

## **THE IMPACT OF DIVIDEND TAX CUT ON STOCKS IN THE DOW**

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### **ABSTRACT**

This paper examines pricing behavior of thirty stocks in the Dow before and after May 28, 2003 when dividend tax cut legislation was signed by President Bush. This paper examines the benefit of legislation reflected on the Dow stocks. This study finds that the announcement effect was significant for 30 Dow stocks in general. However, the announcement effect was more significant on lower dividend-paying Dow stocks than on higher dividend-paying Dow stocks. This study interprets that this might be due to the unique pricing efficiency reflected on Dow stocks.

### **PERFORMANCE COMPARISON**

Cutting dividend tax would give dividend-paying stocks better returns to shareholders so that higher dividend-paying stocks would become more attractive and should have performed better than lower dividend-paying stocks.

#### **Performance of S&P 500**

However, Daniel Gross<sup>i</sup> found the following contradictory fact: “In the weeks since Congress slashed the tax on dividends to 15 percent, stocks that pay dividends have fared worse than their brethren who stubbornly refuse to share their earnings with shareholders. According to Standard & Poor’s, between the beginning of June and mid-August shares of dividend-paying members of the S&P 500 rose 2.5 percent, while shares of nonpayer rose 3.9 percent. And the goose provided by dividends—2.174 percent annually for payers—doesn’t come close to making up the difference.”

#### **Performance of Selected Dow Components<sup>ii</sup>**

Based on prices as of 12/31/02 revised for subsequent price adjustments (i.e. stock splits) which occur during the following year, YTD (Year to date) % capital gains yield of 5 lowest divided-yielding stocks as a group is 35.92%. On the other hand, YTD % capital gains yield of 5 highest divided-yielding stocks as a group is 8.98%. So, it is clear that despite the dividend tax cut, the high dividend-paying stocks did not yield any significant benefits to investors. It seems that investors would have benefited from the low dividend-paying stocks for the year. DJIA’s capital gains yield for the same period was 17.60%.

### **COMPARATIVE PERFORMANCE BEFORE AND AFTER THE ANNOUNCEMENT**

Exhibit1 shows performance of 30 Dow stocks for 6 months before and after the May 28, 2003 when the dividend tax cut legislation was signed by President Bush.

**Exhibit 1**  
**Performance Of 30 Dow Stocks For 6 Months**  
**Before And After May 28, 2003**

<b>Ticker</b>	<b>Performance.</b>	<b>Performance.</b>
	<b>6 months</b>	<b>6 months</b>
	<b>Before</b>	<b>After</b>
	<b>5/28/2003</b>	<b>5/28/2003</b>
MO	13.5%	29.8%
JPM	32.3%	10.9%
GM	-10.8%	26.4%
EK	-14.9%	-20.2%
SBC	-9.7%	-5.1%
DD	-4.6%	0.8%
HON	6.3%	17.5%
GE	5.8%	2.7%
CAT	8.1%	46.4%
T	-32.2%	8.6%
IP	-3.5%	1.9%
AA	-3.0%	36.2%
XOM	5.7%	0.7%
MRK	-5.7%	-22.0%
BA	-12.3%	27.6%
C	6.7%	16.1%
MMM	-1.5%	28.2%
PG	9.0%	5.9%
HPQ	-0.2%	13.0%
KO	-3.9%	6.8%
UTX	7.7%	26.6%
JNJ	-6.3%	-7.3%
MCD	-1.3%	42.5%
DIS	-1.0%	18.8%
HD	22.3%	16.2%
AXP	6.9%	10.3%
IBM	0.2%	3.8%
WMT	-2.4%	4.6%
INTC	-5.3%	70.1%
MSFT	-15.7%	5.9%
Average	-0.3%	14.1%

Note: Performance is based on close prices adjusted for dividends and splits.<sup>iii</sup>

The performance measures the holding period yield for 6 months before and after May 28, 2003. As a group, the DOW 30 stocks performed much better after the announcement. The average performance for 6 months before the announcement was -0.3%, but the performance after the announcement was +14.1%, which was significant improvement. The seemingly positive effect of the dividend tax cut announcement leads to the following investigative questions:

#### **INVESTIGATIVE QUESTIONS**

- 1) Was the performance of Dow stocks before the announcement significantly different from the performance after the announcement?
- 2) Was the performance of higher-dividend paying Dow stocks significantly different from that of lower-dividend paying Dow stocks for the periods before and after the announcement?

#### **MEASUREMENT QUESTIONS**

The following measurement questions to answer the above investigative questions are constructed as follows:

- 1) Is the average holding period yield of 30 Dow stocks for six months before the announcement significantly different from the same measure for six months after the announcement?
- 2) Is the average holding period yield of 15 higher dividend paying Dow stocks for six months before the announcement significantly different from that of 15 lower dividend paying Dow stocks for six months after the announcement?

#### **METHODOLOGY**

This study used Wilcoxon Matched-Pairs Signed-Ranks<sup>iv</sup> Test to handle the measurement questions. The daily stock price quotes adjusted for stock splits and dividends are obtained from yahoo.com finance Website for the period from November 27, 2002 to November 28, 2003.

