### **Ascendere Associates LLC**

## **Actionable Long/Short Equity Research**



Model Portfolio Update: November 15, 2017

#### **New Actions Required**

Short sale model: Close position in MTSI (short sale target).

#### **Sell Side Upgrades and Downgrades Today**

Long model: YY was upgraded to Buy from Hold with a price target increase to \$110 from \$79.

Short sale model: MTSI received several price target reductions and a ratings downgrade to Underperform from Neutral.

#### Also of Note

Long model: **YY** after the market close yesterday reported significantly better than expected 3Q17 results and provides 4Q17 revenue guidance in line with consensus. Long model: **ANET** late yesterday was resumed with a Market Perform rating and \$235 price target by a sell side firm.

Short sale model: MTSI after market close vesterday reported a slight F4Q17 revenue miss and EBITDA beat, and provided F1Q18 guidance significantly below consensus.

Short sale model: **UAA** was maintained at Outperform with a \$17 price target by a sell side firm.

Short sale model: MAT rebuffed a takeover proposal from HAS according to Reuters.

#### **Return Data**

For the month to date the **Core Long Model** portfolio is down -0.64% on a simple cumulative return basis (sum of daily returns). This compares to the **S&P 500** up -0.41%, the **S&P 1500 Composite** up -0.51%, and the **Russell 2000** down -2.58%. The **Core Long/Short Model** is up +1.65%.

#### Ascendere Associates Model Portfolio Stock Selections Are Presaging Major Sell Side Analyst Actions

MTD 9 stocks in the **long model** have received 25 positive price target revisions, and 5 stocks have received 6 ratings upgrades from sell side firms, led by **Facebook, Inc. (FB)**. MTD 5 stocks in the **short sale model** have received 17 negative price target revisions, and 4 stocks have received 7 ratings downgrades, led by **Under Armour, Inc. (UAA)**.

#### Of Note in the Long Models Today

#### YY Inc. (YY) - up +23.23% MTD to \$111.39

Yesterday after the close, YY, Inc. reported significantly better than expected revenue and EPS, and provided 4Q17 revenue guidance that was in line with prior consensus. We saw a report that at least one sell side firm (Jefferies) upgraded the stock to Buy from Hold and raised its price target to \$110 from \$79. We fully agree with that rating upgrade and price target. YY has not reached our model portfolio price target (currently at \$116.34) so we think it has a chance moving incrementally higher in the short term.

YY was one of 31 stocks that were assumed added to our theoretical long model portfolio as of the September 8, 2017 close. Since its closing price that day of \$78.01, the stock has appreciated 42.88% to \$111.39 today, November 15 (see our report, 31 Stocks for September 2017).

#### YY Inc. is a video-based social network in China with 300m users

YY is a \$6.9b market cap <u>video-based social network</u> with over 300m users based in Guangzhou, China. The company was founded as an online game web portal in 2005, and <u>in 2008 it launched YY Client</u>, its core product that allows the creation of online live group activities. In 2010 it introduced its YY mobile app and in 2013 it introduced virtual item purchases (e.g., users exchange "virtual roses" as a form of currency). In 2015 it began operating its live game broadcasting business under the stand-alone brand, Huya.com and the mobile version Huya Live. Also in 2015, it launched a new brand Zhiniu and mobile application <u>Zhiniu Finance</u>, which provides investors with financial information and investment strategy.

#### YY, Inc. seems to have the backing of respectable investment bankers and auditors

<u>YY was publicly listed</u> on the Nasdaq in November 2012; each American Depositary Share represents 20 ordinary shares. Its independent auditor is <u>PricewaterhouseCoopers</u> Zhong Tian LLP in Guangzhou, China.

#### Follow-on offering in August was oversubscribed

On August 16, 2017 YY Inc. filed a prospectus offering 5.75m ADRs at \$70.00 per ADS – significant 8.7% discount to the market closing price of \$80.58 on August 14 (the printing date of the prospectus). The offering was oversubscribed, and the company ended up selling 6.6125m ADRs for total proceeds to the company of \$443.3m after underwriting discounts and commissions of \$19.7m.

