



COMPANY UPDATE / ESTIMATE CHANGE

Key Metrics

PAY - NYSE - as of	12/13/17	\$17.76
Price Target		\$26.00
52-Week Range	\$16.80 -	\$21.48
Diluted Shares Outstanding (000s)		112,201
Market Cap. (\$000s)		\$1,992,696
1-Mo. Average Daily Volume		1,601,561
Institutional Ownership		108.7%
Debt/Total Capital (net)	Q4'17	43%
ROE	Q4'17	-22%
Book Value / Share		\$6.72
Price / Book Value		2.6x
Dividend Yield		0.0%
LTM EBITDA Margin		10.8%

Non GAAP EPS FY 10/31

	Prior	Current	Prior	Current
	2016A	2017	2018E	2018E
1Q	\$0.48	\$0.21	\$0.34	\$0.26
2Q	\$0.47	\$0.30	\$0.39	\$0.35
3Q	\$0.42	\$0.36	\$0.37	\$0.40
4Q	\$0.30	\$0.44	\$0.41	\$0.46
Year	\$1.66	\$1.31	\$1.51	\$1.47
PE	10.7x	13.6x		12.1x

Revenue (\$mil)

	Prior	Current	Prior	Current
	2016A	2017	2018E	2018E
1Q	\$513.6	\$ 456.6	\$473.3	\$ 420.0
2Q	\$532.4	\$ 473.9	\$490.4	\$ 444.0
3Q	\$492.6	\$ 466.9	\$481.6	\$ 458.0
4Q	\$467.6	\$ 476.5	\$487.0	\$ 472.0
Year	\$2,006.2	\$1,873.9	\$1,932.4	\$1,794.0

Company Description: Verifone Systems Inc. is a global leader in secure electronic payment solutions, providing integrated point-of-sale (POS) devices, solutions, software, services and maintenance that add value to the POS with merchant-operated, consumer-facing, mobile and self-service payment systems. Verifone drives over \$4 trillion in global consumer transactions annually. Verifone Systems serves the financial, retail, hospitality, petroleum, transportation, government and healthcare markets. The company operates in 150 countries connecting over 30 million payment devices to the cloud.

Technology

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
December 14, 2017

Verifone Systems Inc.

PAY - NYSE – Long-term Buy – 4

Q4'17 EPS +47% Y/Y; New \$100 Million Buyback; Soft FY'18 Outlook

- FQ4'17 Results.** Verifone reported Q4'17 revenue of \$476.5 million, up 2% y/y. This was above our \$472 million view and that of the consensus estimate. Non GAAP EPS totaled \$0.44, a 47% y/y increase, beating our \$0.43 view and the consensus estimate. Divestitures, the shift to recurring services revenue, and Verifone's new payment devices boosted gross margin by 190 basis points y/y. Growth was strong in Latin America with 17% y/y revenue growth as Brazil's economy improves; EMEA, Verifone's largest region, grew revenue 8% y/y; while North America revenue declined 8%. Verifone has restructured its business, divesting noncore assets to better align for future growth. Divested assets include the Petro Media business; Verifone's China business; and its Taxi business. The divestitures are margin and cash flow positive, and will allow for increased investment in its core business.
- Outlook.** Management initiated FY'18 guidance below our prior view. Management expects FY'18 revenue of \$1.775 billion to \$1.800 billion versus our prior view, after adjusting for divestitures, of \$1.814 billion. Verifone expects FY'18 EPS of \$1.47 to \$1.50 versus our prior view of \$1.51. While the divestitures, share buybacks, and higher margin products/services are expected to be a net positive in FY'18, a higher tax rate and difficult comps from Petro and India are expected to offset much of this growth. We forecast improving core operating performance throughout FY'18, but reduce our EPS estimate to \$1.47 from \$1.51, representing healthy y/y growth of 12%. Our FY'19 EPS outlook of \$1.69, up 15% y/y, is expected to show greater improvement.
- Opinion.** We maintain our Long term Buy rating and price target of \$26 as our FYE'19 outlook remains largely unchanged. We believe industry and regulatory challenges in the U.S. have had a material impact to Verifone; however emerging market growth remains our core investment thesis.

Note Important Disclosures on Pages 6-7
Note Analyst Certification on Page 6

ADDITIONAL DISCUSSION

Financial Management. Verifone continues to reduce its debt position from \$1.3 billion in FY'12 to \$830 million today. Net debt stands at \$699 million. FY'17 free cash flow was \$99 million, up 6.5% y/y, we expect free cash flow to continue to improve as less capital outlays are required from non-core assets. Management guided to FY'18 free cash flow of \$125 million, an increase of 26% y/y. As a result of this improved position a new \$100 million share repurchase was announced in addition to the \$50 million still remaining on the prior buyback. The current buyback represents 7.5% of Verifone's total market cap.

