



COMPANY UPDATE / ESTIMATE CHANGE

Key Metrics

ANSS - NASDAQ - as of 11/6/17	\$151.20
Price Target	N/A
52-Week Range	\$84.06 - \$155.14
Diluted Shares Outstanding (000s)	84,860
Market Cap. (\$000s)	\$12,830,904
1-Mo. Average Daily Volume	446,874
Institutional Ownership	99.7%
Debt/Total Capital (net) Q3'17	0%
ROE LTM	12.2%
Book Value / Share	\$26.98
Price / Book Value	5.6x
Dividend Yield	0.0%
EBITDA Margin	42.7%

EPS FY 12/31 (Non GAAP figures)

	Prior 2016A	Current 2017E		Prior 2018E	Current 2018E
1Q	\$0.77	\$0.89	A	\$0.95	\$0.99
2Q	\$0.93	\$0.99	A	\$1.01	\$1.07
3Q	\$0.95	\$1.05	A	\$1.03	\$1.14
4Q	\$0.98	\$1.03		\$1.10	\$1.20
Year	\$3.63	\$3.88		\$4.10	\$4.40
P/E	41.7x	38.1x			34.4x

Revenue (\$mil)

	Prior 2016A	Current 2017E		Prior 2018E	Current 2018E
1Q	\$226.0	\$253.5	A	\$265.5	\$ 267.2
2Q	\$246.1	\$264.3	A	\$277.5	\$ 280.5
3Q	\$245.9	\$276.7	A	\$279.5	\$ 292.9
4Q	\$270.6	\$284.7		\$299.8	\$ 307.1
Year	\$988.5	\$1,068.5		\$1,122.4	\$1,147.8

Company Description: Cannonsburg, PA - based ANSYS Inc. develops, markets and supports engineering simulation software to more than 45,000 customers on a global basis. ANSYS products are based on its unified simulation platform known as the ANSYS Workbench. ANSYS sells into the aerospace, academic, automotive, construction, consumer goods, manufacturing, electronics, biomedical, energy, and defense industries. The company has a direct sales force and a network of third party resellers.

ANSYS Inc.

ANSS - NASDAQ – Neutral - 2

ANSYS Reports Better Than Expected Q3'17 Results; Raises FY Guidance on Strength in Pervasive Simulation

- Results.** ANSYS reported revenue of \$276.7 million, an increase of 13% y/y. This was above our estimate of \$265.88 million. Bookings of \$285.15 million jumped 38% y/y. Non GAAP EPS was \$1.05 vs. \$0.95 in the prior year period and beat our \$0.97 estimate. Results were well above our view as ANSYS signed several large contracts during the quarter, including the largest multi-year deal in company history. Lease license revenue grew 10% y/y, perpetual license revenue jumped 16%, service revenue grew 11%, and maintenance revenue was up 12%. Operating cash flow was \$112.2 million vs. \$79.7 million reported last year. Deferred revenue and backlog increased 38% y/y to a record \$669.3 million. Net cash totaled \$926.6 million, or \$10.60 per share.
- Guidance.** ANSYS provided Q4'17 revenue guidance of \$284 million to \$293 million and EPS of \$0.99-\$1.05. This compares favorably to our prior Q4'17 outlook of \$284.7 million and EPS of \$1.03. ANSYS increased their FY'17 EPS guidance to \$3.93 to \$3.99 from \$3.80 to \$3.87 on revenue of \$1.079 billion to \$1.088 billion from \$1.053 to \$1.073 billion and our prior view of \$3.88 on revenue of \$1.068 billion.
- Outlook.** We increase our Q4'17 EPS estimate to \$1.04 from \$1.03 on improved revenue growth. Our Q4 revenue estimate increases to \$288.5 million on record bookings, improved global macro spending, and broad-based industry level strength. Our FY'17 EPS estimate increases to \$3.97 on the better than expected Q3 results and our higher Q4 view. Our FY'18 EPS estimate increases to \$4.40 on higher revenue growth offset by lower margins. We are also modeling a lower tax rate which contributes to our 11% EPS growth rate, the fastest growth rate since 2013.
- Valuation.** We maintain our Neutral rating on shares of ANSS. Despite our improved growth forecast in FY'18, ANSS shares trade at a forward P/E multiple of 34.4x our FY'18 EPS estimate, a relatively high valuation, in our opinion.

