19.28%
Public Serv. Enterprise	Electric Utility (East)	9.43%	Royce Value Trust	Investment Co.	11.72%	Scheid Vineyards	Food Processing	19.69%
OGE Energy	Electric Util. (Central)	9.47%	MicroFinancial Inc	Financial Svcs. (Div.)	11.77%	Scott's Liquid Gold Inc	Toiletries/Cosmetics	20.83%
New Plan Excel R'lty	R.E.I.T.	9.49%	Allegheny Technologies	Metals & Mining (Div.)	11.85%	Apex Mortgage Capital	Financial Svcs. (Div.)	23.01%
Mission West Pptys	R.E.I.T.	9.51%	Books-A-Million	Retail (Special Lines)	11.95%	Cookson Group PLC	Machinery	23.93%
AmeriGas Partners	Natural Gas (Distrib.)	9.54%	Westar Energy	Electric Util. (Central)	11.96%	General Chem Group	Chemical (Basic)	25.00%
RFS Hotel Investors	R.E.I.T.	9.56%	Williams Coal Sm Gs	Natural Gas (Diversified)	12.00%	AES Corp.	Power	26.32%
Sizeler Prop Inv	R.E.I.T.	9.58%	Vector Group Ltd.	Tobacco	12.19%	Etz Lavud Ltd	Diversified Co.	26.32%
Chateau Cmnty Inc	R.E.I.T.	9.61%	Liberty All-Star	Investment Co.	12.21%	Capstead Mtg. Corp.	R.E.I.T.	29.04%
Crown American Rlty	R.E.I.T.	9.61%	Nordic Amer. Tanker Shp.	Maritime	12.39%	Harbor Global Co LTD	R.E.I.T.	32.31%
R.J. Reynolds Tobacco	Tobacco	9.65%	ACM Income Fund	Investment Co.	12.48%	Telefonica de Argentina S.A.	Telecom. Services	32.56%
Redwood Trust Inc	R.E.I.T.	9.71%	ABN Amro Holdings	Bank (Foreign)	12.67%	Dynergy Inc. 'A'	Natural Gas (Diversified)	37.04%

The Rest of the story

There are three key considerations that you have to take into account in adopting a high-dividend strategy. The first is that some stocks with high dividend yields may be paying much more in dividends than they can afford. It is only a matter of time, then, before the dividends are cut. The second is that any firm that pays a substantial portion of its earnings as dividends is reinvesting less and can therefore expect to grow at a much lower rate in the future. Thus, you often have to trade off higher dividend yields for lower earnings growth in the future. The third is that you as an investor will have a much greater tax cost on this strategy, since dividends are taxed at a higher rate than capital gains.

Unsustainable Dividends

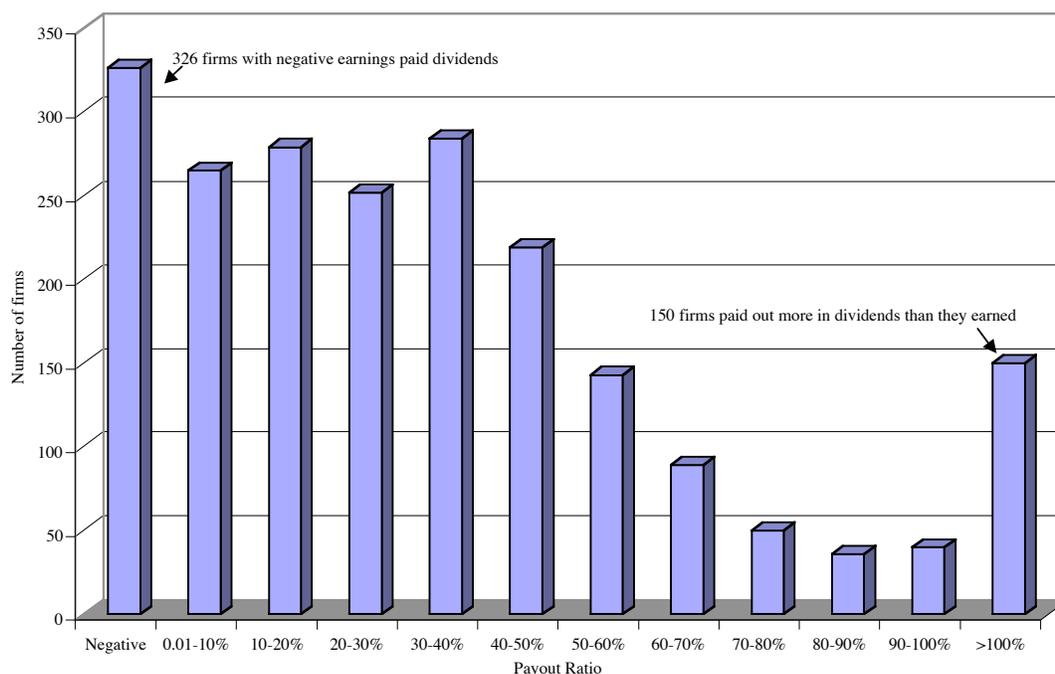
While investors may buy stocks that pay high dividends as substitutes for bonds, there is one significant difference. A conventional bond offers a promised coupon; in other words, when you buy a bond with a coupon rate of 8%, the issuer contractually promises to pay \$ 80 a year for the lifetime of the bond. While issuers can default, they cannot arbitrarily decide to reduce this payment. In contrast, a company does not contractually promise to maintain or increase its dividends. Thus, a company that pays a \$ 2 dividend this year can reduce the dividend or even eliminate it if it so chooses. While investors may view this action with disappointment and sell the stock (causing the price to drop), they cannot force the company to pay dividends.

