



## Model Portfolio Monthly Update: February 28, 2017

**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 2-5 contain brief commentary and highlights of a few stocks that seem particularly attractive.

Page 6 contains rebalancing actions for our long-only model portfolio.

Page 7 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 [instablog](#) or on [Tumblr](#). This report is a follow-up to our [February 28, 2017 abbreviated report](#) and [last month's full report](#).

## Commentary

The theoretical **Core Long Model**, composed of high quality stocks, increased 2.39% in February 2017 versus a +3.66% increase in the S&P 500. Stocks in the theoretical **Core Sort Model**, composed of low-quality stocks, increased by +4.07% for the equivalent inverse short sale loss of -4.07%. The theoretical **Core Long/Short Model** declined by -1.68% for the month (+2.39% -4.07% = -1.68%).

The theoretical **Opportunistic Long Model** also increased +2.39% for the month. Stocks in the theoretical **Opportunistic Short Model** increased +5.56% through February 21, 2017 and were assumed to have been replaced with 100% cash just prior to the close that day. The theoretical **Opportunistic Long/Short Model** declined by -3.16%, hurt by the short model assuming a 100% cash position just prior to the February 21 market close.

(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 best model and worst portfolio stocks for February 2017

The best performing stock in the theoretical long model was **Hewlett-Packard Co. (HPQ)**, up +17.28% through February 24 when the position was assumed closed after reaching a price target the day before. HPQ finished the month up 15.42%. The worst performing stock in the long model was **TD Ameritrade Holding Corp. (AMTD)**, down -15.28%.

In the theoretical short model, the best performing stock was **CF Industries Holdings Inc. (CF)**, which declined -10.22% for the month for the assumed inverse short sale gain of +10.22%. The worst performing short idea was **United States Steel Corp. (X)**, which rose +20.26% before being stopped out on February 14.

### Performance of our favorite long idea in February

Our favorite long idea for February was **Maxim Integrated Products, Inc (MXIM)**, which declined -0.40% for the month.

## Notes

Except for extremely unusual circumstances, our long model portfolios are composed of high-quality stocks and our short model portfolios are composed of low-quality stocks.

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

The models are created just prior to the market close each month, but we usually do not publish until after the close due to time constraints.

## **Looking ahead to March 2017**

### **Long Rebalancing Actions**

As noted in our [abbreviated report](#), just prior to the close as of February 28, 2017, 13 stocks have left the long-only model, 16 have been added, and 20 have been rebalanced. This 36-stock theoretical long model assumes a 2.78% starting weight for each stock. The long model portfolios are composed of high-quality stocks. It is unusual to have more than 30 stocks in the long-model theoretical portfolio; this month's total of 36 is up from last month's 33.

### **Short Rebalancing Actions**

Just prior to the February 28, 2017 close, 10 stocks have left the theoretical short-sale model portfolios, 18 have been added, and 13 have been rebalanced. This 31-stock theoretical model portfolio assumes a 3.23% starting weight for each stock.

This short sale model is composed of low-quality stocks, and only tends to work well during periods of high uncertainty or volatility in the market. Low-quality stocks tend to outperform high-quality stocks during market rallies as the market prices in expectations for a sharp recovery in fundamentals.

## Our favorite long idea for March 2017

Our favorite long idea this month is **Cirrus Logic, Inc. (NASDAQ:CRUS)**. We like CRUS due to its attractive relative value and very strong operating momentum. Consensus estimates imply the ROIC has already peaked and will start declining in the quarters ahead. However, very often stocks with such strong momentum coupled with positive consensus estimate revisions tend to continue with their fundamental momentum for some time, driving upside “surprise.” We will review this stock in more detail in the days ahead.

### Ranking Data as of February 28, 2017

**Cirrus Logic, Inc.**  
**NasdaqGS:CRUS**

**Information Technology**  
**Semiconductors**

<b>Ascendere Ranking</b>	Price 02/28/17	54.97	Cash	(383)	EV/LTM EBITDA	9.3
	Shares	64	Debt	100	Price/Book	3.2
	Market Cap	3,577	Other	-		
<b>5 = Best</b>	<b>Rank</b>		Enterprise Value	3,294		
Relative Value	<b>5</b>					
Operating Momentum	<b>5</b>	CY1 Consensus EPS Est.	\$ 4.31	CY1 PE	12.8	Total Capital \$ 1,204
Analyst Revisions Mom	4	CY2 Consensus EPS Est.	\$ 4.65	CY2 PE	11.8	Debt/Capital -23%
Fundamental Quality	4	Latest Annualized Dividend	\$ -	Div Yield	0.0%	Debt/Enterprise Value 3%

