



Brogan Group Research

Institutional Market Technicians Since 1968

Raising Confidence for the Institutional Investor

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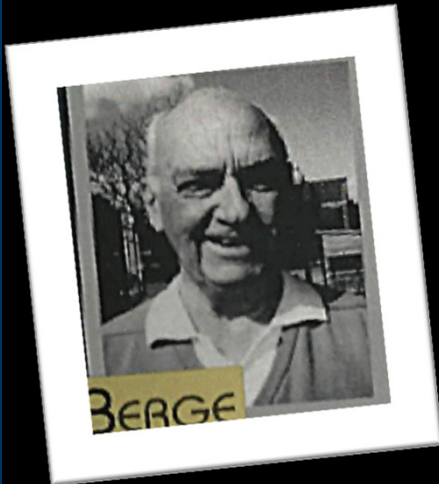
Brogan Group Equity Research



- Founded in 1968 by Bob Brogan, Sr.
- Family Managed Group since 2002
- ***Money Flow & Relative Performance Analysis***

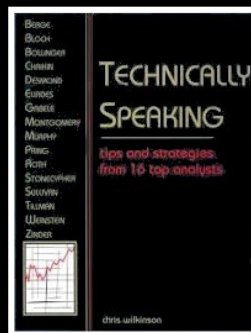


A Tradition of Research Excellence



Bob Brogan's notable accomplishments:

- Mentored by Stan Berge in the 70's & 80's
 - Stan was IIAA in Market Timing prior to Bob Farrell
- Co-created with Marc Chakin the first windows-based Financial Research & Analytics workstation, today known as the Thomson Reuters EIKON.
- Pioneered work on Money Flow Persistency in the 80's & 90's



Money Flow History

2 Types of Money Flow

Ticker Tape Money Flow

Don Wordon , Lazlo Birinyi & Jesse Livermore

~ Explained in Michael Carr's July 14' issue of Technically Speaking & Lazlo Birinyi's white paper Mr. Market Speaks

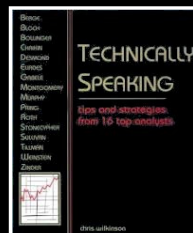


**Money Flows:
Mr Market Speaks**

Mean Price Money Flow

Bill Schmitt, Larry William, David Bostian, Marc Chaikin, Bob Brogan, Don Wordon

~ Explained in Stocks & Commodities V. 12:1 (30-37): Chatting With Marc Chaikin & Chris Wilkerson's Technically Speaking



**THE
SECRET
OF
SELECTING
STOCKS
FOR
IMMEDIATE
AND
SUBSTANTIAL
GAINS**

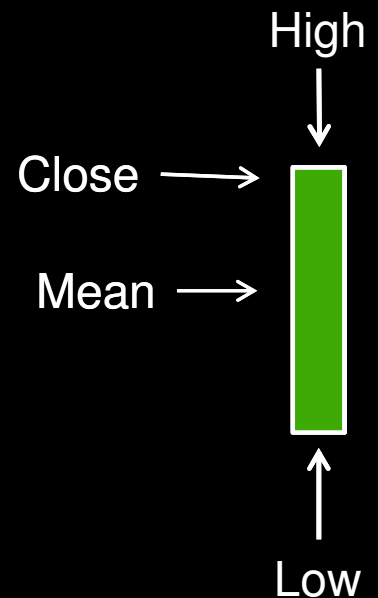


Money Flow Factor Explained

Money Flow Measures Buying & Selling Pressure

$$\frac{(close - low) - (high - close)}{(high - low)} \cdot volume$$

$$\frac{(30 - 10) - (30 - 30)}{(30 - 10)} = \frac{20}{20} = 1.0 \cdot volume$$



- Close > Mean = Positive Money Flow
- Close < Mean = Negative Money

Relative Performance Factor Explained

Relative Performance = Alpha

$$\textbf{\underline{Relative Performance Ratio} = \frac{\textbf{\underline{Stock Price}}}{\textbf{\underline{Index Price}}}}$$

- Money Flow & Relative Performance > 200 day m.a. = Bullish
- Money Flow & Relative Performance < 200 day m.a. = Bearish

Brogan's Bottom Up Research

***Money Flow/Relative Performance
Ranking & Screening***

***~ Liquidity & Alpha Driven Stock
Selection ~***

Top List

Technical/Quantitative Screening

S&P500 ~ Top Money Flow/Relative Performance List ~ Nov 21, 2018

16.64% Ave Gain Year to Date

Symbol	Name	Sector	Industry Group	Close	YTD	Weighting	Days	MACD Signal	Days
OMC	OMNICOM GROUP INC	Communication Services	Advertising	76.51	5	Overweight	20	PosCross	41
DISCA	DISCOVERY INC	Communication Services	Broadcasting	30.44	36	Overweight	105	NegCross	0
DISCK	DISCOVERY INC	Communication Services	Broadcasting	27.73	31	Overweight	106	NegCross	1
VZ	VERIZON COMMUNICATIONS INC	Communication Services	Integrated Telecommunication Ser	59.45	12	Overweight	31	PosCross	30
TRIP	TRIPADVISOR INC	Communication Services	Interactive Media & Services	59.42	72	Overweight	16	PosCross	12
UAA	UNDER ARMOUR INC	Consumer Discretionary	Apparel, Accessories & Luxury Goods	21.52	49	Overweight	11	PosCross	15
UA	UNDER ARMOUR INC	Consumer Discretionary	Apparel, Accessories & Luxury Goods	19.975	50	Overweight	14	PosCross	14
ORLY	O REILLY AUTOMOTIVE INC NEW	Consumer Discretionary	Automotive Retail	344.65	43	Overweight	7	PosCross	5
AAP	ADVANCE AUTO PARTS INC	Consumer Discretionary	Automotive Retail	174.73	75	Overweight	7	PosCross	6
AZO	AUTOZONE INC	Consumer Discretionary	Automotive Retail	318.04	15	Overweight	39	PosCross	131

Accumulation List

S&P500 ~ Accumulation Money Flow/Relative Performance List ~ Nov 21, 2018

-5.05% Ave Loss Year to Date

Symbol	Name	Sector	Industry Group	Close	YTD	Weighting	Days	MACD Signal	Days
NWSA	NEWS CORP NEW	Communication Services	Publishing	12.65	-22	PosNeutral	37	PosCross	29
K	KELLOGG CO	Consumer Staples	Packaged Foods & Meats	62.24	-8	PosNeutral	5	NegCross	13
ALL	ALLSTATE CORP	Financials	Property & Casualty Insurance	88.63	-15	PosNeutral	8	NegCross	11
RE	EVEREST RE GROUP LTD	Financials	Reinsurance	216.21	-2	PosNeutral	81	PosCross	43
IDXX	IDEXX LABS INC	Healthcare	Healthcare Equipment	194.36	24	PosNeutral	8	NegCross	66
BAX	BAXTER INTL INC	Healthcare	Healthcare Equipment	65.26	1	PosNeutral	18	NegCross	25
ALGN	ALIGN TECHNOLOGY INC	Healthcare	Healthcare Supplies	216.44	-2	PosNeutral	14	NegCross	80

Distribution List

S&P500 ~ Distribution Money Flow/Relative Performance List ~ Nov 21, 2018

11.44% Ave Gain Year to Date

Symbol	Name	Sector	Industry Group	Close	YTD	Weighting	Days	MACD Signal	Days
IPG	INTERPUBLIC GROUP COS INC	Communication Services	Advertising	23	14	NegNeutral	14	PosCross	40
CMCSA	COMCAST CORP NEW	Communication Services	Cable & Satellite	37.71	-6	NegNeutral	19	PosCross	111
VIAB	VIACOM INC NEW	Communication Services	Movies & Entertainment	31.79	3	NegNeutral	12	PosCross	71
DIS	DISNEY WALT CO	Communication Services	Movies & Entertainment	113.84	6	NegNeutral	35	PosCross	33
FOX	TWENTY FIRST CENTY FOX INC	Communication Services	Movies & Entertainment	48.875	43	NegNeutral	75	PosCross	22
FOXA	TWENTY FIRST CENTY FOX INC	Communication Services	Movies & Entertainment	49.24	43	NegNeutral	81	PosCross	21

Bottom List

S&P500 ~ Bottom Money Flow/Relative Performance List ~ Nov 21, 2018

-16.55% Ave Loss Year to Date

Symbol	Name	Sector	Industry Group	Close	YTD	Weighting	Days	MACD Signal	Days
DISH	DISH NETWORK CORP	Communication Services	Cable & Satellite	31.32	-34	Underweight	16	PosCross	0
T	AT&T INC	Communication Services	Integrated Telecommunication Services	29.855	-23	Underweight	274	NegCross	3
TTWO	TAKE-TWO INTERACTIVE SOFTWARE	Communication Services	Interactive Home Entertainment	107.28	-2	Underweight	3	NegCross	31
ATVI	ACTIVISION BLIZZARD INC	Communication Services	Interactive Home Entertainment	51	-19	Underweight	6	NegCross	18
EA	ELECTRONIC ARTS INC	Communication Services	Interactive Home Entertainment	84.26	-20	Underweight	63	NegCross	81
FB	FACEBOOK INC	Communication Services	Interactive Media & Services	136.41	-22	Underweight	9	NegCross	80
GOOG	ALPHABET INC	Communication Services	Interactive Media & Services	1045.9	0	Underweight	24	NegCross	59

~ Momentum Screening ~

Top Money Flow /Relative Performance Ranking

Sym	Description	Sector	Industry	Weighting, D
				Weighting - Day
ISRG	INTUITIVE SURGICAL INC	Healthcare	Healthcare Equipment	Overweight 512
TEAM	ATLASSIAN CORP PLC	Information Technology	Application Software	Overweight 494
INTU	INTUIT	Information Technology	Application Software	Overweight 478
ABT	ABBOTT LABS	Healthcare	Healthcare Equipment	Overweight 456
VEEV	VEEVA SYS INC	Healthcare	Health Care Technology	Overweight 267
ADP	AUTOMATIC DATA PROC	Information Technology	Data Processing & Outsourced	Overweight 236
AES	AES CORP	Utilities	Independent Power Producers	Overweight 234
FISV	FISERV INC	Information Technology	Data Processing & Outsourced	Overweight 208
AMD	ADVANCED MICRO DEVIC	Information Technology	Semiconductors	Overweight 195
CHD	CHURCH & DWIGHT INC	Consumer Staples	Household Products	Overweight 191
COO	COOPER COS INC	Healthcare	Healthcare Supplies	Overweight 180
LLY	LILLY ELI & CO	Healthcare	Pharmaceuticals	Overweight 178
IQV	IQVIA HLDGS INC	Healthcare	Life Sciences Tools & Services	Overweight 174
EEFT	EURONET WORLDWIDE D	Information Technology	Data Processing & Outsourced	Overweight 165
AEE	AMEREN CORP	Utilities	Multi-utilities	Overweight 164
SUI	SUN CMNTYS INC	Real Estate	Residential REITs	Overweight 162
PHI	PERKINELMER INC	Healthcare	Life Sciences Tools & Services	Overweight 161
OHI	OMEGA HEALTHCARE IN	Real Estate	Health Care REITs	Overweight 161
UDR	UDR INC	Real Estate	Residential REITs	Overweight 161
ECL	ECOLAB INC	Materials	Specialty Chemicals	Overweight 160
CLX	CLOROX CO DEL	Consumer Staples	Household Products	Overweight 159
IAC	IAC INTERACTIVECORP	Communication Service	Interactive Media & Services	Overweight 158
HRL	HORMEL FOODS CORP	Consumer Staples	Packaged Foods & Meats	Overweight 158
CABO	CABLE ONE INC	Communication Service	Cable & Satellite	Overweight 157
MRK	MERCK & CO INC	Healthcare	Pharmaceuticals	Overweight 157
AJG	GALLAGHER ARTHUR J &	Financials	Insurance Brokers	Overweight 137
AON	AON PLC	Financials	Insurance Brokers	Overweight 135
EW	EDWARDS LIFESCIENCES	Healthcare	Healthcare Equipment	Overweight 133
AZO	AUTOZONE INC	Consumer Discretionary	Automotive Retail	Overweight 126
LYV	LIVE NATION ENTERTAIN	Communication Service	Movies & Entertainment	Overweight 125
FE	FIRSTENERGY CORP	Utilities	Electric Utilities	Overweight 120
EXC	EXELON CORP	Utilities	Electric Utilities	Overweight 120
OGE	OGE ENERGY CORP	Utilities	Electric Utilities	Overweight 119
CMS	CMS ENERGY CORP	Utilities	Multi-utilities	Overweight 119
WELL	WELLTOWER INC	Real Estate	Health Care REITs	Overweight 115
O	REALTY INCOME CORP	Real Estate	Retail REITs	Overweight 115

INTUITIVE SURGICAL INC (NASDAQ: ISRG)

Bid 576.31

Date 04/01/2019

575.54 ↑ 4.96 (+0.87%)