What are the implications for investors? A stock with a high dividend may be an attractive investment but only if the dividends can be sustained. How do you know whether dividends are sustainable? There are three approaches. The first and simplest one compares dividends to earnings in the most recent period to see if too much is being paid out. The second approach modifies the first one to allow for the fact that earnings are volatile. It compares dividends paid to normalized or average earnings over time to make the same judgment. The third approach tries to measure how much the company could have paid in dividends, allowing for the reality that companies often cannot pay out their entire earnings in dividends when they have to reinvest to grow.

Comparisons to Actual or Normalized Earnings

The first and simpler approach to evaluating the sustainability of dividends is to compare the dividends paid in the most recent period to the earnings in the period. The ratio of dividends to earnings is the payout ratio and Figure 2.7 below presents the distribution of dividend payout ratios in the most recent financial year for U.S stocks in October 2002.

Figure 2.7: Dividend Payout Ratios - U.S. Stocks in October 2002



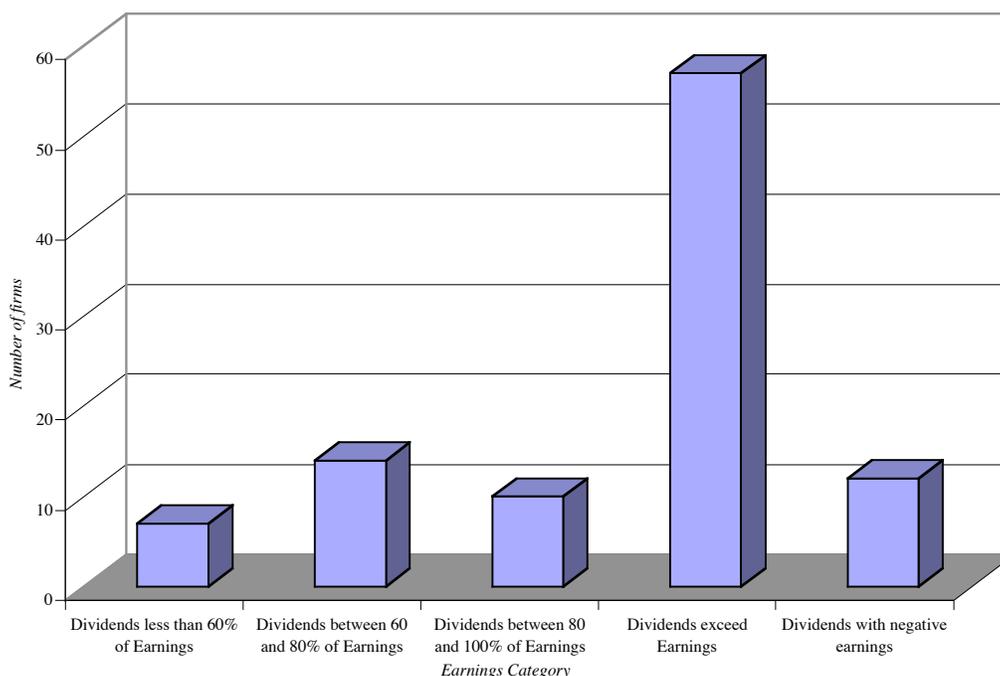
Data from Value Line: The payout ratio is the dollar dividend paid out as a percent of the net income. If the net income is negative, the payout ratio cannot be calculated.

A firm that has a dividend payout ratio greater than 100% paid out more than its earnings as dividends at least in the most recent financial year. If its earnings do not recover promptly, this is clearly unsustainable for the long term and can have significant accounting and economic consequences. From an accounting standpoint, this action will reduce the book value of equity in the firm. From an economic standpoint, the firm is not only not reinvesting back into the business but is reducing its asset base, thus reducing its capacity to grow in the future.

