



COMPANY UPDATE / ESTIMATE CHANGE

Key Metrics

ANSS - NASDAQ - as of 5/8/17	\$121.13
Price Target	N/A
52-Week Range	\$82.28 - \$122.77
Diluted Shares Outstanding (000s)	87,224
Market Cap. (\$mm)	\$10,565,443
1-Mo. Average Daily Volume	448,667
Institutional Ownership	99.9%
Debt/Total Capital (net) Q1'17	0%
ROE LTM	14.1%
Book Value / Share	\$24.90
Price / Book Value	4.9x
Dividend Yield	0.0%
EBITDA Margin	53.7%

EPS FY 12/31 (Non GAAP figures)

	Prior	Current		Prior	Current
	2016A	2017E		2018E	2018E
1Q	\$0.77	\$0.89	A	\$1.00	\$0.99
2Q	\$0.93	\$0.91		\$1.04	\$0.98
3Q	\$0.95	\$0.96		\$1.09	\$1.03
4Q	\$0.98	\$1.15		\$1.21	\$1.13
Year	\$3.63	\$3.82		\$4.35	\$4.13
P/E	33.4x	31.9x			29.3x

Revenue (\$mil)

	Prior	Current		Prior	Current
	2016A	2017E		2018E	2018E
1Q	\$226.0	\$253.5	A	\$253.9	\$266.4
2Q	\$246.1	\$259.5		\$273.0	\$273.0
3Q	\$245.9	\$259.9		\$273.5	\$273.5
4Q	\$270.6	\$284.7		\$299.8	\$299.8
Year	\$988.5	\$1,045.1		\$1,100.2	\$1,112.7

Company Description: Cannonsburg, Pennsylvania 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 Strong Q1'17 Results

- Results.** For the first full quarter under new CEO, Ajei Gopal, ANSYS reported better than expected revenue of \$253.5 million, an increase of 12% y/y. This was above our estimate of \$240.8 million and the consensus estimate of \$242 million. Lease license revenue grew 16% y/y, perpetual license revenue grew 9%, service revenue grew 15%, and maintenance revenue was up 12%. Non GAAP EPS was \$0.89 vs. \$0.77 in the prior year period, beating our \$0.81 estimate and the consensus estimate of \$0.84. Q1 bookings jumped 19.3% y/y to \$263.9 million. Deferred revenue and backlog increased 29% y/y to a record \$652.6 million, also the fastest growth rate in several years. Operating cash flow was \$125.9 million vs. \$110.7 million reported last year. Free cash flow was \$121.8 million. Net cash totaled \$866.6 million or \$9.85 per share. ANSYS repurchased 1 million shares during Q1 and has 4.5 million shares remaining under the share repurchase authorization.
- Guidance.** ANSYS provided Q2'17 revenue guidance of \$254 million to \$263 million and EPS of \$0.88 to \$0.93. ANSYS increased their FY'17 EPS guidance range of \$3.68 to \$3.85 on revenue of \$1.03 to \$1.058 billion vs a prior view of \$3.63 to \$3.83 on revenue of \$1.01 to \$1.045 billion. The higher revenue guidance is a result of improved Q1 performance and strong bookings growth which is expected to lift results throughout the remainder of the year.
- Outlook.** We increase our Q2'17 EPS estimate to \$0.92 from \$0.91 largely a result of lower share count. Our Q2 revenue estimate has been maintained at \$259.5 million. Our FY'17 outlook remains largely unchanged as our EPS estimate declines \$0.02 to \$3.80 on the assumption of a higher full year tax rate, offset by our lower share count estimate.
- Valuation.** We maintain our Neutral opinion on shares of ANSS. We note improved growth in Q1'17 and the expectation of continued improvements throughout FY'17 & '18 from strength in bookings, and record deferred revenue and backlog, which is offset by ANSS shares trading at decade high valuation multiples.

Note Important Disclosures on Pages 6-7

Note Analyst Certification on Page 6

ADDITIONAL DISCUSSION

ANSYS reported strong lease license revenue of \$93.78 million an increase of 16% y/y as customers in developed markets continue to shift to time based licenses. However, perpetual software licenses bounced back in the quarter increasing 9% y/y to \$48.2 million as Asia-Pacific region including China and India had strong growth and continue to prefer perpetual licenses. Maintenance and service revenue increased 12% y/y to \$104.4 million. North America, France, and Asia-Pacific regions outperformed, while the U.K. and Germany lagged. Overall business performance remained strong and ANSYS remains the industry leader within the fragmented engineering simulation software market. During Q1 31 customers had orders over \$1 million vs. 22 last year.

