



COMPANY UPDATE / TARGET CHANGE ESTIMATE CHANGE

Technology - Software
 Analyst: Stephen Turner
 502.588.8675 / STurner@hilliard.com
 Institutional Sales Desk: George Moorin
 502.588.9141 / GMoorin@hilliard.com
 J.J.B. Hilliard, W.L. Lyons, LLC
 July 24, 2017

Key Metrics

MSFT - NASDAQ - as of	7/21/17	\$73.79
Price Target		\$74.00
52-Week Range	\$55.61 -	\$74.30
Diluted Shares Outstanding (mil)		7,721
Market Cap. (\$mil)		\$569,696.8
1-Mo. Average Daily Volume		26,435,316
Institutional Ownership		74.7%
Debt/Total Capital (net) %	FQ4'17	0%
ROE	FQ4'17	29%
Book Value / Share		\$9.38
Price / Book Value		7.9x
Indicated Dividend / Yield	\$1.56	2.1%
LTM EBITDA Margin		34.9%

EPS FY 6/30 (adjusted earnings)

	Prior	Current	Prior	Current
2016A	2017E	2017A	2018E	2018E
1Q	\$0.67	\$0.76	\$0.74	\$0.83
2Q	\$0.78	\$0.83	\$0.84	\$0.87
3Q	\$0.62	\$0.73	\$0.77	\$0.74
4Q	\$0.69	\$0.98	\$0.82	\$0.77
Year	\$2.76	\$3.31	\$3.17	\$3.20
P/E	26.7x	22.3x		23.1x

Revenue (\$bn)

	Prior	Current	Prior	Current
2016A	2017E	2017A	2018E	2018E
1Q	\$21.7	\$22.3	\$24.3	\$24.9
2Q	\$25.7	\$26.1	\$27.2	\$27.5
3Q	\$22.1	\$23.5	\$25.0	\$25.0
4Q	\$22.6	\$24.7	\$26.5	\$26.5
Year	\$92.0	\$96.7	\$103.0	\$103.9

*Figures may not equal due to rounding

Company Description: Redmond, Washington based Microsoft is the world's leading software developer. Microsoft was founded in 1975 and historically benefited from the success of the Windows operating system which currently runs on >90% of all PCs. As of the most recent quarter, the company derived a significant portion of total operating income from Productivity and Business Processes which includes Office and Dynamics. Other highly valued products and services include, Xbox, Azure, Server & cloud services, Surface, Bing, and Enterprise services.

Microsoft Corp.

MSFT - NASDAQ – Neutral - 1

Impressive FQ4 Cloud Growth; Increasing PT to \$74

- Results.** Microsoft reported non GAAP EPS of \$0.98 vs. \$0.69 in the prior year period. This was above our \$0.71 estimate. Non GAAP revenue totaled \$24.7 billion, up 9% y/y; however, this missed our \$24.8 billion estimate. The EPS beat was aided by a \$0.23 tax benefit resulting from losses within Microsoft's Phone business vs. the 24% rate we had modeled. Microsoft's commercial bookings strength cannot be overlooked, increasing 30% y/y. Commercial unearned revenue increased 13% y/y to \$27.8 billion; Contracted not billed balance jumped 24% y/y to greater than \$31.5 billion. Commercial cloud annual run rate increased 56% y/y to \$18.9 billion vs. \$12.1 billion last year.
- Segment Highlights. More Personal Computing** revenue decreased 2% y/y to \$8.82 billion. The segment was negatively impacted by a decrease in device (Surface and Phone) revenue. Gaming revenue increased 3% y/y on strong Xbox revenue. Windows revenue outperformed the PC market on windows Pro revenue growth of 3%, premium consumer sales, and 8% growth of Windows cloud services. Search revenue increased 10% y/y. Segment operating income grew a strong 68% y/y on expense cuts on Phone and Surface products. **Productivity & Business Processes** revenue of \$8.45 billion increased 21% y/y following the acquisition of LinkedIn. Office 365 commercial revenue grew 43% y/y; Dynamics revenue grew 7% y/y; and Office consumer and cloud revenue grew 13% y/y as Office 365 subscribers increased to 27 million vs. 26.2 million last quarter, a slowdown vs. last quarter. LinkedIn revenue increased slightly to \$1.1 billion. Segment operating income declined 8% due to LinkedIn. **Intelligent Cloud** segment again grew revenue 11% y/y to \$7.43 billion on Server and cloud service revenue growth of 15% y/y; within this, Azure revenue increased a better than expected 97% and server products grew 4%. Azure premium services grew triple digits and as we forecast continues to boost profitability. Enterprise service revenue declined 3%. Operating income jumped 15% y/y as Microsoft leverages cloud offerings.
- Opinion.** We maintain our Neutral-1 rating. Our price target increases to \$74 from \$70.

