

## **The High Dividend Yield Return Advantage:**

### **An Examination of Empirical Data Associating Investment in High Dividend Yield Securities with Attractive Returns Over Long Measurement Periods**

*“The deepest sin against the human mind is to believe things without evidence.”*

*-T.H. Huxley*

In the pages that follow, we set forth a number of studies, largely from academia, analyzing the importance of dividends, and the association of high dividend yields with attractive investment returns over long measurement periods. You may be familiar with our prior booklet, *What Has Worked In Investing*, where we provided an anthology of studies which empirically identified a return advantage for value-oriented investment characteristics. In the same spirit, we attempt to examine what some in our industry have referred to as the “yield effect”; i.e., the correlation of high dividend yields to attractive rates of return over long measurement periods. Much has been written about dividends, and what is contained herein is not meant to be an exhaustive analysis, but rather a sampling of studies examining the impact of dividends on investment returns. We hope it will provide you with added insight and confidence, as it did us, in pursuing a yield-oriented investment strategy.

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The High Dividend Yield Return Advantage: An Examination of Empirical Data Associating Investment in High Dividend Yield Securities with Attractive Returns Over Long Measurement Periods

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The studies presented herein provide a review of the relative past performance of selected securities associated with high dividend yields and various indices. The investment returns presented in the studies represent past performance of those securities and should not be considered indicative or representative of the future performance of the Tweedy, Browne Worldwide High Dividend Yield Value Fund, nor should it be inferred that the future performance of the Fund will equal or exceed the performance set forth in the studies. Dividends are not guaranteed and a company currently paying dividends may cease paying dividends at any time. There may be studies that exist that contradict the conclusions of the studies presented herein.

This material is not intended to address every situation, nor is it intended as a substitute for the legal, accounting or financial counsel of your professional advisors, especially with respect to the tax treatment of dividends and your individual circumstances.

Investors should bear in mind that, as with any wealth building investment strategy, potential future wealth accumulation in their accounts will be retarded by withdrawals from their accounts, including regular withdrawals of dividends.

Information contained herein is derived from various sources as set out in the narrative. Although we believe the information provided by the sources to be accurate, we have not independently verified the information.

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## WHY DIVIDENDS ARE IMPORTANT

- Over the long term, the return from dividends has been a significant contributor to the total returns produced by equity securities in markets studied.
- There is an abundance of empirical evidence which suggests that portfolios consisting of higher dividend yielding equity securities can produce returns that are attractive relative to lower-yielding portfolios and to overall stock market returns over long measurement periods.
- Stocks with high and apparently sustainable dividend yields that are competitive with high quality bond yields may be more resistant to a decline in price than lower-yielding securities because the stock is in effect “yield supported.” The reinvestment of dividends during stock market declines has also been shown to generally lessen the time necessary to recoup portfolio losses.
- The ability to pay cash dividends is a positive factor in assessing the underlying health of a company and the quality of its earnings. This is particularly pertinent in light of the complexity of corporate accounting and numerous examples of “earnings management,” including occasionally fraudulent earnings manipulation.
- Dividends remain tax advantaged in the US. Dividends treated as “qualified dividend income” received by individual taxpayers are taxed at the same favorable rates as long-term capital gains (15% Federal Tax Rate for most individuals; 20% for individuals and joint filers with incomes of at least \$400,000 and \$450,000, respectively. In addition, a 3.8% “Medicare tax” is applied to the net investment income of shareholders in higher tax brackets.) Of course, one can never predict future tax policy and it is possible that this tax advantage could disappear in the future. *(This should not be considered tax advice. We encourage you to consult your tax advisor.)*
- Most importantly, there is an abundance of empirical evidence which suggests that portfolios consisting of high dividend yielding equity securities may produce attractive total returns over long measurement periods.

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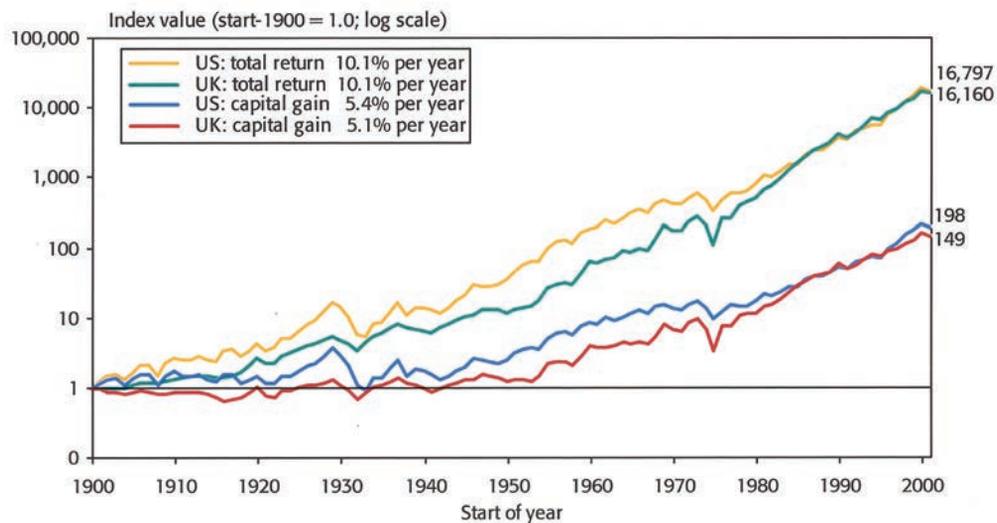
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## DIVIDENDS AND THEIR CONTRIBUTION TO INVESTMENT RETURNS

### Reinvested Dividends Have Been the Dominant Contributor to Long-Term Returns on Equity Securities

In their book, **Triumph of the Optimists: 101 Years of Global Investment Returns**, Elroy Dimson, Paul Marsh, and Mike Staunton examined the respective contributions to returns provided by capital gains and dividends from 1900 to 2000. They discovered that, while year-to-year performance was driven by capital appreciation, long-term returns were largely driven by reinvested dividends. In the chart below, they show the cumulative contribution to return of capital gains and dividends in both the U.S. and the U.K. from 1900 to 2000. Over 101 years, they found that a market-oriented portfolio, which included reinvested dividends, would have generated nearly 85 times the wealth generated by the same portfolio relying solely on capital gains. This wealth accumulation would, of course, have been lower if dividends were not assumed to have been reinvested.

