

## Pairs Trading Matrixes

September 1, 2015

Sturdivant & Co. conducts bottom-up fundamental analysis on a wide range of nearly 3,000 large and small cap US equities. Herein we present our exclusive Pairs Trading Matrixes utilizing Polaris, our innovative system for stock selection guidance. (System design overview for Polaris is attached separately.)

Polaris integrates proprietary analytics that are focused on valuation, catalytic and technical properties to rank and characterize stocks. The quantitative scores derived for each stock in our coverage universe can be used to identify pricing disparities among pairs of stocks. An exploitable pricing disparity is indicated by a wide spread between the respective quantitative scores for the long and short component of a pair of stocks selected from the same sector and industry.

Our Pairs Trading Matrixes provide investors with guidance by specifying long/short pair combinations that we find attractive based on the spread in quantitative scores among the components of each pair. A separate matrix for a large cap universe and a small cap universe is provided below in Tables 1 and 2.

The Sturdivant & Co. coverage universe is grouped into 16 economic sectors and approximately 200 different industries. We have identified pair combinations selected from the 10 industries that we believe have the greatest degree of pricing disparity based on our analysis. For each industry from which attractive pairs are identified, we select 1 to 4 long candidates and 1 to 4 short candidates. Consequently, there can be anywhere from 1 to 16 different pair combinations to select from for each industry. As an example, in Table 1 below, we have identified 4 pairs in the REIT industry that merit investment consideration, including: (A1) SNH-BDN, (A2) SNH-AMT, (B1) SLG-BDN and (B2) SLG-AMT.

**Table 1: Large Cap Pairs Matrix**

LARGE CAP PAIRS (based on 08/28/2015 prices)									
PAIR COMBINATIONS = A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3, D4									
INDUSTRY	LONG SIDE of PAIR				SHORT SIDE of PAIR				Number of Pairs
	A	B	C	D	1	2	3	4	
1 CHEMICALS-DIVERSIFIED	ALB	PPG	HUN	FMC	CYT				4
2 FOOD-MISC/DIVERSIFIED	MJN				SYN	K			2
3 OIL & GAS-U S EXPLOR & PROD	EPE	DVN	AR	CHK	EQT				4
4 MEDIA CONGLOMERATES	TWX	VIAB			LMCA				2
5 REIT-EQTY TRUST - RETAIL	CBL	WPG	EQIX		FRT				3
6 AEROSPACE/DEFENSE EQUIP	TGI	SPR			RTN				2
7 INSURANCE-MULTI LINE	MET				HIG				1
8 FINANCIAL TRANSACTION SERVICE	WU				FIS	FISV			2
9 BROADCASTING-RADIO/TV	SNI	CBS	TRCO		LMCK	SIRI			6
10 MEDICAL INSTRUMENTS	OPK				VAR	EW	ISRG		3
TOTAL Number of PAIRS =									29

**Table 2: Small Cap Pairs Matrix**

<b>SMALL CAP PAIRS (based on 08/28/2015 prices)</b>										
<b>PAIR COMBINATIONS = A1, A2, A3, A4, B1, B2, B3, B4, C1, C2, C3, C4, D1, D2, D3, D4</b>										
<b>INDUSTRY</b>	<b>LONG SIDE of PAIR</b>				<b>SHORT SIDE of PAIR</b>				<b>Number of Pairs</b>	
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>		
<b>1</b> MEDICAL-BIOMED/GENETICS	MNTA	EBS	RGEN		INO	XNPT	OPHT	MDCO		12
<b>2</b> REIT-EQTY TRUST - RESID	SIR				SWAY	SNR				2
<b>3</b> MEDICAL-DRUGS	TXMD				OTIC	TBPH	NKTR			3
<b>4</b> REIT-EQTY TRUST - OTHER	GOV	NHI	COR	HIW	WRE	HT				8
<b>5</b> BANKS-NORTHEAST	WBS				STL					1
<b>6</b> FINANCE-INVESTMENT BKRS	AI				KCG					1
<b>7</b> LEISURE & RECREATION SVCS	DRII				SEAS					1
<b>8</b> MEDICAL INSTRUMENTS	THOR	NVRO	CYNO		LDRH	BABY				6
<b>9</b> ELECTRONIC COMMERCE	STMP				ZU					1
<b>10</b> BLDG-HEAVY CONST	EME				GVA	PRIM	MTZ			3
<b>TOTAL Number of PAIRS =</b>									<b>38</b>	