Note Important Disclosures on Pages 5-6
Note Analyst Certification on Page 5

VALUATION

We maintain our Neutral rating on shares of ANSS. ANSS shares trade at 34.5x our FYE'18 EPS estimate of \$4.40. Excluding net cash, shares trade at a 32x forward multiple. This is near the high end of the company's 10 year historical forward P/E multiple range. Despite continued sequential EPS growth improvements, we continue to find this multiple elevated given our EPS growth rates expected through our FYE'18 investment timeframe. From a portfolio allocation perspective, we view ANSYS as a superior holding on a risk-adjusted return basis.

We view shares as fairly valued and maintain our Neutral investment rating. We believe the company's high profitability and largely recurring revenue base, strong cash flows, continued investments/M&A in pervasive simulation, and positive global industry trends within several growth market verticals remain long-term growth catalysts for ANSYS. We view ANSYS as a key technology partner to leading global manufacturers providing pervasive simulation through product development and product lifecycle management. ANSYS is an attractive software company based on its leading software platform and recurring revenue base; however, we would continue to wait for a more attractive entry point before recommending shares.

SUITABILITY

We apply a suitability rating of 2 on shares of ANSS on our scale of 1-4 (1 = most conservative, 4 = most aggressive). A 2 rating is given based on ANSYS's broad revenue base. A majority of revenues are derived from over 11 industries with revenue also spread broadly throughout the globe. We also believe the company is stable and management has significant foresight into future business conditions as over 76% of ANSYS revenue is classified as recurring revenue. ANSYS products offer a wide-range of multi-physics simulation tests compared to a more narrow focus by the competition. However, the engineering simulation software industry remains a niche industry with high growth characteristics. We believe a suitability rating of 2 incorporates these attributes and is appropriate given management's ability to efficiently run the company. ANSYS Inc. is most suited for aggressive growth investors seeking long-term capital appreciation.

