Have the Dogs of the Dow Lost Their Bite?

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WASHBURN UNIVERSITY
SCHOOL OF BUSINESS
WORKING PAPER SERIES
Number 24

March 2004

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Introduction

Investors are always trying to "beat the market." One theory, which purports to beat the market, is the "Dow Dog" theory. The theory states that an investor should pick a day, a birthday, some anniversary or the end of the calendar year, and purchase a portfolio consisting of the ten highest yielding stocks listed in the Dow Jones Industrial Average. One year later the portfolio would be restructured by selling the stocks that are no longer in the high yield group and replace them with stocks that are.

The logic of the Dow Dogs is straightforward. The Dogs are those stocks in the Dow Jones Industrial Average (30 companies) which have the highest dividend yield. Dividend yield is the dividends per share paid in the last twelve calendar months divided by the current price.

The companies listed in the Dow Jones Industrial Average are large mature companies which have financially sound balance sheets and strong income statements. The companies have a history of strong earnings and good dividends. These companies are often referred to as "blue chip" companies.

Since there are thirty blue-chip companies the ten with the highest yield are currently "out of favor' with the investing public. Another way this might be said is that in addition to high dividend yields the companies have relative low price to earnings ratios, or low earnings multiples.

Methodology

In order to determine if investing in the Dogs of the Dow is a successful strategy the following methodology was employed. The dividend yield on the thirty Dow Jones Industrial Stocks was determined on each January 31 from 1993 through 2004. The ten stocks with the highest yield were purchased February 1 of that year. Actually, the values were determined on the last trading day of January and the purchases were on the first trading day in February. One year later the portfolio's return was computed.

To determine if the strategy was successful the return on the Dogs was compared to the return on the Dow Jones Industrial Average and the Standard and Poor's 500.

Table 1 lists the thirty companies comprising the Dow Jones Industrial Average on January 31, 1994. The table also presents the dividends the company paid in the twelve months prior to January 31, 1994 and the dividend yield based on the January 31,1994 closing price.

Table 1

Company	Annual Dividends Year Ending 31 Jan 94	Price 31 Jan 94	Dividend Yield 31 Jan 94
Alcoa	$1.60	$79.12	2.02%
Allied Signal	1.16	78.75	1.47%
American Express	1.00	25.83	3.87%
AT & T	1.32	56.75	2.33%
Bethlehem Steel		23.38	0.00%
Boeing	1.00	43.25	2.31%
Caterpillar	.60	104.12	.58%
Chevron	3.52	75.43	4.67%
Coca Cola	.76	40.88	1.86%
Disney	.24	47.25	.51%
Du Pont	1.76	56.13	3.14%
Eastman Kodak	13.72	44.13	31.09%
Exxon	2.88	66.50	4.33%
General Electric	2.61	107.75	2.42%
General Motors	.80	61.25	1.31%
Goodyear	1.15	83.88	1.37%
IBM	1.58	56.50	2.80%
International Paper	1.68	66.63	2.52%
McDonald	.43	58.48	.74%
Merck	1.06	31.86	3.33%
MMM	3.32	107.25	3.10%
Morgan JP		37.13	0.00%
Philip Morris	2.60	60.25	4.32%
Procter & Gamble	1.21	55.50	2.18%
Sears	16.71	54.88	30.45%
Texaco	3.20	67.78	4.72%
Union Carbide	.75	25.5	2.94%
United Technologies	1.80	59.61	3.02%
Westinghouse	.20	14.00	1.43%
Woolworth	1.16	25.875	4.48%

The ten companies with the highest dividend yields are listed in Table 2 and are ranked by their yield.

Table 2

	Company	Annual Dividends Year Ending 31 Jan 94	Price 31 Jan 94	Dividend Yield 31 Jan 94
1	Eastman Kodak	13.72	44.13	31.09%
2	Sears	16.71	54.88	30.45%
3	Texaco	3.2	67.785	4.72%
4	Chevron	3.52	75.43	4.67%
5	Woolworth	1.16	25.875	4.48%
6	Exxon	2.88	66.50	4.33%
7	Philip Morris	2.6	60.25	4.32%
8	American Express	1.00	25.83	3.87%
9	Merck	1.06	31.86	3.33%
10	Du Pont	1.76	56.13	3.14%

The Dow Dog theory calls for investing in the ten stocks with the highest dividend yield. The top two stocks were Eastman Kodak with a 31.09% yield and Sears with a 30.45% yield.

From February 1, 1993 to January 31, 1994 Eastman Kodak paid quarterly dividends of fifty cents plus a one-time cash dividend of $11.72 (January 1994). Likewise, Sears paid quarterly dividends of forty cents and a one-time cash dividend of $15.11 (July 1993). These one time cash dividends were eliminated and the yields were recomputed. This reduced Eastman Kodak's yield to 4.53%, third in the rankings. However, Sears was eliminated from the top ten yields. 3M became the tenth stock in the list with a yield of 3.10%.

