# **Innovative Long/Short Equity Research**



## Model Portfolio Monthly Update: November 30, 2016

There are limitations inherent in our theoretical model results, particularly with the fact that such results do not represent actual trading and they may not reflect the impact material economic and market factors might have had on our decision making if we were actually managing client money. Please see additional disclaimers and disclosures at the back of this report.

We highlight stocks that demonstrate solid growth at a reasonable price (GARP). Stocks selected for our model portfolio strategies all rank highly for the following metrics, with an emphasis on proxies for cash flow growth and ROIC:

- Relative Value
- Operating Momentum
- Analyst Revision Momentum
- Fundamental Quality

Pages 2-6 contain brief commentary and highlights of a few stocks that seem particularly attractive.

Page 7 contains rebalancing actions for our long-only model portfolio.

Page 8 contains rebalancing actions for our short-only model portfolio.

Target and stop prices, as well as updated return data, to be provided in our daily reports that will follow.

### **Notes:**

Readers that would like to follow our daily price target changes can follow us on our Seeking Alpha <u>instablog</u> or on <u>Tumblr</u>. This report is a follow-up to our October 31, 2016 abbreviated report and last month's full report.

## **Commentary**

The theoretical **Core Long Model** increased +4.00% in November 2016 versus a +3.41% increase in the S&P 500. Stocks in the theoretical **Core Short Model** increased on average +7.80% for the equivalent short sale loss of -7.80%. The **Core Long/Short Model** declined -3.80% (+4.00% -7.80% = -3.80%).

The theoretical **Opportunistic Long Model** portfolio increased +4.52% for the month while the **Opportunistic Short Model** portfolio generated a theoretical loss of -5.55%. The **Opportunistic Long/Short Model** increased declined -1.03% (+4.52% -5.55% = -1.03%).

(Both the theoretical "Core" and "Opportunistic" portfolios use the same basket of stocks but the Opportunistic model moves to 70% and 100% cash allocations during periods of high volatility or when portfolio return targets are met.

The theoretical Opportunistic Long Model assumed a 30% cash position through the first three trading days of November and assumed a 100% stock position at the November 3, 2016 close.

#### The best model and worst portfolio stocks for November 2016

The best performing stock in the long model was **Regions Financial Corp. (RF)** up +16.25% through November 11, when the position was assumed closed and replaced with cash after hitting a price target the day before. The worst performing stock in the long model was **Vipshop Holdings Limited (VIPS)** down -17.92%.

In the short model, the best performing stock was **Tableau Software**, **Inc.** (**DATA**) down -6.60%. The worst performing stock in the theoretical short model was **United States Steel Corp.** (**X**) up 27.82% through November 10, when the position was assumed closed and replaced with cash after hitting a stop loss the prior day.

#### Performance of our favorite ideas

Last month our favorite long idea was **Vantiv**, **Inc. (VNTV)**, which declined a disappointing-3.31% for the month.

#### **Looking ahead to December 2016**

#### **Long Rebalancing Actions**

As noted in our <u>abbreviated report</u> published on November 30, 2016 -- As of the November 30, 2016 close, 11 stocks have left the long-only model, 16 have been added, and 12 have rebalanced. The 28-stock-theoretical long model assumes a 3.57% weight for each stock. The long models are composed of high-quality stocks.

#### **Short Rebalancing Actions**

As of the November 30, 2016 close, 16 stocks have left the short-only models, 14 have been added and 11 have been rebalanced. This 25-stock theoretical model assumes an equal 4.00% weight for each stock. This short model is composed of low-quality stocks and only tends to work well during periods of high uncertainty or volatility in the market.

During November 2016, many low-quality stocks drastically outperformed high-quality stocks as the market priced in expectations for a sharp recovery in fundamentals related to the pro-business stance that Donald Trump is expected to take after his January 20, 2017 inauguration.

As a simple quantitative model based on fundamental rankings, the portfolio models do not take into account rumors or pending M&A transactions.

### Our favorite long idea and favorite short idea for December 2016

Our favorite long idea is for December 2016 is **Facebook, Inc. (FB).** In to showing decent relative value and a recent historical trend of operating momentum, forecast gains in operating profit and ROIC look extremely compelling.