ANSYS Inc. Income Statement (in thousands)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Q1'17	Q2'17	Q3'17	Q4'17E	2017E	2018E
Revenue:																		
Software licenses	\$ 85,680	\$ 156,960	\$ 253,287	\$ 318,154	\$ 315,633	\$ 351,033	\$ 425,881	\$ 501,870	\$ 528,944	\$ 564,502	\$ 555,105	\$ 568,174	\$ 141,908	\$ 149,880	\$ 156,580	\$ 169,581	\$ 617,949	\$ 646,718
Maintenance and service	72,356	106,680	132,053	160,185	201,252	229,203	265,568	296,148	332,316	371,519	387,648	420,291	111,497	114,044	119,005	118,943	463,489	501,163
Other (non GAAP)	-	18,387	1,829	14,625	8,049	-	9,621	9,636	4,632	5,421	1,725	103	143	424	1,181	-	1,748	-
Total revenue	158,036	282,027	387,169	492,964	524,934	580,236	701,070	807,654	865,892	941,442	944,478	988,568	253,548	264,348	276,766	288,524	1,083,186	1,147,881
Cost of sales:																		
Software licenses	5,292	7,306	9,113	9,766	10,210	10,770	15,884	24,512	28,018	29,132	28,360	28,159	9,027	7,204	7,255	8,944	32,430	35,165
Amortization	3,576	14,909	21,532	27,803	36,011	32,757	33,728	40,889	22,498	(9,347)	(19,345)	(12,708)	(8,893)	(3,148)	(3,296)	(3,262)	(18,599)	(19,157)
Maintenance and service	15,171	34,512	47,402	53,845	50,021	57,352	69,402	74,115	79,443	83,582	77,518	78,330	18,392	19,132	18,845	21,062	77,431	85,687
Restructuring charges and other	-	-	-	-	994	-	-	-	-	-	1,725	103	-	-	500	-	500	-
Total cost of sales	24,039	56,727	78,047	91,414	97,236	100,879	119,014	139,516	129,959	103,367	88,258	93,884	18,526	23,188	23,304	26,744	91,762	101,694
Gross profit	133,997	225,300	309,122	401,550	427,698	479,357	582,056	668,138	735,933	838,075	856,220	894,684	235,022	241,160	253,462	261,780	991,424	1,046,187
Operating expenses:																		
Selling, general and administrative	43,285	86,901	115,108	134,887	137,264	155,096	180,357	205,178	214,740	232,780	236,450	253,525	67,461	68,479	71,233	79,344	286,517	302,356
Research and development	30,688	49,406	56,481	71,594	79,856	88,990	108,530	132,628	147,665	152,640	154,646	168,015	50,497	44,502	45,032	48,184	188,215	208,760
Amortization	1,184	6,350	8,935	10,713	16,326	16,003	17,989	26,443	22,359	23,388	19,394	12,755	3,107	3,139	3,260	3,751	13,257	14,367
Restructuring charges and other	-	28,100	-	-	2,726	-	-	-	-	-	-	(3,400)	(3,526)	(2,000)	-	-	(5,526)	-
Total operating expenses	70,927	116,157	141,724	167,294	170,505	192,389	229,976	263,673	312,889	386,188	408,890	430,540	117,439	113,620	119,325	131,079	481,463	524,683
Operating income	63,070	109,143	167,398	234,256	257,193	286,968	352,080	404,465	423,044	451,887	447,330	464,144	117,583	127,540	134,137	130,702	509,962	521,504
Interest expense	-	(3,013)	(6,822)	(9,342)	(10,401)	(4,488)	(3,332)	(2,661)	(1,169)	(779)	(922)	(221)	-	-	-	-	-	-
Interest income	4,294	-	4,916	5,575	1,740	1,911	3,000	3,360	2,841	3,002	2,829	4,209	1,249	1,668	1,910	1,200	6,027	6,000
Other (expense) income, net	(23)	(82)	(600)	727	(1,287)	(297)	(369)	(1,405)	(1,046)	(1,534)	628	193	(1,154)	(190)	(168)	(400)	(1,912)	(800)
Income before income tax provision	67,341	106,048	164,892	231,216	247,245	284,094	351,379	403,759	423,670	452,553	449,865	468,538	117,678	129,018	135,879	131,502	514,077	526,704
Income tax provision	19,208	18,905	41,871	55,020	57,138	63,262	84,183	90,064	77,162	93,449	104,244	114,679	22,261	30,142	34,295	32,875	119,573	115,611