Note Important Disclosures on Pages 7-8
Note Analyst Certification on Page 7

ADDITIONAL DISCUSSION

Cash, cash equivalents, and short & long-term investments totaled \$139.0 billion vs. \$123.6 billion last year. Net cash was \$52.8 billion or \$6.74 per share, compared to \$69.9 billion last year following Microsoft's \$26.2 billion LinkedIn acquisition. Fiscal Q4 operating cash flow of \$11.0 billion jumped 30% y/y, while free cash flow of \$8.7 billion increased a substantial 50% y/y. The company repurchased \$1.7 billion of company stock during the quarter, less than half the amount spent in the prior year period, and paid \$3 billion in dividends, a small increase y/y. Microsoft's free cash flow yield of 5.41% remains strong; however, this represents a cyclical low to levels not seen since 2007, as the stock price climbs to record highs. For reference, Microsoft's free cash flow yield was a record high 11.33% in 2012.

OUTLOOK

Fiscal Q1'18 revenue guidance was provided between \$23.6 billion to \$24.3 billion vs. our prior \$24.3 billion view. However, we expect an accounting change to increase Microsoft's revenue above their current outlook. We maintain our positive opinion of Microsoft's commercial cloud performance and believe it is a competitive advantage that should set the company up for continued strength going forward. Our Neutral rating is based on valuation and our opinion Microsoft will be limited in future expense cutting that could weigh on profitability should macro conditions weaken. We believe Microsoft is well positioned to outperform enterprise IT peers with Azure and other cloud offerings. We expect any federal tax reform to be neutral to negative for Microsoft as the company has benefitted from low corporate tax rates in recent years. We continue to view MSFT shares as a core holding, but note shares continue to trade at a decade high valuation.

Our FY'18 outlook is largely unchanged. We currently expect a slightly higher revenue outlook to be offset by higher operating expenses. Our expected tax rate declines with significant improvement resulting in the first half of the year. These changes result in a slight improvement to our fiscal year outlook. We forecast FQ1'18 EPS of \$0.83 vs. our prior view of \$0.74. We remain above the consensus view of \$0.78. Our FY'18 EPS estimate increases by \$0.03 to \$3.20 which is below the Street's \$3.24 view. We increase our revenue forecast from \$103.0 billion to \$103.9 billion vs. the consensus view of \$104.6 billion largely on continued strength with commercial cloud. We also expect higher operating expenses resulting from increased investments from LinkedIn, cloud, and sales teams to support future growth.

Longer term our outlook remains positive as we expect new cross-sell and up-sell opportunities from LinkedIn and premium cloud services to boost Microsoft's customer base and revenue opportunities while also improving profitability. We also expect revenue and operating income to increase substantially within the Intelligent Cloud segment as Azure scales and offers premium services. Microsoft reported FQ4 commercial cloud gross margin of 52% up 10 percentage points y/y. We maintain our positive opinion of the company's industry leadership position and ongoing shift to a cloud services strategy. Microsoft is a well-managed organization deserving of its premium valuation, in our opinion.