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

<b>NasdaqGS:CRUS</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>	<b>Estimate</b>					
	<b>LTM+4Q</b>	<b>LTM+3Q</b>	<b>LTM +2Q</b>	<b>LTM +1Q</b>	<b>Last LTM</b>	<b>LTM-1</b>	<b>LTM-2</b>	<b>LTM -3</b>	<b>LTM -4</b>
NOPLAT	406	429	468	484	493	404	339	361	369
Economic Charge	101	101	102	101	100	97	79	73	70
<b>Economic Profit</b>	<b>305</b>	<b>328</b>	<b>366</b>	<b>384</b>	<b>393</b>	<b>307</b>	<b>260</b>	<b>288</b>	<b>299</b>
Y/Y change	-7.0%	-10.5%	-4.5%	-2.4%	28.1%	17.8%	-9.5%	-3.9%	13.8%
NOPLAT	406	429	468	484	493	404	339	361	369
Operating Capital	1,962	1,969	1,977	1,960	1,934	1,924	1,774	1,726	1,645
<b>ROIC (NOPLAT / Operating Capital)</b>	<b>20.7%</b>	<b>21.8%</b>	<b>23.7%</b>	<b>24.7%</b>	<b>25.5%</b>	<b>21.0%</b>	<b>19.1%</b>	<b>20.9%</b>	<b>22.4%</b>
NOPLAT	406	429	468	484	493	404	339	361	369
5 Qtr Average Operating Capital	1,967	1,960	1,949	1,898	1,801	1,742	1,648	1,572	1,491
<b>ROIC (NOPLAT / Operating Capital)</b>	<b>20.6%</b>	<b>21.9%</b>	<b>24.0%</b>	<b>25.5%</b>	<b>27.4%</b>	<b>23.2%</b>	<b>20.6%</b>	<b>23.0%</b>	<b>24.7%</b>

Source: Ascendere Associates assumptions and estimates, and S&P Capital IQ data and consensus estimates.

**Maxim Integrated Products (MXIM)** continues to look attractive, as does **Teradyne, Inc. (TER)**, and **Applied Materials, Inc. (AMAT)**.

Three other semiconductor-related stocks, not currently in the long model, also look compelling. These are \$2.5b market cap **Advanced Energy Industries (AEIS)**, \$14b market cap **KLA-Tencor Corp. (KLAC)** and \$77b market cap **Texas Instruments (TXN)**. KLAC and TXN are good ideas for large-cap investors looking for dividend yield. We will review these stocks in more detail later this month.

### **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

2/28/2017 Rebalancing					
Core and Opportunistic Long Portfolio:					
36 stocks in the model portfolio = 2.78% weight per position					
Close Position		Hold/Rebalance		Open Position	
Ulta Beauty, Inc.	ULTA	LCI Industries	LCII	Bank of Hawaii Corporation	BOH
Unum Group	UNM	D.R. Horton, Inc.	DHI	Huntington Ingalls Industries, Inc.	HII
Bank of America Corporation	BAC	Burlington Stores, Inc.	BURL	Delta Air Lines, Inc.	DAL
E*TRADE Financial Corporation	ETFC	Apollo Global Management, LL	APO	MasTec, Inc.	MTZ
MarketAxess Holdings Inc.	MKTX	Essent Group Ltd.	ESNT	ManpowerGroup Inc.	MAN
Raymond James Financial, Inc.	RJF	The Blackstone Group L.P.	BX	Cirrus Logic, Inc.	CRUS
Washington Federal, Inc.	WAFD	Discover Financial Services	DFS	Intuit Inc.	INTU
Cullen/Frost Bankers, Inc.	CFR	Home Bancshares, Inc. (Conw	HOMB	NCR Corporation	NCR
First Republic Bank	FRC	Banco Santander, S.A.	SAN	Cliffs Natural Resources Inc.	CLF
United Therapeutics Corporation	UTHR	Cathay General Bancorp	CATY	Trinseo S.A.	TSE
Abbott Laboratories	ABT	East West Bancorp, Inc.	EWBC	Eagle Materials Inc.	EXP
Hawaiian Holdings, Inc.	HA	TD Ameritrade Holding Corpora	AMTD	Nucor Corporation	NUE
InterDigital, Inc.	IDCC	Copart, Inc.	CPRT	Host Hotels & Resorts, Inc.	HST
		HP Inc.	HPQ	CoreCivic, Inc.	CXW
		Applied Materials, Inc.	AMAT	RLJ Lodging Trust	RLJ
		Teradyne, Inc.	TER	LaSalle Hotel Properties	LHO
		Maxim Integrated Products, Inc	MXIM		
		Corning Incorporated	GLW		
		Facebook, Inc.	FB		
Source: Ascendere Associates LLC		Steel Dynamics, Inc.	STLD		