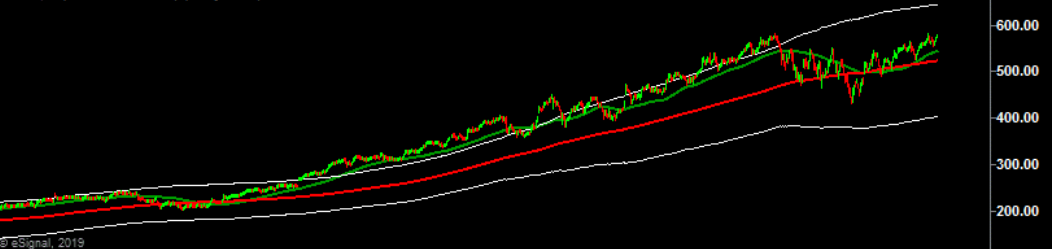
Ask 579.95

Trade Exchange NMS

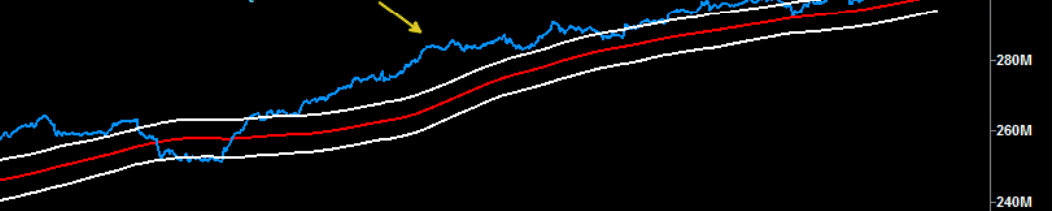
Open 575.00

Dividend Interval

* ISRG, D (20000 Bars Back) (delayed 15)



Cumulative Money Flow Line



Relative Performance Ratio Line



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~ Momentum Screening ~

Top Money Flow /Relative Performance Ranking

Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry
				Weighting	Day					Weighting	Day				
PEG	PUBLIC SVC ENTERPRI	Utilities	Multi-utilities	Overweight	113	MTCH	MATCH GROUP INC	Communication Ser	Interactive Media & Se	Overweight	60	ZBRA	ZEBRA TECHNOLOGIES	Information Technol	Electronic E
D	DOMINION ENERGY IN	Utilities	Multi-utilities	Overweight	112	SPLK	SPLUNK INC	Information Technol	Application Software	Overweight	60	PLD	PROLOGIS INC	Real Estate	Industrial R
HOLX	HOLOGIC INC	Healthcare	Healthcare Equipment	Overweight	111	ERIE	ERIE INDY CO	Financials	Property & Casualty In	Overweight	59	DRE	DUKE REALTY CORP	Real Estate	Industrial R
VTR	VENTAS INC	Real Estate	Health Care REITs	Overweight	108	REGN	REGENERON PHARMA	Healthcare	Biotechnology	Overweight	59	ELS	EQUITY LIFESTYLE PPT	Real Estate	Residential
MAA	MID AMER APT CMNT	Real Estate	Residential REITs	Overweight	108	HRC	HILL ROM HLDGS INC	Healthcare	Healthcare Equipment	Overweight	59	ACC	AMERICAN CAMPUS C	Real Estate	Residential
EQR	EQUITY RESIDENTIAL	Real Estate	Residential REITs	Overweight	108	TDG	TRANSDIGM GROUP IN	Industrials	Aerospace & Defense	Overweight	59	FRT	FEDERAL REALTY INV	Real Estate	Retail REIT
AMT	AMERICAN TOWER CC	Real Estate	Specialized REITs	Overweight	108	SNPS	SYNOPSYS INC	Information Technol	Application Software	Overweight	59	SBUX	STARBUCKS CORP	Consumer Discretio	Restaurant
PG	PROCTER AND GAMBL	Consumer Staples	Household Products	Overweight	106	BAH	BOOZ ALLEN HAMILT	Information Technol	IT Consulting & Other	Overweight	59	ACAD	ACADIA PHARMACEU	Healthcare	Biotechnol
CNP	CENTERPOINT ENERGY	Utilities	Multi-utilities	Overweight	105	NOW	SERVICENOW INC	Information Technol	Systems Software	Overweight	59	YUM	YUM BRANDS INC	Consumer Discretio	Restaurant
PEP	PEPSICO INC	Consumer Staples	Soft Drinks	Overweight	104	HTA	HEALTHCARE TRAME	Real Estate	Health Care REITs	Overweight	59	MTD	METTLER TOLEDO INT	Healthcare	Life Scienc
SO	SOUTHERN CO	Utilities	Electric Utilities	Overweight	104	NNN	NATIONAL RETAIL PP	Real Estate	Retail REITs	Overweight	59	TDY	TELEDYNE TECHNOLO	Industrials	Aerospace
GRMN	GARMIN LTD	Consumer Discretio	Consumer Electronics	Overweight	103	ORLY	O REILLY AUTOMOTIV	Consumer Discretio	Automotive Retail	Overweight	58	TRMB	TRIMBLE INC	Information Technol	Electronic E
VER	VEREIT INC	Real Estate	Diversified REITs	Overweight	102	BEAM	BRIGHT HORIZONS FA	Consumer Discretio	Education Services	Overweight	58	AIV	APARTMENT INVT & M	Real Estate	Residential
LPT	LIBERTY PPTY TR	Real Estate	Diversified REITs	Overweight	101	MMC	MARSH & MCLENNAN	Financials	Insurance Brokers	Overweight	58	NFG	NATIONAL FUEL GAS	Utilities	Gas Utilitie
HE	HAWAIIAN ELEC INDU	Utilities	Electric Utilities	Overweight	101	BRKR	BRUKER CORP	Healthcare	Life Sciences Tools & S	Overweight	58	CCI	CROWN CASTLE INTL	Real Estate	Specialized
CINF	CINCINNATI FINL COR	Financials	Property & Casualty In	Overweight	99	RSG	REPUBLIC SVCS INC	Industrials	Environmental & Facili	Overweight	58	INCY	INCYTE CORP	Healthcare	Biotechnol
LII	LENNOX INTL INC	Industrials	Building Products	Overweight	98	EPR	EPR PPTYS	Real Estate	Specialized REITs	Overweight	58	BAX	BAXTER INTL INC	Healthcare	Healthcare
XLNX	XILINX INC	Information Technol	Semiconductors	Overweight	97	TDC	TERADATA CORP DEL	Information Technol	Systems Software	Overweight	56	ADBE	ADOBE INC	Information Technol	Applicator
MDLZ	MONDELEZ INTL INC	Consumer Staples	Packaged Foods & Me	Overweight	96	CMG	CHIPOTLE MEXICAN G	Consumer Discretio	Restaurants	Overweight	53	ARE	ALEXANDRIA REAL ES	Real Estate	Office REIT
THS	TREEHOUSE FOODS IN	Consumer Staples	Packaged Foods & Me	Overweight	92	UHS	UNIVERSAL HLTH SVC	Healthcare	Healthcare Facilities	Overweight	53	KIM	KIMCO RLTY CORP	Real Estate	Retail REIT
GPC	GENUINE PARTS CO	Consumer Discretio	Distributors	Overweight	91	CRL	CHARLES RIV LABS IN	Healthcare	Life Sciences Tools & S	Overweight	53	FDC	FIRST DATA CORP NEV	Information Technol	Data Proce
BSX	BOSTON SCIENTIFIC C	Healthcare	Healthcare Equipment	Overweight	91	WM	WASTE MGMT INC DEL	Industrials	Environmental & Facili	Overweight	53	PCAR	PACCAR INC	Industrials	Constructio
TRCO	TRIBUNE MEDIA CO	Communication Ser	Broadcasting	Overweight	90	VMW	VMWARE INC	Information Technol	Systems Software	Overweight	53	BXP	BOSTON PROPERTIES I	Real Estate	Office REIT
PAYX	PAYCHEX INC	Information Technol	Data Processing & Out	Overweight	90	SRE	SEMPRA ENERGY	Utilities	Multi-utilities	Overweight	53	OUT	OUTFRONT MEDIA INC	Real Estate	Specialized
KMB	KIMBERLY CLARK CO	Consumer Staples	Household Products	Overweight	88	NFLX	NETFLIX INC	Communication Ser	Movies & Entertainment	Overweight	52	DHR	DANAHER CORPORAT	Healthcare	Healthcare
WPC	W P CAREY INC	Real Estate	Diversified REITs	Overweight	85	VAR	VARIAN MED SYS INC	Healthcare	Healthcare Equipment	Overweight	52	VRSK	VERISK ANALYTICS IN	Industrials	Research &
IONS	IONIS PHARMACEUTIC	Healthcare	Biotechnology	Overweight	84	A	AGILENT TECHNOLOG	Healthcare	Life Sciences Tools & S	Overweight	52	FAST	FASTENAL CO	Industrials	Trading Co
TFX	TELEFLEX INC	Healthcare	Healthcare Equipment	Overweight	82	DE	DEERE & CO	Industrials	Agricultural & Farm M	Overweight	52	PYPL	PAYPAL HLDGS INC	Information Technol	Data Proce
WDAY	WORKDAY INC	Information Technol	Application Software	Overweight	82	NUAN	NUANCE COMMUNICA	Information Technol	Application Software	Overweight	52	ADI	ANALOG DEVICES INC	Information Technol	Semicondu
KEYS	KEYSIGHT TECHNOLO	Information Technol	Electronic Equipment &	Overweight	81	TPX	TEMPUR SEALY INTL I	Consumer Discretio	Home Furnishings	Overweight	51	GLPI	GAMING & LEISURE PF	Real Estate	Specialized
MA	MASTERCARD INC	Information Technol	Data Processing & Out	Overweight	79	ULTA	ULTA BEAUTY INC	Consumer Discretio	Specialty Stores	Overweight	51	FTNT	FORTINET INC	Information Technol	Systems Sc
CRM	SALESFORCE COM INC	Information Technol	Application Software	Overweight	77	TMO	THERMO FISHER SCIE	Healthcare	Life Sciences Tools & S	Overweight	51	DEI	DOUGLAS EMMETT IN	Real Estate	Office REIT
AVGO	BROADCOM INC	Information Technol	Semiconductors	Overweight	71	WAT	WATERS CORP	Healthcare	Life Sciences Tools & S	Overweight	51	BMS	BEMIS CO INC	Materials	Paper Pack