VALUATION & OPINION

We increase our price target to \$74 from \$70 based on strong operating performance with continued strong revenue growth, operating expense management, and earnings growth above recent historical rates. We derive our \$74 price target by multiplying our FYE'18 EPS estimate of \$3.20 by a 23x multiple, which is equal to the sector multiple and Microsoft's current 23x forward multiple. This is above our prior 22x forward multiple following another quarter of impressive commercial cloud based growth.

VALUATION & OPINION CONTINUED...**MSFT Forward P/E Multiple vs. Sector & S&P 500 Index**

Source: Thomson Reuters

MSFT shares trade at a 14 year high forward P/E multiple of 24.5x (consensus estimates) that we view as stretched in the context of MSFT shares specifically on a historical basis, and slightly high relative to their 25% premium valuation vs. the S&P 500 Index. Shares have historically traded at an 8% discount to the broader market index; however, this included a difficult period of time for Microsoft vs. now when Microsoft has reinvented itself as a cloud platform leader deserving of a significantly higher valuation, in our view.

We also calculate our price target using our discounted cash flow model. We believe the Street is now properly discounting Microsoft's future cash flows following FY'17's strong FCF growth based on our DCF model. We view current expectations as achievable based on a FCF growth forecast that we believe is sustainable longer term. However, we do not currently recommend the purchase of shares as a return of +20% would imply compound annual free cash flow growth above that which we find achievable longer term throughout a full economic cycle. As we previously noted above, Microsoft's free cash flow yield of 5.41% remains strong on a relative basis, but this represents a cyclical low to levels not seen since 2007 as the stock price has climbed to record highs. For reference, Microsoft's free cash flow yield was a record high 11.33% in 2012.

We maintain our Neutral rating on shares of MSFT. We expect operating performance to remain strong, yet find it difficult to grasp a valuation above current levels. We think MSFT shares could be range bound as earnings catch up to valuation. We believe Microsoft is a leader in the enterprise cloud and is well positioned among industry peers for future growth. Microsoft's fundamental outlook is strong, in our opinion, providing investors a solid core holding within the Technology sector. However, shares are fully valued, in our view, and as such we reiterate our Neutral rating. In a scenario where global macroeconomic conditions deteriorate, we believe Microsoft has less ability to cut costs, which could negatively impact profitability sending shares lower, in our view.

SUITABILITY

We assign shares of MSFT a suitability rating of 1 on our scale of 1-4 (1 = most conservative, 4 = most aggressive). A 1 rating is given based on Microsoft's long history as a public company, diverse revenue base, strong operating metrics, solid balance sheet, and significant cash flow generation. We believe a suitability rating of 1 incorporates these attributes. We believe revenue and EPS revisions as a result of restructuring charges, write-downs, acquisitions, and/or accounting changes, as we continue to experience, does not affect our 1-suitability rating as Microsoft's backlog, recurring revenue, cash flows, and cash balance provide a level of safety which we view as secure. Shares of MSFT are suitable for conservative growth oriented investors seeking long-term capital appreciation and income growth, in our view.

RISKS & CONSIDERATIONS

Risks to owning Microsoft shares include but are not limited to:

- Intense competition from other software/hardware/cloud providers. In our view, other competing operating systems on multiple device types could lead to market share losses in Microsoft's traditionally safe PC business. If competitors are successful in marginalizing Microsoft's operating system software this could have an impact on profitability.
- Lack of support, poor execution, and a highly competitive environment for Microsoft's new cloud-based computing model
- Macroeconomic issues, including a decline in business or consumer spending and changes in consumer behavior
- Consumer and business user preference of PCs to other forms of mobile computing devices
- Global piracy issues, including Microsoft's ability to protect intellectual property rights and secure its licensing revenue
- Software security threats could lead to reduced revenues
- Regulatory oversight and continued business scrutiny from the U.S. Department of Justice and the European Commission could lead to less risk taking and slower growth
- The ability of Microsoft management to hire and retain top talent
- Lack of product innovation or timely product development
- Business integration risk following several recent acquisitions and disruptions from suppliers
- Loss of strategic partnerships key to Microsoft, including sales from OEMs