While avoiding firms that pay out more than what they are earning as dividends may be an obvious strategy, you could impose tighter constraints. For instance, some conservative investors and financial advisors suggest that you avoid firms that pay out more than a certain percent of their earnings – two thirds (or a payout ratio of 67%) is a commonly used rule of thumb. While these constraints are usually arbitrary, they reflect the fact that earnings are volatile and that dividends in firms that pay out more than the cut-off payout ratio are at risk.

Revisit the sample of the 100 companies with the highest dividend yields (from Table 2.3) and compare annual dividends to trailing earnings - earnings in the most recent four quarters. Figure 2.8 summarizes the findings:

Figure 2.8: Dividends versus Earnings



Data from Value Line: The dividends for each company were compared to the earnings for the company.

Of the 100 firms in the portfolio, 57 had dividends that exceeded their earnings over the last four quarters and 12 paid dividends even though they had losses for the year.

There are some analysts who would accuse you of being excessively cautious in your analysis. They would argue that trailing 12-month earnings are depressed because of poor overall economic growth and that you should be comparing dividends to earnings in a normal year or sustainable earnings. One simple modification they would recommend is looking at average earnings over some past period, say five years. While you can accept the logic of the argument, this is a conservative investment strategy and it seems prudent to use the toughest test that you can for whether dividends are sustainable.

Returning to the list, it is quite clear that using the cutoff of 67% for the payout ratio would prune the portfolio down to about 15 firms. Even using a liberal cutoff point of 80% for the dividend payout ratio prunes the portfolio down to only 21 companies, which are listed in Table 2.4 below:

Table 2.4: Firms with high dividend yields and payout ratios below 80%

Company	Annual Dividends per Share	Trailing 12-month EPS	Payout Ratio
MicroFinancial Inc	\$0.20	\$1.26	15.87%
Telesp Celular	\$0.15	\$0.90	16.67%

Dynegey Inc. 'A'	\$0.30	\$1.46	20.55%
AES Corp.	\$0.25	\$1.17	21.37%
El Paso Corp.	\$0.87	\$2.93	29.69%
Mission West Properties	\$0.96	\$2.52	38.10%
Koger Equity Inc.	\$1.40	\$2.94	47.62%
R.J. Reynolds Tobacco	\$3.80	\$6.32	60.13%
TECO Energy	\$1.42	\$2.31	61.47%
Advanced Tobacco	\$0.05	\$0.08	62.50%
Apex Mortgage Capital	\$2.00	\$3.11	64.31%
Permian Basin Rty Tr	\$0.56	\$0.85	65.88%
Williams Coal Sm Gs	\$0.88	\$1.33	66.17%
Public Serv. Enterprise	\$2.16	\$3.20	67.50%
Allegheny Energy	\$1.72	\$2.51	68.53%
CMS Energy Corp.	\$0.72	\$1.04	69.23%
MFA Mortgage	\$1.12	\$1.58	70.89%
Aquila Inc.	\$0.70	\$0.95	73.68%
UIL Holdings	\$2.88	\$3.77	76.39%
NorthWestern Corp.	\$1.27	\$1.62	78.40%
Redwood Trust Inc	\$2.52	\$3.18	79.25%

Even within this sample, there are some warning signals that should be heeded. First, consider the numerous energy companies that make the list. Since this portfolio was constructed in the aftermath of the accounting debacle at Enron, the possibility that the stated earnings at these firms may also be contaminated is one reason why stock prices are depressed. If the earnings at these companies are over stated, their dividends will have to be cut in future periods. Second, note that there are a couple of tobacco companies that also make the list. For these firms, the specter of large judgments in lawsuits overhangs the earnings; a few such judgments may very well result in the elimination or reduction of dividends. Note, though, that you are not arguing that these stocks should be avoided but that you need to do your homework before buying these stocks. In practical terms, you would need to examine the financial statements of the energy companies on this list to see if there are signs of Enronitis – the hiding of liabilities or mysterious (and unsustainable) earnings. You may very well conclude that the market's fears are misplaced and that these stocks are good investments. With tobacco companies, you will need to do a similar analysis on potential tobacco liabilities.

Comparisons to Potential Dividends

While comparing dividends to earnings may provide a simple way of measuring whether dividends are sustainable, it is not a complete test for two reasons.

- *Earnings are not cash flows:* Accountants measure earnings by subtracting accounting expenses from revenues. To the extent that some of these expenses are non-cash expenses (depreciation and amortization, for instance) and because accrual accounting (which is what is used in corporate accounting statements) does not always yield the same results as cash accounting, accounting earnings can be very different from cash flows.
- *Firms may have reinvestment needs:* Even if earnings roughly approximate cash flows, firms may not be able to pay them out in dividends. This is because firms often have to reinvest to maintain assets and these capital investments (which do not show up in income statements) will reduce cash flows.

For dividends to be truly sustainable, the cash flows left over after capital expenditures have to be greater than the dividends.