Figure 11-2: Impact of reinvested dividends on cumulative US and UK equity returns, 1900–2000



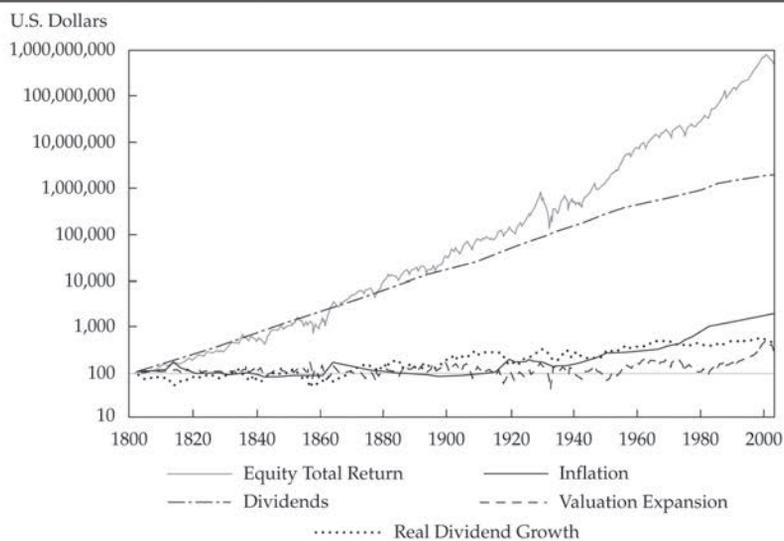
Source: **Triumph of the Optimists: 101 Years of Global Investment Returns**, Elroy Dimson, Paul Marsh and Mike Staunton, Princeton University Press, 2002, p. 145

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

**Dividends Have Not Only Dwarfed Inflation,  
Growth and Changing Valuation Levels  
Individually, But They Have Also Dwarfed  
the Combined Importance of Inflation, Growth  
and Changing Valuation Levels**

In an editorial in the **Financial Analysts Journal** in 2003 entitled *Dividends and the Three Dwarfs*, Robert D. Arnott examined the various components of equity returns for the 200 years ending in 2002. He concluded that dividends were far and away the main source of the real return one would expect from stocks, dwarfing the other constituents, inflation, rising valuations, and growth in dividends. In the chart below, Arnott shows the contribution to total return for each of these constituents for the period 1802 to 2002. The total annualized return for the period of 7.9% consisted of a 5.0% return from dividends, a 1.4% return from inflation, a 0.6% return from rising valuation levels, and a 0.8% return from real growth in dividends. He concludes that "... unless corporate managers can provide sharply higher real growth in earnings, dividends are the main source of the real return we expect from stocks."

**Figure 1. Dividends and the Three Dwarfs: Growth of \$100 Invested in U.S. Equities, 1802–2002**



Sources: Based on Schwert (1990) data for 1801–1870, a blend of Schwert and Siegel (2002) data for 1871–1925, and S&P 500 Index data since 1926.

Source: *Dividends and the Three Dwarfs*,  
"Editor's Corner", Robert D. Arnott,  
*Financial Analysts Journal*, 2003, p. 6

Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.

## HIGH DIVIDEND YIELD SECURITIES HAVE PRODUCED SUPERIOR RETURNS OVER TIME

### The Rejection of a Tax-Based Explanation for the Premium Returns of High Yield Securities in the U.K.

In a paper published in the *Journal of Financial Economics* in 1979 entitled *The Effect of Personal Taxes and Dividends on Capital Asset Prices*, Robert Litzenberg of Stanford University and Krishna Ramaswamy of Bell Labs discovered a strong correlation between expected pre-tax returns and dividend yields of common stocks. They reasoned that investors would demand superior pre-tax returns from dividend paying securities to compensate for the higher tax rates applied against their dividend income streams. Their data, which was supplied by the Center for Research in Security Prices at the University of Chicago (CRSP), indicated that "... for every dollar increase in return in the form of dividends, investors required an additional 23 cents in before-tax return."

In a later paper entitled *Taxes, Dividend Yields and Returns in the UK Equity Market* in the *Journal of Banking & Finance* (1998), Gareth Morgan and Stephen Thomas of the University of Southampton also found a return premium associated with higher dividend yield securities, but their data rejected a tax-based explanation since in the UK dividend income is taxed more favorably than capital gains. Using data from the London Share Price Database (LSPD), they examined the relationship between dividend yields and stock returns from 1975 through 1993 in the UK. Database companies were ranked by dividend yield at the end of each month and divided into six groups, including a zero dividend group (companies that did not pay dividends). In the table below from page 12 of their study, Messrs. Morgan and Thomas find a strong correlation between the size of the dividend yield and the average monthly return.

**Portfolios ranked by dividend yield using monthly data 1975-1993**

Dividend Yield Portfolio	Average Monthly Return (%) <sup>a</sup>	Average Dividend Yield	Average Market Value of Equity <sup>b</sup>	Market Model Estimate of $\alpha$	Market Model Estimate of $\beta$
1 (Highest)	2.51 (5.62)	11.07	136.53	0.53 <sup>c</sup>	0.95
2	2.23 (5.22)	7.69	207.27	0.18 <sup>c</sup>	1.01
3	1.98 (5.16)	5.93	205.68	0.01	0.95
4	1.86 (4.90)	4.31	183.93	-0.01	0.94
5 (Lowest)	1.56 (4.93)	2.25	133.21	-0.44 <sup>c</sup>	0.97
6 (Zero)	2.06 (6.58)	0.00	33.66	-0.17	1.16
<i>t</i> -test <sup>d</sup>	1.56				
<i>F</i> -test <sup>e</sup>	0.85				

<sup>a</sup> Standard deviations are in parentheses. Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

<sup>b</sup> Average market value of equity calculated from annual data, expressed in millions of pounds.