The underwriter of the offering, Goldman Sachs, initiated coverage of YY Inc. on August 30, 2017 with a Buy rating and \$101 price target, calling for 27% revenue growth and 33% earnings growth through 2019, driven by its premium content, expansion into outdoor activities and other areas, and ongoing version updates to its YY Live and Huya platforms.

#### YY, Inc. reports 48% revenue growth and 81% increase in EBIT for 3Q17 y/y

YY Inc. reported 3Q17 net revenue of RMB 3,092.3m (US \$464.8m), up 48.0% from RMB 2,089.8m in the same period last year. EBIT (excluding other income) improved to RMB 642,695 (20.78% margin) from 439,809. While the 3Q17 EBIT margin declined slightly to 20.78% from 21.05% in 3Q16, this is a nonissue in light of the increased SG&A that was used to successfully drive sales.

#### Mobile live streaming monthly active users up 36.6% and paying users increased 46.5% for 3Q17 y/y

Mobile live streaming monthly active users (MAU) increased to 73.0m, up 36.6% year over year, and total live streaming paying users increased to 6.3m, up 46.5%. According to the CEO, the quarter's performance was "...a testament to our highly effective strategies in introducing more initiatives to attract younger generation users and to enhance existing user's engagement and consumption on our live streaming social media platform... We will continue to invent new ways to attract users and stimulate user engagement,

further build our content ecosystem, and explore more monetization opportunities. We believe that we have the right strategy in place to stay ahead of the competition in China's live streaming social media industry."

#### Total cash, deposits, restricted short-term deposits double with the help from CFO and follow-on offering

The company ended 3Q17 with cash and equivalents of RMB 1.13m (US \$169.7m), short-term deposits of RMB 6.47m (US \$973.1m) and restricted short-term deposits of RMB1,000.0m (US \$150.3m). The total for cash, deposits, and restricted short-term deposits at the end of 3Q17 was RMB 8,601m (US \$1.29b), up from a total of RMB 4,239m at the end of 2Q17.

The more than 2x increase in "total cash, equivalents and deposits" in 3Q17 relative to 2Q17 was obtained in part with the \$443m it raised in its 6.6m ADS offering in August and net cash from operating activities of RMB 1,045m (US \$157.1m).

#### Capital efficiency continues to improve y/y

Total capital, as defined as Total Debt + Minority Interest + Shareholder's Equity, has increased by 33% to RMB 10.4b from RMB 7.8b at the end of 4Q16. That's a hefty rise, but even so annualized 3Q17 EBIT to Total Capital of 24.7% is an incremental improvement over 24.5% over annualized 3Q16 EBIT to Total Capital, before any adjustment for the follow-on offering that presumably helped retire RMB 2.7m of convertible bonds and will be used to fuel future growth.

Total Operating Capital – as defined as Adjusted Working Capital + Net PP&E + Other Fixed Assets --does not appear to have changed that much. This foreign issuer does not report a cash flow statement on a quarterly basis, but looking at its annual cash flow statements and inferring from recent trends in EBIT, various definitions of free cash flow are likely to have improved in well – driving overall ROIC expansion sequentially and the year-ago period.

#### In summary, an outstanding quarter

In summary, this was an impressive quarter for the company. Annualized EBIT / Total Capital improved and ROIC likely improved as well. Further positive revisions to consensus seem likely, and ongoing improvements to cash flow growth and ROIC also seem likely. These improvements may support positive long-term adjustments to free cash flow expectations and its market multiple, supporting a higher stock price. While quantifying and supporting these projections take a lot of extra work, we think it is safe to say that YY Inc. will likely stay in our long model portfolio for at least another month, even at the current level of \$111.39, up 23.23% MTD.

#### Appendix: Momo Inc. May Also Offer Short-term Upside

**Momo Inc. (MOMO)**, YY Inc.'s main competitor in China, shares a similar quantitative profile to YY. Since September 8, the day we added YY to the theoretical model portfolio, MOMO has declined -18.9% and YY has increased 43%.

Since MOMO competes in the same space and shares many of the same quantitative traits as YY, we think there is a good chance MOMO could report an outstanding 3Q17 on the morning of November 28.