Microsoft Corp. (MSFT) (\$s in millions) FYE June

Balance Sheet	FY'05	FY'06	FY'07	FY'08	FY'09	FY'10	FY'11	FY'12	FY'13	FY'14	FY'15	FY'16	Q1'17	Q2'17	Q3'17	Q4'17	FY'17
Assets																	
Current assets																	
Cash & cash equivalents	\$ 4,851	\$ 6,714	\$ 6,111	\$ 10,339	\$ 6,076	\$ 5,505	\$ 9,610	\$ 6,938	\$ 3,804	\$ 8,669	\$ 5,595	\$ 6,510	\$ 13,928	\$ 8,468	\$ 6,713	\$ 7,663	\$ 7,663
Short-term investments	32,900	27,447	17,300	13,323	25,371	31,283	43,162	56,102	73,218	77,040	90,931	106,730	123,004	114,313	119,305	125,318	125,318
Total cash & short-term investments	37,751	34,161	23,411	23,662	31,447	36,788	52,772	63,040	77,022	85,709	96,526	113,240	136,932	122,781	126,018	132,981	132,981
Accounts receivable, net	7,180	9,316	11,338	13,589	11,192	13,014	14,987	15,780	17,486	19,544	17,908	18,277	11,129	14,343	12,882	19,792	19,792
Inventories	491	1,478	1,127	985	717	740	1,372	1,137	1,938	2,660	2,902	2,251	3,122	1,961	1,979	2,181	2,181
Deferred income taxes	1,701	1,940	1,899	2,017	2,213	2,184	2,467	2,035	1,632	1,941	1,915	-	-	-	-	-	-
Other	1,614	2,115	2,393	2,989	3,711	2,950	3,320	3,092	3,388	4,392	5,461	5,892	6,726	5,864	5,434	4,897	4,897
Total current assets	48,737	49,010	40,168	43,242	49,280	55,676	74,918	85,084	101,466	114,246	124,712	139,660	157,909	144,949	146,313	159,851	159,851
Property & equipment, net	2,346	3,044	4,350	6,242	7,535	7,630	8,162	8,269	9,991	13,011	14,731	18,356	19,224	21,379	21,962	23,734	23,734
Equity & other investments	11,004	9,232	10,117	6,588	4,933	7,754	10,865	9,776	10,844	14,597	12,053	10,431	10,486	8,912	7,381	6,023	6,023
Goodwill	3,309	3,866	4,760	12,108	12,503	12,394	12,581	13,452	14,655	20,127	16,939	17,872	17,907	34,524	34,668	35,122	35,122
Intangible assets, net	499	539	878	1,973	1,759	1,158	744	3,170	3,083	6,981	4,835	3,733	3,522	11,001	10,547	10,106	10,106
Deferred income taxes	3,621	2,611	1,389	949	279	-	-	-	-	-	-	-	-	-	-	-	-
Other long-term assets	1,299	1,295	1,509	1,691	1,599	1,501	1,434	1,520	2,392	3,422	2,953	3,642	3,476	3,845	4,146	6,250	6,250
Total assets	70,815	69,597	63,171	72,793	77,888	86,113	108,704	121,271	142,431	172,384	176,223	193,694	212,524	224,610	225,017	241,086	241,086
Liabilities & stockholders' equity																	
Current liabilities																	
Accounts payable	2,086	2,909	3,247	4,034	3,324	4,025	4,197	4,175	4,828	7,432	6,591	6,898	6,296	6,580	6,217	7,390	7,390