## 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.

2/28/2017 Rebalancing					
<b>Core and Opportunistic Short Portfolio:</b>					
31 stocks in the model portfolio = 3.23% weight per position					
<b>Close Position</b>		<b>Hold/Rebalance</b>		<b>Open Short Sale</b>	
Honda Motor Co., Ltd.	HMC	CarMax Inc.	KMX	Helen of Troy Limited	HELE
Superior Energy Services, Inc.	SPN	Under Armour, Inc.	UA	Wolverine World Wide, Inc.	WWW
Legg Mason, Inc.	LM	Hess Corporation	HES	Mattel, Inc.	MAT
ACADIA Pharmaceuticals Inc.	ACAD	Golar LNG Limited	GLNG	Tribune Media Company	TRCO
Joy Global Inc.	JOY	CIT Group Inc.	CIT	PBF Energy Inc.	PBF
IAC/InterActiveCorp	IAC	Ultragenyx Pharmaceutical Inc	RARE	SM Energy Company	SM
Autodesk, Inc.	ADSK	Tesaro, Inc.	TSRO	Hilltop Holdings Inc.	HTH
Tableau Software, Inc.	DATA	Jacobs Engineering Group Inc.	JEC	Willis Towers Watson Public Limited C	WLTW
CF Industries Holdings, Inc.	CF	Stericycle, Inc.	SRCL	American International Group, Inc.	AIG
United States Steel Corporation	X	Terex Corporation	TEX	GW Pharmaceuticals plc	GWPH
		Qorvo, Inc.	QRVO	bluebird bio, Inc.	BLUE
		Workday, Inc.	WDAY	Neurocrine Biosciences, Inc.	NBIX
		Potash Corporation of Saskatc	POT	Flowserve Corporation	FLS
				Caterpillar Inc.	CAT
				Integrated Device Technology, Inc.	IDTI
				Alliance Data Systems Corporation	ADS
				Summit Materials, Inc.	SUM
				Weyerhaeuser Co.	WY
Source: Ascendere Associates LLC					

## Return Data

Core & Opportunistic Long Model					MTD			
1/31/2017 to 2/28/2017								
Sector	Company	Ticker	1/31/2017	2/28/2017	Performance	Target/ Stop Date	Date+1 Sell Price	Return
Information Technology	Hewlett-Packard Co.	HPQ	15.05	17.37	15.42%	2/23/2017	\$ 17.65	17.28%
Financials	Apollo Global Management, LLC	APO	20.83	22.74	9.19%			
Financials	Bank of America Corporation	BAC	22.64	24.68	9.01%			
Financials	Cathay General Bancorp	CATY	36.25	39.28	8.37%			
Materials	Steel Dynamics Inc.	STLD	33.81	36.60	8.25%			
Health Care	Abbott Laboratories	ABT	41.77	45.08	7.92%	2/23/2017	\$ 45.68	9.36%
Financials	Unum Group	UNM	45.43	48.83	7.48%	2/15/2017	\$ 49.10	8.08%
Consumer Discretionary	DR Horton Inc.	DHI	29.81	32.00	7.35%			
Consumer Discretionary	Burlington Stores, Inc.	BURL	83.70	89.01	6.34%			
Information Technology	Applied Materials Inc.	AMAT	34.15	36.22	6.05%			
Financials	East West Bancorp Inc.	EWBC	51.44	54.12	5.21%			
Financials	Raymond James Financial Inc.	RJF	74.93	78.56	4.84%			
Information Technology	Corning Inc.	GLW	26.34	27.61	4.82%			
Financials	Home Bancshares, Inc.	HOMB	26.85	28.14	4.80%			
Financials	MarketAxess Holdings Inc.	MKTX	186.93	195.23	4.44%			
Industrials	Copart Inc.	CPRT	56.74	59.14	4.23%			
Financials	Cullen/Frost Bankers, Inc.	CFR	88.88	92.47	4.04%			
Information Technology	Facebook, Inc.	FB	130.32	135.54	4.01%			
Financials	Discover Financial Services	DFS	68.98	71.14	3.13%			
Financials	Washington Federal Inc.	WAFD	32.85	33.85	3.04%			
Financials	Essent Group Ltd.	ESNT	34.57	34.81	0.69%			
Information Technology	Teradyne Inc.	TER	28.31	28.44	0.45%			
Consumer Discretionary	Ulta Salon, Cosmetics & Fragrance, Inc.	ULTA	272.28	273.43	0.42%			
Information Technology	Maxim Integrated Products Inc.	MXIM	44.48	44.30	-0.40%			
Financials	First Republic Bank	FRC	94.33	93.83	-0.53%			
Consumer Discretionary	LCI Industries	LCII	109.75	107.70	-1.87%			
Financials	The Blackstone Group	BX	30.17	29.54	-2.08%			
Financials	Banco Santander, S.A.	SAN	5.56	5.41	-2.70%			
Industrials	Hawaiian Holdings Inc.	HA	50.95	48.65	-4.51%			
Financials	E*TRADE Financial Corp.	ETFC	37.45	34.51	-7.85%			
Health Care	United Therapeutics Corp.	UTHR	163.63	147.72	-9.72%			
Information Technology	InterDigital, Inc.	IDCC	93.40	84.05	-10.01%			
Financials	TD AMERITRADE Holding Corporation	AMTD	46.15	39.10	-15.28%			