We believe ANSYS's continued investments in simulation driven product development including ANSYS 18 which launched in January, as well as global industry trends within electronics, semiconductors, automotive (self-driving, ADAS, electrification), aerospace and defense, energy efficiency, product safety, factory automation, artificial intelligence, commercial space sector, additive manufacturing, and the Internet of Things are tailwinds for ANSYS, the leader in multi-physics simulation software.

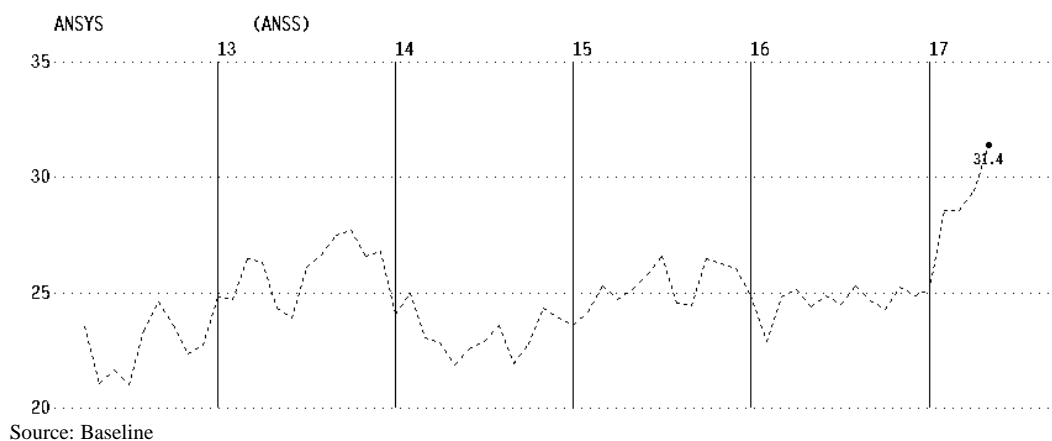
With recent leadership changes and restructuring activity, we note we continue to hold the company in high regard and note valuation as our main concern at this juncture. Simulation has been proven to reduce product development times and lower product costs, which in a highly competitive global environment is key to a manufacturer's success. ANSYS continues to grow its user base and the amount of licenses per user as simulation expands from design, and prototyping, to product lifecycle management with operators creating digital twins within an Internet of Things ecosystem. We expect more companies and more engineers to use an increasing amount of products within the ANSYS suite of simulation software.

VALUATION

We maintain our Neutral rating on shares of ANSS. ANSS shares trade at 29x our FYE'18 EPS estimate of \$4.13. Excluding net cash, shares trade at a 27x forward multiple. This is near the high end of the company's 10 year historical forward P/E multiple range. However, Q1 growth rates improved significantly from recent levels of historically low growth rates. We continue to find this multiple elevated given single-digit EPS growth 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 for investors seeking growth opportunities in the markets and industries listed above vs. an industrial company with potentially lower profitability and less diversification. Roughly 78% of the company's revenue is recurring which allows for significant foresight into future revenue predictability and affords us the ability to recommend a suitability rating above that of other technology companies of similar size within our coverage universe.

ANSYS 5 Year Historical Forward Price to Consensus Earnings Multiple



VALUATION CONTINUED...

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 systems based simulation, positive global industry trends within several growth market verticals, and few comparable competitors remain long-term growth catalysts for ANSYS. We view ANSYS as 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. We maintain our Neutral rating due to our more conservative FY'18 outlook and expensive valuation based on our current and future growth rate assumptions.