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~ Momentum Screening ~

Top Money Flow /Relative Performance Ranking

Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry
				Weighting	Day					Weighting	Day				
PDM	PIEDMONT OFFICE RE	Real Estate	Office REITs	Overweight	41	LPLA	LPL FINL HLDGS INC	Financials	Investment Banking &	Overweight	35	SYK	STRYKER CORP	Healthcare	Healthcare
SBAC	SBA COMMUNICATIO	Real Estate	Specialized REITs	Overweight	41	WRB	BERKLEY W R CORP	Financials	Property & Casualty In	Overweight	35	EXPD	EXPEDITORS INTL WA	Industrials	Air Freight
PGR	PROGRESSIVE CORP O	Financials	Property & Casualty In	Overweight	40	ANTM	ANTHEM INC	Healthcare	Managed Healthcare	Overweight	35	WP	WORLDPAY INC	Information Technol	Data Proces
ACGL	ARCH CAP GROUP LTD	Financials	Property & Casualty In	Overweight	40	HEI	HEICO CORP NEW	Industrials	Aerospace & Defense	Overweight	35	NKE	NIKE INC	Consumer Discretio	Footwear
OLED	UNIVERSAL DISPLAY C	Information Technol	Semiconductors	Overweight	40	NEU	NEWMARKET CORP	Materials	Specialty Chemicals	Overweight	35	ITW	ILLINOIS TOOL WKS IN	Industrials	Industrial M
GRA	GRACE W R & CO DEL	Materials	Specialty Chemicals	Overweight	40	STE	STERIS PLC	Healthcare	Healthcare Equipment	Overweight	34	TTC	TORO CO	Industrials	Agricultura
ALXN	ALEXION PHARMACE	Healthcare	Biotechnology	Overweight	39	ZBH	ZIMMER BIOMET HLD	Healthcare	Healthcare Equipment	Overweight	34	DATA	TABLEAU SOFTWARE	Information Technol	Systems Sc
LAMR	LAMAR ADVERTISING	Real Estate	Specialized REITs	Overweight	39	AGCO	AGCO CORP	Industrials	Agricultural & Farm M	Overweight	34	PM	PHILIP MORRIS INTL IN	Consumer Staples	Tobacco
W	WAYFAIR INC	Consumer Discretio	Internet & Direct Mark	Overweight	38	ROP	ROPER TECHNOLOGIES	Industrials	Industrial Conglomerat	Overweight	34	SGEN	SEATTLE GENETICS IN	Healthcare	Biotechnol
WLTW	WILLIS TOWERS WAT	Financials	Insurance Brokers	Overweight	38	V	VISA INC	Information Technol	Data Processing & Out	Overweight	34	ZTS	ZOETIS INC	Healthcare	Pharmaceu
TECH	BIO TECHNE CORP	Healthcare	Life Sciences Tools & S	Overweight	38	GP	GLOBAL PMTS INC	Information Technol	Data Processing & Out	Overweight	34	ETN	EATON CORP PLC	Industrials	Electrical C
SSNC	SS&C TECHNOLOGIES	Information Technol	Application Software	Overweight	38	CGNX	COGNEX CORP	Information Technol	Electronic Equipment &	Overweight	34	MCD	MCDONALDS CORP	Consumer Discretio	Restaurant
CDNS	CADENCE DESIGN SYS	Information Technol	Application Software	Overweight	38	INTC	INTEL CORP	Information Technol	Semiconductors	Overweight	34	EQIX	EQUINIX INC	Real Estate	Specialized
CSCO	CISCO SYS INC	Information Technol	Communications Equip	Overweight	38	CMCSA	COMCAST CORP NEW	Communication Ser	Cable & Satellite	Overweight	33	PPC	PILGRIMS PRIDE CORP	Consumer Staples	Packaged F
SON	SONOCO PRODS CO	Materials	Paper Packaging	Overweight	38	TSCO	TRACTOR SUPPLY CO	Consumer Discretio	Specialty Stores	Overweight	33	FDS	FACTSET RESH SYS IN	Financials	Financial E
INVH	INVITATION HOMES IN	Real Estate	Residential REITs	Overweight	38	SC	SANTANDER CONSUM	Financials	Consumer Finance	Overweight	33	MCO	MOODY'S CORP	Financials	Financial E
TMUS	T MOBILE US INC	Communication Ser	Wireless Telecommunic	Overweight	37	MSCI	MSCI INC	Financials	Financial Exchanges &	Overweight	33	AGO	ASSURED GUARANTY	Financials	Property &
KMI	KINDER MORGAN INC	Energy	Oil & Gas Storage & Tr	Overweight	37	HON	HONEYWELL INTL INC	Industrials	Industrial Conglomerat	Overweight	33	TRV	TRAVELERS COMPANI	Financials	Property &
LLL	L3 TECHNOLOGIES INC	Industrials	Aerospace & Defense	Overweight	37	BRX	BRIXMOR PPTY GROU	Real Estate	Retail REITs	Overweight	33	NYCB	NEW YORK CMNTY BA	Financials	Thrifts & M
HRS	HARRIS CORP DEL	Industrials	Aerospace & Defense	Overweight	37	GIS	GENERAL MLS INC	Consumer Staples	Packaged Foods & Me	Overweight	32	MKC	MCCORMICK & CO INC	Consumer Staples	Packaged F
SPR	SPIRIT AEROSYSTEMS	Industrials	Aerospace & Defense	Overweight	37	HXL	HEXCEL CORP NEW	Industrials	Aerospace & Defense	Overweight	32	ED	CONSOLIDATED EDISC	Utilities	Multi-utilit
AME	AMETEK INC NEW	Industrials	Electrical Components	Overweight	37	ROL	ROLLINS INC	Industrials	Environmental & Facili	Overweight	32	AWI	ARMSTRONG WORLD	Industrials	Building Pr
XR	XEROX CORP	Information Technol	Technology Hardware	Overweight	37	FLT	FLEETCOR TECHNOLO	Information Technol	Data Processing & Out	Overweight	32	CPRT	COPART INC	Industrials	Diversified
UFS	DOMTAR CORP	Materials	Paper Products	Overweight	37	APD	AIR PRODS & CHEMS I	Materials	Industrial Gases	Overweight	32	GDDY	GODADDY INC	Information Technol	Internet Ser
CACC	CREDIT ACCEP CORP N	Financials	Consumer Finance	Overweight	36	KRC	KILROY RLTY CORP	Real Estate	Office REITs	Overweight	32	MSFT	MICROSOFT CORP	Information Technol	Systems Sc
HELA	HEICO CORP NEW	Industrials	Aerospace & Defense	Overweight	36	QGEN	QIAGEN NV	Healthcare	Life Sciences Tools & S	Overweight	31	BERY	BERRY GLOBAL GROU	Materials	Metal & Gl
PWR	QUANTA SVCS INC	Industrials	Construction & Engine	Overweight	36	CMI	CUMMINS INC	Industrials	Construction Machiner	Overweight	31	NI	NISOURCE INC	Utilities	Multi-utilit
ANSS	ANSYS INC	Information Technol	Application Software	Overweight	36	XYL	XYLEM INC	Industrials	Industrial Machinery	Overweight	31	SERV	SERVICEMASTER GLOE	Consumer Discretio	Specialized
APH	AMPHENOL CORP NEW	Information Technol	Electronic Components	Overweight	36	MSI	MOTOROLA Solutio	Information Technol	Communications Equip	Overweight	31	TJX	TJX COS INC NEW	Consumer Discretio	Apparel Re
LBRDK	LIBERTY BROADBAND	Communication Ser	Cable & Satellite	Overweight	35	VZ	VERIZON COMMUNIC	Communication Ser	Integrated Telecommun	Overweight	30	VSM	VERSUM MATLS INC	Information Technol	Semicondu
NCLH	NORWEGIAN CRUISE L	Consumer Discretio	Hotels, Resorts & Crui	Overweight	35	SKX	SKECHERS U S A INC	Consumer Discretio	Footwear	Overweight	30	FMC	F M C CORP	Materials	Fertilizers &
FII	FEDERATED INVS INC	Financials	Asset Management & C	Overweight	35	MKT	MARKETAXESS HLDG	Financials	Financial Exchanges &	Overweight	30	DOV	DOVER CORP	Industrials	Industrial M
AXP	AMERICAN EXPRESS C	Financials	Consumer Finance	Overweight	35	SPGI	S&P GLOBAL INC	Financials	Financial Exchanges &	Overweight	30	HPP	HUDSON PAC PPTYS IN	Real Estate	Office REIT

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~ Momentum Screening ~

Top Money Flow /Relative Performance Ranking

Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry	Weighting	D	Symbol	Description	Sector	Industry
				Weighting	Day					Weighting	Day				
EXR	EXTRA SPACE STORAC	Real Estate	Specialized REITs	Overweight	16	G	GENPACT LIMITED	Information Technol	Data Processing & Out	Overweight	6	BMJ	BRISTOL MYERS SQUI	Healthcare	Pharmaceu
FND	FLOOR & DECOR HLDG	Consumer Discretio	Home Improvement Re	Overweight	15	IBM	INTERNATIONAL BUSI	Information Technol	IT Consulting & Other	Overweight	6	SYI	SYSICO CORP	Consumer Staples	Food Distri
CVX	CHEVRON CORP NEW	Energy	Integrated Oil & Gas	Overweight	15	YUMC	YUM CHINA HLDGS IN	Consumer Discretio	Restaurants	Overweight	5	UNVR	UNIVAR INC	Industrials	Trading Co
WMB	WILLIAMS COS INC DE	Energy	Oil & Gas Storage & Tr	Overweight	15	BF.B	BROWN FORMAN COR	Consumer Staples	Distillers & Vintners	Overweight	5	ARNC	ARCONIC INC	Industrials	Aerospace
XRAY	DENTSPLY SIRONA INC	Healthcare	Healthcare Supplies	Overweight	15	IT	GARTNER INC	Information Technol	IT Consulting & Other	Overweight	5	PCG	PG&E CORP	Utilities	Electric Util
BIO	BIO RAD LABS INC	Healthcare	Life Sciences Tools & S	Overweight	15	AVY	AVERY DENNISON COR	Materials	Paper Packaging	Overweight	4	RMD	RESMED INC	Healthcare	Healthcare
ACN	ACCENTURE PLC IREL	Information Technol	IT Consulting & Other	Overweight	15	AAP	ADVANCE AUTO PART	Consumer Discretio	Automotive Retail	Overweight	3	JKHY	HENRY JACK & ASSOC	Information Technol	Data Proce
GOOG	ALPHABET INC	Communication Ser	Interactive Media & Se	Overweight	14	LOW	LOWES COS INC	Consumer Discretio	Home Improvement Re	Overweight	3	KSS	KOHL'S CORP	Consumer Discretio	Department
GOOG	ALPHABET INC	Communication Ser	Interactive Media & Se	Overweight	14	GWRE	GUIDEWIRE SOFTWARE	Information Technol	Application Software	Overweight	3	HAS	HASBRO INC	Consumer Discretio	Leisure Pro
TSN	TYSON FOODS INC	Consumer Staples	Packaged Foods & Me	Overweight	13	AMZN	AMAZON COM INC	Consumer Discretio	Internet & Direct Mark	Overweight	2	JNPR	JUNIPER NETWORKS I	Information Technol	Communica
CUBE	CUBESMART	Real Estate	Specialized REITs	Overweight	13	REG	REGENCY CTRS CORP	Real Estate	Retail REITs	Overweight	2	AAPL	APPLE INC	Information Technol	Technology
DLTR	DOLLAR TREE INC	Consumer Discretio	General Merchandise S	Overweight	12	DLR	DIGITAL RLTY TR INC	Real Estate	Specialized REITs	Overweight	2	PFG	PRINCIPAL FINL GROU	Financials	Life & Heal
OKE	ONEOK INC NEW	Energy	Oil & Gas Storage & Tr	Overweight	11	DRI	DARDEN RESTAURAN	Consumer Discretio	Restaurants	Overweight	1	WBT	WELBILT INC	Industrials	Industrial M
JCI	JOHNSON CTLS INTL P	Industrials	Building Products	Overweight	11	SJM	SMUCKER J M CO	Consumer Staples	Packaged Foods & Me	Overweight	1	BR	BROADRIDGE FINL SO	Information Technol	Data Proce
HLT	HILTON WORLDWIDE I	Consumer Discretio	Hotels, Resorts & Crui	Overweight	10	VRTX	VERTEX PHARMACEU	Healthcare	Biotechnology	Overweight	1	MDU	MDU RES GROUP INC	Utilities	Multi-utilit
COST	COSTCO WHSL CORP N	Consumer Staples	Hypermarkets & Super	Overweight	10	ANET	ARISTA NETWORKS IN	Information Technol	Communications Equip	Overweight	1	EV	EATON VANCE CORP	Financials	Asset Man
EL	LAUDER ESTEE COS IN	Consumer Staples	Personal Products	Overweight	10	FIS	FIDELITY NATL INFOR	Information Technol	Data Processing & Out	Overweight	1	ASB	ASSOCIATED BANC CC	Financials	Regional Ba
GGG	GRACO INC	Industrials	Industrial Machinery	Overweight	10	DHI	D R HORTON INC	Consumer Discretio	Homebuilding	Overweight	0	APTIV	APTIV PLC	Consumer Discretio	Auto Parts
CSGP	COSTAR GROUP INC	Industrials	Research & Consulting	Overweight	10	CL	COLGATE PALMOLIVE	Consumer Staples	Household Products	Overweight	0	TMK	TORCHMARK CORP	Financials	Life & Heal
BLL	BALL CORP	Materials	Metal & Glass Contain	Overweight	10	FLO	FLOWERS FOODS INC	Consumer Staples	Packaged Foods & Me	Overweight	0	AGNC	AGNC INVT CORP	Financials	Mortgage F
ZNGA	ZYNGA INC	Communication Ser	Interactive Home Enter	Overweight	9	CB	CHUBB LIMITED	Financials	Property & Casualty In	Overweight	0	MO	ALTRIA GROUP INC	Consumer Staples	Tobacco
CLH	CLEAN HARBORS INC	Industrials	Environmental & Facili	Overweight	9	NEM	NEWMONT MNG CORP	Materials	Gold	Overweight	0	ORI	OLD REP INTL CORP	Financials	Property &
IR	INGERSOLL-RAND PLC	Industrials	Industrial Machinery	Overweight	9	NOC	NORTHROP GRUMMA	Industrials	Aerospace & Defense	PosNeutral	139	OPK	OPKO HEALTH INC	Healthcare	Biotechnol
MRVL	MARVELL TECHNOLOC	Information Technol	Semiconductors	Overweight	9	ALGN	ALIGN TECHNOLOGY I	Healthcare	Healthcare Supplies	PosNeutral	101	WST	WEST PHARMACEUTI	Healthcare	Healthcare
RGLD	ROYAL GOLD INC	Materials	Gold	Overweight	9	SATS	ECHOSTAR CORP	Information Technol	Communications Equip	PosNeutral	97	CNC	CENTENE CORP DEL	Healthcare	Managed F
JBGS	JBG SMITH PTYS	Real Estate	Office REITs	Overweight	9	JWN	NORDSTROM INC	Consumer Discretio	Department Stores	PosNeutral	76	EMR	EMERSON ELEC CO	Industrials	Electrical C
AMH	AMERICAN HOMES 4 F	Real Estate	Residential REITs	Overweight	9	WSM	WILLIAMS SONOMA I	Consumer Discretio	Home Furnishing Retai	PosNeutral	73	ABBV	ABBVIE INC	Healthcare	Biotechnol
CDW	CDW CORP	Information Technol	Technology Distributor	Overweight	8	NBIX	NEUROCRINE BIOSCIE	Healthcare	Biotechnology	PosNeutral	68	MXIM	MAXIM INTEGRATED I	Information Technol	Semicondu
CNK	CINEMARK HOLDINGS	Communication Ser	Movies & Entertainment	Overweight	7	CCL	CARNIVAL CORP	Consumer Discretio	Hotels, Resorts & Crui	PosNeutral	59	AMP	AMERIPRISE FINL INC	Financials	Asset Man
LBRA	LIBERTY BROADBAND	Communication Ser	Cable & Satellite	Overweight	6	ESRT	EMPIRE ST RLTY TR IN	Real Estate	Diversified REITs	PosNeutral	52	K	KELLOGG CO	Consumer Staples	Packaged F
DG	DOLLAR GEN CORP NE	Consumer Discretio	General Merchandise S	Overweight	6	PRGO	PERRIGO CO PLC	Healthcare	Pharmaceuticals	PosNeutral	51	HAIN	HAIN CELESTIAL GRO	Consumer Staples	Packaged F
SEB	SEABOARD CORP	Consumer Staples	Packaged Foods & Me	Overweight	6	TCO	TAUBMAN CTRS INC	Real Estate	Retail REITs	PosNeutral	50	MAC	MACERICH CO	Real Estate	Retail REIT
MIDD	MIDDLEBY CORP	Industrials	Industrial Machinery	Overweight	6	CPB	CAMPBELL SOUP CO	Consumer Staples	Packaged Foods & Me	PosNeutral	49	TSLA	TESLA INC	Consumer Discretio	Automobile