A cautious investor would note, upon quickly glancing at some of the key metrics in the tables below and along with its -19% stock decline, that the market does not place much weight into the consensus thesis for MOMO's 37% earnings growth in 2018. Before establishing a long position in MOMO, it would would make considerable sense to study this potential opportunity more deeply.

#### Ranking Data as of October 31, 2017

YY Inc. Information Technology

NasdaqGS:YY Internet Software and Services

Ascendere Ranking		Price 11/15/17	111.39	Cash	480	EV/LTM EBITDA	19.7
		Shares	57	Debt	91	Price/Book	5.4
_		Market Cap	6,404	Other	-		
5 = Best	Rank			Enterprise Value	6,974		
Relative Value	4						
Operating Momentum	4	CY1 Consensus EPS Est.	\$ 5.74	CY1 PE	19.4	Total Capital	\$ 1,013
Analyst Revisions Mor	5	CY2 Consensus EPS Est.	\$ 6.78	CY2 PE	16.4	Debt/Capital	-38%
Fundamental Quality	4	Latest Annualized Dividend	\$ -	Div Yield	0.0%	Debt/Enterprise Value	1%

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

#### Ranking Data as of October 31, 2017

Momo Inc. Information Technology
NasdaqGS:MOMO Internet Software and Services

Ascendere Ranking		Price 11/15/17	30.59	Cash	846	EV/LTM EBITDA	24.1
		Shares	208	Debt	-	Price/Book	7.3
		Market Cap	6,372	Other	-		
5 = Best	Rank			Enterprise Value	7,219		
Relative Value	5						
Operating Momentum	5	CY1 Consensus EPS Est.	\$ 1.65	CY1 PE	18.5	Total Capital	\$ 808
Analyst Revisions Mon	5	CY2 Consensus EPS Est.	\$ 2.26	CY2 PE	13.5	Debt/Capital	-105%
Fundamental Quality	5	Latest Annualized Dividend	\$ -	Div Yield	0.0%	Debt/Enterprise Value	0%

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

# Ascendere Associates Sell Side Analyst Upgrades and Downgrades to Long Model Portfolio Stocks Long Model Portfolios

#### Upgrades -- November 1, 2017 to date

Date	Company	Ticker	Action
11/15/2017	YY Inc.	YY	Jefferies raises price target to \$110 from \$79 and upgrades to Buy from Hold.
11/14/2017	Peabody Energy Corp.	BTU	Jefferies initiates coverage with a \$38 price target and Buy rating.
11/10/201	Micron Technology Inc.	MU	JP Morgan raises price target to \$55 from \$50 and maintains Overweight rating.
11/10/201	Kohl's Corp.	KSS	Baird raises price target to \$47 from \$46 and upgrades to Outperform from Neutral.
11/9/2017	Kohl's Corp.	KSS	Gordon Haskett raises price target to \$44 and upgrades to Accumulate from Hold.
11/8/2017	Arista Networks, Inc.	ANET	RBC Capital raises price target to \$234 from \$200 and upgrades to Outperform from Sector Perform.
11/7/2017	Huntsman Corp.	HUN	Citi raised its price target to \$38 from \$29 while resuming coverage with a Buy rating.
11/7/2017	Micron Technology Inc.	MU	Deutsche Bank raises price target to \$50 from \$43 and reiterates Buy rating.
11/6/2017	Arista Networks, Inc.	ANET	Needham raises price target to \$217 from \$175 and maintains Buy rating.
11/6/2017	MasTec, Inc.	MTZ	Baird raises price target to \$53 from \$51 and upgrades to Outperfrom from Neutral.
11/3/2017	Yum! Brands Inc.	YUM	UBS raises price target to \$89 from \$83 and reiterates Buy rating.
11/3/2017	Arista Networks, Inc.	ANET	BMO Capital raises price target to \$205 from \$190 and keeps Market Perform rating.
11/3/2017	Arista Networks, Inc.	ANET	Citi raises price target to \$220 from \$215 and maintains Buy rating.
11/2/2017	Facebook, Inc.	FB	Oppenheimer raises price target to \$200 from \$194 and reiterates Outperform rating.
11/2/2017	Facebook, Inc.	FB	Needham raises price target to \$215 from \$185 and maintains Buy rating.
11/2/2017	Facebook, Inc.	FB	RBC Capital raises price target to \$230 from \$195 and maintains Outperform rating.
11/2/2017	Facebook, Inc.	FB	Wedbush increases price target to \$230 from \$225 and reiterates Outperform rating.
11/2/2017	Facebook, Inc.	FB	UBS increases price target to \$208 from \$190 and reiterates Buy rating.
11/2/2017	Facebook, Inc.	FB	Baird increases price target to \$200 from \$185 and reiterates Outperform rating.
11/2/2017	Facebook, Inc.	FB	Cantor Fitzgerald raises price target to \$220 from \$190, keeps it a top pick, and maintains Overweight.
11/2/2017	Facebook, Inc.	FB	KeyBanc raises price target to \$220 from \$200 and reiterates Overweight rating.
11/2/2017	Facebook, Inc.	FB	Citi raises price target to \$210 from \$200 and maintains Buy rating.
11/2/2017	Facebook, Inc.	FB	JP Morgan raises price target to \$225 from \$210 and reiterates Overweight rating.
11/2/2017	Facebook, Inc.	FB	Jefferies raises price target to \$225 from \$215 and maintains Buy rating.
11/2/2017	Facebook, Inc.	FB	Barclays raises price target to \$215 from \$200 and maintains Overweight rating.
11/1/2017	Allison Transmission Holdings, In	c. ALSN	Deutsche Bank rasies price target to \$37 from \$33 and maintains Sell rating.