#### Ranking Data as of November 30, 2016

Facebook, Inc. NasdaqGS:FB

Ascendere Ranking		Price 11/30/16	1	18.42	Cash	26,140	EV/LTM EBITDA	23.8
		Shares		2,882	Debt	-	Price/Book	6.3
		Market Cap	33	2,602	Other	-		
5 = Best	Rank				Enterprise Value	306,462		
Relative Value	3							
Operating Momentum	3	CY1 Consensus EPS	\$	4.12	CY1 PE	28.7	Total Capital	\$ 54,115
Analyst Revisions Momentum	5	CY2 Consensus EPS	\$	5.21	CY2 PE	22.7	Debt/Capital	0%
Fundamental Quality	4	Latest Annualized Divid	\$	-	Div Yield	0.0%	Debt/Enterprise Value	0%

Source: Capital IQ data and estimates, and Ascendere Associates LLC data and estimates.

NasdaqGS:FB	Estimate	Estimate	Estimate	<b>Estimate</b>					
11/30/2016	LTM+4Q	LTM+3Q	LTM +2Q	LTM +1Q	Last LTM	LTM-1	LTM-2	LTM -3	LTM -4
NOPLAT	23,688	21,556	19,307	17,247	14,623	13,119	11,703	10,521	9,046
Economic Charge	7,297	7,152	7,015	6,880	6,739	6,438	6,314	6,259	5,921
<b>Economic Profit</b>	16,392	14,404	12,292	10,366	7,884	6,681	5,389	4,261	3,125
Y/Y change	13.8%	17.2%	18.6%	31.5%	18.0%	24.0%	26.5%	36.4%	20.6%
NOPLAT	23,688	21,556	19,307	17,247	14,623	13,119	11,703	10,521	9,046
Operating Capital	51,906	50,879	49,899	48,945	47,941	46,168	44,356	42,542	40,822
ROIC (NOPLAT / Operating Capital)	45.6%	42.4%	38.7%	35.2%	30.5%	28.4%	26.4%	24.7%	22.2%
NOPLAT	23,688	21,556	19,307	17,247	14,623	13,119	11,703	10,521	9,046
5 Qtr Average Operating Capital	50,407	49,416	48,238	46,852	44,366	42,491	40,622	38,719	33,207
ROIC (NOPLAT / Operating Capital)	47.0%	43.6%	40.0%	36.8%	33.0%	30.9%	28.8%	27.2%	27.2%
Source: Ascendere Associates assumpti	ons, estimates	and data, and	consensus es	timates.					

#### Long running advice regarding the use of our model portfolio report

Wayne Gretzky said it best — "skate to where the puck is going to be, not where it has been." Quantitative screens like the one in this report show where a stock has been and assume the trajectory is fixed. Of course, this is not always the case. The best investors will use this model portfolio as guidance, and not the end all. At the same time, the model does well enough on its own, often beating the indices with ease (though not this past month). With a little effort, we hope that active fundamental portfolio managers will do even better.

# **Long Model Portfolio -- Rebalancing Actions**

11/30/2016 Rebalancing					
Core and Opportunistic Long	Portfolio:				
28 stocks in the model portfolio	= 3.57% wei	ght per position			
Close Position		Hold/Rebalance		Open Position	
American Eagle Outfitters, Inc.	AEO	Apollo Global Management, LL	APO	Drew Industries Incorporated	DW
Lear Corporation	LEA	Unum Group	UNM	Gentex Corporation	GNTX
Vipshop Holdings Limited	VIPS	First Republic Bank	FRC	Burlington Stores, Inc.	BURL
Lowe's Companies, Inc.	LOW	United Therapeutics Corporation	UTHR	Essent Group Ltd.	ESNT
CalAtlantic Group, Inc.	CAA	ManpowerGroup Inc.	MAN	Evercore Partners Inc.	EVR
ING Groep N.V.	ING	Northrop Grumman Corporation	NOC	Fifth Third Bancorp	FITB
Regions Financial Corporation	RF	Copart, Inc.	CPRT	Bank of Hawaii Corporation	вон
Masimo Corporation	MASI	Texas Instruments Incorporated	TXN	Home Bancshares, Inc. (Conway, AR)	HOMB
NetEase, Inc.	NTES	Cirrus Logic, Inc.	CRUS	Cathay General Bancorp	CATY
VeriSign, Inc.	VRSN	Logitech International SA	LOGI	State Street Corporation	STT
Vantiv, Inc.	VNTV	Applied Materials, Inc.	AMAT	Hawaiian Holdings, Inc.	HA
		Teradyne, Inc.	TER	A. O. Smith Corporation	AOS
				EMCOR Group, Inc.	EME
				HP Inc.	HPQ
				InterDigital, Inc.	IDCC
Source: Ascendere Associates LLC				Facebook, Inc.	FB