How can you measure the cashflows available for dividends? One measure is the free cashflow to equity, which measures cash left over after meeting reinvestment needs. To measure the cashflow to equity, you begin with the net income and make the following adjustments:

- You add back non-cash accounting expenses such as depreciation and amortization.
- You subtract out capital expenditures since they represent a cash drain on the firm. While some analysts draw a distinction between non-discretionary and discretionary capital expenditures, you will consider all such expenditures in computing free cashflows to equity.
- You will subtract out the change in non-cash working capital to arrive at the cash flow. Thus, an increase in working capital (inventory or accounts receivable, for instance) will reduce cash flows whereas a decrease in working capital will increase cashflows. Making this adjustment essentially converts accrual earnings to cash earnings.
- You will subtract out the net cashflow resulting from debt. Debt repayments represent cash outflows whereas new debt represents cash inflows. The difference between the two should affect your cashflow to equity.

Free Cashflow to Equity (FCFE) = Net Income + Depreciation and Amortization – Capital Expenditures – Change in non-cash working capital – (Debt Repayments – New Debt issues)

Note that the net cashflow from debt can be positive if debt issues exceed debt repayments. Conservative analysts who do not want dividends to be funded by net debt issues often compute a conservative version of free cashflow to equity, which ignores net debt cashflows:

$$\text{Conservative FCFE} = \text{Net Income} + \text{Depreciation and Amortization} - \text{Capital Expenditures} - \text{Change in non-cash working capital}$$

While you can compute the FCFE using information in the income statement and the balance sheet, you can also obtain it from the statement of cashflows.

How would the 21 firms that had payout ratios less than 80% in table 2.4 look like if you compared dividends to FCFE? To answer this question, the FCFE was computed using the conservative approach (not factoring in new debt issues). Table 2.5 summarizes the findings:

Table 2.5: Dividends versus FCFE for firms with payout ratio < 80%

<i>Company</i>	<i>DPS</i>	<i>EPS</i>	<i>FCFE/share</i>
MicroFinancial Inc	\$0.20	\$1.26	\$2.25
Telesp Celular Participacoes	\$0.15	\$0.90	\$0.14
Dynegy Inc. 'A'	\$0.30	\$1.46	-\$2.67
AES Corp.	\$0.25	\$1.17	-\$3.17
El Paso Corp.	\$0.87	\$2.93	-\$7.17
Mission West Pptys	\$0.96	\$2.52	\$3.31
Koger Equity Inc.	\$1.40	\$2.94	\$3.12
R.J. Reynolds Tobacco	\$3.80	\$6.32	\$10.75
TECO Energy	\$1.42	\$2.31	-\$2.47
Advanced Tobacco Products	\$0.05	\$0.08	\$0.08
Apex Mortgage Capital	\$2.00	\$3.11	\$3.11
Permian Basin Rty Tr	\$0.56	\$0.85	\$1.05
Williams Coal Sm Gs	\$0.88	\$1.33	\$1.33
Public Serv. Enterprise	\$2.16	\$3.20	-\$4.24
Allegheny Energy	\$1.72	\$2.51	\$1.36
CMS Energy Corp.	\$0.72	\$1.04	-\$4.46
MFA Mortgage	\$1.12	\$1.58	\$1.63
Aquila Inc.	\$0.70	\$0.95	-\$1.23
UIL Holdings	\$2.88	\$3.77	\$7.22
NorthWestern Corp.	\$1.27	\$1.62	\$2.54
Redwood Trust Inc	\$2.52	\$3.18	\$2.98

The real estate investment trusts and tobacco companies look even better on the question of dividend sustainability when dividends are compared to free cashflows to equity. R.J. Reynolds, for instance, has free cashflows to equity of \$10.75 per share and pays out \$3.80 in dividends, suggesting a large buffer for dividend payments. Concerns about lawsuits and legislation may still sway you in your final investment decision. The biggest divergence between earnings per share and FCFE shows up with the energy firms. All of the energy firms have substantially lower free cashflows to equity than earnings per share; five of them have negative free cashflows to equity. Since FCFE represent cash available for dividends,

how, you might wonder, can they afford to pay the dividends that they do? In the late 1990s, energy firms borrowed money (on and off the books) and made equity issues to fund dividend payments. As a result, they became highly levered. The conclusion you would draw is that these firms cannot sustain these dividends. This is also true, albeit to a lesser degree for Telesp Cellular.

Low Growth

As a firm increases the dividends it pays to stockholders, it is reinvesting less of its earnings back into its business. In the long term, this has to translate into lower growth in earnings per share.⁸ In fact, the long term sustainable growth rate in earnings per share for a firm can be written as a function of its payout ratio and the quality of its investments (measured by its return on equity):

Expected Long-term Growth rate in earnings per share = (1 - Payout ratio) (Return on equity)

To illustrate, a firm that pays out 40% of its earnings as dividends and earns a 20% return on equity can expect to see its earnings per share grow 12% a year in the long term.