Note that determining the Dow Dogs requires comparing the current price to the dividends paid in the previous twelve months. But evaluating performance requires examining the dividends that were paid during the twelve months following the purchase. Table 3 presents the ten stocks, their price February 1, 1994, the dividends paid between February 1, 1994 and January 31, 1995 and the closing price January 31, 1995.

In June 1994 Chevron had a 2 for 1 split. The portfolio value was adjusted to account for the split.

Table 3

Stock	Price 1 Feb 94	Dividends From 1 Feb 94 to 31 Jan 95	Price 31 Jan 95
Texaco	$67.785	$ 3.20	$ 61.75
Chevron	75.43	3.72	75.16
Eastman Kodak	44.13	1.60	49.00
Woolworth	26.125	.60	15.19

Table 3 Continued

Stock	Price 1 Feb 94	Dividends From 1 Feb 94 to 31 Jan 95	Price 31 Jan 95
Exxon	66.50	2.94	62.50
Philip Morris	60.25	3.02	59.75
American Express	25.83	4.54	29.37
Merck	31.86	1.16	36.38
Du Pont	56.13	1.82	53.25
MMM	107.25	3.52	104.76

Two investment strategies were followed. The first required the investor to purchase 100 shares of each stock on February 1st of each year. At the end of the year the gains/losses were computed and 100 shares of the new Dogs were purchased.

The second method required the investor to invest equal amounts of money in each stock. On February 1, 1994 $100,000 was divided equally among the ten stocks. On January 31st of the following year one-tenth of dividends plus principle were reinvested in the ten Dogs.

Strategy One
An Equal number of Shares

100 shares of each of the top ten yielding stocks was purchased on February 1, 1994. The annual dividend and capital gain/loss was computed through January 31, 1995. Table 4 shows that the cost of purchasing 100 shares of each of the ten stocks was $56,129. During the year the companies paid dividends totaling $2,612 but the market value of the stocks decreased to $54,711.

During the year the Dogs had a dividend yield of 4.65%. For the same time period the Dog portfolio decreased by $1,418 to $54,711. The return on investment (ROI) was -2.13%. The ROI is computed by adding the dividend income plus capital gains/losses and dividing by the initial investment.

On January 31, 1995 the dividend yield on the thirty Dow Jones Industrial Stocks was recomputed and the stocks no longer in the ten highest yielding stocks were sold. The new portfolio consisted of 100 shares of each of the ten highest yielding stocks.

The process of computing the dividend yields and return on investment was continued for the ten years ending January 31, 2004. To determine if the portfolio out performed the market, two indicators were examined. The return on the Dow Jones Industrial Average and the return on the Standard and Poor's 500. Table 5 presents the ten-year performance of the Dogs compared to the Average and Index.

Table 4

Company	Price 2/1/94	Cost of 100 shares	Fm 2/1/94 to 1/31/95 Dividends Per Share	Fm 2/1/94 to 1/31/95 Dividends For Year	Price 1/31/95	Value 1/31/95	Gain or Loss
Texaco	$67.79	$6,779	$3.20	$320.00	$61.75	$6,175	$ -604
Chevron	75.43	7,543	3.72	372.00	75.16	7,516	-27
E Kodak	44.13	4,413	1.60	160.00	49.00	4,900	487
Woolworth	26.13	2,613	0.60	60.00	15.19	1,519	-1,094
Exxon	66.50	6,650	2.94	294.00	62.50	6,250	-400
Philip Morris	60.25	6,025	3.02	302.00	59.75	5,975	-50
Am Express	25.83	2,583	4.54	454.00	29.37	2,937	354
Merck	31.86	3,186	1.16	116.00	36.38	3,638	452
Du Pont	56.13	5,613	1.82	182.00	53.25	5,325	-288
MMM	107.25	10,725	3.52	352.00	104.76	10,476	-249
		$56,129		$2,612.00		$54,711	$-1,418

Table 5

From	To	Dow	S& P	10 stocks 100 shares
1-Feb-94	31-Jan-95	-3.38%	3.61%	2.13%
1-Feb-95	31-Jan-96	40.36%	35.20%	37.12%
1-Feb-96	31-Jan-97	26.28%	23.61%	34.38%
1-Feb-97	31-Jan-98	16.05%	24.69%	12.47%
1-Feb-98	31-Jan-99	18.37%	30.54%	-3.31%
1-Feb-99	31-Jan-00	16.90%	8.97%	1.20%
1-Feb-00	31-Jan-01	-0.49%	-2.04%	-10.91%
1-Feb-01	31-Jan-02	-8.89%	-15.95%	-0.74%
1-Feb-02	31-Jan-03	-18.81%	-21.63%	-12.49%
1-Feb-03	31-Jan-04	30.22%	32.19%	43.94%
Mean		11.66%	11.92%	10.38%
Standard Deviation		5.96%	6.48%	6.55%
Coefficient of Variation		0.5113	0.5434	0.6311

Over the ten year period the Dow Jones Industrial Average and the Standard and Poor's 500 out performed an investment of 100 shares in each Dog and had less risk, as indicated by the lower standard deviations and lower coefficients of variation.