## **Short Model Portfolio -- Rebalancing Actions**

When the market anticipates an improving economy from low price levels, low-quality stocks will at times out-perform high-quality stocks as the expected improvements in fundamentals are discounted from a relatively more depressed price level.

11/30/2016 Rebalancing					
Core and Opportunistic Short	Portfolio:				
25 stocks in the model portfolio =	= 4.00% weig	ght per position			
Close Position		Hold/Rebalance		Open Short Sale	
Liberty Global plc	LBTY.A	Under Armour, Inc.	UA	Wynn Resorts, Limited	WYNN
Penske Automotive Group, Inc.	PAG	Tribune Media Company	TRCO	Canadian Natural Resources Limited	CNQ
Newell Brands Inc.	NWL	Lions Gate Entertainment Corp	LGF	Credit Suisse Group AG	CS
Ctrip.com International Ltd.	CTRP	ACADIA Pharmaceuticals Inc.	ACAD	Legg Mason, Inc.	LM
Archer-Daniels-Midland Company	ADM	Sensata Technologies Holding	ST	Ultragenyx Pharmaceutical Inc.	RARE
Continental Resources, Inc.	CLR	Flowserve Corporation	FLS	Alnylam Pharmaceuticals, Inc.	ALNY
Marathon Oil Corporation	MRO	Joy Global Inc.	JOY	Endo International plc	ENDP
ConocoPhillips	COP	Fortinet, Inc.	FTNT	Agios Pharmaceuticals, Inc.	AGIO
National Oilwell Varco, Inc.	NOV	Tableau Software, Inc.	DATA	Avis Budget Group, Inc.	CAR
WPX Energy, Inc.	WPX	Pandora Media, Inc.	Р	Jacobs Engineering Group Inc.	JEC
CIT Group Inc.	CIT	United States Steel Corporation	X	Terex Corporation	TEX
Tesaro, Inc.	TSRO			Caterpillar Inc.	CAT
Blackbaud, Inc.	BLKB			Qorvo, Inc.	QRVO
Cimpress N.V.	CMPR			Autodesk, Inc.	ADSK
NXP Semiconductors NV	NXPI				
FMC Corporation	FMC			Source: Ascendere A	ssociates LL

## **Return Data**

Core & Opportu	nistic Long Model				MTD			
10/31/2016 to 11/30/2016								
						Target/	Date+1	
Sector	Company	Ticker	10/31/2016	11/30/2016	Performance	Stop Date	Sell Price	Return
Financials	Regions Financial Corp.	RF	10.71	13.54	26.42%	11/10/2016	\$ 12.45	16.25%
Financials	Unum Group	UNM	35.40	42.27	19.41%	11/9/2016	\$ 40.00	12.99%
Health Care	Masimo Corporation	MASI	55.00	61.87	12.49%	11/16/2016	\$ 61.70	12.18%
Industrials	Manpower Inc.	MAN	76.04	85.41	12.33%	11/22/2016	\$ 86.38	13.61%
Information Technology	Applied Materials Inc.	AMAT	28.99	32.20	11.08%	11/29/2016	\$ 32.20	11.08%
Financials	First Republic Bank	FRC	74.43	81.90	10.04%	11/10/2016	\$ 82.37	10.67%
Industrials	Northrop Grumman Corp.	NOC	229.00	249.65	9.02%	11/14/2016	\$ 247.45	8.06%
Financials	Apollo Global Management, LLC	APO	17.95	19.26	7.32%	11/23/2016	\$ 20.00	11.44%
Consumer Discretionary	Lowe's Companies Inc.	LOW	66.65	70.55	5.85%			
Consumer Discretionary	Lear Corp.	LEA	122.78	129.51	5.48%			
Information Technology	Texas Instruments Inc.	TXN	70.34	73.93	5.11%			
Information Technology	Teradyne Inc.	TER	23.23	24.38	4.93%			
Health Care	United Therapeutics Corp.	UTHR	120.07	125.61	4.61%			
Industrials	Copart Inc.	CPRT	52.47	54.72	4.29%			
Financials	ING Groep NV	ING	13.11	13.57	3.51%			
Consumer Discretionary	CalAtlantic Group, Inc.	CAA	32.32	33.39	3.31%			
Information Technology	Cirrus Logic Inc.	CRUS	53.98	55.00	1.89%			
Information Technology	Logitech International SA	LOGI	24.25	24.48	0.95%			
Consumer Discretionary	American Eagle Outfitters Inc.	AEO	17.04	16.56	-2.82%			
Information Technology	Vantiv, Inc.	VNTV	58.36	56.43	-3.31%			
Information Technology	VeriSign Inc.	VRSN	84.02	78.85	-6.15%			
Information Technology	Netease.com Inc.	NTES	256.13	224.10	-12.51%			
Consumer Discretionary	Vipshop Holdings Limited	VIPS	13.67	11.22	-17.92%			