Net income	46,884	70,643	108,921	152,396	164,207	198,032	243,796	276,633	311,403	323,411	313,375	323,076	77,489	86,376	91,268	89,970	345,103	378,191
Earnings per share Non GAAP:																		
Basic	\$ 1.48	\$ 1.94	\$ 1.40	\$ 1.84	\$ 1.86	\$ 2.18	\$ 2.65	\$ 2.99	\$ 3.36	\$ 3.51	\$ 3.50	\$ 3.70	\$ 0.90	\$ 1.01	\$ 1.07	\$ 1.06	\$ 4.05	\$ 4.54
Diluted	\$ 1.39	\$ 1.85	\$ 1.34	\$ 1.76	\$ 1.79	\$ 2.12	\$ 2.58	\$ 2.91	\$ 3.27	\$ 3.43	\$ 3.42	\$ 3.63	\$ 0.89	\$ 0.99	\$ 1.05	\$ 1.04	\$ 3.97	\$ 4.40
Weighted average shares																		
Diluted	33,692	38,199	81,135	86,768	91,785	93,209	94,381	94,955	95,139	94,194	91,502	88,969	87,224	86,895	86,588	86,900	86,902	86,025
Year/Year Growth Rate:																		
Total revenue	17.5%	78.5%	37.3%	27.3%	6.5%	10.5%	20.8%	15.2%	7.2%	8.7%	0.3%	4.7%	12.2%	7.4%	12.6%	6.6%	9.6%	6.0%
Total cost of sales	12.8%	136.0%	37.6%	17.1%	6.4%	3.7%	18.0%	17.2%	-6.9%	-20.5%	-14.6%	6.4%	-16.4%	-2.2%	4.6%	4.0%	-2.3%	10.8%
Gross profit	18.3%	68.1%	37.2%	29.9%	6.5%	12.1%	21.4%	14.8%	10.1%	13.9%	2.2%	4.5%	15.3%	8.5%	13.4%	6.9%	10.8%	5.5%
Total operating expenses	5.5%	63.8%	22.0%	18.0%	1.9%	12.8%	19.5%	14.7%	18.7%	23.4%	5.9%	5.3%	18.5%	6.3%	17.4%	6.7%	11.8%	9.0%
Operating income	37.2%	73.1%	53.4%	39.9%	9.8%	11.6%	22.7%	14.9%	4.6%	6.8%	-1.0%	3.8%	12.1%	10.5%	10.0%	7.1%	9.9%	2.3%
Net income	-50.1%	50.7%	54.2%	39.9%	7.8%	20.6%	23.1%	13.5%	12.6%	3.9%	-3.1%	3.1%	11.6%	3.8%	8.4%	4.5%	6.8%	9.6%
Earnings per share Non GAAP Diluted	-51.1%	32.9%	-27.4%	30.8%	1.9%	18.8%	21.6%	12.8%	12.4%	4.9%	-0.3%	6.1%	15.3%	6.7%	11.0%	5.6%	9.3%	10.7%
Shares outstanding Diluted	2.2%	13.4%	112.4%	6.9%	5.8%	1.6%	1.3%	0.6%	0.2%	-1.0%	-2.9%	-2.8%	-3.2%	-2.7%	-2.4%	-1.0%	-2.3%	-1.0%
Percentage of Total Revenue																		
Software licenses	54.2%	55.7%	65.4%	64.5%	60.1%	60.5%	60.7%	62.1%	61.1%	60.0%	58.8%	57.5%	56.0%	56.7%	56.6%	58.8%	57.0%	56.3%
Maintenance and service	45.8%	37.8%	34.1%	32.5%	38.3%	39.5%	37.9%	36.7%	38.4%	39.5%	41.0%	42.5%	44.0%	43.1%	43.0%	41.2%	42.8%	43.7%
Software licenses costs	3.3%	2.6%	2.4%	2.0%	1.9%	1.9%	2.3%	3.0%	3.2%	3.1%	3.0%	2.8%	3.6%	2.7%	2.6%	3.1%	3.0%	3.1%
Maintenance and service costs	9.6%	12.2%	12.2%	10.9%	9.5%	9.9%	9.9%	9.2%	9.2%	8.9%	8.2%	7.9%	7.3%	7.2%	6.8%	7.3%	7.1%	7.5%
Maintenance and service costs/ MS revs	21.0%	32.4%	35.9%	33.6%	24.9%	25.0%	26.1%	25.0%	23.9%	22.5%	20.0%	18.6%	16.5%	16.8%	15.8%	17.7%	16.7%	17.1%
Total cost of sales	15.2%	20.1%	20.2%	18.5%	18.5%	17.4%	17.0%	17.3%	15.0%	11.0%	9.3%	9.5%	7.3%	8.8%	8.4%	9.3%	8.5%	8.9%
Gross profit margin	87.1%	85.2%	85.4%	87.1%	88.3%	88.3%	87.8%	87.8%	87.6%	88.0%	88.6%	89.2%	89.2%	90.0%	90.4%	89.6%	89.8%	89.5%
Selling, general and administrative	27.4%	30.8%	29.7%	27.4%	26.1%	26.7%	25.7%	25.4%	24.8%	24.7%	25.0%	25.6%	26.6%	25.9%	25.7%	27.5%	26.5%	26.3%
Research and development	19.4%	17.5%	14.6%	14.5%	15.2%	15.3%	15.5%	16.4%	17.1%	16.2%	16.4%	17.0%	19.9%	16.8%	16.3%	16.7%	17.4%	18.2%
Total operating expenses	44.9%	41.2%	36.6%	33.9%	32.5%	33.2%	32.8%	32.6%	36.1%	41.0%	43.3%	43.6%	46.3%	43.0%	43.1%	45.4%	44.4%	45.7%
Operating margin	39.9%	38.7%	43.2%	47.5%	49.0%	49.5%	50.2%	50.1%	48.9%	48.0%	47.4%	47.0%	46.4%	48.2%	48.5%	45.3%	47.1%	45.4%
Net profit margin	29.7%	25.0%	28.1%	30.9%	31.3%	34.1%	34.8%	34.3%	36.0%	34.4%	33.2%	32.7%	30.6%	32.7%	33.0%	31.2%	31.9%	32.9%