Expected growth rate in earnings per share = (1 - .40) (.20) = .12 or 12%

Investors who invest in companies that pay high dividends have to accept a trade off. These firms will generally have much lower expected growth rates in earnings.

Consider again the sample of high dividend paying stocks in Table 2.5 that have sustainable dividends –the firms that have dividends that exceed free cashflows to equity were eliminated. In Table 2.6, the sustainable growth rates in these firms are estimated and compared to analyst estimates of expected growth:

Table 2.6: Fundamental and Analyst Estimates of Growth for firms with sustainable dividends

<i>Company Name</i>	<i>ROE</i>	<i>Payout Ratio</i>	<i>Expected Growth</i>	<i>Analyst Estimate of 5-year growth</i>
MicroFinancial Inc	1.71%	15.87%	1.44%	NA
Mission West Pptys	6.55%	38.10%	4.05%	NA
Koger Equity Inc.	7.66%	47.62%	4.01%	NA
R.J. Reynolds Tobacco	2.81%	60.13%	1.12%	5.50%
Advanced Tobacco	10.53%	62.50%	3.95%	NA

⁸ You can still maintain high growth in net income by issuing new equity, but this action will increase the number of shares outstanding.

Apex Mortgage Capital	4.53%	64.31%	1.62%	NA
Permian Basin Rty Tr	4.16%	65.88%	1.42%	NA
Williams Coal Sm Gs	5.44%	66.17%	1.84%	NA
Allegheny Energy	-1.25%	68.53%	-0.39%	3.00%
MFA Mortgage	3.38%	70.89%	0.98%	NA
UIL Holdings	1.81%	76.39%	0.43%	3.80%
NorthWestern Corp.	3.74%	78.40%	0.81%	2.70%
Redwood Trust Inc	5.35%	79.25%	1.11%	NA

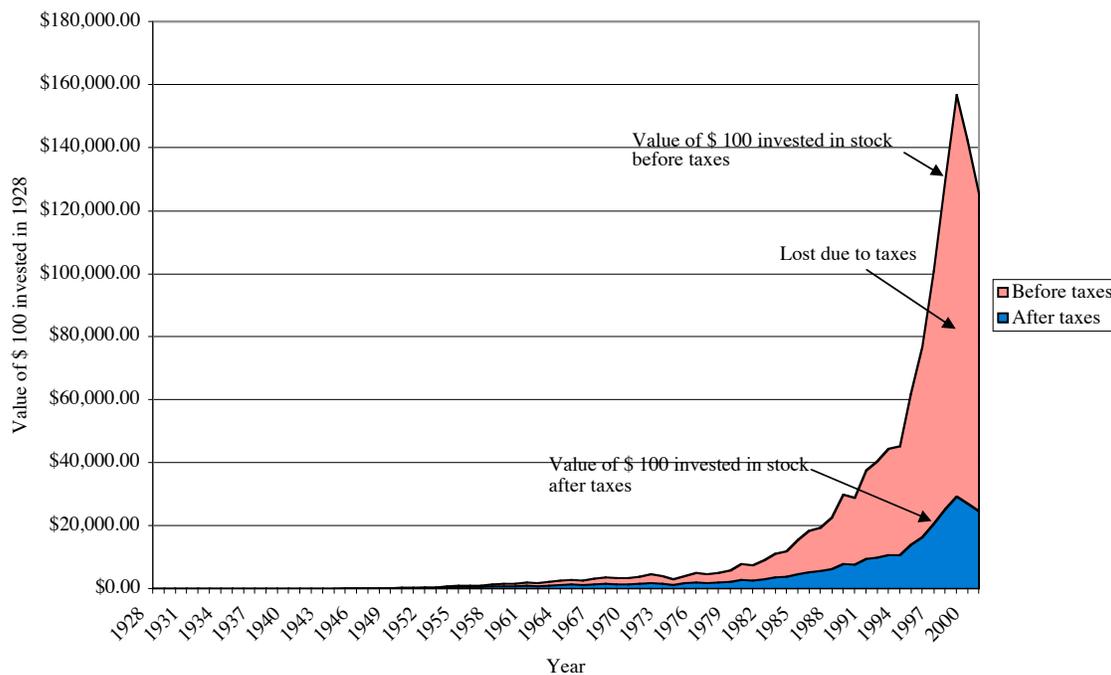
The fundamental growth rates are low for every one of the firms, partly because these firms have high payout ratios and partly because of low returns on equity on their investments. For those firms where analyst estimates of growth are available, the expected growth rates in earnings per share over the next 5 years are low. In fact, if you require firms to have expected fundamental growth rates of 3% or higher, the only three firms that make the final cut are two real estate investment trusts – Mission West Properties and Koger Equity- and one tobacco firm – Advanced Tobacco. In summary, screening firms for sustainability of dividends and for reasonable growth rates in earnings reduces the original sample of 100 firms to 3 firms.