### Ascendere Associates LLC



<b>Core &amp; Opportunistic Short Model</b>					<b>MTD</b>			
<b>1/31/2017 to 2/28/2017</b>								
<b>Sector</b>	<b>Company</b>	<b>Ticker</b>	<b>1/31/2017</b>	<b>2/28/2017</b>	<b>Performance</b>	<b>Target/ Stop Date</b>	<b>Date+1 Sell Price</b>	<b>Return</b>
Materials	CF Industries Holdings, Inc.	CF	35.00	31.42	-10.22%			
Energy	Superior Energy Services Inc.	SPN	17.67	16.50	-6.62%			
Materials	Potash Corp. of Saskatchewan, Inc.	POT	18.60	17.43	-6.29%			
Energy	Hess Corporation	HES	54.18	51.44	-5.06%			
Consumer Discretionary	Under Armour, Inc.	UA	19.22	18.56	-3.43%			
Industrials	Jacobs Engineering Group, Inc.	JEC	58.40	56.41	-3.40%			
Consumer Discretionary	CarMax Inc.	KMX	66.71	64.54	-3.25%			
Industrials	Terex Corp.	TEX	31.80	31.24	-1.76%			
Information Technology	Workday, Inc.	WDAY	83.09	82.93	-0.19%			
Industrials	Joy Global, Inc.	JOY	28.12	28.19	0.25%			
Information Technology	Qorvo, Inc.	QRVO	64.21	66.10	2.94%			
Consumer Discretionary	Honda Motor Co. Ltd.	HMC	29.72	30.97	4.21%	2/7/2017	\$ 31.73	6.76%
Financials	CIT Group, Inc.	CIT	41.04	42.90	4.53%	2/17/2017	\$ 43.72	6.53%
Energy	Golar LNG Ltd.	GLNG	25.86	27.31	5.61%			
Information Technology	Autodesk, Inc.	ADSK	81.34	86.30	6.10%			
Industrials	Stericycle Inc.	SRCL	77.14	82.88	7.44%	2/16/2017	\$ 85.15	10.38%
Information Technology	IAC/InterActiveCorp	IAC	68.81	73.94	7.46%	2/3/2017	\$ 75.26	9.37%
Health Care	Acadia Pharmaceuticals Inc.	ACAD	34.59	38.11	10.18%			
Information Technology	Tableau Software, Inc.	DATA	47.84	52.74	10.24%	2/3/2017	\$ 54.12	13.13%
Healthcare	Ultragenyx Pharmaceutical Inc.	RARE	75.01	85.08	13.42%			
Healthcare	Tesaro, Inc.	TSRO	162.84	188.37	15.68%	2/17/2017	\$ 190.36	16.90%
Materials	United States Steel Corp.	X	32.66	38.72	18.55%	2/13/2017	\$ 39.28	20.26%
Financials	Legg Mason Inc.	LM	31.69	37.72	19.03%	2/3/2017	\$ 34.96	10.32%

## Ascendere Associates LLC

**Theoretical Model Portfolio\*** **02/28/17**      **MTD**      **YTD**      **Since 03/31/09**      **Sharpe**  
 Simple Returns (No Compounding)

**Stock Targets**

**Core Model**

Long	2.39%	21.31%	181.4%	1.02
Short	4.07%	7.21%	71.5%	0.44
Core Long/Short	-1.68%	14.09%	109.9%	0.88

**Stock Targets and Portfolio Targets**

**Opportunistic Model**

Long	2.39%	8.94%	156.2%	1.13
Short	5.56%	-0.47%	2.0%	0.01
Opportunistic Long/Short	-3.16%	9.41%	154.2%	1.28