Source: Company data & Hilliard Lyons estimates

ANSYS Inc. Balance Sheet (in thousands)	2008	2009	2010	2011	2012	2013	2014	2015	2016	Q1'17	Q2'17	Q3'17
Assets												
Current Assets:												
Cash & short-term investments	233,875	343,844	472,934	472,404	577,155	742,986	788,778	784,614	822,860	866,556	863,482	926,635
Accounts receivable	61,823	67,084	76,604	84,602	96,598	97,845	101,229	91,579	107,192	92,332	83,223	91,356
Other	95,462	86,735	147,402	163,296	216,268	200,734	192,308	200,233	239,349	223,181	198,975	183,683
Deferred income taxes	5,993	17,827	17,693	19,731	23,338	26,031	28,178	-	-	-	-	-
Total current assets	397,153	515,490	714,633	740,033	913,359	1,067,596	1,110,493	1,076,426	1,169,401	1,182,069	1,145,680	1,201,674
Property and equipment, net	36,812	35,131	36,921	45,638	52,253	60,538	64,643	61,924	54,677	54,513	53,930	57,160
Goodwill	1,048,003	1,038,824	1,035,083	1,225,375	1,251,247	1,255,704	1,312,182	1,332,348	1,337,215	1,340,391	1,342,968	1,353,444
Other intangible assets, net	373,398	322,313	278,320	383,420	351,173	291,390	259,312	220,553	172,619	164,112	153,639	154,996
Other long-term assets	8,692	5,848	56,123	46,942	24,393	10,586	6,187	5,757	24,287	19,122	25,639	33,633
Deferred income taxes	456	2,576	5,796	7,062	14,992	18,432	21,286	32,896	42,327	34,486	39,109	45,106
Total assets	1,864,514	1,920,182	2,126,876	2,448,470	2,607,417	2,722,382	2,774,103	2,729,904	2,800,526	2,794,693	2,760,965	2,846,013
Liabilities and stockholders' equity												
Current portion of long-term debt & Cap. Lease	29,630	26,758	31,962	74,423	53,149	-	-	-	-	-	-	-
Deferred revenue	166,189	169,275	199,805	259,155	305,793	309,775	332,664	364,644	403,279	414,708	411,646	381,727
Total current liabilities	267,664	266,766	311,369	438,751	477,387	440,431	465,099	484,146	539,100	528,726	514,787	496,352
Long-term liabilities:												
Long-term debt and capital lease obligations	249,795	198,668	127,563	53,149	-	-	-	-	-	-	-	-
Deferred income taxes	127,527	107,313	75,026	101,618	92,822	66,899	37,390	2,091	2,259	2,227	2,276	1,793
Other	36,629	34,804	82,989	100,479	96,917	60,670	54,113	49,240	50,762	52,295	54,487	60,614
Total long-term liabilities	413,951	340,785	285,578	255,246	189,739	145,705	91,503	51,331	53,021	54,522	56,763	62,407
Commitments and contingencies	-	-	-	-	-	-	-	-	-	-	-	-
Stockholders' equity:												
Preferred stock	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	897	897	916	927	932	932	932	932	932	932	932	932
Additional paid in capital	806,755	801,574	856,718	905,662	927,368	926,031	904,825	894,469	883,010	853,478	855,782	865,430
Retained earnings	385,810	502,201	655,333	836,008	1,039,491	1,284,818	1,539,508	1,792,029	2,057,665	2,120,971	2,190,701	2,264,331
Treasury stock	(9,079)	(853)	-	-	(36,151)	(72,891)	(196,010)	(440,839)	(675,550)	(713,853)	(814,424)	(804,012)
Accumulated other comprehensive income	(1,484)	8,812	16,962	11,876	8,651	(2,644)	(31,754)	(52,164)	(57,652)	(50,083)	(43,576)	(39,427)
Non controlling interest	-	-	-	-	-	-	-	-	-	-	-	-
Total stockholders' equity	1,182,899	1,312,631	1,529,929	1,754,473	1,940,291	2,136,246	2,217,501	2,194,427	2,208,405	2,211,445	2,189,415	2,287,254
Total liabilities and stockholders' equity	\$1,864,514	\$1,920,182	\$2,126,876	\$2,448,470	\$2,607,417	\$2,722,382	\$2,774,103	\$2,729,904	\$2,800,526	\$2,794,693	\$2,760,965	\$2,846,013

Source: Company data

RISKS & CONSIDERATIONS

Risks to our valuation include but are not limited to:

- Changes in macroeconomic conditions that can affect global industrial and IT spending.
- A decline in customer sales as a result of end user demand.
- Heavy reliance of significant sales to existing customers.
- Risks resulting from international business including foreign currency exchange effects.
- Termination of strategic alliances with CAD vendors.
- New disruptive technology enters the marketplace or the introduction of defective products.
- Increased competition from larger, well-funded companies may reduce product pricing.
- Retaining key personnel. The loss of engineering personnel could impact future product releases.
- Reliance on third party distribution channel for a portion of total sales.
- Uneven revenue flow from the proportion of sales from perpetual licenses vs. time based licensing.
- Poor integration of newly acquired businesses and the lack of acquisition targets or the ability of the company to acquire new businesses.
- Breach of security could impact the company for a significant period of time.
- Legal proceedings involving intellectual property rights and other business activities.
- Regulatory and tax implications from government bodies.