<sup>c</sup> Indicates a *t*-statistic giving a 95% probability of significance.

<sup>d</sup> *t*-test (452 degrees of freedom) of the null hypothesis that the mean return to portfolio 1 equals the mean return to portfolio 5.

<sup>e</sup> *F*-statistic (distributed (5.1356)) tests the null hypothesis that average returns are equal for each dividend yield group.

$\alpha$  A measure of performance on a risk-adjusted basis.

$\beta$  A measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Source: *Taxes, Dividend Yields and Returns in the UK Equity Market*, Gareth Morgan and Stephen Thomas, *Journal of Banking & Finance*, 1998, p. 410

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## High Dividend Yield in the United Kingdom

In a paper entitled *Stock Market Anomalies: A Reassessment Based on the U.K. Evidence* in the **Journal of Banking and Finance**, December 1989, Professor Mario Levis at The School of Management, University of Bath, United Kingdom, examined a number of anomalies in stock price behavior of firms on the London Stock Exchange including the correlation between dividend yield and investment returns. In a subsequent paper entitled *Market Anomalies: A Mirage or a Bona Fide Way to Enhance Portfolio Returns?*, Michael Lenhoff of Capel-Cure Myers Capital Management used data largely derived from Professor Levis' study to illustrate a strong positive relationship between dividend yield and market-beating rates of return. Using a sample of 4,413 companies, all of which were listed on the London Stock Exchange during January 1955 through December 1988, Lenhoff ranked these listed companies each year according to dividend yield and sorted the companies into deciles. The 34-year compounded annual investment returns and cumulative values of an assumed £1 million initial investment in each of the ten groups is shown in the following table, along with descriptive information concerning each group's average dividend yield and market capitalization.

In his study, there was almost a perfect correlation in the decile returns between higher dividend yields and higher annualized returns. The top decile, in terms of high yield, produced an average annualized return over 34 years of 19.3% versus 13.0% for the Financial Times Actuaries All Share Index.

**Investment Results of U.K. Companies According to Dividend Yields,  
January 1955 through December 1988**

Dividend Yield Group		Annual Investment Return	Cumulative Value of £1 Million in Jan. 1955 at Dec. 1988	Average Market Cap (£ million)	
1	13.6%	19.3%	£403.4	£283.4	
2	10.9	17.7	254.9	278.5	
3	8.7	16.8	196.4	337.2	
4	7.4	16.0	155.4	266.4	
5	6.4	15.4	130.3	223.1	
6	5.5	14.1	88.7	206.5	
7	4.7	12.4	53.2	112.1	
8	4.0	11.9	45.7	95.4	
9	3.1	11.5	40.5	94.4	
10	1.4	13.8	81.1	74.6	
Financial Times - Actuaries All Share Index		5.3%	13.0%	£63.8	£503.5

Source: *Market Anomalies: A Mirage or a Bona Fide Way to Enhance Portfolio Returns?*  
Michael Lenhoff, Capel-Cure Myers Capital Management,  
Revised Print, March 1991

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Mr. Lenhoff noted that "... there is a near perfect inverse correlation between the ratio of price-to-net asset value [i.e., book value] for the U.K. equity market and yield. When price stands significantly at a discount [premium] to the net asset value, the yield available from U.K. plc is significantly above [below] the long run range." Mr. Lenhoff also went on to observe that the price/earnings ratios of high dividend yield companies are usually low in relation to the price/earnings ratio of the entire stock market and that the high yield companies are often takeover candidates.

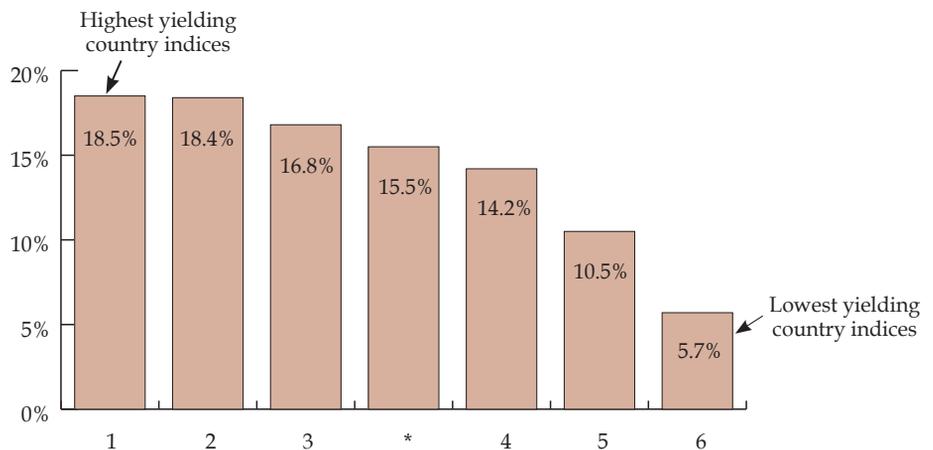
While it is not the case in all instances, in Tweedy, Browne's experience, high dividend yields are often associated with stocks selling at low prices in relation to earnings, book value and specific appraisals of the value that shareholders would receive in a sale of the entire company based upon valuations of similar businesses in corporate transactions.

## Companies throughout the World: High Dividend Yield

In *The Importance of Dividend Yields in Country Selection* in the *The Journal of Portfolio Management*, A. Michael Keppler examined the relationship between dividend yield and investment returns for companies throughout the world. Mr. Keppler's study assumed an equal-weighted investment each quarter in each of the following eighteen Morgan Stanley Capital International equity indexes over the 20-year period from December 31, 1969 through December 31, 1989: Australia, Austria, Belgium, Canada, Denmark, France, Germany, Hong Kong, Italy, Japan, The Netherlands, Norway, Singapore/Malaysia, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Each quarter, the country indexes were ranked according to dividend yield and sorted into four quartiles. The total investment return was measured for each of the four quartile groups over the subsequent three months.