Strategy Two
Equal investments in each stock.

On February 1, 1994 $10,000 was invested in each of the ten stocks with the highest dividend yields. Table 6 presents the results for the year February 1, 1994 through January 31, 1995.

Since an even amount of money was invested in each stock, each stock had a different number of shares purchased. The number of shares purchased times the dividends paid during the calendar year gives the annual dividend income. For the calendar year ending January 31, 1995 the dividend income was $5,275 but the portfolio value decreased to $97,353. For the year ending January 31, 1995 the dividend yield was 5.275% and the return on investment was -2.65%.

The principle plus dividends were reinvested each year and were equally divided among the ten stocks. This procedure was used to compute the return on investment for the ten years ending January 31, 2004. The results are presented in Table 7.

Table 6

Fm 2/1/94 to 1/31/95

Company	Price 2/1/94	Dollars Invested	# of Shares	Dividends Per Share	Dividends to 1/31/95	Price 1/31/95	Price 1/31/95
Texaco	$67.78	$10,000	147.5	$3.20	$472.12	$61.75	$ 9,110
Chevron	75.43	10,000	132.6	3.72	493.17	75.16	9,964
Eastman Kodak	44.13	10,000	226.6	1.60	362.57	49.00	11,104
Woolworth	26.12	10,000	382.8	0.60	229.71	15.19	5,815
Exxon	66.50	10,000	150.4	2.94	442.11	62.5	9,398
Philip Morris	60.25	10,000	166.0	3.02	501.24	59.75	9,917
Am Express	25.83	10,000	387.1	4.54	1,757.65	29.37	11,370
Merck	31.86	10,000	313.9	1.16	364.09	36.38	11,419
Du Pont	56.13	10,000	178.2	1.82	324.25	53.25	9,487
MMM	107.25	10,000	93.2	3.52	328.21	104.76	9,768
		$100,000			$5,275.10		$97,353

Table 7

From	To	Dow	S& P	10 stocks Equal Investment
1-Feb-94	31-Jan-95	-3.38%	3.61%	-2.63%
1-Feb-95	31-Jan-96	40.36%	35.20%	42.73%
1-Feb-96	31-Jan-97	26.28%	23.61%	36.74%
1-Feb-97	31-Jan-98	16.05%	24.69%	16.26%
1-Feb-98	31-Jan-99	18.37%	30.54%	1.01%
1-Feb-99	31-Jan-00	16.90%	8.97%	-2.07%
1-Feb-00	31-Jan-01	-0.49%	-2.04%	-1.33%
1-Feb-01	31-Jan-02	-8.89%	-15.95%	-0.59%
1-Feb-02	31-Jan-03	-18.81%	-21.63%	-12.28%
1-Feb-03	31-Jan-04	30.22%	32.19%	44.30%
Mean		11.66%	11.92%	12.71%
Standard Deviation		5.96%	6.48%	6.62%
Coefficient of Variation		0.5113	0.5434	0.5211

Over the ten-year period the Dog Dogs had a higher average rate of return when compared to the Dow Jones Industrial Average and the Standard and Poor's 500 Index. However, the standard deviation of the returns exceeded both the Dow Average and the Standard and Poor's Index. The coefficient of variation places the risk associated with Dogs between the two market indicators.

Conclusion

Over the last ten years the investment of 100 shares in each of the Dow Dogs out performed neither the Dow Jones Industrial Average nor the Standard and Poor's 500. The standard deviation and the coefficient of variation on the Dogs portfolio exceeded both market indicators.

The portfolio of an equal investment in each of the Dogs resulted in a slightly higher return than one would have experienced with either index. The standard deviation on the Dogs also exceeded the standard deviation of both indexes. The coefficient of variation places the risk/return tradeoff between the two market indicators.

It would appear that investing in the Dogs on February 1, 1994 and each successive year through January 31, 2004 did no better than the market indicators. It appears The Dogs may have lost some of their bite.

References

Historic Stock Prices, Yahoo Finance. Retrieved February 22, 2004
http://chart.yahoo.com/t?a=10&b=28&c=87&d=10&e=28&f=87&g=d&s=spc&y=0&z=1

Winning Investments.Com Retrieved February 22, 2004
http://www.dogsofthedow.com/doggish.htm

The Investment Faq Retrieved March 3, 2004
invest-faq.com/articles/strat-dogs.html

Harry Domash's Winning Investing. Retrieved February 10, 2004
www.winninginvesting.com/dogs.htm

Various Wall Street Journals for Stock prices of companies no longer traded