Outlook. Verifone's service platform has 1.8 million devices connected enabling device management services, payment services, commerce services, and an omni-channel experience. Management expects 2 million devices by FYE'18. Verifone's strategy shifts in FY'18 from an important product launch year in FY'17 to a year of scaling new product/service penetration for Verifone's Engage, Carbon, and mobile E-series products. Recent divestitures and new lower cost payment devices are expected to boost margins through our investment timeframe as the scale of new products/services increases within Verifone's footprint. We also expect cash flow to improve which could be used to further pay down indebtedness, make acquisitions, or used for additional buybacks as noted above. Despite these positives, revenue will be impacted by difficult comps from North America Petro, India, and the sale of its China and Taxi businesses as well as a higher tax rate going forward. We did not previously model a tax rate increase due to the potential tax cut in the U.S. however following recent divestitures and regional profitability changes, Verifone's take rate is expected to increase to 20% in FY'18 from 15% in FY'17. With a multitude of moving parts in our model, we reduce our FY'18 EPS estimate from \$1.51 to \$1.47. Our FY'19 EPS estimate is less impacted as taxes will weigh less and higher margins are more fully realized. Longer term, global growth opportunities include cashless initiatives, fiscalization (tax enforcement), demonetization, and greenfield EMV opportunities in the U.S. Other growth catalysts include Verifone's entry into much larger TAMs including payment services and commerce services.

VALUATION

We maintain our Long term Buy rating and FYE'19 price target of \$26. Our price target is based on our FY'19 EPS estimate of \$1.69 multiplied by a 15x P/E multiple. Our 15x forward price to earnings multiple matches our prior forward P/E multiple. Our price target incorporates our reduced '18 & '19 EPS estimates, however these estimates are poised to increase 12% and 15% y/y, respectively, in our view. PAY shares trade at a current forward P/E of ~12x vs. a peer group average of ~18x. We expect Verifone's P/E multiple will trend higher and close the gap between its competition due to an above average growth profile over our investment timeframe. We believe a discount is still warranted due to PAY's debt position and lack of a consistent earnings track record. In our view, PAY shares are suitable for aggressive growth oriented investors seeking long-term capital appreciation over a multi-year timeframe through a multinational corporation with significant exposure to international and emerging markets. Our investment recommendation is based on our long term thesis of growing global demand for payment devices, payment services, and commerce services.

Verifone Systems, Inc. Consolidated Balance Sheet (USD \$ 000's)