The study indicated that the most profitable strategy was investment in the highest yield quartile. The compound annual investment return for the countries with the highest yielding stocks was 18.49% in local currencies (and 19.08% in U.S. dollars) over the 20-year period. The least profitable strategy was investment in the lowest yield quartile, which produced a 5.74% compound annual return in local currency (and 10.31% in U.S. dollars). The Morgan Stanley Capital International World Index return over the same period was 12.14% in local currency on a cap-weighted basis (and 13.26% in U.S. dollars). On an equal-weighted basis, the MSCI World Index was up 15.5% for the period in local currency.

**Compound Annual Returns (in local currencies) based on various dividend yield strategies and the MSCI World Index  
December 1969 – December 1989**



Source: *The Importance of Dividend Yields in Country Selection*, A. Michael Keppler, *The Journal of Portfolio Management*, Winter 1991

\* MSCI World Index (equally weighted) in local currency; on a capitalization-weighted basis, the MSCI World Index returned 12.14% in local currency.

Strategies based on yield:

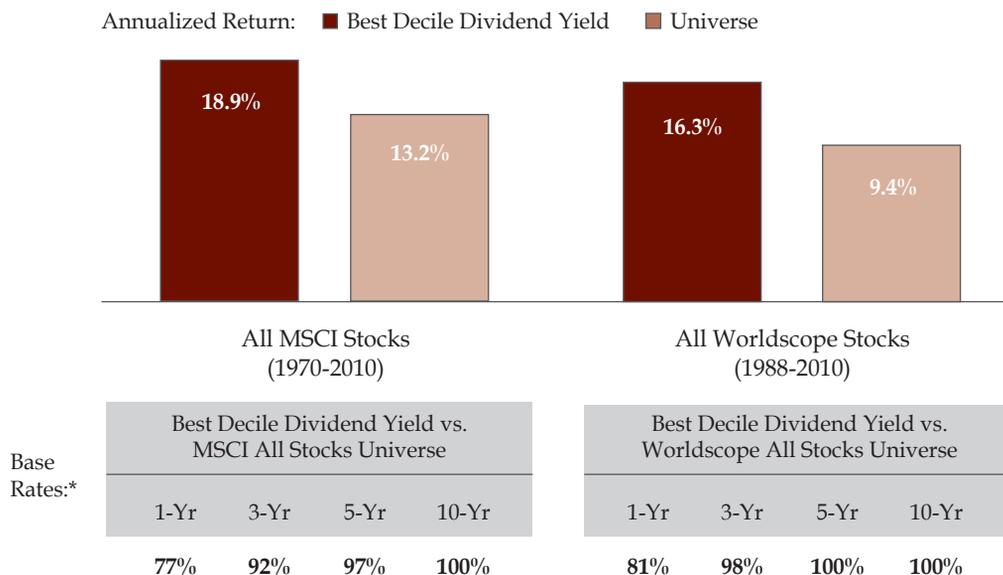
- (1) Invest in only top quartile yielding country indices
- (2) Invest in the top two quartiles based on yield
- (3) Invest in the top three highest yielding quartiles
- (4) Invest in the bottom three quartiles based on yield
- (5) Invest in the bottom two quartiles based on yield
- (6) Invest in only the lowest yielding quartile.

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## High Dividend Yielding “Global” Companies Versus the Broader MSCI and Worldscope Databases

According to research from O’Shaughnessy Asset Management entitled *Stocks, Bonds, and the Efficacy of Global Dividends*, dividend stocks work well in the US, but work even better globally. Using data from Morgan Stanley Capital International (“MSCI”) going back to 1970, the top decile of dividend paying companies in that database produced returns that were 5.7% better, on an annualized basis, than the returns of the broader database. Using another database, the Worldscope database, from 1988 to 2010, top decile dividend paying companies performed even better, outperforming the Worldscope database average by 6.9% per year. Global dividend payers also apparently outperformed with a great deal of consistency in both databases, with the top decile dividend yielders outperforming the MSCI database in 92% of the rolling three-year periods and outperforming the Worldscope database in 98% of the rolling three-year periods.

**Annualized Returns of High Dividend Yield Companies  
versus Indices Over Long Measurement Periods**



\* Base rates are a batting average for how often a strategy beats its benchmark over certain rolling time periods.

Source: *Stocks, Bonds, and the Efficacy of Global Dividends*,  
O’Shaughnessy Asset Management Research,  
Winter 2012, p.4

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## Dogs of the Dow

The “Dogs of the Dow” is a yield-oriented strategy first popularized by Michael B. O’Higgins with John Downes in their book, **Beating the Dow**. O’Higgins discovered that by investing in the 10 highest yielding securities in the Dow Jones Industrial Average of 30 industrial companies, and rebalancing annually, one could substantially outperform the average itself. Specifically, O’Higgins found that over the 26-year period from 1973 to 1998, a portfolio consisting of the ten highest yielding securities in the Dow Jones Industrial Average produced a return of 17.9% annually, as compared to 13.0% for the DJIA. This strategy has become very popular over the years with brokerage firms and retail investors. O’Higgins felt strongly that his high dividend yield strategy was, in essence, a contrarian approach emphasizing those components of the Dow Jones Industrial Average that were currently out of favor as reflected in higher dividend yields.