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~ Momentum Screening ~ Top Money Flow & Relative Performance Historical Performance

Return (%)	2004*	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019**
Model	24.08	18.56	14.67	1.53	-46.19	19.14	21.77	-1.42	17.88	34.47	4.25	4.36	5.32	22.20	-3.47	14.01
Benchmark	8.99	3.00	13.62	3.53	-38.49	23.45	12.78	-0.00	13.41	29.60	11.39	-0.73	9.54	19.42	-6.24	11.63
Excess	15.08	15.56	1.05	-2.00	-7.70	-4.31	8.99	-1.41	4.48	4.87	-7.14	5.09	-4.22	2.78	2.77	2.38



Total Return	221.99%
Benchmark Return	151.67%
Active Return	70.32%
Annualized Return	7.98%
Annual Turnover	40.34%
Max Drawdown	-61.48%
Benchmark Max Drawdown	-56.78%
Overall Winners	(227/417) 54.44%
Sharpe Ratio	0.48
Correlation with S&P 500 (\$SP500)	0.89

1 > Day PS
70% Alpha

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Top Money Flow & Relative Performance

Historical Performance



Total Return	237.67%
Benchmark Return	153.48%
Active Return	84.19%
Annualized Return	8.32%
Annual Turnover	42.65%
Max Drawdown	-58.76%
Benchmark Max Drawdown	-56.78%
Overall Winners	(241/437) 55.15%
Sharpe Ratio	0.51
Correlation with S&P 500 (\$SP500)	0.92



Total Return	255.74%
Benchmark Return	153.48%
Active Return	102.27%
Annualized Return	8.69%
Annual Turnover	40.85%
Max Drawdown	-60.95%
Benchmark Max Drawdown	-56.78%
Overall Winners	(236/421) 56.06%
Sharpe Ratio	0.53
Correlation with S&P 500 (\$SP500)	0.92



Total Return	271.35%
Benchmark Return	153.48%
Active Return	117.87%
Annualized Return	9.00%
Annual Turnover	39.18%
Max Drawdown	-58.62%
Benchmark Max Drawdown	-56.78%
Overall Winners	(237/401) 59.10%
Sharpe Ratio	0.57
Correlation with S&P 500 (\$SP500)	0.93



Total Return	266.46%
Benchmark Return	153.48%
Active Return	112.99%
Annualized Return	8.90%
Annual Turnover	38.75%
Max Drawdown	-58.77%
Benchmark Max Drawdown	-56.78%
Overall Winners	(231/395) 58.48%
Sharpe Ratio	0.56
Correlation with S&P 500 (\$SP500)	0.92

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~ Value Screening ~

Money Flow /Relative Performance Ranking

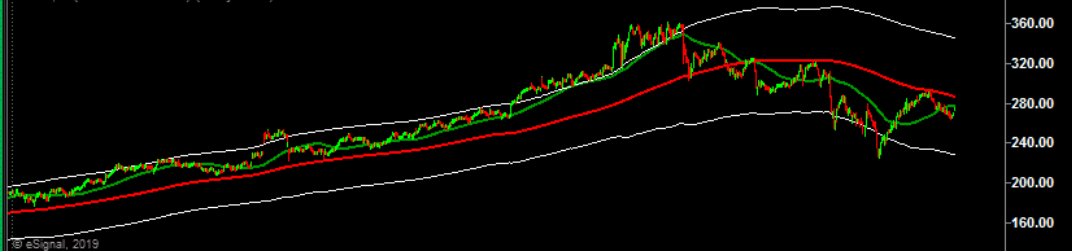
Sym	Description	Sector	Industry	Weighting, D	Weighting ▲ Day
NOC	NORTHROP GRUMMAN CORP	Industrials	Aerospace & Defense	PosNeutral	139
ALGN	ALIGN TECHNOLOGY INC	Healthcare	Healthcare Supplies	PosNeutral	101
SATS	ECHOSTAR CORP	Information Technology	Communications Equipment	PosNeutral	97
JWN	NORDSTROM INC	Consumer Discretionary	Department Stores	PosNeutral	76
WSM	WILLIAMS SONOMA INC	Consumer Discretionary	Home Furnishing Retail	PosNeutral	73
NBIX	NEUROCRINE BIOSCIENCE	Healthcare	Biotechnology	PosNeutral	68
CCL	CARNIVAL CORP	Consumer Discretionary	Hotels, Resorts & Cruise Lines	PosNeutral	59
ESRT	EMPIRE STATE TR INC	Real Estate	Diversified REITs	PosNeutral	52
PRGO	PERRIGO CO PLC	Healthcare	Pharmaceuticals	PosNeutral	51
TCO	TAUBMAN CENTERS INC	Real Estate	Retail REITs	PosNeutral	50
CPB	CAMPBELL SOUP CO	Consumer Staples	Packaged Foods & Meats	PosNeutral	49
BMJ	BRISTOL MYERS SQUIBB	Healthcare	Pharmaceuticals	PosNeutral	49
SYU	SYSCO CORP	Consumer Staples	Food Distributors	PosNeutral	45
UNVR	UNIVAR INC	Industrials	Trading Companies & Distributors	PosNeutral	44
ARNC	ARCONIC INC	Industrials	Aerospace & Defense	PosNeutral	42
PCG	PG&E CORP	Utilities	Electric Utilities	PosNeutral	40
RMD	RESMED INC	Healthcare	Healthcare Equipment	PosNeutral	39
JKHY	HENRY JACK & ASSOCIATES INC	Information Technology	Data Processing & Outsourced Services	PosNeutral	37
KSS	KOHL'S CORP	Consumer Discretionary	Department Stores	PosNeutral	36
HAS	HASBRO INC	Consumer Discretionary	Leisure Products	PosNeutral	36
JNPR	JUNIPER NETWORKS INC	Information Technology	Communications Equipment	PosNeutral	36
AAPL	APPLE INC	Information Technology	Technology Hardware, Storage & Peripherals	PosNeutral	36
PFG	PRINCIPAL FINANCIAL GROUP INC	Financials	Life & Health Insurance	PosNeutral	35
WBT	WELBILT INC	Industrials	Industrial Machinery	PosNeutral	35
BR	BROADRIDGE FINANCIAL SOLUTIONS	Information Technology	Data Processing & Outsourced Services	PosNeutral	35
MDU	MDU RESOURCES GROUP INC	Utilities	Multi-utilities	PosNeutral	35
EV	EATON VANCE CORP	Financials	Asset Management & Custody Services	PosNeutral	34
ASB	ASSOCIATED BANCORP	Financials	Regional Banks	PosNeutral	34
APTIV	APTIV PLC	Consumer Discretionary	Auto Parts & Equipment	PosNeutral	33
TMK	TORCHMARK CORP	Financials	Life & Health Insurance	PosNeutral	33
AGNC	AGNC INVESTMENT CORP	Financials	Mortgage REITs	PosNeutral	33
MO	ALTRIA GROUP INC	Consumer Staples	Tobacco	PosNeutral	32
ORI	OLD REPUBLIC INTL CORP	Financials	Property & Casualty Insurance	PosNeutral	32
OPK	OPKO HEALTH INC	Healthcare	Biotechnology	PosNeutral	32
WST	WEST PHARMACEUTICALS	Healthcare	Healthcare Supplies	PosNeutral	32
CNC	CENTENE CORP DEL	Healthcare	Managed Healthcare	PosNeutral	32

NORTHROP GRUMMAN CORP (NYSE: NOC)

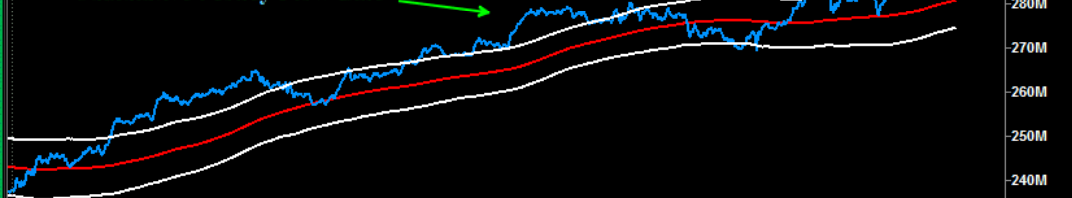
Bid	271.00	Date	04/01/2019
Ask	274.21	Trade Exchange	NYSE
Open	271.13	Dividend Interval	90

274.11 ↑4.51 (+1.67%)

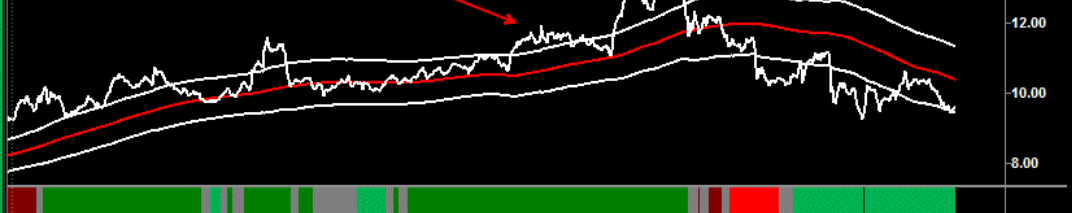
* NOC, D (20000 Bars Back) (delayed 15)