Current assets:	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
Cash and cash equivalents	\$ 157,160	\$ 324,996	\$ 445,137	\$ 594,562	\$ 454,072	\$ 268,200	\$ 250,200	\$ 208,900	\$ 148,400	\$ 147,000	\$ 134,493	\$ 158,800	\$ 131,000	\$ 131,000
Accounts receivable, net of reserves	170,234	157,357	132,988	294,440	366,887	284,000	305,500	362,000	323,400	322,600	335,198	326,300	322,700	322,700
Inventories	168,360	95,921	111,901	144,316	178,274	138,700	124,300	129,700	175,200	155,900	141,698	127,500	126,600	126,600
Prepaid expenses and other current assets	57,631	36,526	60,112	88,086	136,210	134,100	105,600	81,700	110,400	105,500	195,158	165,900	138,400	138,400
Total current assets	562,850	622,193	761,091	1,160,448	1,135,443	825,000	785,600	782,300	757,400	731,000	806,547	778,500	718,700	718,700
Property, plant and equipment, net	52,309	46,978	46,007	65,504	146,803	172,200	177,700	191,000	202,300	202,700	130,488	130,500	127,900	127,900
Purchased intangible assets, net	92,637	52,974	50,121	263,767	734,808	642,900	457,600	317,500	306,300	283,000	261,379	257,500	236,400	236,400
Goodwill	321,903	150,845	169,322	561,414	1,179,381	1,252,400	1,185,900	1,084,000	1,110,500	1,111,700	1,069,900	1,116,800	1,104,400	1,104,400
Deferred tax assets	1,276	4,158	9,933	205,496	215,139	23,900	30,400	35,900	37,000	35,800	35,459	36,100	33,100	33,100
Other assets	37,073	32,749	38,852	54,183	79,033	77,300	65,000	62,400	81,300	79,100	100,295	99,800	101,700	101,700
Total assets	1,079,752	917,290	1,075,326	2,313,561	3,490,607	2,993,700	2,702,200	2,473,100	2,494,800	2,443,300	2,404,068	2,419,200	2,322,200	2,322,200
Current liabilities:														
Accounts payable	81,188	87,094	64,016	144,278	193,062	116,500	161,200	189,400	154,600	133,400	154,940	157,100	144,800	144,800
Accruals and other current liabilities	91,168	64,478	51,715	57,399	230,867	292,100	207,000	229,900	213,400	206,700	245,997	253,300	227,300	227,300
Deferred revenue, net	47,687	45,668	55,264	68,824	91,545	86,600	92,100	82,900	104,800	107,900	109,207	110,600	101,400	101,400
Short-term debt	5,022	5,699	5,280	5,074	54,916	92,500	32,100	39,100	66,000	67,200	74,540	68,200	68,800	68,800
Total current liabilities	266,534	245,653	259,806	703,280	570,390	587,700	492,400	541,300	538,800	515,200	584,684	589,200	542,300	542,300
Deferred revenue, net	13,292	18,294	22,344	31,467	37,062	42,600	51,000	55,300	66,500	69,800	69,705	66,800	61,800	61,800
Deferred tax liabilities	68,928	67,495	62,081	92,594	214,537	176,000	136,100	102,900	99,400	100,900	100,915	102,400	97,500	97,500
Long-term debt	543,357	463,165	468,231	211,756	1,252,701	943,300	851,000	760,200	859,900	836,600	803,345	809,900	762,000	762,000
Other long-term liabilities	41,939	45,326	53,552	78,971	70,440	92,500	101,000	78,900	76,800	75,400	68,623	70,000	76,200	76,200
Total liabilities	935,540	842,871	867,863	1,118,068	2,145,130	1,842,100	1,631,500	1,538,600	1,641,400	1,597,900	1,627,272	1,638,300	1,539,800	1,539,800
Redeemable noncontrolling interest			866	855	861	600	800	-	5,000	3,500	1,579	1,100	300	300
Stockholders' equity:														
Common stock:	845	845	868	1,058	1,081	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100
Additional paid-in capital	655,974	727,497	763,212	1,468,862	1,543,127	1,598,700	1,675,700	1,726,500	1,771,900	1,781,300	1,792,238	1,802,200	1,812,200	1,812,200
Accumulated deficit	(504,173)	(650,287)	(551,460)	(269,056)	(204,023)	(500,100)	(538,200)	(535,700)	(618,300)	(634,900)	(724,229)	(795,200)	(792,200)	(792,200)
Accumulated other comprehensive loss	(10,492)	(6,037)	(6,595)	(6,671)	(32,390)	14,900	(104,800)	(292,300)	(341,000)	(340,300)	(318,998)	(256,000)	(266,600)	(266,600)
Total stockholders' equity	142,154	72,018	206,025	1,194,193	1,307,795	1,114,600	1,033,800	899,600	813,700	807,200	750,111	752,100	754,500	754,500
Noncontrolling interests in subsidiaries	2,058	2,401	572	445	36,821	36,400	36,100	34,900	34,700	34,700	25,088	27,700	27,600	27,600
Total stockholders' equity	144,212	74,419	206,597	1,194,638	1,344,616	1,151,000	1,069,900	934,500	848,400	841,900	775,199	779,800	782,100	782,100
Total liabilities and equity	1,079,752	917,290	1,075,326	2,313,561	3,490,607	2,993,700	2,702,200	2,473,100	2,494,800	2,443,300	2,404,068	2,419,200	2,322,200	2,322,200

Source: Company reports (October 31 fiscal year end)

Verifone Systems, Inc. Consolidated Income Statement (non GAAP USD \$ '000's)