Taxes

As has often been said, the only two things that are certain in life are taxes and death. While investors may get a chance to pause and admire the pre-tax returns they make on their investment portfolios, they can spend only the returns that they have left after taxes. Strategies that yield attractive pre-tax returns can generate sub-standard after tax returns.

How big of a drag are taxes on investment returns? An examination of the returns on the U.S. stock market and on government bonds indicates that stocks have generated much higher returns than treasury bills or bonds. Thus, \$ 100 invested in stocks in 1928 would have grown to \$ 125,599, by the end of 2001, significantly higher than what your portfolio would have been worth if invested in T.Bills (\$1,713) or T.Bonds (\$3,587). This is impressive but it is also before taxes and transactions costs. For the moment, consider the effects of taxes on these returns. Assume that the investor buying these stocks faced a tax rate of 35% on dividends and 20% on capital gains over this period. To compute the effect of taxes on returns, you do have to consider how often this investor trades. If you assume that he turns over his entire portfolio at the end of each year, he would have to pay taxes on both dividends and the price appreciation each year. Figure 2.9 shows the effect on the portfolio value over the period and the effect of taxes on the ending portfolio:

Figure 2.9: Value of \$ 100 invested in Stocks: Before and After Taxes



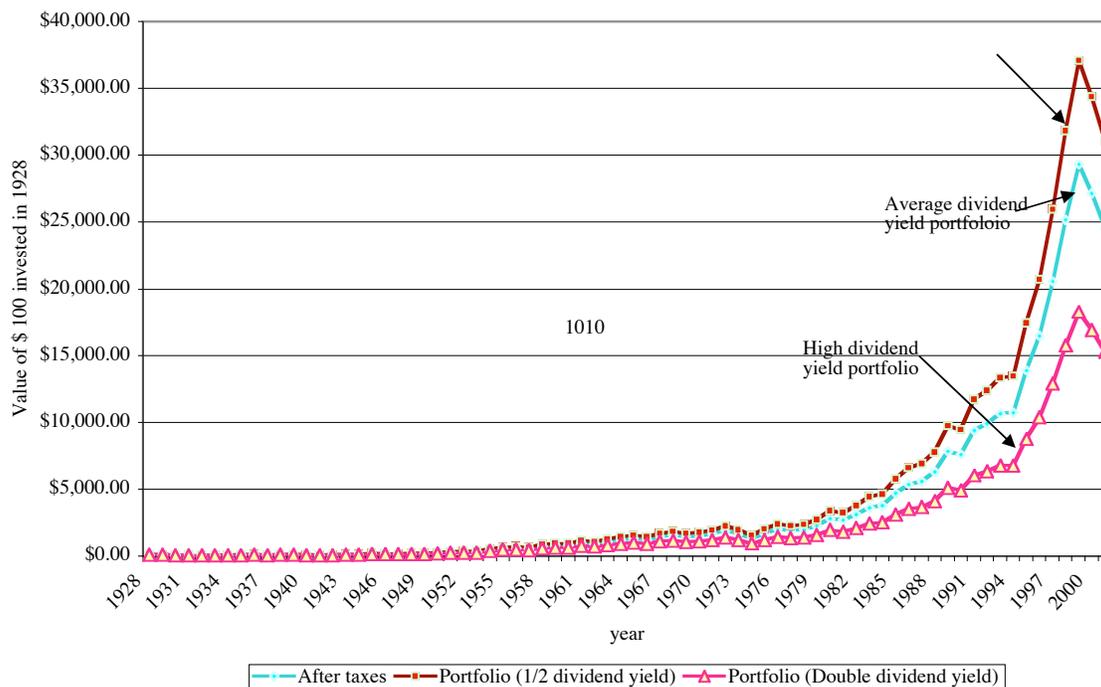
Data from Federal Reserve: The graph measures the cumulated value of \$ 100 invested in stock in 1928, including dividends and price appreciation.

Note that introducing taxes into returns reducing the ending value of the portfolio by more than two thirds from \$125,598 to \$39,623.

If taxes affect all investments, you may wonder why its effect is emphasized with a high dividend strategy. While the taxes on capital gains can be deferred by not trading on your winners, the taxes on dividends have to be paid each period that you receive dividends. Thus, a strategy of investing in stocks that have higher dividend yields than average will result in less flexibility when it comes to tax timing and more taxes, at least relative to investing in low dividend yield stocks for the long term. This is illustrated in figure 2.10 for an investor by contrasting the performance of a portfolio with a dividend yield half that of the market each year to one with twice the dividend yield, keeping the total returns constant.⁹

⁹ To provide an example, the average dividend yield across all stocks in 1996 was 3.20% and the total return was 23.82%. The half dividend yield portfolio was estimated to have a dividend yield of 1.60% and a price appreciation of 22.22% for a total return of 23.82%. The double dividend yield portfolio had a dividend yield of 6.40% and a price appreciation of 17.42% for a total return of 23.82%.