Additional information is available upon request.

Analyst Certification

I, Stephen Turner, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

Important Disclosures

Hilliard Lyons' analysts receive bonus compensation based on Hilliard Lyons' profitability. They do not receive direct payments from investment banking activity.

Suitability Ratings

1 - A large cap, core holding with a solid history

2 - A historically secure company which could be cyclical, has a shorter history than a "1" or is subject to event driven setbacks

3 - An above average risk/reward ratio could be due to small size, lack of product diversity, sporadic earnings or high leverage

4 - Speculative, due to small size, inconsistent profitability, erratic revenues, volatility, low trading volume or a narrow customer or product base

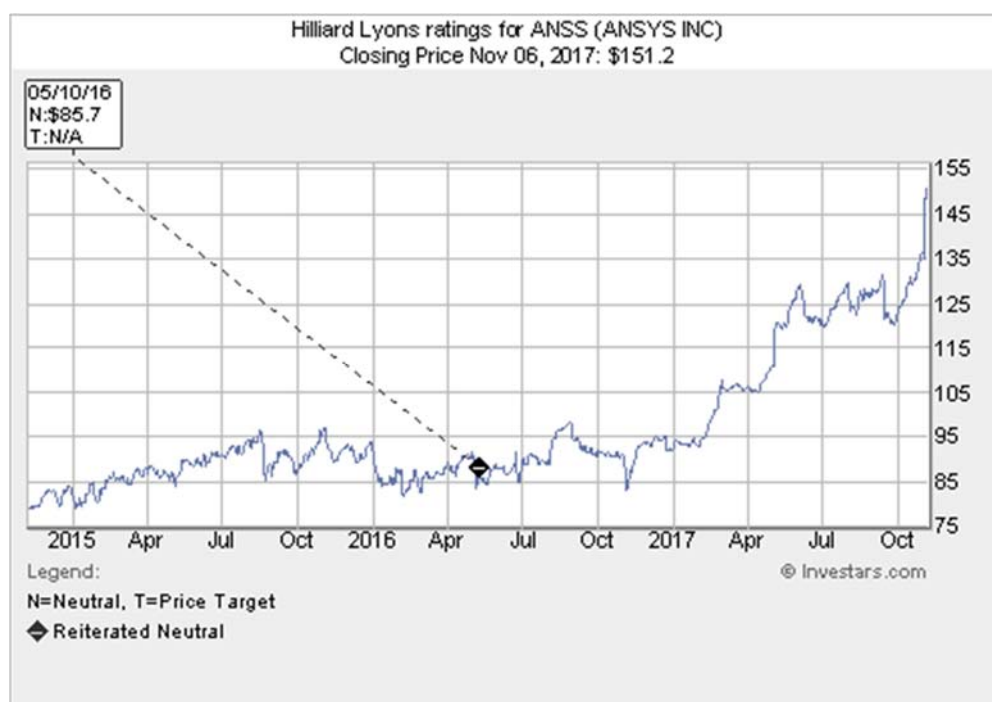
Investment Ratings

Buy - We believe the stock has significant total return potential in the coming 12 months.

Long-term Buy - We believe the stock is an above average holding in its sector, and expect solid returns to be realized over a longer time frame than our Buy rated issues, typically 2-3 years.

Neutral - We believe the stock is an average holding in its sector, is currently fully valued, and may be used as a source of funds if better opportunities arise.

Underperform - We believe the stock is vulnerable to a price setback in the next 12 months.



	Hilliard Lyons Recommended Issues		Investment Banking Provided in Past 12 Mo.	
	# of Stocks Covered	% of Stocks Covered	Banking	No Banking
Rating				
Buy	39	32%	8%	92%
Hold/Neutral	74	60%	9%	91%
Sell	8	7%	0%	100%
Restriction	2	2%	100%	0%

As of 5 October 2017

Other Disclosures

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