#### Downgrades -- November 1, 2017 to date

Date	Company	Ticker	Action
11/2/2017	Facebook, Inc.	FB	Credit Suisse lowers price target to \$230 from \$235 and reiterates Outperform rating.
11/2/2017	Facebook, Inc.	FB	Stifel lowers price target to \$195 from \$200 and maintains Buy rating.

#### Of Note in the Short Sale Models Today

#### MACOM Technology Solutions Holdings, Inc. (MTSI) – down -26.57% MTD to \$30.02

Yesterday after the market close, MTSI reported a slight F4Q17 revenue miss and slight EBITDA beat. However, the company provided F1Q18 guidance significantly below consensus, driving the stock price down -18% today and -26.57% for the month. We will review the quarter in more detail time permitting tomorrow.

Prior to the market open today, at least five sell side firms lowered price targets for the stock, with one downgrade to Underperform from Neutral. The other four sell side firms maintained ratings that ranged from Neutral to Buy. We suggest investors focus on whatever Bofa/Merrill has to say and ignore the others, since the Bofa/Merrill downgrade seems in line with what our simple quantitative model has been pointing to since September 8, 2017, when MTSI was assumed to be added to the short sale list at a price of \$42.52. Since that date, MTSI has declined 29.4%.

The general theme for MTSI's quarter was that softness in China was impacting the entire range of its telecom business, but that management anticipate a rebound in FY2018. In our experience, once a company is in fundamental decline it can take a long time to simply stabilize and turn around. We think investors would be better served by trading MTSI for other semiconductor stocks with much stronger track records and ongoing likelihood of further fundamental momentum, such as **Micron Technology**, **Inc.** (MU), **Cirrus Logic**, **Inc** (CRUS), and **Texas Instruments Inc.** (TXN).

Below is MTSI's ranking profile as of October 31 with a few fundamental metrics updated for November 14.

#### Ranking Data as of October 31, 2017

## MACOM Technology Solutions Ho Information Technology NasdaqGS:MTSI Semiconductors

Ascendere Ranking		Price 11/14/17	36.61	Cash	249	EV/LTM EBITDA	24.1
		Shares	64	Debt	685	Price/Book	3.4
_		Market Cap	2,344	Other	(0)		
5 = Best	Rank			Enterprise Value	3,278		
Relative Value	2						
Operating Momentum	2	CY1 Consensus EPS Est.	\$ 2.23	CY1 PE	16.4	Total Capital	\$ 1,465
Analyst Revisions Mon	1	CY2 Consensus EPS Est.	\$ 2.75	CY2 PE	13.3	Debt/Capital	30%
Fundamental Quality	1	Latest Annualized Dividend	\$ -	Div Yield	0.0%	Debt/Enterprise Value	21%