Figure 2.10: Value of \$ 100 invested in stocks in 1928 & Dividend Yields



Data from Federal Reserve: The graphs represent the cumulated value of \$ 100 invested in 1928 in each of the three portfolios (high dividend yield, average dividend yield and low dividend yield)

Note that the portfolio of stocks with half the dividend yield of the market has an ending value of just over \$ 30,000 in 2001, whereas one with a dividend yield twice that of the market has an ending value of roughly half that amount. An investor interested in building up a portfolio over time may find that much of the “excess return” analysts claim to find with high dividend yield portfolios may be dissipated by the higher tax liabilities created.

Does this tax liability make a strategy of buying stocks that pay high dividends a poor one for an investor who faces high tax rates? Not necessarily, for two reasons. The first is that the return may still be higher after you pay the additional taxes on this strategy. The second is that different parts of the same investor’s portfolio are treated differently for tax purposes. Even a high-tax rate investor is allowed to accumulate funds in pension plans and delay or defer taxes until retirement. Investing your pension plan in high dividend paying stocks then gives you the benefits of the strategy without the tax costs.

One of the perils of looking at the past is that you can miss significant changes in the world. Much of what has been in this section about the tax disadvantages of dividends may now truly be history since new tax legislation, signed into law in May 2003, reduced the tax rate on dividends to 15% and set it equal to the tax rate on capital gains. The tax

disadvantage of dividends has clearly been much reduced if not eliminated. This will not only affect the values of dividend paying stocks but it will also change the way many companies view dividends. In the early part of 2003, technology firms like Microsoft and Oracle, which had never been paid dividends, announced that they would start paying dividends again.

Lessons for Investors

Consider the lessons of this chapter. Stocks that pay high dividends have historically delivered higher returns than stocks than the rest of the market, and stocks that increase dividends see their stock prices go up. On the other hand, stocks that pay high dividends grow earnings far more slowly (thus delivering less in price appreciation) and are often unable to sustain dividends in the long term. The last section demonstrates the attrition in a high dividend portfolio once you begin to ask questions about the sustainability of dividends and expected growth rates. You began with a sample of the 100 companies that had the highest dividend yields but 79 of these firms were eliminated either because they had negative earnings or because their dividend payout ratios exceeded 80%. Of the remaining 21 firms, eight firms were eliminated because they had negative free cashflows to equity or because their dividends exceeded their free cashflows to equity. Of the 13 firms left, only three had expected growth rates greater than 3%.

Looking at the process, you would have been better served if you had not begun the process by looking at the highest dividend yield paying stocks and instead looked for stocks that met multiple criteria – high dividends, sustainable earnings and reasonable growth rates in earnings per share – across all traded stocks. For instance, you could screen all US stocks for those stocks that have the following characteristics:

- *Dividend yields that exceed the treasury bond rate:* The treasury bond rate offers a useful measure for comparison since it represents what you would earn on a riskless investment. If you can buy stocks that deliver dividend yields that exceed this rate, and you can keep earnings these dividends forever, you would not even need price appreciation on the stock to break even on the investments.
- *Dividend payout ratios that are less than a cutoff:* Earlier in the chapter, fairly arbitrary cutoffs ranging from 67 to 80% were considered. The idea behind this constraint is to eliminate firms that are paying out more in dividends than they can sustain.
- *Reasonable expected growth in earnings per share:* If you want price appreciation in addition to high dividends, the companies you invest in have to be able to grow earnings. Though it is unrealistic to expect high dividend yield stocks to grow

earnings in the double digits, you can require earnings growth that matches overall growth in the economy.

In October 2002, you could screen for firms with dividend yields that exceed 4% (the treasury bond rate at the time of the analysis), dividend payout ratios less than 60%, dividends less than FCFE and expected growth rate in EPS over the next five years greater than 4%. Since real estate investment trusts are structured so differently from other firms, you should eliminate them from the sample as well. The resulting portfolio of 30 companies is presented in the appendix.

This portfolio is much more diverse in terms of industries represented than the original sample of 100 firms with the highest dividend yields. While the average dividend yield on the portfolio is lower than the original portfolio, the dividends are much more sustainable and the firms do have some growth potential.

Conclusion

Stocks that pay high dividends seem to offer an unbeatable combination of continuing income (dividends) and potential price appreciation. Their allure increases in bear markets as equities decline in value. The empirical evidence also seems to provide some support for the proposition that stocks with higher dividend yields generate higher returns for investors over the long term.