### Total Return\* Comparisons

Year	Ten Highest-Yield	DJIA
1973	3.9%	-13.1%
1974	-1.3	-23.1
1975	55.9	44.4
1976	34.8	22.7
1977	0.9	-12.7
1978	-0.1	2.7
1979	12.4	10.5
1980	27.2	21.5
1981	5.0	-3.4
1982	23.6	25.8
1983	38.7	25.7
1984	7.6	1.1
1985	29.5	32.8
1986	32.1	26.9
1987	6.1	6.0
1988	22.9	16.0
1989	26.5	31.7
1990	-7.6	-0.4
1991	39.3	23.9
1992	7.9	7.4
1993	27.3	16.8
1994	4.1	4.9
1995	36.7	36.4
1996	27.9	28.9
1997	21.9	24.9
1998	10.6	17.9
Cumulative	7264%	2408%
Average Annual	17.9%	13.0%

Source: **Beating The Dow**, Michael B. O’Higgins with John Downes, Harper Collins, 2000, p. 203

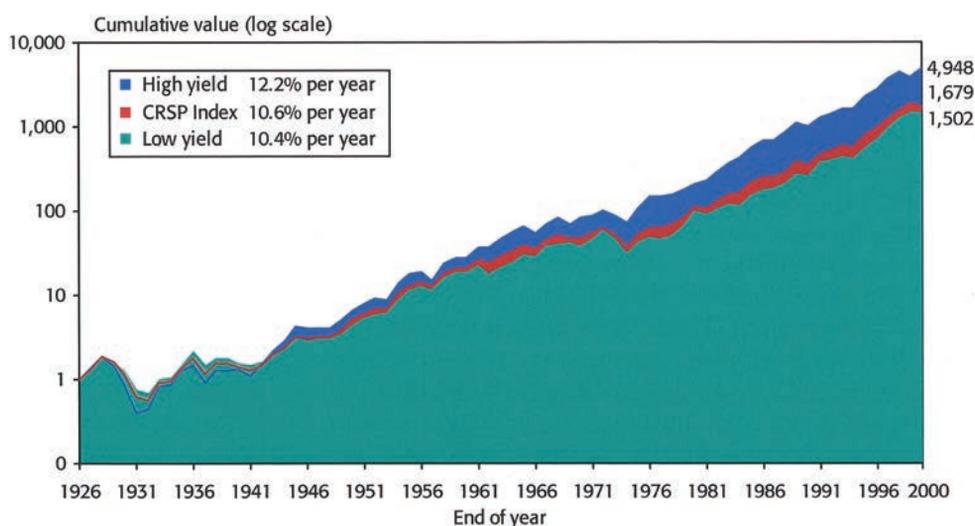
\* Excluding commissions and taxes

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## The Returns from High Dividend Yield Stocks Trumped Their Low Dividend Yield Counterparts in the U.S. over the 1926-2000 Period

The chart below, taken from Dimson, Marsh and Stanton's book, **Triumph of the Optimists: 101 Years of Global Investment Returns**, shows the cumulative returns from 1926 to 2000 of U.S. stocks that rank each year in the highest or lowest-yielding 30% of companies, and compares the two groups to the CRSP value-weighted equity index. Higher dividend yield stocks outperformed their lower-yielding counterparts and the index by 180 and 160 basis points annualized from year-end 1926 to year-end 2000. This translated into 2.29 times the wealth generated by the lower-yielding stocks.

Figure 10-1: Cumulative return from high and low dividend yield US common stocks, 1926–2000



Source: Returns provided by Ken French for portfolios comprising the 30 percent lowest yield and 30 percent highest yield stocks.

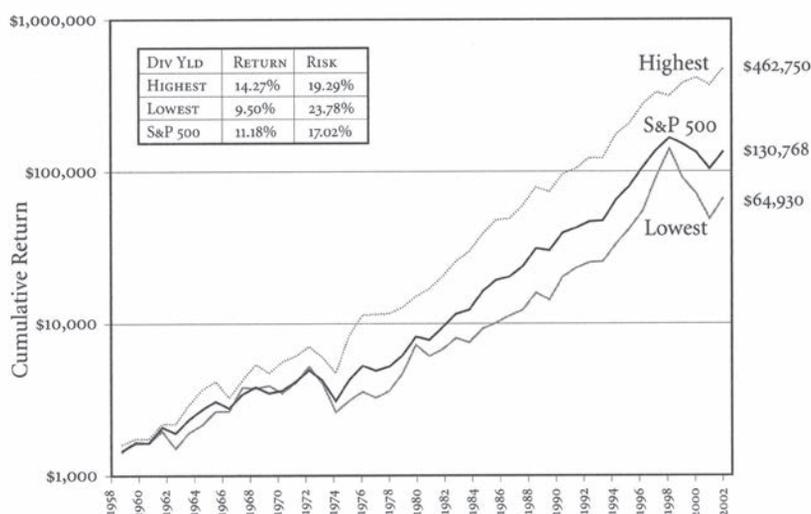
Source: **Triumph of the Optimists: 101 Years of Global Investment Returns**, Elroy Dimson, Paul Marsh and Mike Staunton, Princeton University Press, 2002, p.140

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## Performance of High Dividend Yield Stocks of the S&P 500, 1957-2002

In another study, *The Future for Investors*, Jeremy Siegel, the noted finance professor at the University of Pennsylvania, examined the performance of the component stocks of the Standard and Poor's 500 Stock Index, ranked by dividend yield from 1957 to 2002. In his study, on December 31 of each year, the S&P 500 stocks were sorted into five quintiles ranked by dividend yield. He then calculated the returns of the stocks and quintiles over the next year, re-sorting at year-end. He found that better results were directly correlated with higher dividend yields. The highest yielding quintile (top 20% of S&P 500 based on yield) produced an annualized return of 14.27% versus an annualized return of 11.18% for the S&P 500 Index, and resulted in three times the wealth accumulation of the index.

FIGURE 9.2: CUMULATIVE RETURNS TO S&P 500  
SORTED BY DIVIDEND YIELD (SOURCE: COMPUSTAT®)



Source: *The Future for Investors*,  
Jeremy J. Siegel, Crown Business, 2005, p.128

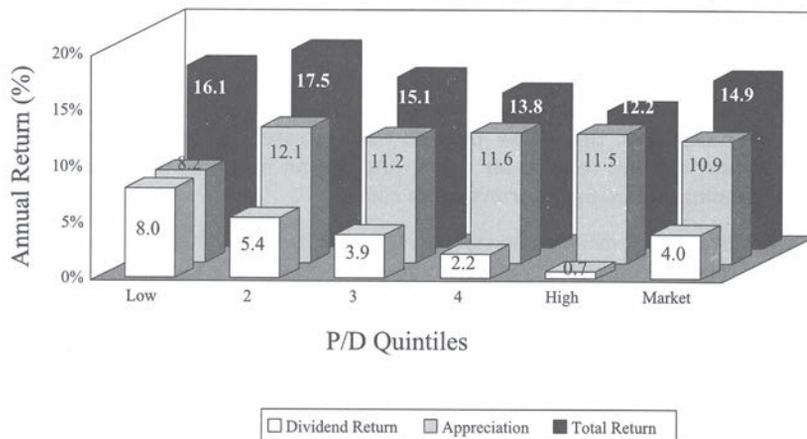
Professor Siegel also coined the terms “bear market protector” and “return accelerator” to describe how dividend reinvestment during stock market declines can dramatically lessen the time necessary to recoup portfolio losses.