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 evenly throughout the globe. We also believe the company is stable and management has significant foresight into future business conditions as over 70% 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	Q2'17E	Q3'17E	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	\$ 146,730	\$ 145,111	\$ 166,351	\$ 600,101	\$ 617,394
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	112,856	114,839	118,397	457,589	495,345
Other (non GAAP)	-	18,387	1,829	14,625	8,049	-	9,621	9,636	4,632	5,421	1,725	103	143	-	-	-	143	-
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	259,586	259,950	284,749	1,057,832	1,112,739
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	8,099	8,058	8,827	34,012	33,576
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)	(3,291)	(3,299)	(3,262)	(18,745)	(19,308)
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	21,026	20,276	21,356	81,051	90,732
Restructuring charges and other	-	-	-	-	994	-	-	-	-	-	1,725	103	-	-	-	-	-	-
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	25,834	25,036	26,921	96,317	105,001
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	233,752	234,914	257,828	961,515	1,007,739
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	68,790	67,587	74,035	277,873	291,495
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	44,130	43,672	47,553	185,851	202,507
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	3,375	3,379	3,702	13,563	14,202
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	114,095	114,438	125,089	471,061	507,405
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	119,657	120,476	132,738	490,454	500,334
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	1,300	1,300	1,200	5,049	5,250
Other (expense) income, net	(23)	(82)	(600)	727	(1,287)	(297)	(369)	(1,405)	(1,046)	(1,534)	628	193	(1,154)	(800)	(600)	(400)	(2,954)	(3,200)
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	120,157	121,176	133,538	492,549	502,384
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	32,442	32,718	34,720	122,141	120,572
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	79,515	80,660	90,276	327,940	349,713
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	\$ 0.93	\$ 0.95	\$ 1.07	\$ 3.84	\$ 4.20
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	\$ 0.92	\$ 0.94	\$ 1.05	\$ 3.80	\$ 4.13
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	86,550	86,000	85,700	86,369	84,750
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%	5.5%	5.7%	5.2%	7.0%	5.2%
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%	8.9%	12.4%	4.7%	2.6%	9.0%
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%	5.1%	5.1%	5.3%	7.5%	4.8%
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%	6.7%	12.6%	1.8%	9.4%	7.7%
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%	3.6%	-1.2%	8.7%	5.7%	2.0%
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%	-4.4%	-4.2%	4.8%	1.5%	6.6%
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%	-1.4%	-1.2%	7.4%	4.6%	8.7%
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%	-3.1%	-3.0%	-2.4%	-2.9%	-1.9%
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%	56.5%	55.8%	58.4%	56.7%	55.5%
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%	43.5%	44.2%	41.6%	43.3%	44.5%
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%	3.1%	3.1%	3.1%	3.2%	3.0%
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%	8.1%	7.8%	7.5%	7.7%	8.2%
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%	18.6%	17.7%	18.0%	17.7%	18.3%
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%	10.0%	9.6%	9.5%	9.1%	9.4%
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%	88.8%	89.1%	89.4%	89.1%	88.8%
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%	26.5%	26.0%	26.0%	26.3%	26.2%
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%	17.0%	16.8%	16.7%	17.6%	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%	44.0%	44.0%	43.9%	44.5%	45.6%
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%	46.1%	46.3%	46.6%	46.4%	45.0%
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%	30.6%	31.0%	31.7%	31.0%	31.4%