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

# Ascendere Associates Sell Side Analyst Upgrades and Downgrades Short Sale Model Portfolios

#### Downgrades confirming short sale thesis -- November 1, 2017 to date

Date	Company	Ticker	Action
11/15/2017	MACOM Technology Solutions	MTSI	Needham lowers price target to \$42 from \$45 and maintains Buy rating.
11/15/2017	MACOM Technology Solutions	MTSI	Stifel lowers price target to \$35 from \$43 and maintains Hold rating.
11/15/2017	MACOM Technology Solutions	MTSI	DA Davidson lowers price target to \$32 from \$45 and maintains Neutral rating.
11/15/2017	MACOM Technology Solutions	MTSI	BofA/Merrill lowers price taret to \$30 from \$45 and downgrades to Underperform from Hold.
11/15/2017	MACOM Technology Solutions	MTSI	Barclays lowers price target to \$40 from \$50 and maintains Overweight.
11/10/2017	MetLife, Inc.	MET	Sandler O'Neill downgrades to Hold from Buy.
11/10/2017	Under Armour, Inc.	UAA	Nomura Instinet lowers price target to \$9 from \$13 and maintains Reduce rating.
11/7/2017	Colfax	CFX	Baird lowers price target to \$47 from \$50 while reiterating Outperform rating.
11/7/2017	Under Armour, Inc.	UAA	Susquehanna upgrades to Neutral from Negative and lowers price target to \$11 from \$15.
11/3/2017	Flowserve Corp.	FLS	Seaport Global lowers price target to \$40 from \$60 and downgrades to Neutral from Buy.
11/3/2017	Flowserve Corp.	FLS	BMO Capital lowers price target to \$41 from \$51 and downgrades to Market Perform from Outperform.
11/1/2017	Under Armour, Inc.	UAA	Bernstein lowers price target to \$9 from \$14 and reiterates Underperform rating.
11/1/2017	Under Armour, Inc.	UAA	Wedbush lowers price target to \$11 from \$17 and reiterates Neutral rating.
11/1/2017	Under Armour, Inc.	UAA	Canaccord lowers price target to \$8 from \$15 and downgrades to Sell from Hold.
11/1/2017	Under Armour, Inc.	UAA	SunTrust downgrades rating to Hold from Buy.
11/1/2017	Under Armour, Inc.	UAA	Deutsche Bank lowers price target to \$11 and reiterates Sell rating.
11/1/2017	Under Armour, Inc.	UAA	Citi lowers price target to \$14 from \$21 and maintains Neutral rating.

#### Upgrades contradicting short sale thesis -- November 1, 2017 to date

11/10/2017	ViaSat, Inc.	VSAT	Needham upgrades to Buy from Hold with a \$78 price target.
11/10/2017	Puma Biotechnology	PBYI	Credit Suisse raises price target to \$142 from \$136 and maintains Outperform rating.
11/10/2017	Puma Biotechnology	PBYI	RBC Capital raises price target to \$108 from \$92 and maintains Sector Perform rating.
11/10/2017	Puma Biotechnology	PBYI	Barclays raises price target to \$122 from \$103 and maintains Overweight.
11/8/2017	Penumbra, Inc.	PEN	BMO Capital raises price target to \$117 from \$96 and maintains Outperform.
11/7/2017	Under Armour, Inc.	UAA	Susquehanna upgrades to Neutral from Negative.
11/6/2017	Fluor Corporation	FLR	Canaccord raises price target to \$54 from \$49 and reiterates Buy rating.
11/6/2017	Cree Inc.	CREE	Deutsche Bank "has" \$45 price target and upgrades to Buy from Hold.
11/3/2017	Mattel Inc.	MAT	DA Davidson maintained \$12 price target and upgraded to Neutral from Underperform.
11/1/2017	The Mosaic Company	MOS	Cleveland Research upgrades to Buy from Neutral.