In Tables 3 and 4 below we provide output from the Polaris analysis for the stocks in each of the matrixes (large cap and small cap, respectively). The stocks in each matrix are grouped first by sector, then industry. The overall attractiveness of a stock is indicated by the Polaris Score, or PSCORE, whereby long candidates will have a positive PSCORE and short candidates will have a negative PSCORE. The PSCORE is a proprietary factor that is based on our analysis of each stock's valuation, technical and catalytic properties. The difference in PSCORES between the long and short candidates of a pair is the metric that we use as an indication of pricing disparity, otherwise referred to as the spread. Descriptions for the column headings in Tables 3 and 4 are as follows:

**COLUMN HEADINGS**

XSECTOR – Sector Identification Number used in master database (1 thru 16)\*\*

DCOORD – Dimensional Coordinate used to characterize stocks in Polaris framework (1 thru 8)

**PSCORE – Polaris Score, (+) value is favorable, (-) value is unfavorable, (0) value is neutral**

VCAVG – Average calculated from VSCORE, TSCORE and CSCORE

VSCORE – Valuation Score, (+) value is favorable, (-) value is unfavorable, (0) value is neutral

TSCORE – Technical Score, (+) value is favorable, (-) value is unfavorable, (0) value is neutral

CSCORE – Catalytic Score, (+) value is favorable, (-) value is unfavorable, (0) value is neutral

**\*\*Sector Identification Numbers**

- |                          |                       |                          |                      |
|--------------------------|-----------------------|--------------------------|----------------------|
| 1 Consumer Staples       | 5 Autos/Tires/Trucks  | 9 Conglomerates          | 13 Finance           |
| 2 Consumer Discretionary | 6 Basic Materials     | 10 Computer & Technology | 14 Utilities         |
| 3 Retail/Wholesale       | 7 Industrial Products | 11 Aerospace             | 15 Transportation    |
| 4 Medical                | 8 Construction        | 12 Oils/Energy           | 16 Business Services |

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September 1, 2015

Table 3: Large Cap Pairs – Polaris Output (08/28/2015)