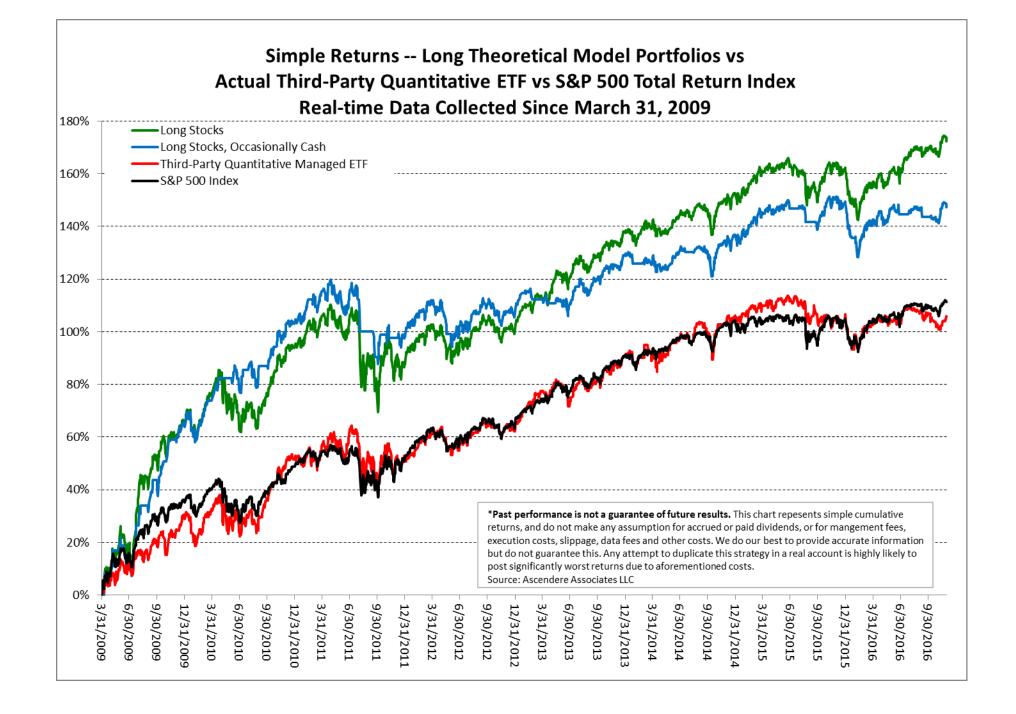
## **Ascendere Associates LLC**

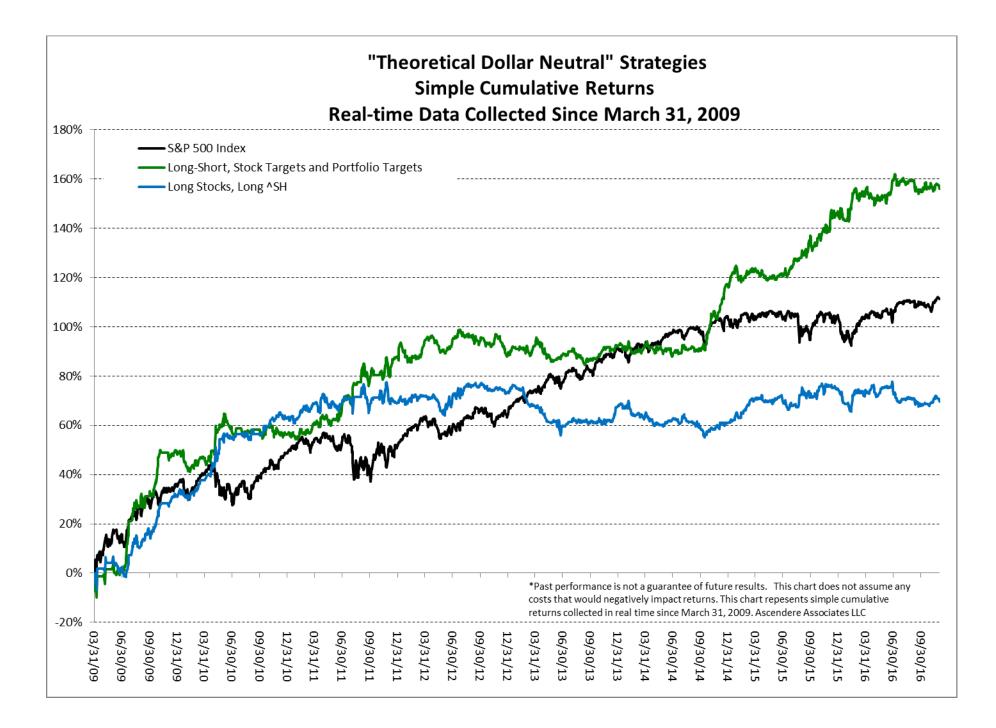
<b>Core &amp; Opportun</b>	istic Short Model				MTD			
10/31/2016 to 11/30/2016								
						Target/	Date+1	
Sector	Company	Ticker	10/31/2016	11/30/2016	Performance	Stop Date	Sell Price	Return
Information Technology	Tableau Software, Inc.	DATA	48.05	44.88	-6.60%			
Information Technology	Fortinet Inc.	FTNT	32.06	30.10	-6.11%			
Consumer Discretionary	Liberty Global Inc.	LBTYA	32.60	31.32	-3.93%			
Consumer Discretionary	Newell Rubbermaid Inc.	NWL	47.83	47.01	-1.72%			
Consumer Discretionary	Under Armour, Inc.	UA	31.10	30.80	-0.96%			
Information Technology	NXP Semiconductors NV	NXPI	100.00	99.15	-0.85%			
Consumer Staples	Archer-Daniels-Midland Co.	ADM	43.26	43.23	-0.06%	11/1/2016	\$ 46.92	8.47%
Industrials	Joy Global, Inc.	JOY	27.83	28.03	0.72%			
Information Technology	Blackbaud Inc.	BLKB	61.29	62.78	2.44%	11/11/2016	\$ 64.53	5.29%
Consumer Discretionary	Ctrip.com International Ltd.	CTRP	44.15	45.23	2.45%	11/14/2016	\$ 42.02	-4.82%
Information Technology	Pandora Media, Inc.	Р	11.33	11.62	2.56%			
Information Technology	Cimpress NV	CMPR	83.25	86.95	4.44%			
