

MEMORANDUM

TO: File

FROM: Division of Market Regulation

DATE: December 15, 2004

RE: Comparative Analysis of Rule 11Ac1-5 Statistics by S&P Index

To help evaluate comments received on the Regulation NMS proposals, this memorandum presents a comparative analysis of Rule 11Ac1-5 ("Dash 5) statistics for NYSE and Nasdaq stocks. The following nine tables analyze such statistics by stocks in four S&P indexes: S&P 100, S&P 101-500 (all stocks in S&P 500 that are not included in the S&P 100), S&P MidCap 400, and S&P Small Cap 600. The statistics are categorized by type of order (market and marketable limit), and size of order (100-499 shares, 500-1999 shares, 2000-4999 shares, and 5000-9999 shares).

The Dash 5 data incorporates all reporting market centers in January 2004 and was obtained from Market Systems, Inc. ("MSI") on August 29, 2004. MSI is an information vendor that collects the publicly available Dash 5 reports of all markets each month and includes them in a searchable database. Stock prices are closing prices on January 30, 2004 and were obtained from Standard & Poor's. Market capitalization is as of December 31, 2003. Stock price, market capitalization, and Dash 5 dollar volume are equal-stock weighted. All other statistics are weighted by dollar volume using closing prices on January 30, 2004. Effective spread, slippage, and realized spread are presented in basis points ("bps"). Effective spread is measured by comparing execution prices with the national best bid and offer ("NBBO") at the time of order receipt. Realized spread is measure by comparing execution prices with the NBBO five minutes after the time of order execution. Slippage is the difference between effective spread and quoted spread, with a positive number meaning slippage and a negative number meaning price improvement. Dash 5 volume is the average daily dollar volume per stock of Dash 5 executed shares for market and marketable limit orders. Percentage of Dash 5 dollar volume is calculated by dividing (a) the Dash 5 dollar volume of the particular category of index, order type, and order size, by (b) the Dash 5 dollar volume for all market and marketable limit orders for the particular category of index.

Table 1

S&P Index Characteristics (average per stock)								
	Number of Stocks		Stock Price (\$)		Market Cap. (\$billions)		Dash 5 Vol. (\$millions)	
	NYSE	Nasdaq	NYSE	Nasdaq	NYSE	Nasdaq	NYSE	Nasdaq
S&P Index:								
100	93	7	42.16	30.30	49.4	117.7	125.0	630.2
101-500	328	67	41.19	34.54	10.6	11.3	40.4	112.5
Midcap 400	285	112	36.44	30.73	2.4	2.3	11.6	21.6
SmallCap 600	318	270	27.53	24.32	0.7	0.7	3.8	5.5

Table 2

Small Market Orders (100-499 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	13	3	3.9	3.3	.1	.2	99	100	.9	2.9	9.9	1.3
101-500	15	4	4.9	5.2	-.2	.5	99	100	.6	2.3	13.2	1.1
MidCap 400	14	5	6.7	8.8	-1.5	0	98	100	.3	3.6	15.1	1.3
SmallCap 600	17	6	10.2	16.0	-2.5	-.7	98	100	1.0	8.4	16.3	1.7

Table 3

Small Marketable Limit Orders (100-499 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	11	9	2.5	2.6	-.5	.2	60	66	-.6	1.0	7.6	1.2
101-500	17	23	3.0	4.2	-.6	.5	64	71	-1.1	1.0	9.3	.8
MidCap 400	21	28	4.5	7.5	-.9	.6	73	77	-1.7	2.0	11.8	1.4
SmallCap 600	27	34	6.9	13.0	-1.4	.8	77	82	-2.2	4.6	14.5	2.4

Table 4

Medium Market Orders (500-1999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	20	7	5.1	3.6	1.0	.5	99	100	1.0	2.2	12.9	2.2
101-500	17	7	6.7	6.3	1.1	1.1	98	99	.9	3.1	14.9	3.0
MidCap 400	16	8	10.8	11.2	2.4	2.2	98	98	1.5	5.4	17.5	4.4
SmallCap 600	14	7	19.1	21.7	5.4	4.5	97	97	2.4	11.0	18.9	5.8

Table 5

Medium Marketable Limit Orders (500-1999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	22	31	2.9	2.7	-.3	.3	70	54	-1.2	1.0	11.9	2.6
101-500	25	36	3.7	4.9	-.3	.7	72	59	-1.7	.9	14.7	2.2
MidCap 400	27	34	5.5	8.5	-.3	.9	76	60	-2.6	1.5	23.5	5.0
SmallCap 600	25	32	9.0	14.8	0	1.3	78	61	-3.5	2.1	39.6	12.1

Table 6

Medium-Large Market Orders (2000-4999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	11	5	7.0	4.0	2.6	1.1	98	98	1.7	2.2	17.3	5.2
101-500	8	4	10.8	9.0	4.8	2.9	97	94	2.9	4.5	19.8	8.4
MidCap 400	6	3	20.6	16.3	11.9	7.0	97	93	4.8	5.3	22.7	11.3
SmallCap 600	4	3	42.6	36.0	27.0	18.4	97	94	9.8	8.4	25.0	17.0

Table 7

Medium-Large Marketable Limit Orders (2000-4999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	10	24	3.3	3.0	-.4	.4	76	58	.4	.7	29.5	3.9
101-500	9	15	5.0	5.8	0	.9	76	51	.8	1.0	42.4	8.0
MidCap 400	9	13	8.2	9.4	1.2	1.4	75	48	.7	-.4	80.8	14.1
SmallCap 600	8	11	15.2	16.8	3.8	2.8	74	46	.9	-1.4	140.4	40.6

Table 8

Large Market Orders (5000-9999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	6	3	9.7	4.6	5.0	1.6	97	97	2.9	3.2	20.9	8.9
101-500	3	2	17.0	11.7	10.5	4.9	97	92	5.0	5.4	25.8	14.9
MidCap 400	2	1	36.0	24.0	26.6	14.4	96	92	11.6	4.8	33.0	24.0
SmallCap 600	1	1	76.7	57.4	59.9	38.9	97	88	19.9	3.9	42.2	44.2

Table 9

Large Marketable Limit Orders (5000-9999 shares)												
	% of Dash 5 \$Vol		Eff. Spread (bps)		Slippage (bps)		Fill Rate (%)		Real. Spread (bps)		Speed (seconds)	
	N	Q	N	Q	N	Q	N	Q	N	Q	N	Q
S&P Index:												
100	7	18	4.4	3.4	.2	.5	76	54	.7	.1	45.7	2.7
101-500	6	10	6.5	7.5	1.1	1.2	74	40	1.1	-.7	76.4	12.7
MidCap 400	5	7	10.7	10.4	3.3	2.4	72	35	1.3	-3.8	120.4	31.8
SmallCap 600	4	6	20.6	18.1	8.2	4.2	68	34	.4	-6.6	219.7	93.2