**Stock Targets and Portfolio Targets**

**Opportunistic Model III**

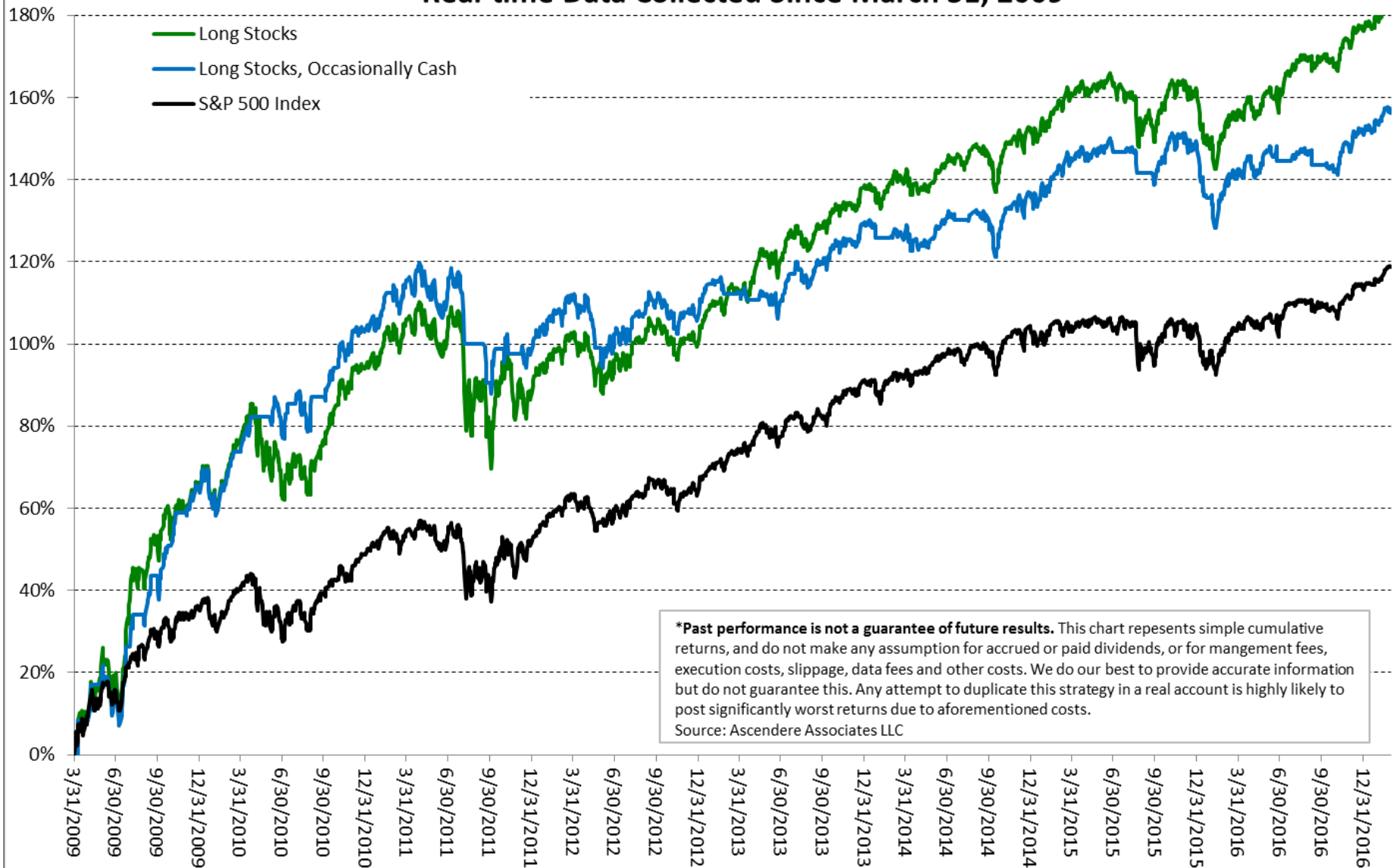
Long Stocks	2.39%	8.94%	156.2%	1.13
Long Inverse ETF ^SH	-0.56%	-9.34%	-82.3%	(0.77)
Opportunistic Long/Short III	1.84%	-0.41%	73.8%	0.73

<b>S&amp;P 500 Index</b>	<b>3.66%</b>	<b>5.45%</b>	<b>118.65%</b>	<b>0.94</b>
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\* 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.