Industrials	Sensata Technologies Holding NV	ST	35.73	37.37	4.59%	11/23/2016	\$ 38.39	7.44%
Consumer Discretionary	Tribune Media Company	TRCO	32.37	35.91	10.92%	11/14/2016	\$ 35.40	9.36%
Energy	ConocoPhillips	COP	43.45	48.52	11.67%	11/30/2016	NA	
Industrials	Flowserve Corp.	FLS	42.35	47.45	12.04%	11/10/2016	\$ 45.83	8.22%
Healthcare	Tesaro, Inc.	TSRO	120.88	135.69	12.25%	11/11/2016	\$ 148.50	22.85%
Consumer Discretionary	Penske Automotive Group, Inc.	PAG	44.45	49.91	12.27%	11/14/2016	\$ 49.48	11.30%
Financials	CIT Group, Inc.	CIT	36.18	40.85	12.91%	11/10/2016	\$ 38.46	6.30%
Consumer Discretionary	Lions Gate Entertainment Corp.	LGF	20.36	23.40	14.93%	11/8/2016	\$ 22.73	11.64%
Health Care	Acadia Pharmaceuticals Inc.	ACAD	23.31	26.99	15.79%	11/9/2016	\$ 29.74	27.58%
Energy	National Oilwell Varco, Incorporated	NOV	32.05	37.36	16.55%	11/15/2016	\$ 35.20	9.81%
Energy	Continental Resources Inc.	CLR	48.91	58.01	18.61%	11/30/2016	\$ 58.01	18.61%
Materials	FMC Corp.	FMC	46.89	56.12	19.68%	11/4/2016	\$ 53.59	14.29%
Energy	Marathon Oil Corp.	MRO	13.14	18.06	37.49%	11/15/2016	\$ 15.56	18.46%
Energy	WPX Energy, Inc.	WPX	10.86	15.54	43.09%	11/15/2016	\$ 12.88	18.60%
Materials	United States Steel Corp.	Х	19.29	32.34	67.62%	11/9/2016	\$ 24.66	27.82%