Source: Company data & Hilliard Lyons estimates

ANSYS Inc. Balance Sheet (in thousands)	2008	2009	2010	2011	2012	2013	2014	2015	Q1'16	Q2'16	Q3'16	Q4'16	2016	Q1'17
Assets														
Current Assets:														
Cash & short-term investments	233,875	343,844	472,934	472,404	577,155	742,986	788,778	784,614	863,877	843,765	838,272	822,860	822,860	866,556
Accounts receivable	61,823	67,084	76,604	84,602	96,598	97,845	101,229	91,579	82,498	85,506	85,273	107,192	107,192	92,332
Other	95,462	86,735	147,402	163,296	216,268	200,734	192,308	200,233	172,304	180,471	176,606	239,349	239,349	223,181
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	1,118,679	1,109,742	1,100,151	1,169,401	1,169,401	1,182,069
Property and equipment, net	36,812	35,131	36,921	45,638	52,253	60,538	64,643	61,924	60,151	58,095	55,628	54,677	54,677	54,513
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	1,334,129	1,333,397	1,333,531	1,337,215	1,337,215	1,340,391
Other intangible assets, net	373,398	322,313	278,320	383,420	351,173	291,390	259,312	220,553	209,677	196,933	184,768	172,619	172,619	164,112
Other long-term assets	8,692	5,848	56,123	46,942	24,393	10,586	6,187	5,757	5,966	16,926	17,271	24,287	24,287	19,122
Deferred income taxes	456	2,576	5,796	7,062	14,992	18,432	21,286	32,896	30,226	32,568	39,008	42,327	42,327	34,486
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	2,758,828	2,747,661	2,730,357	2,800,526	2,800,526	2,794,693
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	375,140	375,802	359,979	403,279	403,279	414,708
Total current liabilities	267,664	266,766	311,369	438,751	477,387	440,431	465,099	484,146	474,824	467,710	454,437	539,100	539,100	528,726
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	6,571	2,160	1,661	2,259	2,259	2,227
Other	36,629	34,804	82,989	100,479	96,917	60,670	54,113	49,240	43,530	41,931	44,494	50,762	50,762	52,295
Total long-term liabilities	413,951	340,785	285,578	255,246	189,739	145,705	91,503	51,331	50,101	44,091	46,155	53,021	53,021	54,522
Commitments and contingencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stockholders' equity:														
Preferred stock	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Common stock	897	897	916	927	932	932	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	882,438	884,675	884,461	883,010	883,010	853,478
Retained earnings	385,810	502,201	655,333	836,008	1,039,491	1,284,818	1,539,508	1,792,029	1,848,497	1,918,125	1,987,682	2,057,665	2,057,665	2,120,971
Treasury stock	(9,079)	(853)	-	-	(36,151)	(72,891)	(196,010)	(440,839)	(456,871)	(527,931)	(605,413)	(675,550)	(675,550)	(713,853)
Accumulated other comprehensive income	(1,484)	8,812	16,962	11,876	8,651	(2,644)	(31,754)	(52,164)	(41,093)	(39,941)	(37,897)	(57,652)	(57,652)	(50,083)
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	2,233,903	2,235,860	2,229,765	2,208,405	2,208,405	2,211,445
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	\$ 2,758,828	\$ 2,747,661	\$ 2,730,357	\$ 2,800,526	\$ 2,800,526	\$ 2,794,693

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

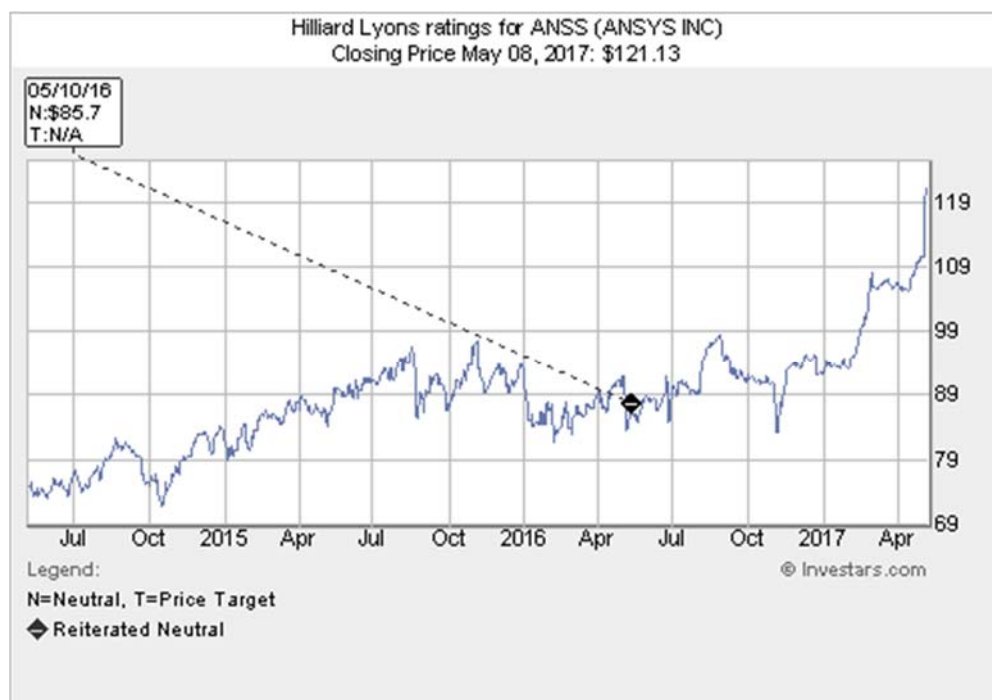
Investment Ratings

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	36	30%	14%	86%
Hold/Neutral	71	58%	6%	94%
Sell	15	12%	7%	93%

As of 5 April 2017

Other Disclosures

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