Cumulative Money Flow Line



Relative Performance Ratio Line



Dyn 12/29/2015 Jul Oct 2017 Apr Jul Oct 2018 Apr Jul Oct 2019

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~ Value Screening ~

Money Flow /Relative Performance Ranking

Watch List r1000 * Spreadsheets *									
Symbol	Description	Sector	Industry	Weighting, D	Symbol	Description	Sector	Industry	Weighting, D
				Weighting ▲ Day					Weighting ▲ Day
BMJ	BRISTOL MYERS SQUIBB CO	Healthcare	Pharmaceuticals	PosNeutral 49	CTSH	COGNIZANT TECHNOLOGY SOLU	Information Technology	IT Consulting & Other Services	PosNeutral 27
SYI	SYSCO CORP	Consumer Staples	Food Distributors	PosNeutral 45	VNO	VORNADO RLTY TR	Real Estate	Office REITs	PosNeutral 27
UNVR	UNIVAR INC	Industrials	Trading Companies & Distributors	PosNeutral 44	T	AT&T INC	Communication Services	Integrated Telecommunication Servi	PosNeutral 25
ARNC	ARCONIC INC	Industrials	Aerospace & Defense	PosNeutral 42	CAG	CONAGRA BRANDS INC	Consumer Staples	Packaged Foods & Meats	PosNeutral 25
PCG	PG&E CORP	Utilities	Electric Utilities	PosNeutral 40	NLY	ANNALY CAP MGMT INC	Financials	Mortgage REITs	PosNeutral 25
RMD	RESMED INC	Healthcare	Healthcare Equipment	PosNeutral 39	NTAP	NETAPP INC	Information Technology	Technology Hardware, Storage & P	PosNeutral 25
JKHY	HENRY JACK & ASSOC INC	Information Technology	Data Processing & Outsourced Serv	PosNeutral 37	CERN	CERNER CORP	Healthcare	Health Care Technology	PosNeutral 24
KSS	KOHL'S CORP	Consumer Discretionary	Department Stores	PosNeutral 36	UPS	UNITED PARCEL SERVICE INC	Industrials	Air Freight & Logistics	PosNeutral 24
HAS	HASBRO INC	Consumer Discretionary	Leisure Products	PosNeutral 36	LOGM	LOGMEIN INC	Information Technology	Application Software	PosNeutral 24
JNPR	JUNIPER NETWORKS INC	Information Technology	Communications Equipment	PosNeutral 36	MSM	MSC INDL DIRECT INC	Industrials	Trading Companies & Distributors	PosNeutral 23
AAPL	APPLE INC	Information Technology	Technology Hardware, Storage & P	PosNeutral 36	SRC	SPIRIT RLTY CAP INC NEW	Real Estate	Retail REITs	PosNeutral 23
PFG	PRINCIPAL FINL GROUP INC	Financials	Life & Health Insurance	PosNeutral 35	RYN	RAYONIER INC	Real Estate	Specialized REITs	PosNeutral 23
WBT	WELBILT INC	Industrials	Industrial Machinery	PosNeutral 35	TRIP	TRIPADVISOR INC	Communication Services	Interactive Media & Services	PosNeutral 22
BR	BROADRIDGE FINL SOLUTIONS I	Information Technology	Data Processing & Outsourced Serv	PosNeutral 35	PDCO	PATTERSON COMPANIES INC	Healthcare	Healthcare Distributors	PosNeutral 22
MDU	MDU RES GROUP INC	Utilities	Multi-utilities	PosNeutral 35	HIW	HIGHWOODS PPTYS INC	Real Estate	Office REITs	PosNeutral 22
EV	EATON VANCE CORP	Financials	Asset Management & Custody Ban	PosNeutral 34	AGR	AVANGRID INC	Utilities	Electric Utilities	PosNeutral 22
ASB	ASSOCIATED BANC CORP	Financials	Regional Banks	PosNeutral 34	Z	ZILLOW GROUP INC	Communication Services	Interactive Media & Services	PosNeutral 20
APTIV	APTIV PLC	Consumer Discretionary	Auto Parts & Equipment	PosNeutral 33	LSTR	LANDSTAR SYS INC	Industrials	Trucking	PosNeutral 20
TMK	TORCHMARK CORP	Financials	Life & Health Insurance	PosNeutral 33	HD	HOME DEPOT INC	Consumer Discretionary	Home Improvement Retail	PosNeutral 19
AGNC	AGNC INVT CORP	Financials	Mortgage REITs	PosNeutral 33	CHRW	C H ROBINSON WORLDWIDE INC	Industrials	Air Freight & Logistics	PosNeutral 19
MO	ALTRIA GROUP INC	Consumer Staples	Tobacco	PosNeutral 32	WRI	WEINGARTEN RLTY INVS	Real Estate	Retail REITs	PosNeutral 19
ORI	OLD REP INTL CORP	Financials	Property & Casualty Insurance	PosNeutral 32	CPA	COPA HOLDINGS SA	Industrials	Airlines	PosNeutral 18
OPK	OPKO HEALTH INC	Healthcare	Biotechnology	PosNeutral 32	WCG	WELLCARE HEALTH PLANS INC	Healthcare	Managed Healthcare	PosNeutral 17
WST	WEST PHARMACEUTICAL SVSC	Healthcare	Healthcare Supplies	PosNeutral 32	TRU	TRANSUNION	Industrials	Research & Consulting Services	PosNeutral 16
CNC	CENTENE CORP DEL	Healthcare	Managed Healthcare	PosNeutral 32	RPAI	RETAIL PPTYS AMER INC	Real Estate	Retail REITs	PosNeutral 16
EMR	EMERSON ELEC CO	Industrials	Electrical Components & Equipment	PosNeutral 32	KR	KROGER CO	Consumer Staples	Food Retail	PosNeutral 15
ABBV	ABBVIE INC	Healthcare	Biotechnology	PosNeutral 30	CONE	CYRUSONE INC	Real Estate	Specialized REITs	PosNeutral 15
MXIM	MAXIM INTEGRATED PRODS INC	Information Technology	Semiconductors	PosNeutral 30	NDAQ	NASDAQ INC	Financials	Financial Exchanges & Data	PosNeutral 14
AMP	AMERIPRISE FINL INC	Financials	Asset Management & Custody Ban	PosNeutral 29	ICE	INTERCONTINENTAL EXCHANGE	Financials	Financial Exchanges & Data	PosNeutral 14
K	KELLOGG CO	Consumer Staples	Packaged Foods & Meats	PosNeutral 28	CAH	CARDINAL HEALTH INC	Healthcare	Healthcare Distributors	PosNeutral 14
HAIN	HAIN CELESTIAL GROUP INC	Consumer Staples	Packaged Foods & Meats	PosNeutral 28	LDOS	LEIDOS HLDGS INC	Information Technology	IT Consulting & Other Services	PosNeutral 13
MAC	MACERICH CO	Real Estate	Retail REITs	PosNeutral 28	MCY	MERCURY GENL CORP NEW	Financials	Property & Casualty Insurance	PosNeutral 12
TSLA	TESLA INC	Consumer Discretionary	Automobile Manufacturers	PosNeutral 27	DCI	DONALDSON INC	Industrials	Industrial Machinery	PosNeutral 12

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~ Value Screening ~

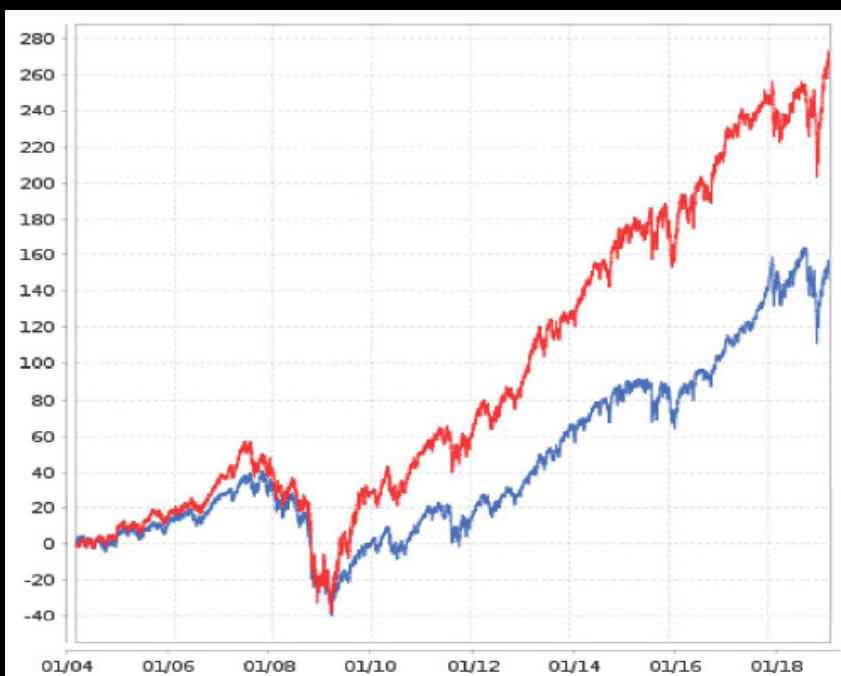
Money Flow /Relative Performance Ranking

Watch List r1000 * Spreadsheets *									
Symbol	Description	Sector	Industry	Weighting, D	Symbol	Description	Sector	Industry	Weighting, D
Weighting ▲ Day					Weighting ▲ Day				
NATI	NATIONAL INSTRS CORP	Information Technology	Electronic Equipment & Instruments	PosNeutral 12	BK	BANK NEW YORK MELLON CORP	Financials	Asset Management & Custody Ban	PosNeutral 2
H	HYATT HOTELS CORP	Consumer Discretionary	Hotels, Resorts & Cruise Lines	PosNeutral 11	DFS	DISCOVER FINL SVCS	Financials	Consumer Finance	PosNeutral 2
BBT	BB&T CORP	Financials	Regional Banks	PosNeutral 11	ANAT	AMERICAN NATL INS CO	Financials	Multi-line Insurance	PosNeutral 2
PFE	PFIZER INC	Healthcare	Pharmaceuticals	PosNeutral 11	PB	PROSPERITY BANCSHARES INC	Financials	Regional Banks	PosNeutral 2
BWXT	BWX TECHNOLOGIES INC	Industrials	Aerospace & Defense	PosNeutral 11	UNIT	UNITI GROUP INC	Real Estate	Specialized REITs	PosNeutral 2
LSI	LIFE STORAGE INC	Real Estate	Specialized REITs	PosNeutral 11	TIF	TIFFANY & CO NEW	Consumer Discretionary	Specialty Stores	PosNeutral 0
DISH	DISH NETWORK CORP	Communication Services	Cable & Satellite	PosNeutral 10	IDXX	IDEXX LABS INC	Healthcare	Healthcare Equipment	PosNeutral 0
ROST	ROSS STORES INC	Consumer Discretionary	Apparel Retail	PosNeutral 10	MAN	MANPOWERGROUP INC	Industrials	Human Resource & Employment Se	PosNeutral 0
LEXEA	LIBERTY EXPEDIA HLDGS INC	Consumer Discretionary	Internet & Direct Marketing Retail	PosNeutral 10	AKAM	AKAMAI TECHNOLOGIES INC	Information Technology	Internet Services & Infrastructure	PosNeutral 0
AMGN	AMGEN INC	Healthcare	Biotechnology	PosNeutral 10					
BURL	BURLINGTON STORES INC	Consumer Discretionary	Apparel Retail	PosNeutral 9					
CHH	CHOICE HOTELS INTL INC	Consumer Discretionary	Hotels, Resorts & Cruise Lines	PosNeutral 9					
OCY	OCCIDENTAL PETE CORP	Energy	Integrated Oil & Gas	PosNeutral 9					
USG	U S G CORP	Industrials	Building Products	PosNeutral 9					
RHI	ROBERT HALF INTL INC	Industrials	Human Resource & Employment Se	PosNeutral 9					
WY	WEYERHAEUSER CO	Real Estate	Specialized REITs	PosNeutral 9					
VMI	VALMONT INDS INC	Industrials	Construction & Engineering	PosNeutral 8					
PXD	PIONEER NAT RES CO	Energy	Oil & Gas Exploration & Production	PosNeutral 7					
ILMN	ILLUMINA INC	Healthcare	Life Sciences Tools & Services	PosNeutral 6					
LKQ	LKQ CORP	Consumer Discretionary	Distributors	PosNeutral 5					
HP	HELMERICH & PAYNE INC	Energy	Oil & Gas Drilling	PosNeutral 5					
APA	APACHE CORP	Energy	Oil & Gas Exploration & Production	PosNeutral 5					
TROW	PRICE T ROWE GROUP INC	Financials	Asset Management & Custody Ban	PosNeutral 5					
MORN	MORNINGSTAR INC	Financials	Financial Exchanges & Data	PosNeutral 5					
NBR	NABORS INDUSTRIES LTD	Energy	Oil & Gas Drilling	PosNeutral 4					
AXS	AXIS CAPITAL HOLDINGS LTD	Financials	Property & Casualty Insurance	PosNeutral 4					
BDX	BECTON DICKINSON & CO	Healthcare	Healthcare Equipment	PosNeutral 4					
MDT	MEDTRONIC PLC	Healthcare	Healthcare Equipment	PosNeutral 4					
AVT	AVNET INC	Information Technology	Technology Distributors	PosNeutral 4					
PRU	PRUDENTIAL FINL INC	Financials	Life & Health Insurance	PosNeutral 3					
PBCT	PEOPLES UTD FINL INC	Financials	Regional Banks	PosNeutral 3					
OMC	OMNICOM GROUP INC	Communication Services	Advertising	PosNeutral 2					
GM	GENERAL MTRS CO	Consumer Discretionary	Automobile Manufacturers	PosNeutral 2					

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Value Money Flow Relative Performance Backtest

Return (%)	2004*	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019**
Model	12.45	3.34	18.18	1.65	-40.17	53.38	17.53	6.21	15.19	24.02	18.14	1.50	13.79	10.54	-7.46	15.35
Benchmark	8.99	3.00	13.62	3.53	-38.49	23.45	12.78	-0.00	13.41	29.60	11.39	-0.73	9.54	19.42	-6.24	11.63
Excess	3.46	0.34	4.56	-1.88	-1.69	29.92	4.75	6.21	1.79	-5.59	6.75	2.22	4.26	-8.88	-1.23	3.72



Total Return	267.76%
Benchmark Return	151.67%
Active Return	116.09%
Annualized Return	8.93%
Annual Turnover	43.66%
Max Drawdown	-60.06%
Benchmark Max Drawdown	-56.78%
Overall Winners	(241/362) 66.57%
Sharpe Ratio	0.56
Correlation with S&P 500 (\$SP500)	0.90

1 > Day PS
116% Alpha

- The Brogan Group is providing the following charts as an illustration only. The illustrations are not FINRA Rule 2411 research reports and are not intended as to buy or sell securities.
- The Brogan Group recommends that persons desiring to trade or invest in securities do so cautiously and in consultation with their financial advisors.