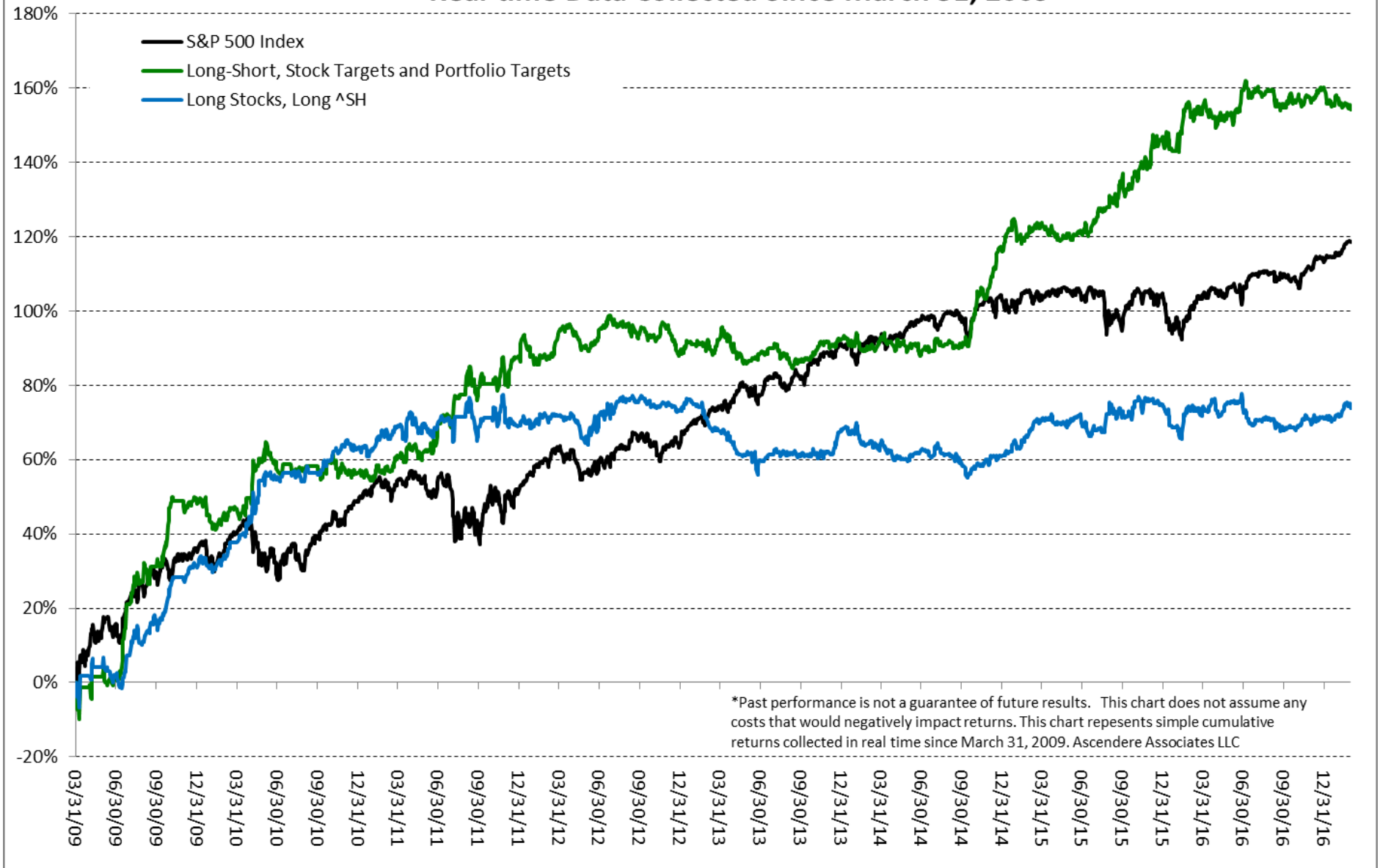
# Simple Returns -- Long Theoretical Model Portfolios vs S&P 500 Total Return Index