	COMPANY	X SECTOR	TICKER	PRICE	DIV YLD	DCOORD	PSCORE	VTCAVG	VSCORE	TSCORE	CSCORE	MKT CAP
<b>Consumer Staples</b>												
<b>FOOD-MISC/DIVERSIFIED</b>												
A	Mead Johnson Nu	1	MJN	78.57	2.10	1.00	1.68	0.87	0.60	1.35	0.65	15929.20
2	Kellogg Co	1	K	67.04	2.98	8.00	-1.66	-1.23	-0.31	-2.06	-1.33	23704.07
1	Sysco Corp	1	SYF	39.91	3.01	8.00	-1.71	-1.45	-0.60	-3.26	-0.49	23743.18
<b>Consumer Discretionary</b>												
<b>BROADCASTING-RADIO/TV</b>												
A	Scripps Netwrks	2	SNI	53.18	1.73	1.00	1.68	1.01	1.31	0.81	0.90	6834.59
B	Cbs Corp	2	CBS	45.79	1.31	1.00	1.62	0.74	0.23	1.02	0.95	22081.54
C	Tribune Media	2	TRCO	40.42	2.47	1.00	1.46	0.74	1.27	0.94	0.00	3805.02
2	Sirius Xm Hldgs	2	SIRI	3.83	0.00	8.00	-1.50	-0.53	-0.49	-0.68	-0.43	20568.24
1	Liberty Media-C	2	LMCK	36.40	0.00	6.00	-1.61	-1.57	0.18	-3.53	-1.37	8241.65
<b>MEDIA CONGLOMERATES</b>												
A	Time Warner Inc	2	TWX	72.38	1.93	1.00	1.68	0.76	0.44	1.22	0.62	59031.75
B	Viacom Inc-B	2	VIAB	40.91	3.91	1.00	1.46	1.44	2.38	1.46	0.48	16273.34
1	Liberty Media-A	2	LMCA	37.38	0.00	8.00	-1.71	-0.99	-1.08	-1.17	-0.73	12541.55
<b>Medical</b>												
<b>MEDICAL INSTRUMENTS</b>												
A	Opko Health Inc	4	OPK	11.42	0.00	1.00	1.68	1.06	0.52	0.72	1.95	6171.56
3	Intuitive Surg	4	ISRG	514.24	0.00	8.00	-1.50	-1.38	-0.56	-3.44	-0.13	19036.65
2	Edwards Lifesci	4	EW	144.70	0.00	6.00	-1.61	-0.39	0.04	-0.61	-0.58	15557.57
1	Varian Medical	4	VAR	82.47	0.00	6.00	-1.61	-0.64	0.26	-1.67	-0.53	8141.19
<b>Basic Materials</b>												
<b>CHEMICALS-DIVERSIFIED</b>												
A	Albemarle Corp	6	ALB	45.30	2.56	1.00	1.68	0.90	0.42	1.69	0.58	5082.75
B	Ppg Inds Inc	6	PPG	96.11	1.50	3.00	1.57	0.46	-0.38	0.91	0.86	26019.00
C	Huntsman Corp	6	HUN	16.44	3.04	1.00	1.46	0.74	1.33	0.61	0.28	4035.10
D	Fmc Corp	6	FMC	42.40	1.56	1.00	1.46	0.68	0.92	0.94	0.17	5665.28
1	Cytec Inds Inc	6	CYT	73.85	0.68	8.00	-1.71	-1.16	-1.91	-0.95	-0.62	5277.54
<b>Aerospace</b>												
<b>AEROSPACE/DEFENSE EQUIP</b>												
A	Triumph Grip Inc	11	TGI	49.29	0.32	1.00	1.68	0.96	1.95	0.50	0.44	2430.34
B	Spirit Aerosys	11	SPR	51.74	0.00	1.00	1.68	0.84	0.84	0.89	0.78	7310.45
1	Raytheon Co	11	RTN	104.25	2.57	8.00	-1.66	-0.74	-0.13	-1.35	-0.74	31644.88
<b>Oils-Energy</b>												
<b>OIL &amp; GAS-U S EXPLOR &amp; PROD</b>												
A	Ep Energy Cp-A	12	EPE	6.24	0.00	1.00	1.68	1.92	1.11	2.64	2.02	1547.34
B	Devon Energy	12	DVN	42.20	2.27	1.00	1.62	0.96	0.18	1.91	0.80	17344.20
C	Antero Resource	12	AR	25.24	0.00	3.00	1.52	0.29	-0.69	0.38	1.18	6992.11
D	Chesapeake Engy	12	CHK	7.39	4.74	1.00	1.46	0.51	0.90	0.64	0.00	4917.06
1	Eqst Corp	12	EQT	77.71	0.15	8.00	-1.71	-0.91	-0.60	-1.68	-0.44	11843.32
<b>Finance</b>												
<b>INSURANCE-MULTI LINE</b>												
A	Metlife Inc	13	MET	50.32	2.98	1.00	1.62	0.51	0.50	0.56	0.46	56201.46
1	Hartford Fin Sv	13	HIG	46.22	1.82	8.00	-1.71	-0.86	-0.86	-1.14	-0.59	19174.14
<b>REIT-EQTY TRUST - RETAIL</b>												
A	Cbl&Assoc Pptys	13	CBL	15.17	6.99	1.00	1.68	0.89	1.59	0.52	0.56	2586.39
B	Wp Gilmcher Inc	13	WPG	12.73	7.86	1.00	1.46	1.36	2.70	1.35	0.03	2358.91
C	Equinix Inc	13	EQIX	268.78	2.52	1.00	1.46	0.58	0.86	0.69	0.18	15309.17
1	Fed Rlty Inv	13	FRT	132.70	2.62	8.00	-1.71	-0.97	-1.16	-0.79	-0.96	9173.02
<b>Business Services</b>												
<b>FINANCIAL TRANSACTION SERVICES</b>												
A	Western Union	16	WU	18.56	3.34	1.00	1.68	2.16	1.55	2.49	2.42	9492.18
2	Fiserv Inc	16	FISV	86.78	0.00	8.00	-1.50	-0.60	-1.04	-0.73	-0.03	20356.68
1	Fidelity Nat In	16	FIS	70.28	1.48	8.00	-1.66	-0.88	-0.15	-1.25	-1.23	19789.65