~ Value Screening ~

Money Flow Relative Performance

Historical Performance



45 Day PS 120% Alpha

Total Return	273.17%
Benchmark Return	153.48%
Active Return	119.69%
Annualized Return	9.03%
Annual Turnover	51.94%
Max Drawdown	-60.10%
Benchmark Max Drawdown	-56.78%
Overall Winners	(280/421) 66.51%
Sharpe Ratio	0.57
Correlation with S&P 500 (\$SP500)	0.94



90 Day PS 164% Alpha

Total Return	317.96%
Benchmark Return	153.48%
Active Return	164.48%
Annualized Return	9.85%
Annual Turnover	49.81%
Max Drawdown	-58.21%
Benchmark Max Drawdown	-56.78%
Overall Winners	(273/400) 68.25%
Sharpe Ratio	0.60
Correlation with S&P 500 (\$SP500)	0.92



180 Day PS 229% Alpha

Total Return	382.92%
Benchmark Return	153.48%
Active Return	229.44%
Annualized Return	10.89%
Annual Turnover	45.72%
Max Drawdown	-60.73%
Benchmark Max Drawdown	-56.78%
Overall Winners	(264/374) 70.59%
Sharpe Ratio	0.66
Correlation with S&P 500 (\$SP500)	0.92



200 Day PS 243% Alpha

Total Return	382.92%
Benchmark Return	153.48%
Active Return	229.44%
Annualized Return	10.89%
Annual Turnover	45.72%
Max Drawdown	-60.73%
Benchmark Max Drawdown	-56.78%
Overall Winners	(264/374) 70.59%
Sharpe Ratio	0.66
Correlation with S&P 500 (\$SP500)	0.92

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Brogan's Top Down Research

~ Money Flow Breadth ~

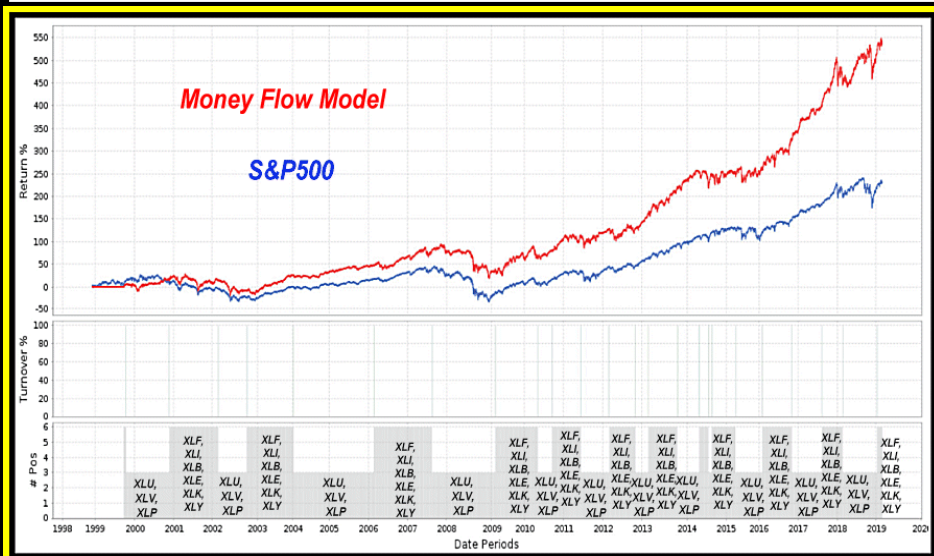
Liquidity Driven Market Timing Indicator

~ Brogan's Money Flow Breadth ~ Liquidity Market Timing Indicator



DJIA
Money Flow Breadth
310% Alpha

Screen	542.87%
S&P 500 (SPY)	232.79%



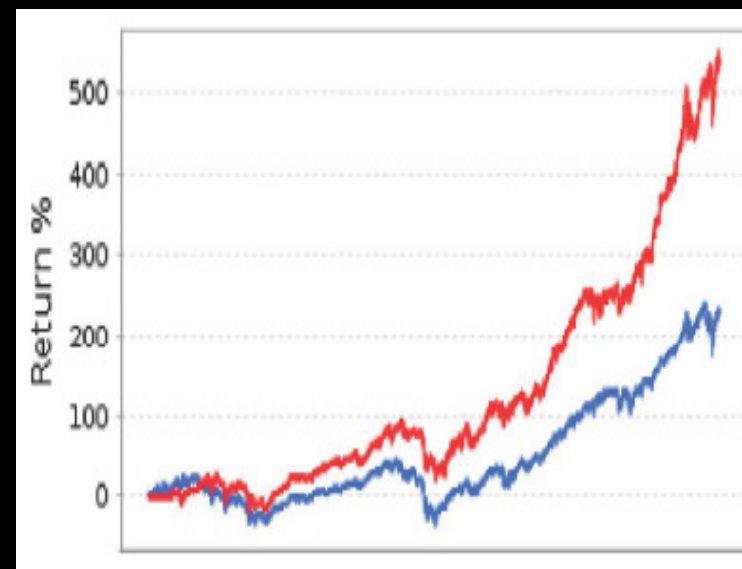
	Screen	S&P 500 (SPY)
Return		
Annualized	9.63%	6.12%
One Month	0.86%	1.18%
Three Month	10.65%	14.52%
One Year	15.11%	9.43%
Three Year	71.95%	46.02%
Five Year	91.96%	68.15%
Total	542.87%	232.79%

~ Brogan's Money Flow Breadth ~ Liquidity Market Timing Indicator



DJIA
Money Flow Breadth
310% Alpha

Screen	542.87%
S&P 500 (SPY)	232.79%



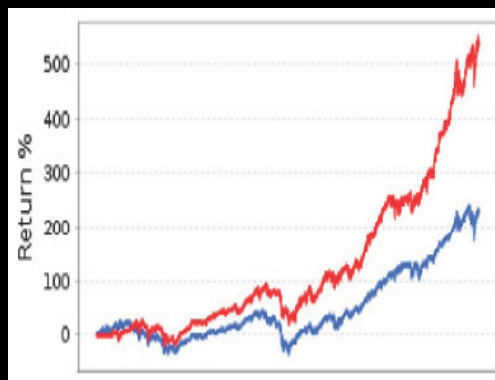
	Screen	S&P 500 (SPY)
Return		
Annualized	9.63%	6.12%
One Month	0.86%	1.18%
Three Month	10.65%	14.52%
One Year	15.11%	9.43%
Three Year	71.95%	46.02%
Five Year	91.96%	68.15%
Total	542.87%	232.79%

~ Money Flow Breadth vs. Price Breadth ~ Top Down Market Timing Indicator



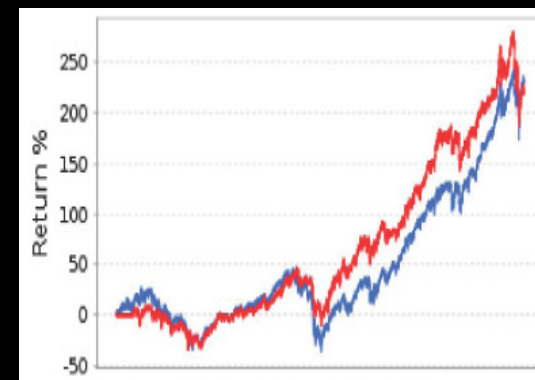
DOW 30 Money Flow Breadth
% Stocks Money Flow > 200 Day m.a.

DOW 30 Price Breadth
% Stocks Price > 200 Day m.a.



DJIA
MF Breadth
310% Alpha

Screen	542.87%
S&P 500 (SPY)	232.79%



DJIA
Price Breadth
-10% Alpha

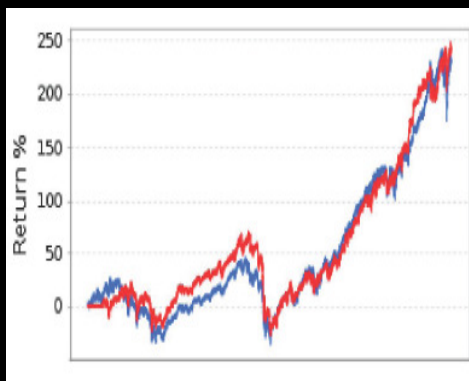
Screen	223.86%
S&P 500 (SPY)	232.79%

~ Money Flow Breadth vs. Price Breadth ~ Top Down Market Timing Indicator



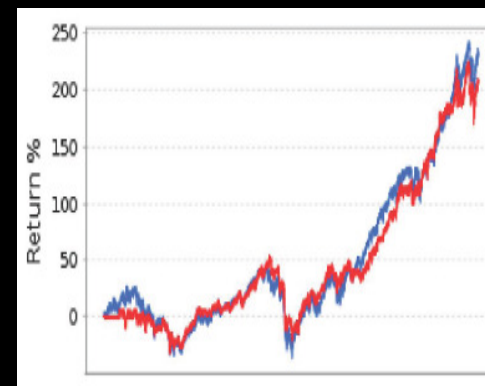
S&P500 Money Flow Breadth
% Stocks Money Flow > 200 Day m.a.

S&P500 Price Breadth
% Stocks Price > 200 Day m.a.



**S&P500
MF Breadth
11% Alpha**

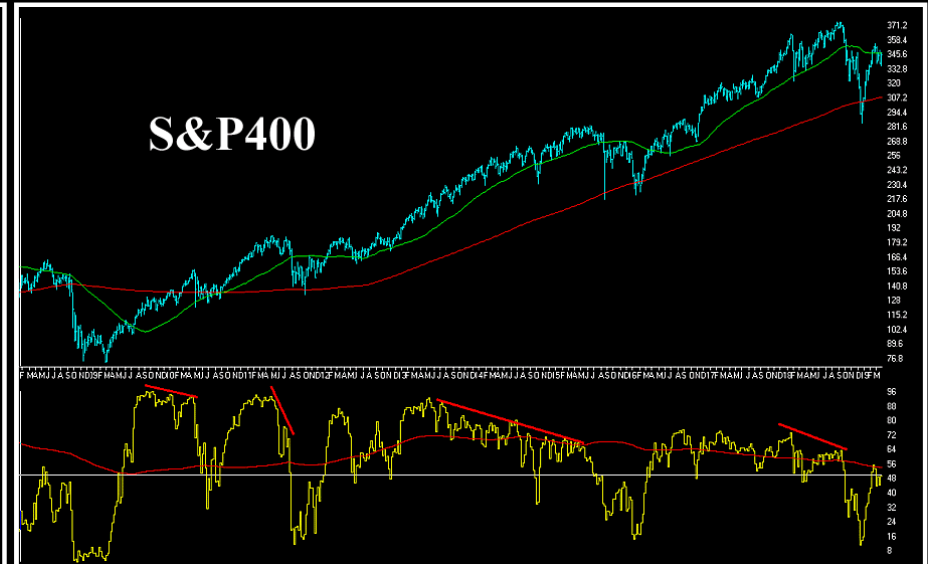
Screen	206.84%
S&P 500 (SPY)	232.79%



**S&P500
Price Breadth
-25% Alpha**

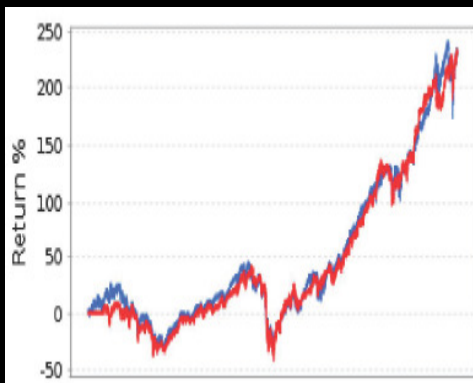
Screen	244.31%
S&P 500 (SPY)	232.79%

~ Money Flow Breadth vs. Price Breadth ~ Top Down Market Timing Indicator



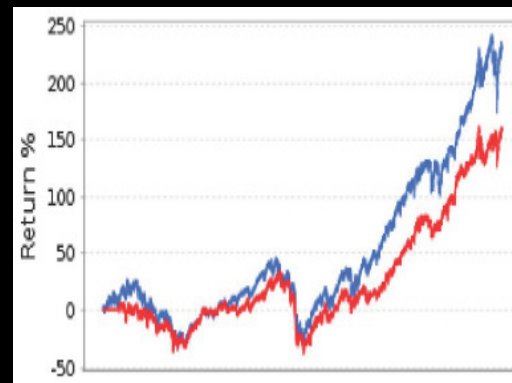
S&P400 Money Flow Breadth
% Stocks Money Flow > 200 Day m.a.

S&P400 Price Breadth
% Stocks Price > 200 Day m.a.



**S&P400
MF Breadth
2% Alpha**

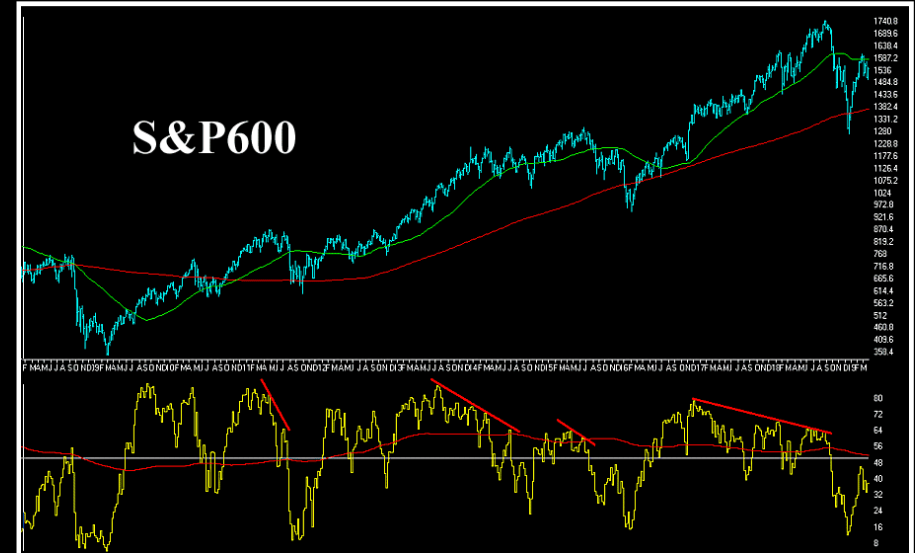
Screen	234.61%
S&P 500 (SPY)	232.79%



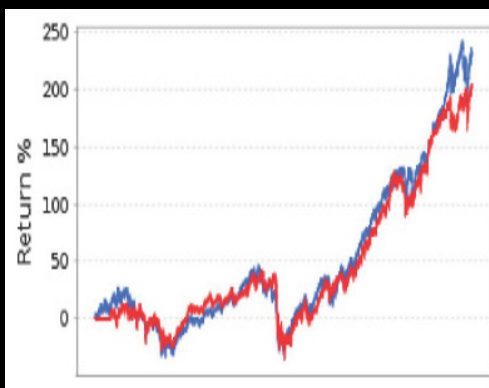
**S&P400
Price Breadth
-52% Alpha**

Screen	160.87%
S&P 500 (SPY)	232.79%

~ Money Flow Breadth vs. Price Breadth ~ Top Down Market Timing Indicator



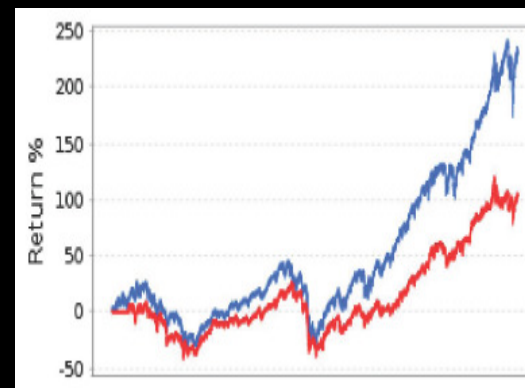
S&P600 Money Flow Breadth
% Stocks Money Flow > 200 Day m.a.