Short-term debt	-	-	-	-	2,000	1,000	-	1,231	2,999	2,000	7,484	12,904	14,536	25,664	7,786	10,121	10,121
Accrued compensation	1,662	1,938	2,325	2,934	3,156	3,283	3,575	3,875	4,117	4,797	5,096	5,264	3,621	3,982	4,604	5,819	5,819
Income taxes	2,020	1,557	1,040	3,248	725	1,074	580	789	592	782	606	580	720	508	654	718	718
Short-term unearned revenue	7,502	9,138	10,779	13,397	13,003	13,652	15,722	18,653	20,639	23,150	23,223	27,468	26,304	26,085	26,518	34,102	34,102
Securities lending payable	-	3,117	2,741	2,614	1,684	182	1,208	814	645	558	92	294	210	1,280	201	97	97
Other	3,607	3,783	3,622	3,659	3,142	2,931	3,492	3,151	3,597	6,906	6,766	5,949	7,123	6,688	6,025	6,280	6,280
Total current liabilities	16,877	22,442	23,754	29,886	27,034	26,147	28,774	32,688	37,417	45,625	49,858	59,357	58,810	70,787	52,005	64,527	64,527
Long-term debt	-	-	-	-	3,746	4,939	11,921	10,713	12,601	20,645	27,808	40,783	60,154	59,306	76,222	76,073	76,073
Long-term unearned revenue	1,665	1,764	1,867	1,900	1,281	1,178	1,398	1,406	1,760	2,008	2,095	6,441	7,284	8,595	9,215	10,377	10,377
Deferred income taxes	-	-	-	-	-	229	1,456	1,893	1,709	2,728	2,835	696	1,564	1,133	465	531	531
Other long-term liabilities	4,158	5,287	6,453	4,721	6,269	7,445	8,072	8,208	10,000	11,594	13,544	14,420	14,340	15,980	17,381	17,184	17,184
Total liabilities	22,700	29,493	32,074	36,507	38,330	39,938	51,621	54,908	63,487	82,600	96,140	121,697	142,152	155,801	155,288	168,692	168,692
Commitments & contingencies																	
Stockholders' equity																	
Common stock & paid in capital	60,413	59,005	60,557	62,849	62,382	62,856	63,415	65,797	67,306	68,366	68,465	68,178	67,747	68,177	68,554	69,315	69,315
Retained earnings (deficit)	(12,298)	(18,901)	(29,460)	(26,563)	(22,824)	(16,681)	(6,332)	566	9,895	17,710	9,096	2,282	944	120	531	2,648	2,648
Accumulated other comprehensive income									1,743	3,708	2,522	1,537	1,681	512	644	431	431
Total stockholders' equity	48,115	40,104	31,097	36,286	39,558	46,175	57,083	66,363	78,944	89,784	80,083	71,997	70,372	68,809	69,729	72,394	72,394
Total liabilities & stockholders' equity	\$ 70,815	\$ 69,597	\$ 63,171	\$ 72,793	\$ 77,888	\$ 86,113	\$ 108,704	\$ 121,271	\$ 142,431	\$ 172,384	\$ 176,223	\$ 193,694	\$ 212,524	\$ 224,610	\$ 225,017	\$ 241,086	\$ 241,086