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

**Stocks Ranked by Low Price in Relation to  
Dividends Produced Attractive Returns  
Over the 1970-1996 Period**

In his study contained in the book, **Contrarian Investment Strategies: The Next Generation**, David Dreman, a well-known practitioner of low price-to-earnings value investing, analyzed the annual returns of price-to-dividend strategies using data derived from the Compustat 1500 (largest 1500 publicly traded companies) for the 27-year period ending December 31, 1996. As indicated in the table below, he found that the highest yielding top two quintiles of the Compustat 1500 stock universe – as reflected by low prices in relation to dividends – outperformed the market by 1.2% and 2.6% annualized, respectively, and outperformed the stocks with low-to-no yield by 3.9% and 5.3% annually.

Figure 8-4  
**Price/Dividends**  
Dividends, Appreciation & Total Returns  
January 1, 1970 - December 31, 1996



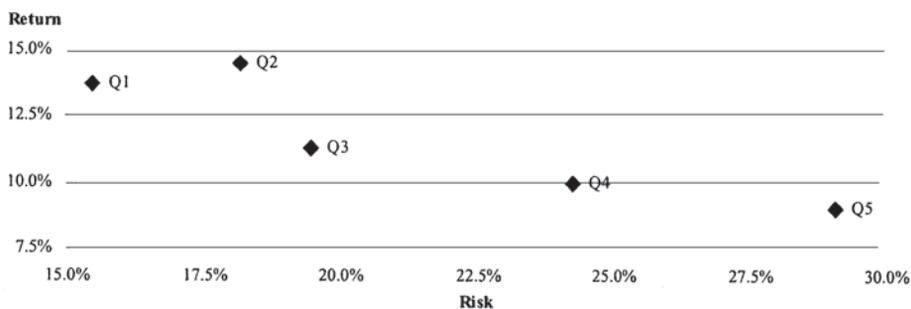
Source: **Contrarian Investment Strategies: The Next Generation**, David Dreman, Simon & Schuster, 1998, p. 168

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

## High Dividend Yield Stocks in the U.S. Have Produced More Return with Less Risk than their Low-Yield Counterparts

In a long-term study conducted by Lehman Brothers' equity research group in September 2005, high dividend yield stocks were found to have produced more return with less risk than their low-yield counterparts. The Lehman analysts studied the one thousand largest U.S. firms ranked by market capitalization, and rebalanced these securities quarterly, starting in December 1969. They found that the top-yielding quintile produced a 13.7% equal-weighted total return per year with a 15.5% standard deviation of return. The bottom-yielding quintile, in comparison, returned 9.0% with a 29.1% standard deviation.\*

Figure 1: Annualized Return and Standard Deviation of Highest (Q1) to Lowest (Q5) Dividend-Yielding Quintiles Since December 1969



Note: Equal-weighted quintiles, rebalanced quarterly. Universe includes largest 1,000 U.S. firms by market capitalization.  
Source: Lehman Brothers and FactSet

Source: *Lehman Brothers Equity Research*, Henry Chip Dickson and Charles L. Reinhard, September 26, 2005, p.1

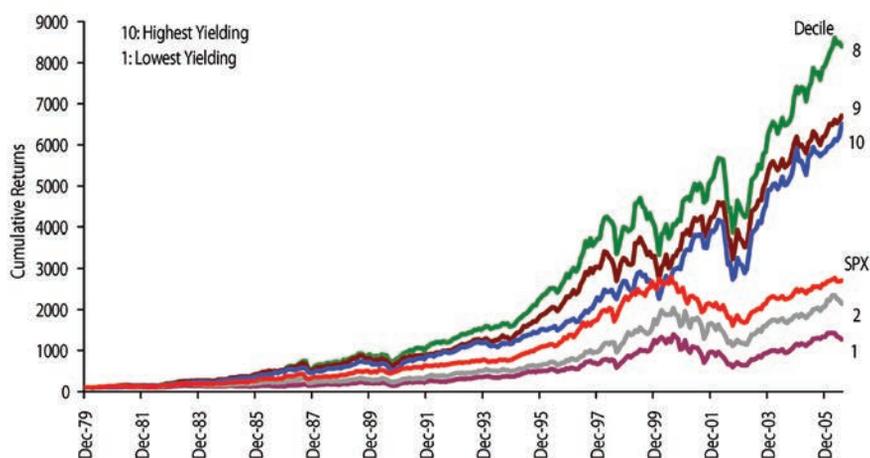
\* Standard deviation is the statistical measurement of dispersion about an average, which depicts how widely a stock or portfolio's returns varied over a certain period of time. Investors use the standard deviation of historical performance to try to predict the range of returns that is most likely for a given investment. When a stock or portfolio has a high standard deviation, the predicted range of performance is wide, implying greater volatility.

Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.

**High Dividend Yield Stocks Have Generally  
Outperformed Those with Lower Yields –  
However, the Best Returns Have Not Come  
from Those with the Highest Yields –  
Higher Yields Coupled with Low Payout  
Ratios Have Produced the Best Returns**

In their equity research paper entitled *High Yield, Low Payout*, Credit Suisse analysts Pankaj N. Patel, Souheang Yao and Heath Barefoot found that, while high dividend yield stocks did indeed outperform their lower yield counterparts, the highest yield stocks were not the overall leaders in terms of return. They ran a simulation of a dividend strategy from January 1980 to June 2006, limiting their universe to stocks within the S&P 500. They created equal-weighted decile baskets based on dividend yields as of each month-end. Over the 26-year period, they found that stocks with higher dividend yields generally outperformed those with low dividend yields, but the highest yield decile did not produce the best overall return. As their chart below indicates, deciles 8 and 9 outperformed decile 10, the highest yield decile.