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Table 4: Small Cap Pairs – Polaris Output (08/28/2015)

	COMPANY	X SECTOR	TICKER	PRICE	DIV YLD	DCOORD	PSCORE	VTCAVG	VSCORE	TSCORE	CSCORE	MKT CAP
<b>Consumer Discretionary</b>												
<b>LEISURE &amp; RECREATION SVCS</b>												
A	Diamond Resorts	2	DRIL	25.81	0.00	1.00	1.71	1.81	1.15	3.13	1.16	1886.89
1	Seaworld Enter	2	SEAS	17.92	4.69	6.00	-1.62	-1.28	0.33	-1.53	-2.63	1616.53
<b>Retail-Wholesale</b>												
<b>ELECTRONIC COMMERCE</b>												
A	Stamps.Com Inc	3	STMP	83.17	0.00	3.00	1.60	0.39	-0.18	0.53	0.84	1371.39
1	Zulily-A	3	ZU	17.84	0.00	8.00	-1.73	-2.20	-2.94	-3.10	-0.56	2211.63
<b>Medical</b>												
<b>MEDICAL INSTRUMENTS</b>												
A	Thoratec Corp	4	THOR	62.59	0.00	3.00	1.60	0.27	-0.45	0.37	0.89	3429.93
B	Nevro Corp	4	NVRD	43.38	0.00	3.00	1.54	1.00	-2.44	2.63	2.80	1209.65
C	Cynosure Inc-A	4	CYNO	31.49	0.00	1.00	1.49	0.53	0.92	0.43	0.25	714.89
2	Natus Medical	4	BABY	41.40	0.00	6.00	-1.40	-0.11	0.32	-0.54	-0.11	1369.72
1	Ldr Holding	4	LDRH	38.67	0.00	8.00	-1.73	-0.95	-1.28	-0.72	-0.84	1109.36
<b>MEDICAL-BIOMED/GENETICS</b>												
A	Momenta Pharma	4	MNTA	20.37	0.00	1.00	1.71	0.63	0.62	0.53	0.74	1401.76
B	Emergent Biosol	4	EBS	34.64	0.00	1.00	1.65	0.38	0.19	0.43	0.53	1344.03
C	Repligen	4	RGEN	34.29	0.00	3.00	1.60	0.32	-0.18	0.54	0.60	1128.48
4	Medicines Co	4	MDCO	33.64	0.00	8.00	-1.67	-0.75	-0.09	-0.50	-1.66	2246.08
3	Ophthotech Corp	4	OPHT	45.37	0.00	8.00	-1.73	-0.67	-0.87	-0.55	-0.59	1576.24
2	Xenopt Inc	4	XNPT	6.67	0.00	8.00	-1.73	-0.91	-0.61	-0.59	-1.51	420.72
1	Inovio Pharmac	4	INO	7.73	0.00	8.00	-1.73	-0.95	-0.84	-0.94	-1.08	557.46
<b>MEDICAL-DRUGS</b>												
A	Therapeutics Md	4	TXMD	6.14	0.00	1.00	1.49	0.50	0.64	0.55	0.32	1089.86
3	Nektar Therap	4	NKTR	10.87	0.00	8.00	-1.67	-0.48	-0.13	-0.44	-0.87	1438.87
2	Theravance Bio	4	TBPH	14.61	0.00	8.00	-1.73	-0.70	-0.84	-0.55	-0.72	495.85