#### **TEST RESULTS**

Exhibit 2-A shows the test results to compare the average holding period yield of 30 Dow stocks for six months before the announcement and the same measure for six months after the announcement. As indicated by its z value, this study concludes that the announcement effect was significant for 30 Dow stocks in general at significance level of 0.1% of two-tailed test. That is, DOW stocks in general performed significantly better after the announcement than before the announcement. Of course, the outstanding performance was due to factors other than the dividend tax cut. However, it is reasonable assessment that the dividend tax cut was a significant contributing factor for the positive performance.

**Exhibit 2-A**  
**Wilcoxon Matched-Pairs Signed-Ranks Test**  
**Performance Of 30 Dow Stocks Before And After The Announcement**

AFTER PERFORMANCE FOR 6 MONTHS AFTER 5/28/2003  
with BEFORE PERFORMANCE FOR 6 MONTHS PRIOR TO 5/28/2003

Mean Rank	Cases	
17.91	22	- Ranks (BEFORE Lt AFTER)
8.88	8	+ Ranks (BEFORE Gt AFTER)
	0	Ties (BEFORE Eq AFTER)
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	30	Total
Z =	-3.3218	2-tailed P = .0009

**exhibit 2-b**  
**wilcoxon matched-pairs signed-ranks test**  
**performance of 15 higher dividend-paying dow stocks before and after**  
**the announcement**

AFTER PERFORMANCE OF 6 MONTHS AFTER TO 5/28/2003  
with BEFORE PERFORMANCE OF 6 MONTHS PRIOR TO 5/28/2003

Mean Rank	Cases	
9.30	10	- Ranks (BEFORE Lt AFTER)
5.40	5	+ Ranks (BEFORE Gt AFTER)
	0	Ties (BEFORE Eq AFTER)
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	15	Total
Z =	-1.8743	2-tailed P = .0609

**Exhibit 2-C**  
**Wilcoxon Matched-Pairs Signed-Ranks Test**  
**Performance Of 15 Lower Dividend-Paying Dow Stocks Before And After The**  
**Announcement**

AFTER PERFORMANCE OF 6 MONTHS AFTER TO 5/28/2003  
with BEFORE PERFORMANCE OF 6 MONTHS PRIOR TO 5/28/2003

Mean Rank	Cases	
9.33	12	- Ranks (BEFORE Lt AFTER)
2.67	3	+ Ranks (BEFORE Gt AFTER)
	0	Ties (BEFORE Eq AFTER)
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	15	Total
Z =	-2.9534	2-tailed P = .0031

Exhibit 2-B shows the test results to compare the average holding period yield of 15 higher dividend-paying Dow stocks for six months before the announcement and the same measure for six months after the announcement. As indicated by its z value, this study concludes that the announcement effect was significant for 15 higher dividend-paying Dow stocks at significance level of 6.1% of two-tailed test.

Exhibit 2-C shows the test results to compare the average holding period yield of 15 lower dividend-paying Dow stocks for six months before the announcement and the same measure for six months after the announcement. As indicated by its z value, this study concludes that the announcement effect was significant for 15 higher dividend-paying Dow stocks at significance level of 0.3% of two-tailed test.

One important finding of this study is that the announcement effect was more significant on lower dividend-paying Dow stocks than on higher dividend-paying Dow stocks. This is based on the fact that the statistical significant level of 6.09% with the higher dividend-paying stocks is less powerful than the level of 0.03% with the lower dividend-paying stocks, as shown by Exhibit 2-B and Exhibit 2-C.

#### **CONCLUSION AND IMPLICATION**

- 1) This paper finds evidence that the dividend tax cut had positive announcement impact on Dow stocks in general.
- 2) However, the announcement effect was more significant on lower dividend-paying Dow stocks than on higher dividend-paying Dow stocks. This paper interprets that the positive impact of dividend tax cut on the after-tax dividend yield for higher dividend paying stocks would be not enough to offset inferior capital gains performance of higher dividend-paying stocks. This is reinforced by the fact that there is inverse relationship between dividend yields and capital gains yields among Dow components.
- 3) The implication of this paper's findings suggests that there is no compelling reason to favor higher dividend-paying Dow stocks for investors.

#### **REFERENCES**

- Gross, Daniel. "Dividend Dead End," <http://slate.msn.com/id/2087127/>, Aug. 18, 2003  
<http://www.dogsofthedow.com/dogytd.htm>, November 7, 2003.  
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#### **ENDNOTES**

- <sup>1</sup> Daniel Gross, "Dividend Dead End," <http://slate.msn.com/id/2087127/>, Aug. 18, 2003.

<sup>ii</sup> Data obtained from <http://www.dogsofthedow.com/dogytd.htm>, November 7, 2003.

<sup>iii</sup> <http://finance.yahoo.com/>

<sup>iv</sup> SPSS PC+, SPSS Inc, 1986.