Exhibit 7: Dividend Yield Strategy  
Equal-weighted decile performance from January 1980 to July 2006 (universe: S&P 500)



Source: Credit Suisse Quantitative Equity Research.

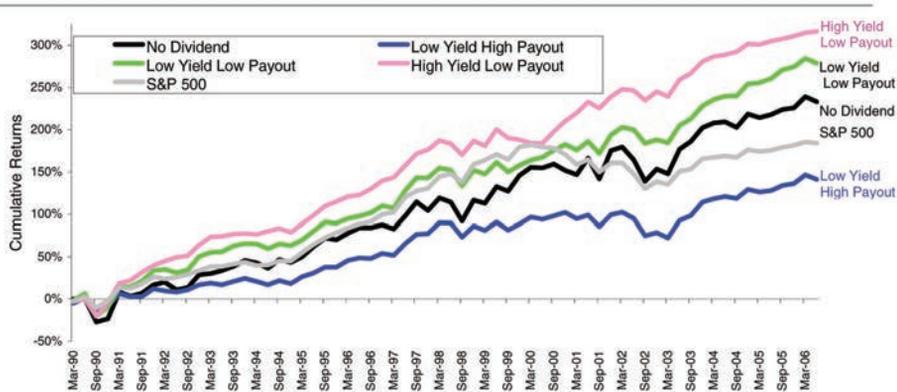
Source: *High Yield, Low Payout*, Credit Suisse  
Quantitative Equity Research, August 15, 2006, p.5

*Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.*

In addition, they found within the higher dividend yield universe a direct correlation between low payout ratios and higher returns. Specifically, they created three dividend yield baskets ranked by yield; i.e., high yield, low yield and no yield. Then, within each of these baskets they categorized stocks based

on payout ratio; i.e., high, medium and low. Equal-weighted portfolios of these baskets were created based on dividend yields and payout ratios as of each quarter-end for the period January 1990 to June 2006; i.e., high yield, low payout; low yield, low payout; low yield, high payout, etc. The stocks used were those of the S&P 500. As you can see from the chart that follows, the basket with the highest yields combined with low payout ratios produced the best returns. The high yield, low payout portfolio bucket generated an annualized return for the period of 19.2% versus 11.16% for the S&P 500. Arithmetically, the lower the payout ratio associated with a given level of dividend yield, the higher the earnings yield for the company, and the cheaper the stock based on price-to-earnings multiples: The high yield, low payout stocks that produced the better returns were priced at low ratios of price-to-earnings, and as a corollary, at high ratios of earnings-to-price; i.e., earnings yield.

**Exhibit 2: Dividend Yield and Payout Ratio**  
Equal-weighted performance from January 1990 to June 2006, quarterly rebalance



Source: Credit Suisse Quantitative Equity Research.

**Exhibit 3: Portfolio Buckets**

Dividend Yield	Payout Ratio		
	High/Negative	Low	Low
	Low	Low Yield High Payout	Low Yield Medium Payout
Medium	Medium Yield High Payout	Medium Yield Medium Payout	Medium Yield Low Payout
High	High Yield High Payout	High Yield Medium Payout	High Yield Low Payout

Source: Credit Suisse Quantitative Equity Research.

**Exhibit 4: Annualized Returns**

From January 1990 to June 2006

Dividend Yield	Payout Ratio		
	High/Negative	Low	Low
	Low	8.6%	14.7%
Medium	11.2%	13.1%	17.6%
High	11.0%	13.5%	19.2%

Source: Credit Suisse Quantitative Equity Research.

Source: *High Yield, Low Payout*, Credit Suisse Quantitative Equity Research, August 15, 2006, Pages 2-3

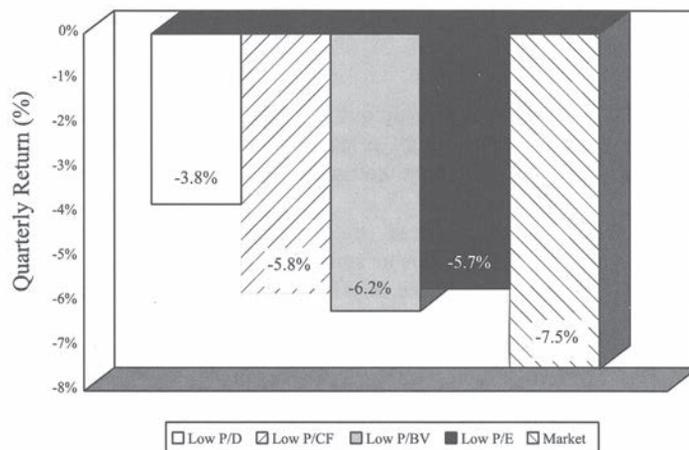
Please note that the information in the chart above reflects past performance of the equity securities studied and is not intended to predict or project future investment results.

## THE DEFENSIVE NATURE OF HIGH DIVIDEND YIELDS DURING MARKET DECLINES

### High Dividend Yield Stocks Outperformed Other Value Strategies and the Market on Average in Down Market Quarters from 1970-1996

In another study entitled *When The Bear Grows: Bear Market Returns 1970-1996*, contained in the book, *Contrarian Investment Strategies: The Next Generation*, David Dreman, in collaboration with Eric Lufkin, examined the effectiveness of contrarian value strategies in down market quarters for the 27 years ended December 31, 1996. The Compustat 1500 database (1500 largest publicly traded stocks) was used, and the performance of four value strategies (low price-to-earnings, low price-to-book value, low price-to-cash flow, and high dividend yields) was measured and averaged for all down quarters and then compared to the index itself for the 27-year period. All of the value strategies outperformed the market, with the high dividend strategy (low price-to-dividend) performing the best of all the value strategies, declining on average only 3.8%, or roughly one-half as much as the market.