1	Otonomy Inc	4	OTIC	23.50	0.00	8.00	-1.73	-1.31	-1.74	-1.26	-0.92	568.70
<b>Construction</b>												
<b>BLDG-HEAVY CONST</b>												
A	Emcor Group Inc	8	EME	45.60	0.70	3.00	1.60	1.09	-0.37	2.88	0.74	2863.45
3	Mastec Inc	8	MTZ	15.87	0.00	8.00	-0.80	-0.48	-0.44	-0.03	-0.97	1267.06
2	Primoris Servcs	8	PRIM	17.83	1.23	8.00	-0.80	-0.60	-0.51	-0.54	-0.76	921.38
1	Granite Constru	8	GVA	34.31	1.52	8.00	-1.67	-0.76	-0.42	-1.37	-0.50	1351.06
<b>Finance</b>												
<b>BANKS-NORTHEAST</b>												
A	Webster Finl Cp	13	WBS	35.34	2.60	3.00	1.54	-0.02	-0.82	0.42	0.34	3248.56
1	Sterling Bancp	13	STL	13.84	2.02	6.00	-1.62	-0.34	0.44	-1.05	-0.40	1795.42
<b>FINANCE-INVESTMENT BKRS</b>												
A	Arlington Asset	13	AI	16.69	20.97	1.00	1.71	1.00	2.34	0.45	0.22	383.24
1	Kcg Holdings	13	KCG	11.28	0.00	6.00	-1.62	-0.50	0.14	-0.54	-1.10	1058.59
<b>REIT-EQTY TRUST - OTHER</b>												
A	Govt Ppty Incm	13	GOV	15.93	10.80	1.00	1.71	1.19	2.13	0.58	0.85	1132.37
B	Natl Health Inv	13	NHI	56.59	6.01	1.00	1.71	0.87	1.42	0.65	0.56	2125.86
C	Coresite Realty	13	CDR	49.80	3.37	1.00	1.71	0.76	1.12	0.75	0.41	1321.24
D	Highwoods Ppty	13	HIW	38.97	4.36	1.00	1.71	0.55	1.00	0.39	0.25	3667.82
2	Hersha Hospitl	13	HT	24.94	1.12	8.00	-1.45	-0.31	-0.09	-0.64	-0.18	1191.38
1	Washington Reit	13	WRE	25.18	4.77	8.00	-1.67	-0.62	-0.29	-1.27	-0.29	1716.32
<b>REIT-EQTY TRUST - RESID</b>												
A	Select Income	13	SIR	18.75	10.67	1.00	1.71	1.19	2.01	0.82	0.74	1674.92
2	New Senior Inv	13	SNR	11.60	8.97	8.00	-1.45	-0.49	-0.55	-0.91	-0.02	1003.79
1	Starwood Waypnt	13	SWAY	24.41	2.29	8.00	-1.73	-1.36	-1.81	-1.97	-0.32	925.31

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**Brian T. Hannon, CFA**  
**Sr. VP & Director of Equity Research**  
**Sturdivant & Co., Inc.**  
**(856) 433-6126**  
**bhannon@sturdivant-co.com**

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