Real-time Data Collected Since March 31, 2009

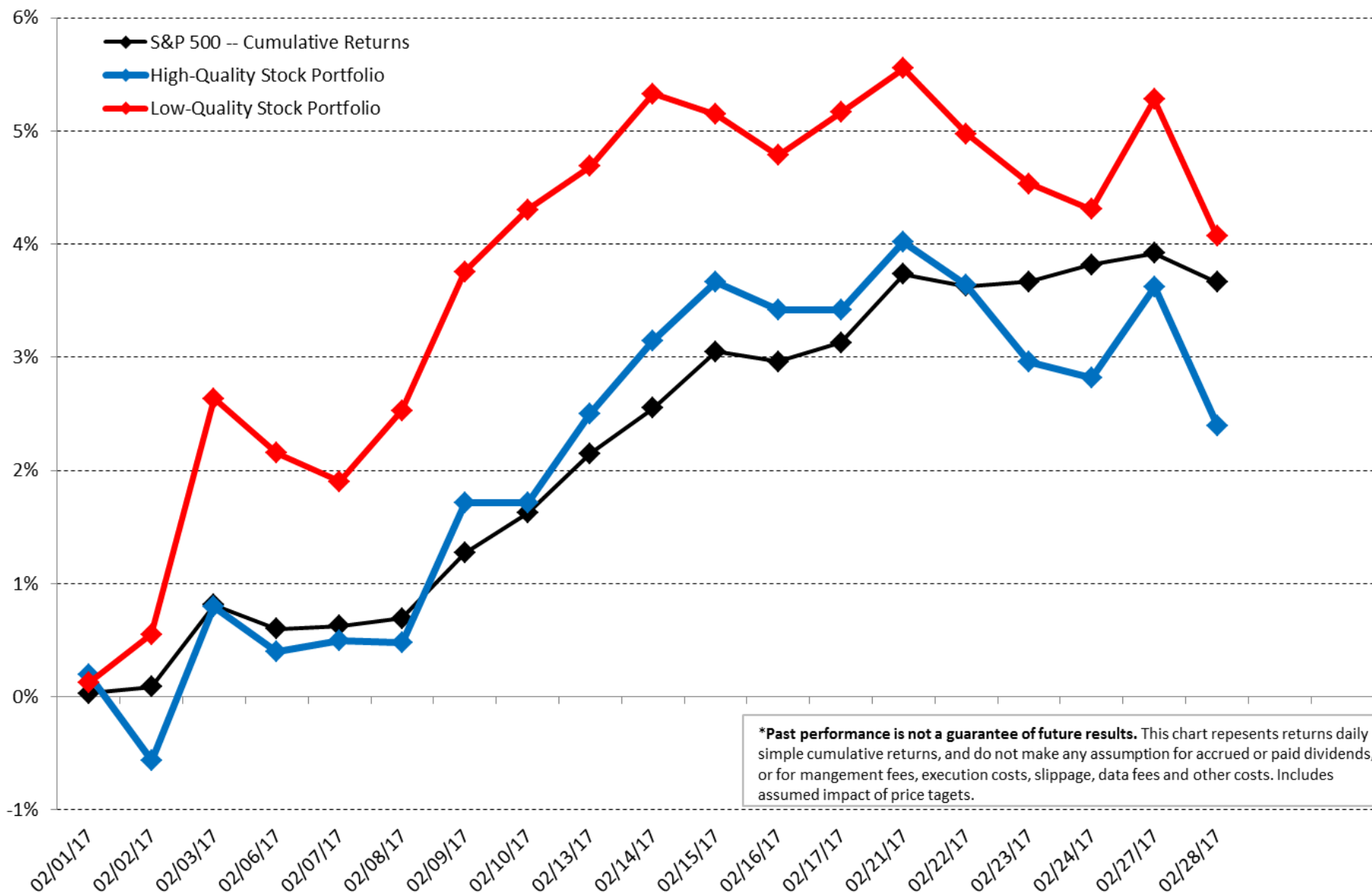


**\*Past performance is not a guarantee of future results.** This chart represents simple cumulative returns, and do not make any assumption for accrued or paid dividends, or for mangement fees, execution costs, slippage, data fees and other costs. We do our best to provide accurate information but do not guarantee this. Any attempt to duplicate this strategy in a real account is highly likely to post significantly worst returns due to aforementioned costs.  
Source: Ascendere Associates LLC