What are the potential dangers of investing in stocks with high dividends? The first is that dividends, unlike coupons on bonds, are not promised cashflows. A dividend that is too high, relative to the earnings and cashflows generated by a firm, is unsustainable and will have to be cut sooner rather than later. In addition, the tax laws treat dividends much less favorably than capital gains, and over long periods, the tax bite out of returns can be substantial. Finally, high dividend payouts often translate into low expected growth rates in earnings.

In summary, a strategy of buying high dividend stocks historically has made the most sense for investors with low tax rates or for investments that are tax exempt, like pension funds. With the changes in the tax law, more investors may find this strategy to be attractive. If you adopt such a strategy, you should screen high dividend paying stocks for sustainability (by looking at dividend payout ratios and free cashflows to equity) and reasonable earnings growth.

Appendix: Firms that pass the dividend screens – October 2002

Stocks with dividend yields > 4%, dividend payout ratios < 60%, dividends < FCFE and expected EPS growth > 4%

<i>Company Name</i>	<i>Industry</i>	<i>Stock Price</i>	<i>Dividend per Share</i>	<i>Dividend Yield</i>	<i>Dividend Payout</i>	<i>FCFE/share</i>	<i>Estimated EPS growth</i>
Alexander & Baldwin	MARITIME	\$23.37	\$0.90	4.11%	54.01%	\$1.08	9.00%
AmSouth Bancorp.	BANK	\$19.86	\$0.88	4.39%	58.10%	\$1.64	8.00%
Arch Chemicals	CHEMSPEC	\$17.15	\$0.80	4.68%	0.00%	\$0.82	5.00%
Banco Santander ADR	EUROPEAN	\$6.06	\$0.29	5.30%	52.89%	\$0.47	10.50%
Bay St Bancorp	BANK	\$19.01	\$0.88	4.64%	19.89%	\$1.29	8.00%
Books-A-Million	RETAILSP	\$3.26	\$0.41	11.95%	0.00%	\$0.48	12.00%
Citizens Banking	BANK	\$23.41	\$1.14	4.75%	52.65%	\$2.12	8.00%
Cleco Corp.	UTILCENT	\$12.20	\$0.90	7.97%	56.77%	\$2.01	6.50%
Colonial BncGrp. 'A'	BANK	\$12.05	\$0.52	4.29%	43.71%	\$1.20	9.00%
Comerica Inc.	BANKMID	\$42.10	\$1.92	4.82%	37.31%	\$3.61	9.50%
Commonwealth Industries	MINING	\$5.90	\$0.20	4.44%	52.52%	\$0.48	15.00%
Electronic Data Sys.	SOFTWARE	\$13.72	\$0.60	4.38%	25.13%	\$3.09	13.00%
Equity Inns Inc.	HOTELGAM	\$5.23	\$0.52	8.92%	0.00%	\$0.67	5.00%
FirstEnergy Corp.	UTILCENT	\$30.13	\$1.50	5.70%	55.94%	\$2.88	9.00%
FirstMerit Corp.	BANKMID	\$22.16	\$1.00	4.73%	48.96%	\$2.00	9.50%
Goodrich Corp.	DEFENSE	\$16.74	\$0.80	4.51%	37.12%	\$2.85	7.00%
Goodyear Tire	TIRE	\$9.18	\$0.48	5.85%	0.00%	\$0.79	34.00%
May Dept. Stores	RETAIL	\$24.60	\$0.95	4.04%	42.07%	\$1.63	5.00%
Merchants Bancshares Inc.	BANK	\$22.08	\$0.96	4.24%	34.85%	\$2.12	10.00%
MicroFinancial Inc	FINANCL	\$2.09	\$0.20	11.77%	14.88%	\$2.26	7.50%
NICOR Inc.	GASDISTR	\$29.61	\$1.84	6.63%	57.81%	\$2.26	7.00%
Petroleo Brasileiro ADR	OILINTEG	\$12.25	\$0.52	5.47%	48.75%	\$0.89	10.00%
Philip Morris	TOBACCO	\$42.65	\$2.56	6.63%	55.71%	\$4.64	9.00%
Provident Bankshares	BANK	\$22.39	\$0.86	4.10%	45.85%	\$1.80	9.50%
Quaker Chemical	CHEMSPEC	\$19.55	\$0.84	4.34%	54.49%	\$1.31	8.00%

Snap-on Inc.	MACHINE	\$26.00	\$0.96	4.07%	52.11%	\$2.13	4.50%
Standex Int'l	DIVERSIF	\$19.72	\$0.84	4.43%	49.54%	\$1.92	9.50%
Tasty Baking	FOODPROC	\$11.59	\$0.48	4.33%	52.09%	\$0.80	8.00%
Tupperware Corp.	HOUSEPRD	\$15.95	\$0.88	5.23%	54.26%	\$1.42	7.50%
Westar Energy	UTILCENT	\$10.47	\$1.20	11.96%	-216.34%	\$5.59	16.00%