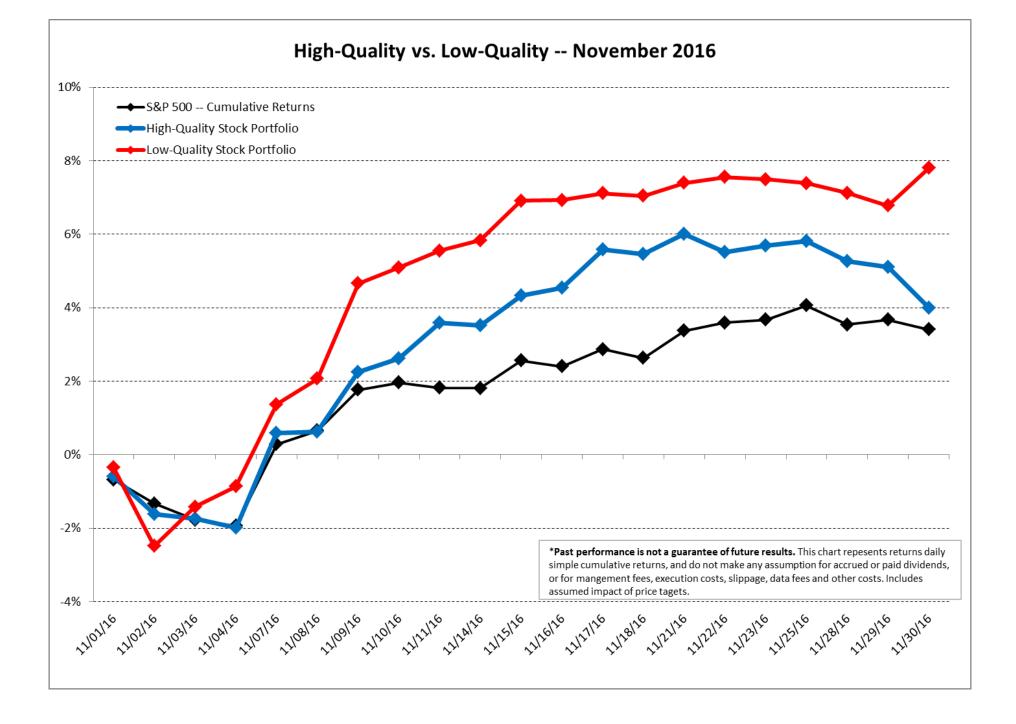
### **Ascendere Associates LLC**

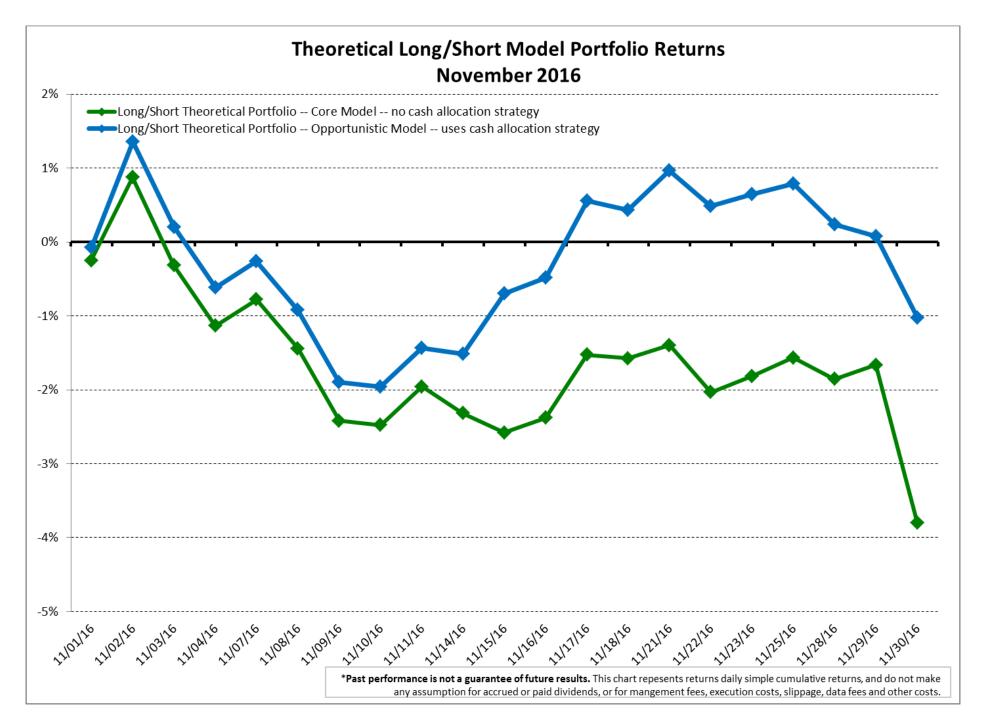
				Since	
	Theoretical Model Portfolio* 11/30/16 Simple Returns (No Compounding)	MTD	YTD	03/31/09	Sharpe
Stock Targets	Core Model				
	Long	4.00%	12.32%	172.4%	0.99
	Short	7.80%	0.50%	64.8%	0.41
	Core Long/Short	-3.80%	11.82%	107.7%	0.88
Stock Targets and	Opportunistic Model			_	
Portfolio Targets	Long	4.52%	-0.05%	147.2%	1.09
	Short	5.55%	-11.32%	-8.9%	(0.07)
	Opportunistic Long/Short	-1.03%	11.27%	156.1%	1.33
Stock Targets and	Opportunistic Model III		_	_	
<b>Portfolio Targets</b>	Long Stocks	4.52%	-0.05%	147.2%	1.09
	Long Inverse ETF ^SH	-3.69%	-4.62%	-77.6%	(0.74)
	Opportunistic Long/Short III	0.83%	-4.67%	69.6%	0.70
	<b>S&amp;P 500 Index</b>	3.41%	8.13%	111.37%	0.90

<sup>\*</sup> Return figures are calculated using cumulative simple returns. This table represents returns of several theoretical portfolios that do not assume any costs. This table is not to be construed as advertising for any investment service. Real portfolios that attempt to exactly replicate these theoretical strategies will generate lower returns relative to these models due to slippage, transaction costs, tax expenses and other costs. There are limitations inherent in our theoretical results, particularly with the fact that such results do not represent actual trading and they may not reflect the impact material economic and market factors might have had on our decision making if we were actually managing client money. We do our best to provide accurate information, but do not guarantee this. Please see additional disclosures and disclaimers.