**S&P600
MF Breadth**
-29% Alpha

Screen	203.86%
S&P 500 (SPY)	232.79%

S&P600 Price Breadth
% Stocks Price > 200 Day m.a.



**S&P600
Price Breadth**
-127% Alpha

Screen	105.76%
S&P 500 (SPY)	232.79%

Best Measure Tested

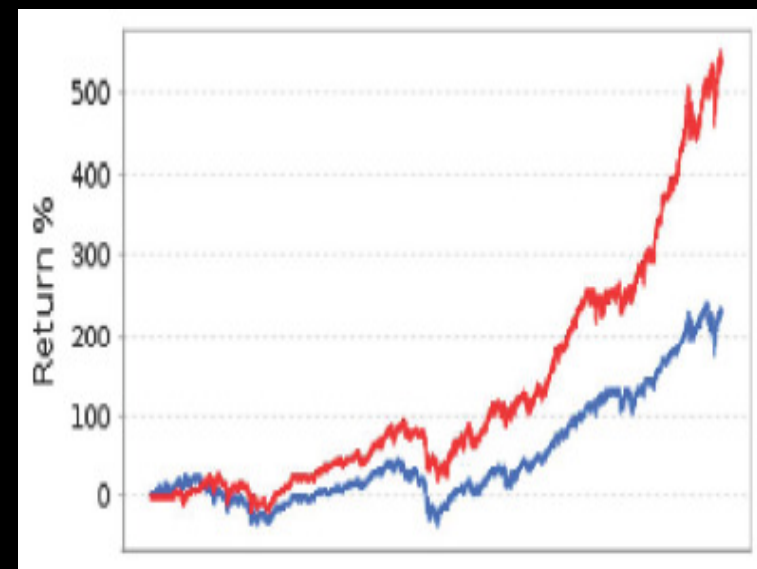
~ Brogan's DJIA Money Flow Breadth ~

Liquidity Market Timing Indicator



DJIA
Money Flow Breadth
310% Alpha

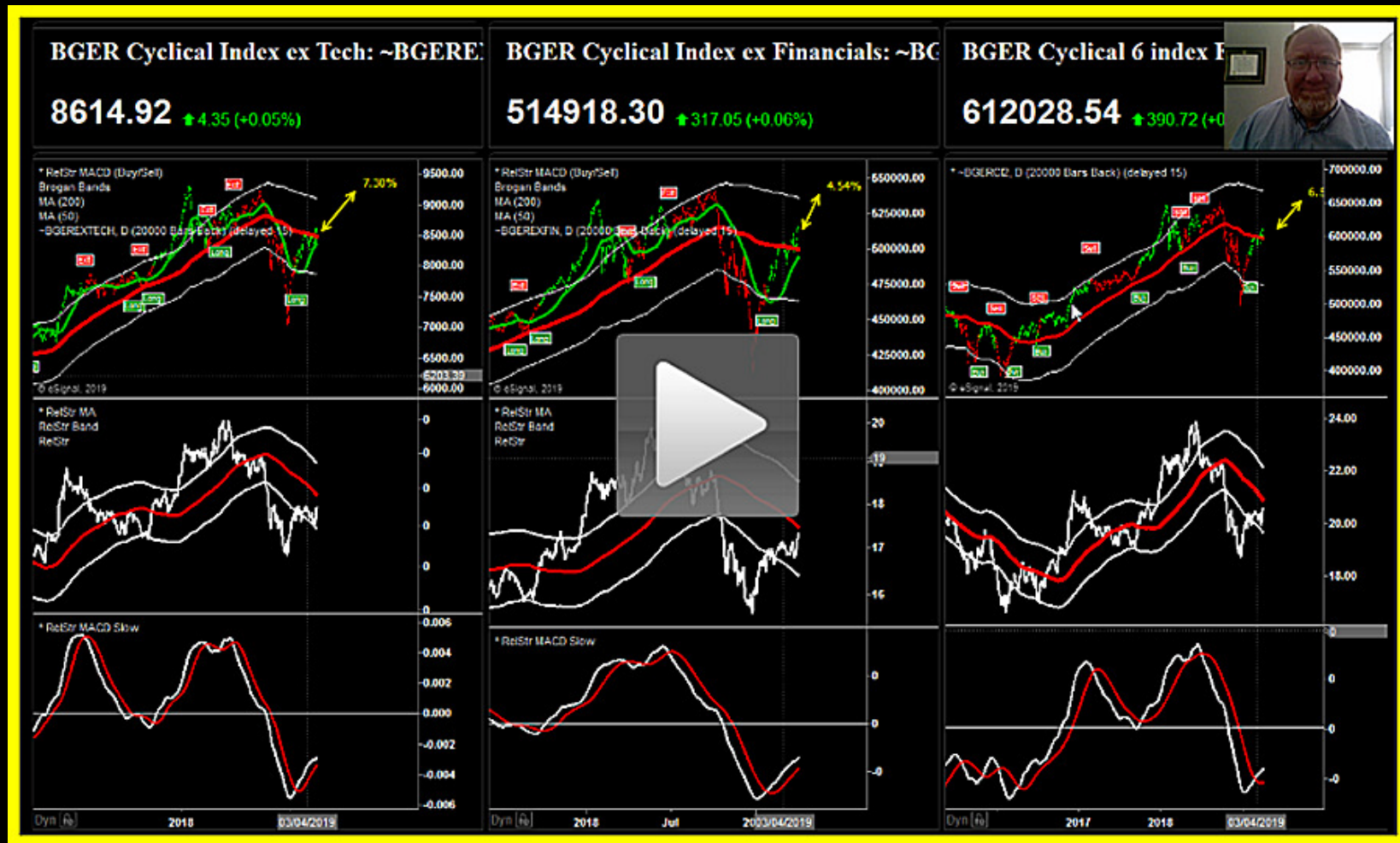
Screen	542.87%
S&P 500 (SPY)	232.79%



	Screen	S&P 500 (SPY)
Return		
Annualized	9.63%	6.12%
One Month	0.86%	1.18%
Three Month	10.65%	14.52%
One Year	15.11%	9.43%
Three Year	71.95%	46.02%
Five Year	91.96%	68.15%
Total	542.87%	232.79%

Market Call

Cyclicals Vs. Non-Cyclicals



~ *Relative Performance* ~ *The Alpha Market Timing*

BGER Cyclical 6 index ETF: ~BGERCI2

Cyclical Index vs. Non-Cyclical Index

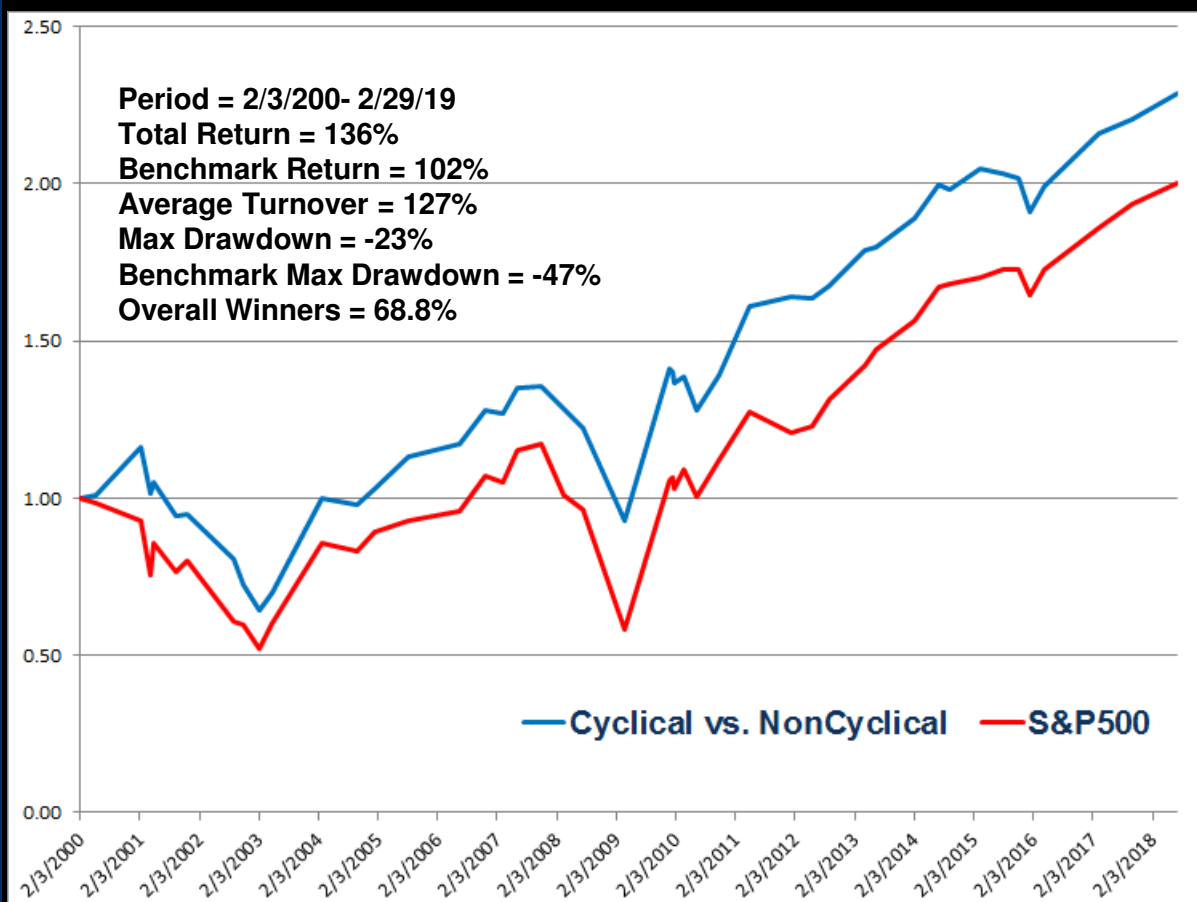
591566.68 ↓ -176.21 (-0.03%)



~ *Relative Performance* ~ *The Alpha Market Timing*

Cyclical Vs. Non-Cyclical

- Tactically Generate Alpha By Persistently Managing Alpha Trends



- Produces ALPHA In Bull & Bear Markets
- 18 Year 39% Alpha Return versus S&P500
- Increase Cyclical Exposure Before Market Markups
- Reduce Cyclical Exposure Before Market Drawdown

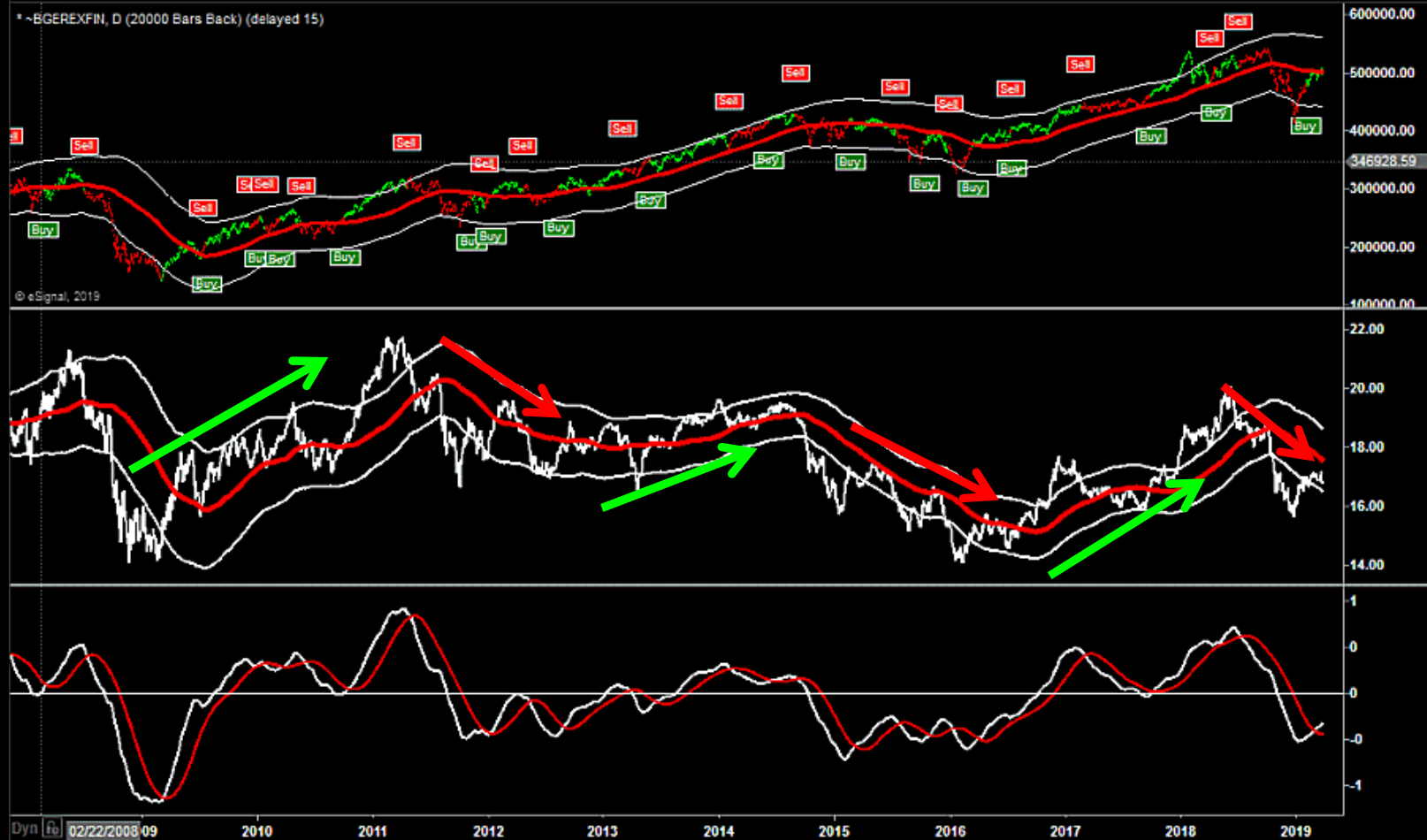


~ *Relative Performance* ~ *The Alpha Market Timing*

BGER Cyclical Index ex Financials: ~BGEREXFIN

498619.36 ▲ 229.03 (+0.05%)