Figure 7-5  
When the Bear Grows  
Bear Market Returns 1970 - 1996



Please note that the information in this chart reflects past performance of the equity securities studied and is not intended to predict or project future investment results.

Source: *Contrarian Investment Strategies: The Next Generation*, David Dreman, Simon & Schuster, 1998, p. 157

When both the up and down quarters were considered over the full 27 years, again, all of the value strategies outperformed the market, but the price-to-dividend strategy trailed the other strategies somewhat. For the full 27-year period, through both up and down quarters, the price-to-dividend strategy produced an annualized return of 16.1% versus 14.9% for the market.

## Conclusions

In the preceding pages, we examined a number of papers and empirical studies from academics, economists and investment professionals that analyzed the relationship between dividend yield and investment returns over time. The following conclusions can be drawn:

1. Over the 101-year period from 1900-2000, one study demonstrated that an investment in a market-oriented equity portfolio in both the U.S. and the U.K. that included, most importantly, reinvested dividends, would have produced nearly 85 times the wealth generated by the same portfolio relying solely on capital gains.
2. There is substantial empirical evidence to support a direct correlation between high dividend yields and attractive total returns.
3. Three of the studies found that the best returns were not produced by the highest yielding decile or quintile, but rather by the next highest yielding one or two deciles, or the next highest yielding quintile.
4. At least one study demonstrated that the returns associated with market-beating high dividend yield stocks were also less volatile in terms of the standard deviation of returns.
5. In several of the studies, high dividend yield stocks also sold at low ratios of price-to-book value and/or price-to-earnings.
6. The return advantages of high dividend yield stocks held for equity securities in both the U.S. and internationally.
7. At least one study found that high dividend yield stocks outperformed other value strategies as well as the overall stock market return in declining markets.
8. The reinvestment of dividends from high-yield stocks can dramatically shorten the time necessary to recoup losses in declining markets.

It seems clear, at least from the studies contained herein, that stocks with high dividend yields have enjoyed interesting return advantages over their lower yielding counterparts. As to why this is the case, we can only surmise. Some observers, such as Michael Lenhoff of Capel-Cure Myers Capital Management, suggest that a multiple characteristic value effect may, at least in part, account for this return anomaly. Lenhoff noted that the high dividend yield stocks in his study also sold at relatively low ratios of price-to-book value and price-to-earnings. In various empirical studies, stocks priced low in relation to earnings and/or book value have produced above-market returns; i.e., a “value effect.” Similarly, the Credit Suisse high yield, low payout study found that high dividend yield stocks priced at low multiples of price-to-earnings performed best. Also, as indicated earlier, in Tweedy, Browne’s experience, high dividend yield stocks often possess one or more value characteristics such as low price-to-earnings ratios, low price-to-book value ratios, or relatively low prices in relation to specific appraisals of the value that shareholders would receive in a sale of the entire company based upon valuations of similar businesses in corporate transactions.

### **Conclusions, *continued***

The studies contained herein were comprised of long measurement periods and did not present information or conclusions concerning the pattern, sequence, or consistency of high dividend investment returns over shorter subsets of time within those long measurement periods. Questions such as whether the excess returns from stocks with high dividend yields were generated in 50% of the years, or 30% of the years, or in a several year “run” of outperformance followed by several “dry” years of underperformance were not addressed. While some studies point in the direction of lower variability of returns for high dividend stocks, no effort was made in this paper to assess the impact of potential sector concentration on the historical annual returns of high dividend yield stocks. In Tweedy, Browne’s own experience, the long term annual return pattern for the high dividend yield portfolios under its management has been varied, with multiple annual periods of outperformance and underperformance in comparison to the overall stock market, at times in back-to-back “hot” and “cold” periods.

As the studies in this paper have indicated, there have been recurring patterns of investment success for high dividend yield stocks over very long periods of time. We believe that helpful perspective and, occasionally, patience and perseverance, are provided by an awareness of these patterns.

## References

- Arnott, Robert D., *Dividends and The Three Dwarfs*, Editor's Corner, **Financial Analysts Journal**, 2003.
- Dickson, Henry Chip, and Charles L. Reinhard, *Dividend Yield Screens*, Portfolio Strategy, **Lehman Brothers Equity Research**, September 26, 2005.
- Dimson, Elroy, Paul Marsh, and Mike Staunton, **Triumph of the Optimists**, Princeton University Press, 2002.
- Dreman, David, **Contrarian Investment Strategies: The Next Generation**, Simon & Schuster, 1998.
- Graham, Benjamin, **The Intelligent Investor**, Fourth Revised Edition, Harper Business, 1973.
- Keppler, A. Michael, *The Importance of Dividend Yields in Country Selection*, **Journal of Portfolio Management**, Winter, 1991.
- Levis, Mario, *Stock Market Anomalies: A Reassessment Based on the UK Evidence*, **Journal of Banking and Finance**, 13, pp. 675-696, (1989).
- Litzenberger, Robert H., and Krishna Ramaswamy, *The Effect of Personal Taxes and Dividends on Capital Asset Prices*, **Journal of Financial Economics**, 1979.
- Litzenberger, Robert H. and Krishna Ramaswamy, *The Effects of Dividends on Common Stock Prices Tax Effects or Information Effects?*, **The Journal Of Finance**, Vol. XXXVII, No. 2, May 1982.
- O'Higgins, Michael B. with John Downes, **Beating the Dow**, HarperCollins 2000.
- OSAM Research Team, *Stocks, Bonds, and the Efficacy of Global Dividends*, **O'Shaughnessy Asset Management Research**, Winter 2012.
- Patel, Pankaj N., Souheang Yao, and Heath Barefoot, *High Yield, Low Payout*, **Credit Suisse Quantitative Equity Research**, August 15, 2006.
- Siegel, Jeremy J., **The Future for Investors, Why the Tried and the True Triumph over the Bold and the New**, Crown Business, 2005.



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