Core & Opportui	nistic Long Model				MTD						
10/31/2017 to 11/15/2017											
									Target/	Date+1	
Sector	Company	Ticker	10/31/2017	11/15/2017	Performance	P	rice Target	Stop Target	Stop Date	Sell Price	Retur
Information Technology	YY Inc.	YY	90.39	111.39	23.23%	\$	116.34	None			
Information Technology	Arista Networks, Inc.	ANET	199.89	224.90	12.51%	\$	232.99	None			
Consumer Discretionary	Yum! Brands Inc.	YUM	74.45	78.80	5.84%			None	11/7/2017	\$ 81.13	8.97%
Financials	Evercore Inc.	EVR	80.10	82.85	3.43%	\$	89.33	None			
Information Technology	Micron Technology Inc.	MU	44.31	45.36	2.37%	\$	51.27	None			
Materials	Methanex Corp.	MEOH	48.75	49.40	1.33%	\$	54.53	None			
Consumer Discretionary	Kohl's Corp.	KSS	41.76	42.27	1.22%	\$	47.11	None			
Energy	Peabody Energy Corp.	BTU	30.89	31.20	1.00%	\$	34.51	None			
Materials	Kronos Worldwide Inc.	KRO	26.31	26.55	0.91%	\$	29.14	None			
Financials	Ameriprise Financial Inc.	AMP	156.54	157.39	0.54%	\$	169.30	None			
Consumer Discretionary	TEGNA Inc.	TGNA	12.23	12.20	-0.25%	\$	13.69	None			
Information Technology	Teradyne Inc.	TER	42.89	42.74	-0.35%	\$	47.51	None			
Industrials	Illinois Tool Works Inc.	ITW	156.52	155.85	-0.43%	\$	165.51	None			
Information Technology	Facebook, Inc.	FB	180.06	177.95	-1.17%	\$	195.46	None			
Financials	Federated Investors Inc.	FII	31.07	30.67	-1.29%	\$	33.71	None			
Financials	Synovus Financial Corp.	SNV	46.85	46.18	-1.43%	\$	50.68	None			
Materials	Trinseo S.A.	TSE	71.00	69.75	-1.76%	\$	78.86	None			
Industrials	Armstrong World Industries, Inc.	AWI	51.10	50.05	-2.05%	\$	55.97	None			
Information Technology	Cirrus Logic Inc.	CRUS	56.00	54.78	-2.18%	\$	62.93	None			
Financials	Raymond James Financial Inc.	RJF	84.78	82.79	-2.35%	\$	91.41	None			
Materials	Cabot Corporation	CBT	60.96	59.52	-2.36%	\$	66.21	None			
Financials	JPMorgan Chase & Co.	JPM	100.61	98.19	-2.41%	\$	107.14	None			
Industrials	Allison Transmission Holdings, Inc.	ALSN	42.49	41.45	-2.45%	\$	47.23	None			
Financials	Western Alliance Bancorporation	WAL	55.80	54.16	-2.94%	\$	62.10	None			
Materials	Norbord Inc.	OSB	36.05	34.99	-2.94%	\$	40.89	None			
Industrials	Trex Company, Inc.	TREX	109.45	106.13	-3.03%	\$	137.66	None			
Consumer Discretionary	Thor Industries Inc.	THO	136.22	131.99	-3.11%	\$	148.96	None			
Financials	American Equity Investment Life Hold	lin AEL	29.51	28.50	-3.42%	\$	32.84	None			
Industrials	Norfolk Southern Corp.	NSC	131.42	126.42	-3.80%	\$	141.87	None			
Financials	Cullen/Frost Bankers, Inc.	CFR	98.50	94.75	-3.81%	\$	107.99	None			
Financials	Cathay General Bancorp	CATY	41.80	40.11	-4.04%	\$	45.66	None			
Financials	East West Bancorp Inc.	EWBC	59.84	57.40	-4.08%	\$	66.10	None			
Information Technology	Vishay Intertechnology Inc.	VSH	22.25	21.30	-4.27%	\$	24.17	None			
Information Technology	MKS Instruments Inc.	MKSI	108.65	101.80	-6.30%	\$	122.14	None			
Materials	Huntsman Corp.	HUN	32.02	29.41	-8.15%	\$	35.57	None			
Industrials	MasTec, Inc.	MTZ	43.55	39.93	-8.31%	\$	49.80	None			