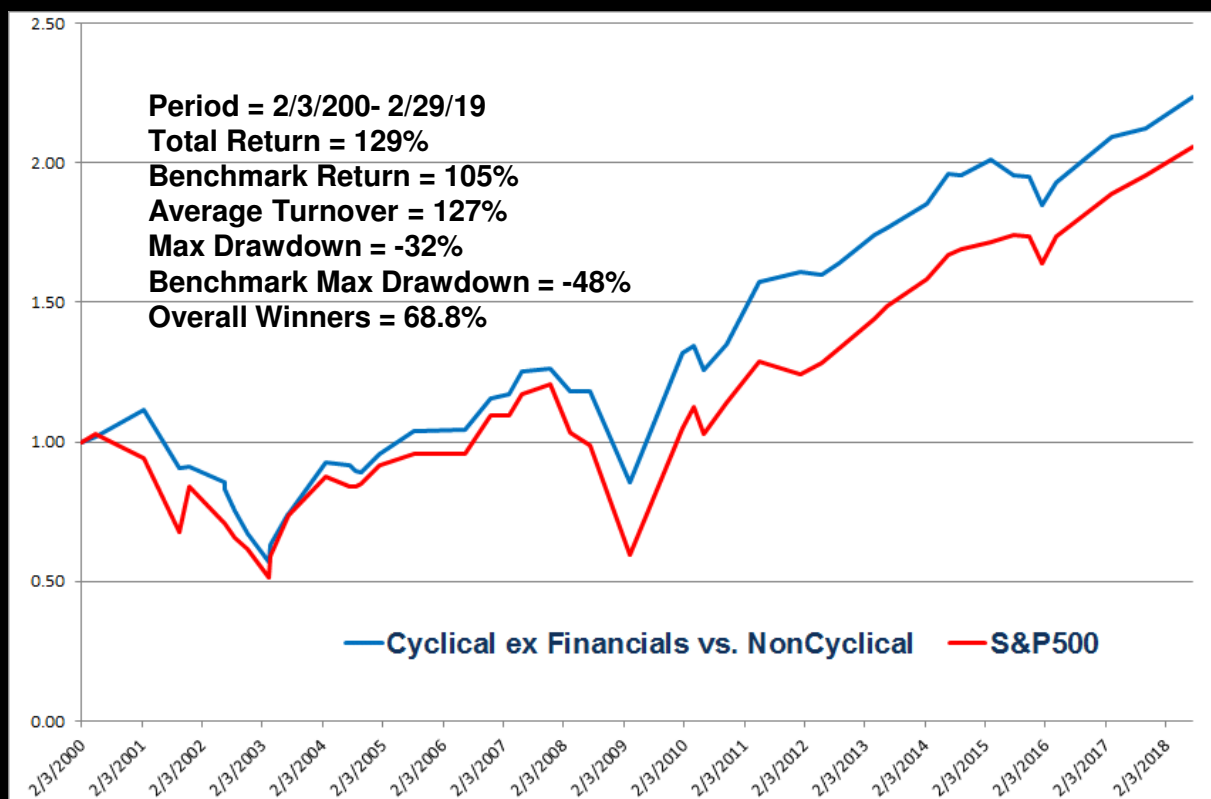
Cyclical Index ex Financials vs. Non-Cyclical Index



~ *Relative Performance* ~ *The Alpha Market Timing*

Cyclical ex Financials Vs. Non-Cyclical

- Tactically Generate Alpha By Persistently Managing Alpha Trends



- Produces ALPHA In Bull & Bear Markets
- 18 Year 22% Alpha Return versus S&P500
- Increase Cyclical Exposure Before Market Markups
- Reduce Cyclical Exposure Before Market Drawdown

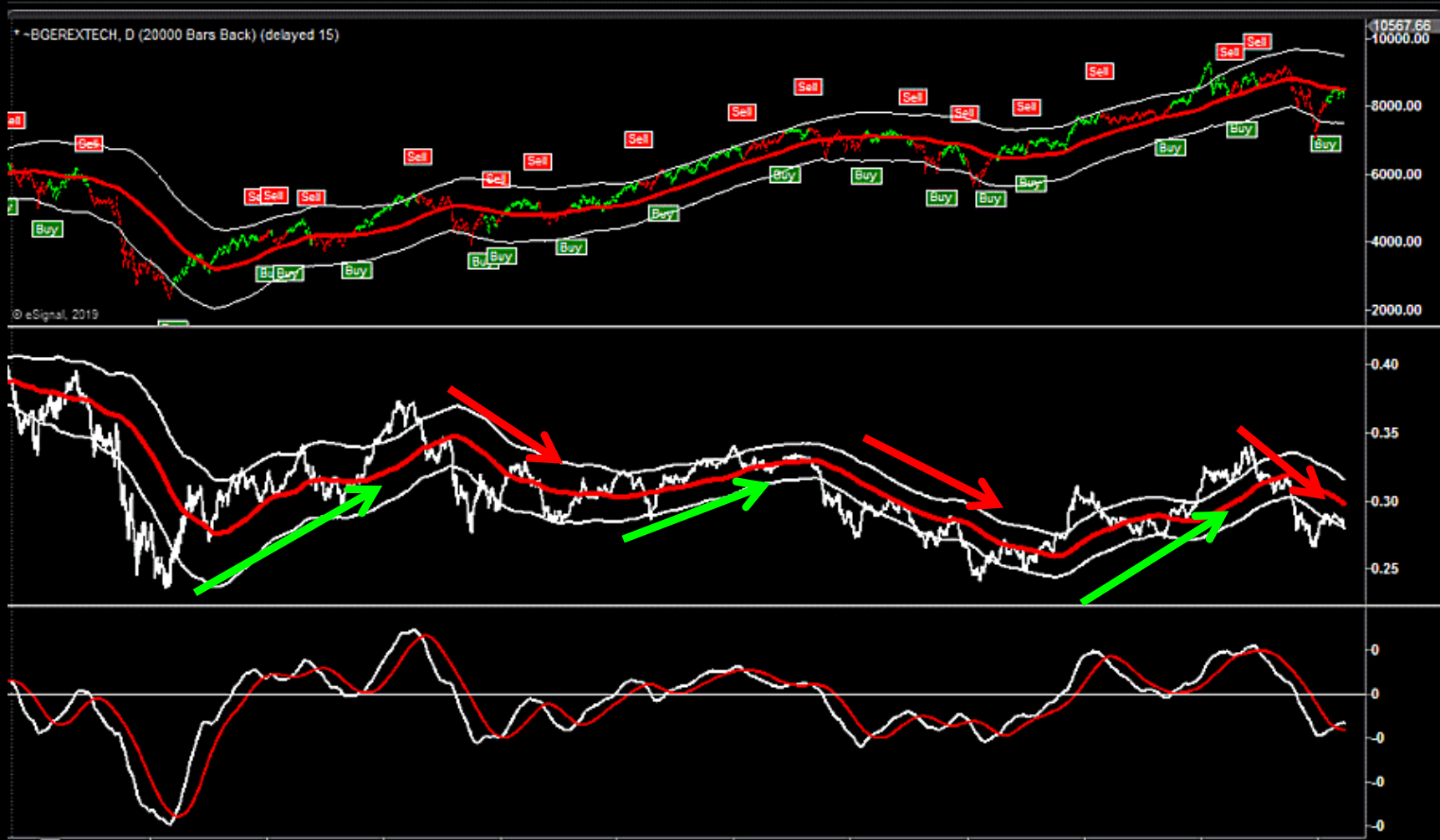


~ *Relative Performance* ~ *The Alpha Market Timing*

BGER Cyclical Index ex Tech: ~BGEREXTECH

8318.13 ▲ 6.75 (+0.08%)

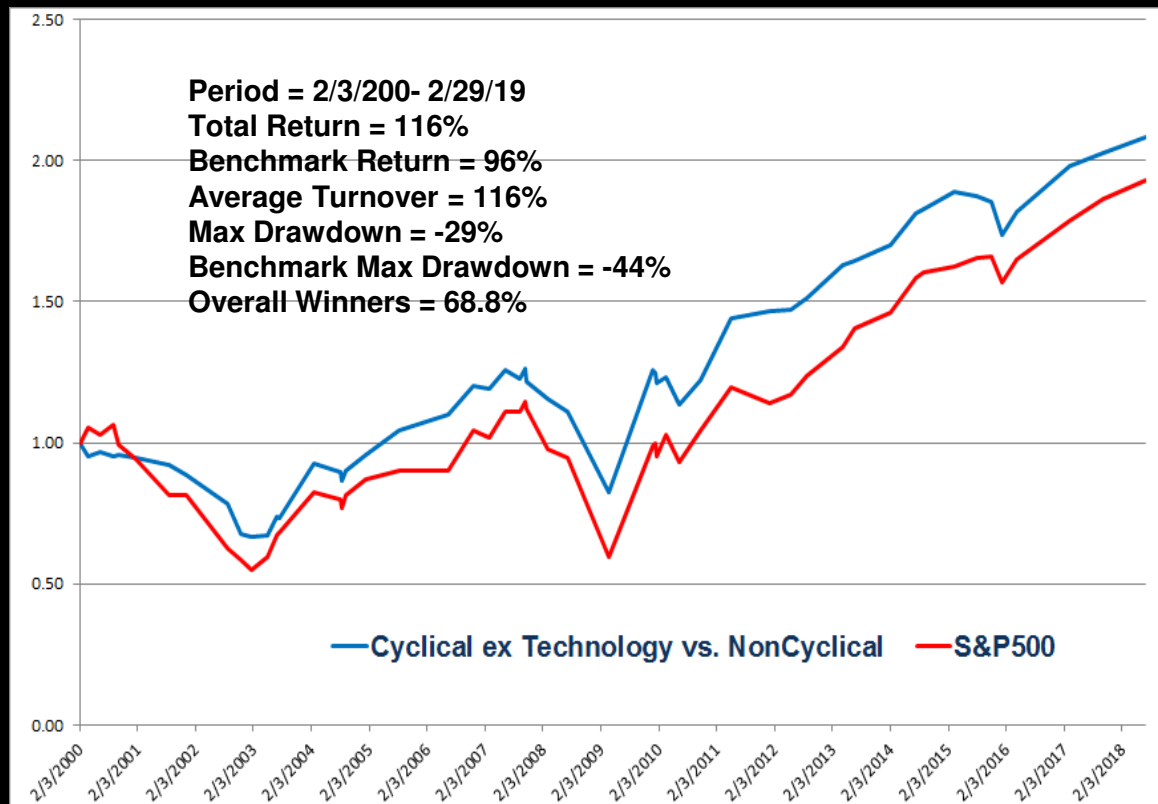
Cyclical ex Technology Index vs. Non-Cyclical Index



~ *Relative Performance* ~ *The Alpha Market Timing*

Cyclical ex Technology Vs. Non-Cyclical

- Tactically Generate Alpha By Persistently Managing Alpha Trends



- Produces ALPHA In Bull & Bear Markets
- 18 Year 20% Alpha Return versus S&P500
- Increase Cyclical Exposure Before Market Markups
- Reduce Cyclical Exposure Before Market Drawdown



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- Co-Head Market Technician and Equity Market Strategist for The Brogan Group Equity Research
- Produces and Markets Money Flow/Relative Performance Equity Research to Portfolio Mangers
- Editor of “Signal Report” a daily market letter providing daily commentary on equity market strategy using proprietary money flow research



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- Produces and Markets Money Flow/Relative Performance Equity Research to Portfolio Mangers
- Editor of “The Relative Report” a daily market letter providing daily commentary on equity market strategy using proprietary money flow research



Robert V. Brogan, Jr.



- The Head of Operations and Business Development for The Brogan Group Equity Research
- Helps Market the Money Flow/Relative Performance Equity Research to Portfolio Mangers





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