Source: Company data

Microsoft Corp. (MSFT) (\$'s in millions) FYE Jun.

Income Statement Analysis	FY'06	FY'07	FY'08	FY'09	FY'10	FY'11	FY'12	FY'13	FY'14	FY'15	FY'16	FY'17	Q1'18E	Q2'18E	Q3'18E	Q4'18E	FY'18E
Revenue (adjusted)	\$ 44,282	\$ 51,122	\$ 60,420	\$ 58,437	\$ 62,484	\$ 69,943	\$ 73,723	\$ 77,849	\$ 86,833	\$ 93,580	\$ 92,071	\$ 96,657	\$ 24,900	\$ 27,500	\$ 25,000	\$ 26,500	\$ 103,900
Cost of Revenue	7,650	10,693	11,598	12,155	12,395	15,577	17,530	20,249	26,934	33,038	32,780	34,261	8,350	10,460	8,950	9,400	37,160
Gross Profit	36,632	40,429	48,822	46,282	50,089	54,366	56,193	57,600	59,899	60,542	59,291	62,396	16,550	17,040	16,050	17,100	66,740
Operating Expenses																	
Research & Development	6,584	7,121	8,164	9,010	8,714	9,043	9,811	10,411	11,381	12,046	11,988	13,037	3,430	3,420	3,550	3,475	13,875
Sales & Marketing	9,818	11,455	13,260	12,879	13,214	13,940	13,857	15,276	15,811	15,713	14,697	15,539	3,900	4,200	4,120	4,550	16,770
General & Administrative	3,758	3,329	5,127	4,030	4,063	4,222	4,569	5,149	4,821	4,611	4,563	4,481	1,250	1,100	1,300	1,500	5,150
Restructuring and other charges							6,193	-	127	10,011	6,751	306	250	200	-	-	450
Total Operating Expenses	20,160	21,905	26,551	25,919	25,991	27,205	28,237	30,836	32,013	42,381	37,999	33,363	8,830	8,920	8,970	9,525	36,245
Operating Income	16,472	18,524	22,271	20,363	24,098	27,161	27,956	26,764	27,886	18,161	21,292	29,033	7,720	8,120	7,080	7,575	30,495
Other Investment Income (expense)	1,790	1,577	1,543	(542)	915	910	504	288	61	346	(431)	823	250	200	200	200	850
Income before income taxes	\$ 18,262	\$ 20,101	\$ 23,814	\$ 19,821	\$ 25,013	\$ 28,071	\$ 28,460	\$ 27,052	\$ 27,820	\$ 18,507	\$ 20,861	\$ 29,856	\$ 7,970	\$ 8,320	\$ 7,280	\$ 7,775	\$ 31,345
Provision for income taxes	5,663	6,036	6,133	5,252	6,253	4,921	5,289	5,189	5,746	6,314	(1,251)	4,864	1,514	1,622	1,602	1,866	6,604
Net income	\$ 12,599	\$ 14,065	\$ 17,681	\$ 14,569	\$ 18,760	\$ 23,150	\$ 23,171	\$ 21,863	\$ 22,074	\$ 12,193	\$ 22,112	\$ 24,992	\$ 6,456	\$ 6,698	\$ 5,678	\$ 5,909	\$ 24,741
Earnings per share:																	
Basic	\$ 1.21	\$ 1.44	\$ 1.90	\$ 1.63	\$ 2.13	\$ 2.73	\$ 2.02	\$ 2.61	\$ 2.66	\$ 1.49	\$ 2.79	\$ 3.24	\$ 0.83	\$ 0.86	\$ 0.73	\$ 0.76	\$ 3.17
GAAP EPS (diluted)	\$ 1.20	\$ 1.42	\$ 1.87	\$ 1.62	\$ 2.10	\$ 2.65	\$ 2.00	\$ 2.59	\$ 2.63	\$ 1.48	\$ 2.06	\$ 2.71	\$ 0.63	\$ 0.65	\$ 0.54	\$ 0.57	\$ 2.39
Non GAAP earnings per share: (diluted)							\$ 2.79										
Earnings per share: (adjusted diluted)							\$ 2.79	\$ 2.70	\$ 2.67	\$ 2.67	\$ 2.76	\$ 3.31	\$ 0.83	\$ 0.87	\$ 0.74	\$ 0.77	\$ 3.20
Weighted average shares outstanding:																	