**Ascendere Associates LLC** 

Core & Opportur	nistic Short Model				MTD								
10/31/2017 to 11/15/2017													
										Target/		Date+1	
Sector	Company	Ticker	10/31/2017	11/15/2017	Performance	Pri	ce Target	S	top Target	Stop Date	Se	II Price	Return
Information Technology	MACOM Technology Solutions Holding	MTSI	40.88	30.02	-26.57%	\$	33.79	\$	47.97	11/15/2017		NA	
Healthcare	Puma Biotechnology, Inc.	PBYI	127.30	100.70	-20.90%					11/10/2017	\$	101.10	-20.58%
Industrials	Colfax Corporation	CFX	41.71	34.88	-16.37%					11/6/2017	\$	36.95	-11.41%
Information Technology	Symantec Corporation	SYMC	32.50	27.71	-14.74%					11/2/2017	\$	29.88	-8.06%
Healthcare	Spark Therapeutics, Inc.	ONCE	80.90	69.36	-14.26%					11/9/2017	\$	72.25	-10.69%
Industrials	Flowserve Corp.	FLS	44.07	38.63	-12.34%					11/2/2017	\$	39.25	-10.94%
Healthcare	Agios Pharmaceuticals, Inc.	AGIO	64.27	59.07	-8.09%	\$	58.36	\$	70.18				
Materials	Summit Materials, Inc.	SUM	31.40	29.06	-7.45%	\$	29.05	\$	33.75				
Consumer Discretionary	UniFirst Corp.	UNF	157.50	152.10	-3.43%					11/10/2017	\$	151.00	-4.13%
Financials	MetLife, Inc.	MET	53.58	51.84	-3.25%	\$	51.08	\$	56.08				
Industrials	Univar Inc.	UNVR	29.75	28.92	-2.79%	\$	27.86	\$	31.64				
Materials	Axalta Coating Systems Ltd.	AXTA	33.25	32.35	-2.71%	\$	29.64	\$	36.86				
Healthcare	Portola Pharmaceuticals, Inc.	PTLA	49.41	48.49	-1.86%	\$	43.66	\$	55.16				
Information Technology	Cree Inc.	CREE	35.70	35.24	-1.29%	\$	31.04	\$	40.36				
Consumer Discretionary	Under Armour, Inc.	UAA	12.52	12.41	-0.88%	\$	10.47	\$	14.57				
Materials	The Mosaic Company	MOS	22.34	22.38	0.18%	\$	20.58	\$	24.10				
Healthcare	Penumbra, Inc.	PEN	100.55	104.70	4.13%					11/8/2017	\$	115.85	15.22%
Industrials	ZTO Express (Cayman) Inc.	ZTO	15.99	16.73	4.63%	\$	14.33	\$	17.65				
Industrials	Fluor Corporation	FLR	43.09	45.27	5.06%					11/3/2017	\$	48.57	12.72%
Information Technology	ViaSat Inc.	VSAT	65.10	72.23	10.95%					11/13/2017	\$	72.90	11.98%
Consumer Discretionary	Mattel Inc.	MAT	14.12	18.32	29.75%					11/13/2017	\$	18.54	31.30%

**Ascendere Associates LLC** 

November 20	017								
MTD Theoret	ical Returns of	Core Long/	Short Mode	l Portfolios					
Simple Cumu	lative Returns								
Date	^VIX	Daily S&P 500	MTD S&P 500	Daily	Daily	Daily Dollar Neutral	MTD	MTD Short	MTD Neutral*
				Long*		_	Long		
11/01/17	10.20	0.16%	0.16%	-0.03%	-0.79%	0.76%	-0.03%	-0.79%	0.76%
11/02/17	9.93	0.02%	0.18%	0.27%	-1.11%	1.38%	0.24%	-1.89%	2.13%
11/03/17	9.14	0.31%	0.49%	0.06%	0.81%	-0.76%	0.29%	-1.08%	1.37%
11/06/17	9.40	0.13%	0.62%	0.29%	0.12%	0.17%	0.59%	-0.96%	1.55%
11/07/17	9.89	-0.02%	0.60%	-1.08%	-0.41%	-0.67%	-0.49%	-1.36%	0.88%
11/08/17	9.78	0.14%	0.74%	0.28%	-0.18%	0.45%	-0.21%	-1.54%	1.33%
11/09/17	10.50	-0.38%	0.36%	-0.55%	-0.51%	-0.03%	-0.76%	-2.06%	1.30%
11/10/17	11.29	-0.09%	0.27%	0.10%	-0.05%	0.14%	-0.66%	-2.11%	1.45%
11/13/17	11.50	0.10%	0.37%	0.18%	0.80%	-0.62%	-0.48%	-1.30%	0.83%
11/14/17	11.59	-0.23%	0.14%	-0.20%	0.00%	-0.19%	-0.67%	-1.30%	0.63%
11/15/17	13.22	-0.55%	-0.41%	0.04%	-0.98%	1.02%	-0.64%	-2.28%	1.65%
Ascendere As	ssociates LLC								
Note: These are	e theoretical retu	irns and do	not include an	y as sumptions					
for execution co	osts, slippage, m	argin, or any	other kind of	cost.					