## "Theoretical Dollar Neutral" Strategies Simple Cumulative Returns Real-time Data Collected Since March 31, 2009

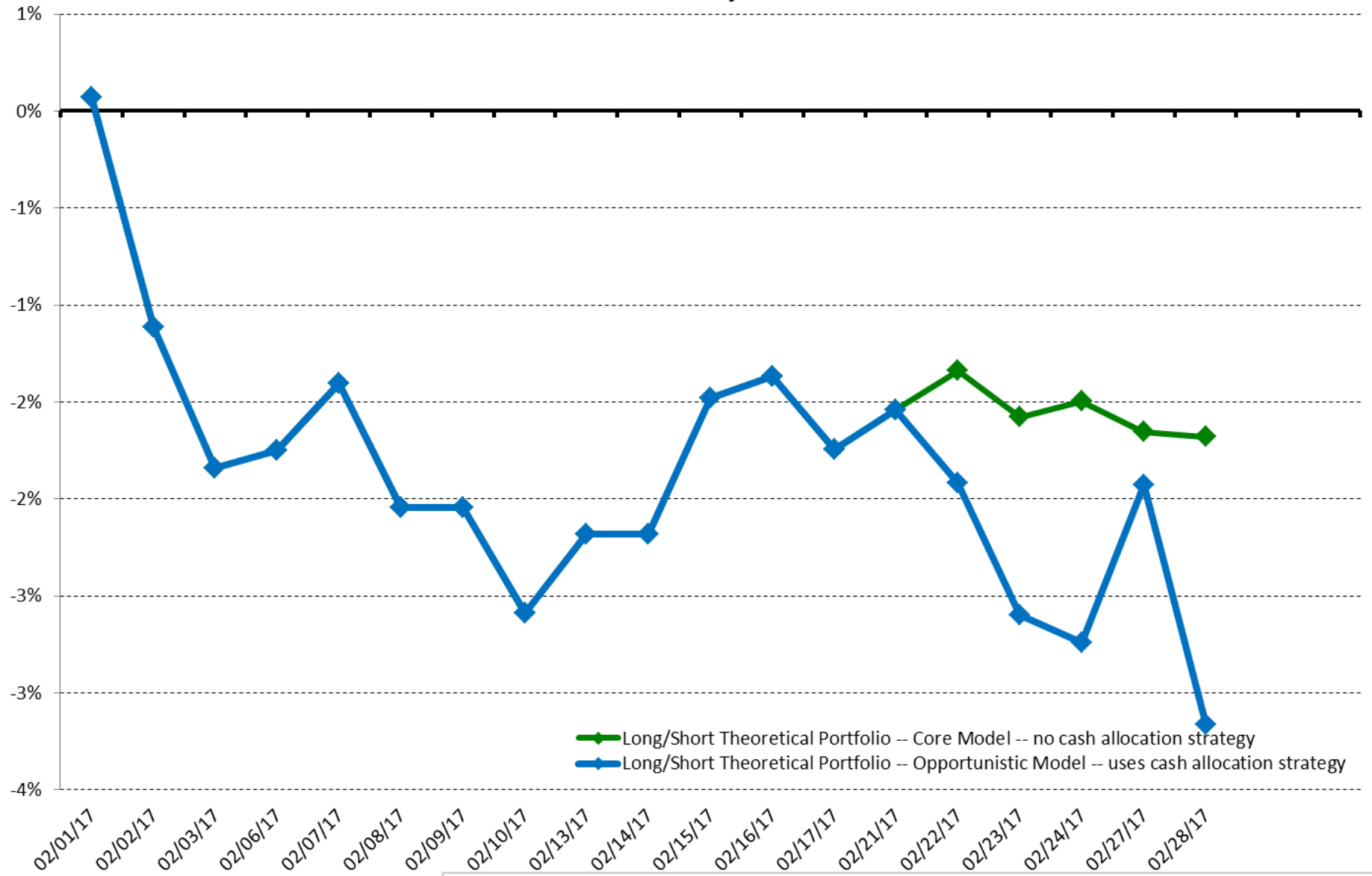


## High-Quality vs. Low-Quality -- February 2017



**\*Past performance is not a guarantee of future results.** This chart represents returns daily simple cumulative returns, and do not make any assumption for accrued or paid dividends, or for mangement fees, execution costs, slippage, data fees and other costs. Includes assumed impact of price targets.

## Theoretical Long/Short Model Portfolio Returns February 2017



**\*Past performance is not a guarantee of future results.** This chart represents returns daily simple cumulative returns, and do not make any assumption for accrued or paid dividends, or for mangement fees, execution costs, slippage, data fees and other costs.

	Core	Opportunistic	"Dollar Neutral" 1	"Dollar 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
2/28/2017	Theoretical	Theoretical	Theoretical	Theoretical	
<b>Simple Returns</b>					
Today	-1.23%	-1.23%	-1.23%	-1.23%	-0.26%
MTD	2.39%	2.39%	-3.16%	1.84%	3.66%
YTD	21.31%	8.94%	9.41%	-0.41%	5.45%
Cumulative from 3/31/2009	181.39%	156.16%	154.19%	73.85%	118.65%
<b>Absolute Risk</b>					
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	1.41%	1.09%	0.95%	0.80%	1.00%
Daily Return/Standard Deviation	6.48%	7.19%	8.11%	4.63%	5.94%
Average 90-Day T-bill	1.19%	1.19%	1.19%	1.19%	1.19%
Annualized Daily Returns	22.95%	19.76%	19.51%	9.34%	15.01%
Annualized Standard Deviation	22.3%	17.3%	15.1%	12.7%	15.9%
Sharpe Ratio	0.98	1.07	1.21	0.64	0.87
Percentage Down Days	45.3%	35.4%	43.0%	45.1%	45.1%
Average Daily Downside Value	-1.00%	-0.87%	-0.66%	-0.53%	-0.71%
Daily Downside Deviation	-1.06%	-0.89%	-0.62%	-0.56%	-0.76%
Daily VAR of 1000 at 95% Conf	-22	-17	-15	-13	-16
<b>Benchmark Relative Risk</b>					
Correlation	0.90	0.70	(0.05)	0.05	
R-Squared	0.82	0.49	0.00	0.00	
Daily Tracking Error	0.66%	0.81%	1.42%	1.25%	
<b>Regression</b>					
Beta	1.27	0.76	-0.05	0.04	
Daily Alpha	0.031%	0.019%	0.018%	-0.022%	
Jensen's Daily Alpha	0.040%	0.014%	-0.001%	-0.001%	
Trading Days	1992	1992	1992	1992	
*Returns calculated by the simple return method (not compounded).					
* Portfolio models are theoretical and assume no costs.					
* Data collected in real time since 3/31/2009					
Source: Ascendere Associates LLC					

## DISCLOSURES

Ascendere is in the business of providing equity research and related consulting services to investors and their advisors. The equity research it provides includes basic quantitative model portfolios and more detailed fundamental research with respect to individual stocks. In addition, the firm manages stock portfolios for itself and clients.

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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**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 [jstephencastellano.tumblr.com](http://jstephencastellano.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)