Basic	10,438	9,742	9,328	8,945	8,813	8,490	8,396	8,144	8,299	8,176	7,924	7,746	7,800	7,800	7,825	7,750	7,794
Diluted	10,531	9,886	9,470	8,996	8,927	8,593	8,460	8,450	8,385	8,237	8,002	7,831	7,775	7,730	7,705	7,685	7,724
Cash Dividend per share	\$ 0.34	\$ 0.39	\$ 0.43	\$ 0.52	\$ 0.52	\$ 0.64	\$ 0.80	\$ 0.92	\$ 1.12	\$ 1.24	\$ 1.44	\$ 1.56	\$ 0.42	\$ 0.42	\$ 0.42	\$ 0.42	\$ 1.68
Year/Year Growth Rates																	
Adjusted Revenue	11.3%	15.4%	18.2%	-3.3%	6.9%	11.9%	5.4%	5.6%	11.5%	7.8%	-1.6%	5.0%	11.5%	5.5%	6.1%	7.3%	7.5%
Cost of Revenue	26.8%	39.8%	8.5%	4.8%	2.0%	25.7%	12.5%	15.5%	33.0%	22.7%	-0.8%	4.5%	6.5%	5.6%	11.0%	11.2%	8.5%
Gross Profit	8.5%	10.4%	20.8%	-5.2%	8.2%	8.5%	3.4%	2.5%	4.0%	1.1%	-2.1%	5.2%	14.2%	5.4%	3.6%	5.3%	7.0%
R&D Expense	8.0%	8.2%	14.6%	10.4%	-3.3%	3.8%	8.5%	6.1%	9.3%	5.8%	-0.5%	8.8%	10.4%	11.7%	5.8%	-1.1%	6.4%
Sales & Marketing	14.7%	16.7%	15.8%	-2.9%	2.6%	5.5%	-0.6%	10.2%	3.5%	-0.6%	-6.5%	5.7%	20.6%	3.2%	6.2%	4.5%	7.9%
General & Administrative	-17.2%	-11.4%	54.0%	-21.4%	0.8%	3.9%	8.2%	12.7%	-6.4%	-4.4%	-1.0%	-1.8%	19.6%	25.1%	8.2%	10.7%	14.9%
Total Operating Expenses	5.0%	8.7%	21.2%	-2.4%	0.3%	4.7%	3.8%	9.2%	3.8%	32.4%	-10.3%	-12.2%	19.6%	11.3%	6.3%	-0.1%	8.6%
Operating Income	13.1%	12.5%	20.2%	-8.6%	18.3%	12.7%	2.9%	-4.3%	4.2%	-34.9%	17.2%	36.4%	8.6%	-0.4%	0.3%	12.8%	5.0%
Net Income	2.8%	11.6%	25.7%	-17.6%	28.8%	23.4%	0.1%	-5.6%	1.0%	-44.8%	81.3%	13.0%	-1.8%	2.8%	-0.6%	-22.9%	-1.0%
Earnings Per Share	6.5%	18.9%	31.2%	-13.3%	29.8%	25.9%	5.4%	-3.3%	-1.1%	0.1%	3.4%	19.8%	9.3%	4.1%	0.8%	-21.7%	-3.1%
Diluted Shares Outstanding	-3.4%	-6.1%	-4.2%	-5.0%	-0.8%	-3.7%	-1.5%	-0.1%	-0.8%	-1.8%	-2.8%	-2.1%	-1.3%	-1.3%	-1.4%	-1.6%	-1.4%
Percentage of Revenue																	
Cost of Revenue	17.3%	20.9%	19.2%	20.8%	19.8%	22.3%	23.8%	26.0%	31.0%	35.3%	35.6%	35.4%	33.5%	38.0%	35.8%	35.5%	35.8%
R&D Expense	14.9%	13.9%	13.5%	15.4%	13.9%	12.9%	13.3%	13.4%	13.1%	12.9%	13.0%	13.5%	13.8%	12.4%	14.2%	13.1%	13.4%
Sales & Marketing	22.2%	22.4%	21.9%	22.0%	21.1%	19.9%	18.8%	19.6%	18.2%	16.8%	16.0%	16.1%	15.7%	15.3%	16.5%	17.2%	16.1%
General & Administrative	8.5%	6.5%	8.5%	6.9%	6.5%	6.0%	6.2%	6.6%	5.6%	4.9%	5.0%	4.6%	5.0%	4.0%	5.2%	5.7%	5.0%
Total Operating Expenses	45.5%	42.8%	43.9%	44.4%	41.6%	38.9%	38.3%	39.6%	36.9%	45.3%	41.3%	34.5%	35.5%	32.4%	35.9%	35.9%	34.9%
Margin Analysis																	
Gross Profit	82.7%	79.1%	80.8%	79.2%	80.2%	77.7%	76.2%	74.0%	69.0%	64.7%	64.4%	64.6%	66.5%	62.0%	64.2%	64.5%	64.2%
Operating Income	37.2%	36.2%	36.9%	34.8%	38.6%	38.8%	37.9%	34.4%	32.1%	19.4%	23.1%	30.0%	31.0%	29.5%	28.3%	28.6%	29.4%
Net Income	28.5%	27.5%	29.3%	24.9%	30.0%	33.1%	31.4%	28.1%	25.4%	13.0%	24.0%	25.9%	25.9%	24.4%	22.7%	22.3%	23.8%