			"Dollar	"Dollar	
	Core	Opportunistic	Neutral" 1	Neutral" 2	
Inception March 31, 2009	Long , Stock Targets	Long, Stock and Portfolio Targets	Long/Short, Stock Targets and Portfolio Targets	Long, Stock and Portfolio Targets / Long ^SH ETF	S&P 500
11/30/2016	Theoretical	Theoretical	Theoretical	Theoretical	
Simple Returns					
Today	-1.11%	-1.11%	-1.11%	-0.90%	-0.27%
MTD	4.00%	4.52%	-1.03%	0.83%	3.41%
YTD	12.32%	-0.05%	11.27%	-4.67%	8.13%
Cumulative from 3/31/2009	172.41%	147.17%	156.05%	69.58%	111.37%
Absolute Risk					
Daily Average	0.09%	0.08%	0.08%	0.04%	0.06%
Daily Range	16.86%	15.84%	11.84%	12.00%	11.40%
Daily Standard Deviation	1.42%	1.10%	0.96%	0.81%	1.02%
Daily Return/Standard Deviation	6.28%	6.93%	8.42%	4.47%	5.68%
Average 90-Day T-bill	1.21%	1.21%	1.21%	1.21%	1.21%
Annualized Daily Returns	22.49%	19.20%	20.35%	9.08%	14.53%
Annualized Standard Deviation	22.5%	17.4%	15.2%	12.8%	16.1%
Sharpe Ratio	0.94	1.03	1.26	0.61	0.83
Percentage Down Days	45.2%	35.0%	43.0%	45.0%	45.3%
Average Daily Downside Value	-1.01%	-0.89%	-0.66%	-0.54%	-0.72%
Daily Downside Deviation	-1.07%	-0.90%	-0.62%	-0.56%	-0.77%
Daily VAR of 1000 at 95% Conf	-22	-17	-15	-13	-16
Benchmark Relative Risk					
Correlation	0.91	0.70	(0.05)	0.04	
R-Squared	0.82	0.49	0.00	0.00	
Daily Tracking Error	0.66%	0.82%	1.43%	1.27%	
Regression					
Beta	1.27	0.76	-0.05	0.04	
Daily Alpha	0.032%	0.019%	0.023%	-0.022%	
Jensen's Daily Alpha	0.040%	0.014%	-0.001%	-0.001%	
Trading Days	1932	1932	1932	1932	
*Returns calculated by the simple return meth	od (not compounded).				
* Portfolio models are theoretical and assume	no costs.				
* Data collected in real time since 3/31/2009					
Source: Ascendere Associates LLC					

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Ascendere does not rate stocks on any scale, but does offer individual stock commentary and valuation opinions. With regard to Ascendere's portfolio strategies, "long" or "high-quality" baskets should generally be considered buys, unless otherwise noted. Stocks in our "short" or "low-quality" baskets should generally be considered sells, unless otherwise noted. While exceptions may occasionally occur, typically stocks in the high-quality basket are expected to outperform the S&P 500 over a month's time and stocks in the low-quality basket are expected to underperform. A more relevant benchmark would comprise of all stocks and ADRs that trade on major U.S. stock exchanges with a market cap above \$2 billion.

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- 4) Ascendere has not received compensation from the Companies.
- 5) Ascendere has not managed or co-managed a public offering for any of the Companies.
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**J. Stephen Castellano** – founded Ascendere Associates LLC in 2009 to provide innovative equity research and financial modeling consulting services.

Among the services that Ascendere provides are: 1) detailed custom equity research analysis; 2) valuation scenario analysis studies; 3) supply /demand studies; 4) long and short stock idea generation; 5) portfolio feedback; 6) detailed fundamental financial modeling services; and 7) additional analytical consulting services. Additional information is available at istephencastellano.tumblr.com.

Mr. Castellano has over 20 years of experience in equity research and related consulting positions. At PaineWebber, Warburg Dillon Read, and Credit Lyonnais Securities he developed fundamental equity valuation models and conducted in-depth research on the steel and telecom services industries. At Boston Private Value Investors, he built sophisticated screens for stock idea generation and also provided general fundamental equity research coverage. He received a MBA from the F. W. Olin School of Business at Babson College (2005) and a BA from Oberlin College (1993). He is a CFA Level 3 candidate, and is on the Board of Advisors of GovBrain, a political intelligence and government analytics company serving the hedge fund industry.

Mr. Castellano's sell side equity research experience includes consulting with investment banking teams on planned equity, debt, and M&A deals. Consulting projects have included the development of xml-based financial models as well as marketing strategies for a financial data provider, equity research reports for a family office equity portfolio, supply/demand models for a telecom consulting firm, cash burn rate scenarios for a key stakeholder in an iconic food manufacturing company, a budget forecast model for a 250,000 bpd oil refining company, a budget forecast and valuation for a risk management software startup, and due diligence of a potential acquisition of a fast-growing fashion apparel boutique, among others.

Mr. Castellano's career history is highlighted below:

- Ascendere Associates, LLC (2009-Present)
- Boston Private Value Investors, Equity Research, Equity Research Analyst (2005-2009)
- Pyramid Research, Contract Consultant, Telecom Services (2002-2003)
- Credit Lyonnais Securities (USA), Equity Research, Telecom Services, Vice President (2000-2001)
- Warburg Dillon Read, Equity Research, Telecom Services, Research Associate (1999-2000)
- PaineWebber, Equity Research, Steel and Nonferrous Metals, Research Associate, Editor (1995-1999)