November 20	17										
MTD Theoret	ical Returns o	f Opportuni:	stic Long/Sho	rt Model Po	rtfolios						
Simple Cumu	lative Returns	5									
		Daily	MTD	Daily	Daily	Daily	MTD	MTD	MTD	Cash	Cash
Date	^VIX	S&P 500	S&P 500	Long*	Short	Dollar Neutral	Long*	Short*	Neutral*	Long	Short
11/01/17	10.20	0.16%	0.16%	-0.03%	-0.79%	0.76%	-0.03%	-0.79%	0.76%	0%	0%
11/02/17	9.93	0.02%	0.18%	0.27%	-1.11%	1.38%	0.24%	-1.89%	2.13%	0%	0%
11/03/17	9.14	0.31%	0.49%	0.06%	0.81%	-0.76%	0.29%	-1.08%	1.37%	0%	0%
11/06/17	9.40	0.13%	0.62%	0.29%	0.12%	0.17%	0.59%	-0.96%	1.55%	0%	0%
11/07/17	9.89	-0.02%	0.60%	-1.08%	-0.41%	-0.67%	-0.49%	-1.36%	0.88%	0%	0%
11/08/17	9.78	0.14%	0.74%	0.28%	-0.18%	0.45%	-0.21%	-1.54%	1.33%	0%	0%
11/09/17	10.50	-0.38%	0.36%	-0.55%	-0.51%	-0.03%	-0.76%	-2.06%	1.30%	0%	0%
11/10/17	11.29	-0.09%	0.27%	0.10%	-0.05%	0.14%	-0.66%	-2.11%	1.45%	0%	0%
11/13/17	11.50	0.10%	0.37%	0.18%	0.80%	-0.62%	-0.48%	-1.30%	0.83%	0%	0%
11/14/17	11.59	-0.23%	0.14%	-0.20%	0.00%	-0.19%	-0.67%	-1.30%	0.63%	0%	0%
11/15/17	13.22	-0.55%	-0.41%	0.04%	-0.98%	1.02%	-0.64%	-2.28%	1.65%	0%	0%
Ascendere As	ssociates LLC										
Note: These are	e theoretical re	turns and do r	not include any	assumptions							
for execution co	osts, slippage, i	margin, or any	other kind of c	cost.							
*This model oc	cassionally ass	umes 70% an	d 100% cash po	sitions							
depending on p	portfolio return	targets and m	narket volatility	/.							

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 at the time. Please see additional disclosures and disclaimers at the back of this report.

#### **Long/Short Model Portfolio Selection Criteria**

The stocks selected for our theoretical model portfolio strategies all rank highly on four key metrics, with an emphasis on proxies for cash flow growth and ROIC:

- Relative value.
- Operating momentum.
- Consensus estimate revisions.
- Fundamental quality.

# Ascendere Associates LLC Relative Value Operating Momentum Optimal Portfolio Fundamental Quality Fundamental Quality

The highest-ranked stocks are selected for our long model portfolios and the lowest-ranked stocks are selected for our short model portfolios. More detailed stock selection criteria are explained in **September 2015 Model Portfolio report**.

Highlighted long ideas represent are typically selected from the "new idea" list, and – after a very brief review – chosen as offering the best potential upside.

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