Source: Company data and Hilliard Lyons estimates

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

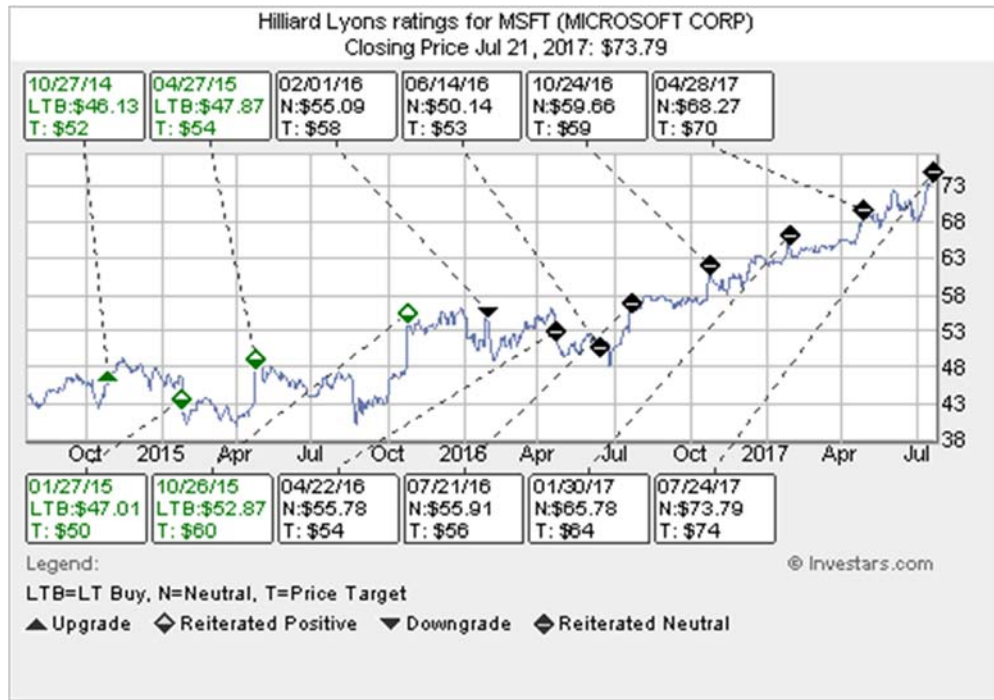
Hilliard Lyons’ analysts receive bonus compensation based on Hilliard Lyons’ profitability. They do not receive direct payments from investment banking activity.

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	29%	14%	86%
Hold/Neutral	79	63%	5%	95%
Sell	10	8%	0%	100%

As of 7 July 2017

Other Disclosures

Opinions expressed are subject to change without notice and do not take into account the particular investment objectives, financial situation or needs of individual investors. Employees of J.J.B. Hilliard, W.L. Lyons, LLC or its affiliates may, at times, release written or oral commentary, technical analysis or trading strategies that differ from the opinions expressed here.

J.J.B. Hilliard, W.L. Lyons, LLC is a multi-disciplined financial services firm that regularly seeks investment banking assignments and compensation from issuers for services including, but not limited to, acting as an underwriter in an offering or financial advisor in a merger or acquisition, or serving as placement agent in private transactions.

The information herein has been obtained from sources we believe to be reliable but is not guaranteed and does not purport to be a complete statement of all material factors. This is for informational purposes and is not a solicitation of orders to purchase or sell securities. Reproduction is forbidden unless authorized. All rights reserved.