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	Q1'18E	Q2'18E	Q3'18E	Q4'18E	FY18E	FY19E
Net revenues:																	
System Solutions	792,289	807,465	727,650	828,960	1,036,691	1,345,605	1,071,161	1,162,200	1,309,600	1,236,500	1,085,500	243,000	270,000	261,000	265,000	1,039,000	1,055,890
Services	114,338	116,130	117,466	172,606	272,819	540,735	638,041	708,900	691,700	769,700	788,400	177,000	174,000	197,000	207,000	755,000	800,135
Total net revenues	\$906,627	\$923,595	\$845,116	\$1,001,566	\$1,309,510	\$1,886,340	\$1,709,202	\$1,871,100	\$2,001,300	\$2,006,200	\$1,873,900	420,000	444,000	458,000	472,000	\$1,794,000	\$1,856,025
Cost of net revenues:																	
Systems Solutions	491,808	520,323	475,417	509,826	609,973	758,764	645,686	687,500	753,900	731,500	669,260	150,660	164,700	159,210	160,325	634,895	640,057
Services	56,976	72,372	65,862	98,585	154,453	290,962	346,628	399,500	395,500	436,000	452,013	97,350	93,960	104,410	109,710	405,430	421,782
Total cost of net revenues	548,784	592,695	541,279	608,411	764,426	1,049,726	992,314	1,087,000	1,149,400	1,167,500	1,121,273	248,010	258,660	263,620	270,035	1,040,325	1,061,839
Gross profit	357,843	330,900	303,837	393,155	545,084	836,614	716,888	784,100	851,900	838,700	752,627	171,990	185,340	194,380	201,965	753,675	794,186
Operating expenses:																	
Research and development	59,493	66,163	59,154	71,554	104,158	139,141	164,519	187,100	191,050	199,100	189,100	43,000	43,300	43,700	44,300	174,300	176,300
Sales and marketing	87,130	82,252	64,810	84,892	116,831	158,403	176,851	192,000	204,700	201,800	183,100	44,000	44,200	44,800	45,000	178,000	181,250
General and administrative	59,014	73,117	62,919	70,909	80,107	126,502	140,383	160,900	169,050	179,700	169,300	41,000	41,300	41,800	42,200	166,300	172,800
Total operating expenses	205,637	221,532	186,883	227,355	301,096	424,046	481,753	540,000	564,900	580,600	541,500	128,000	128,800	130,300	131,500	518,600	530,350
Operating income	152,206	109,368	116,954	165,800	243,988	412,568	235,135	244,100	287,000	258,100	211,427	43,990	56,540	64,080	70,465	235,075	263,836
Net Interest & Other income, net	(27,551)	(21,384)	(16,202)	(14,347)	(12,166)	(6,425)	(3,652)	(4,200)	(35,700)	(37,800)	(36,700)	(8,000)	(8,000)	(8,000)	(7,500)	(31,500)	(32,000)
Income before income taxes	97,104	70,458	87,111	139,516	221,083	362,965	187,750	200,700	251,300	220,300	174,727	35,990	48,540	56,080	62,965	203,575	231,836
Provision (Benefit) from income taxes	34,903	24,636	28,211	35,600	46,364	57,510	25,971	28,985	36,350	33,423	25,800	6,658	9,708	11,216	12,278	39,860	46,367
Net income	62,201	45,822	58,900	103,916	174,719	305,455	161,779	171,715	214,950	186,877	148,927	29,332	38,832	44,864	50,687	163,715	185,469
Net income attributable to VeriFone Systems	62,201	45,822	58,900	103,916	174,719	302,182	159,725	171,715	212,700	184,977	147,327	29,032	38,532	44,564	50,387	162,515	184,269
non-GAAP Net income per weighted average share:																	
Basic	\$ 0.76	\$ 0.54	\$ 0.70	\$ 1.22	\$ 1.89	\$ 2.82	\$ 1.47	\$ 1.54	\$ 1.87	\$ 1.67	\$ 1.34	\$ 0.27	\$ 0.35	\$ 0.41	\$ 0.46	\$ 1.49	\$ 1.69
Diluted	\$ 0.74	\$ 0.54	\$ 0.69	\$ 1.18	\$ 1.81	\$ 2.74	\$ 1.44	\$ 1.51	\$ 1.84	\$ 1.66	\$ 1.31	\$ 0.26	\$ 0.35	\$ 0.40	\$ 0.46	\$ 1.47	\$ 1.69
Weighted average shares: Non GAAP Diluted	84,409	84,736	84,845	87,785	96,512	110,222	110,873	113,825	115,850	111,450	112,275	112,000	111,000	110,500	110,000	110,875	109,250
Year/Year Growth Rates																	
Total Revenue	56.0%	1.9%	-8.5%	18.5%	30.7%	44.0%	-9.4%	9.5%	7.0%	0.2%	-6.6%	-8.0%	-6.3%	-1.9%	-0.9%	-4.3%	3.5%
Total cost of Revenue	71.7%	8.0%	-8.7%	12.4%	25.6%	37.3%	-5.5%	9.5%	5.7%	1.6%	-4.0%	-11.0%	-9.7%	-4.8%	-3.2%	-7.2%	2.1%
R&D Expense	25.6%	11.2%	-10.6%	21.0%	45.6%	33.6%	18.2%	13.7%	2.1%	4.2%	-5.0%	-8.5%	-13.2%	-7.0%	-2.0%	-7.8%	1.1%
Selling & Marketing	48.7%	-5.6%	-21.2%	31.0%	37.6%	35.6%	11.6%	8.6%	6.6%	-1.4%	-9.3%	-6.4%	-7.3%	1.8%	1.4%	-2.8%	1.8%
General & Administrative	38.6%	23.9%	-13.9%	12.7%	13.0%	57.9%	11.0%	14.6%	5.1%	6.3%	-5.8%	-10.9%	1.2%	2.0%	1.7%	-1.8%	3.9%
Total operating expenses	38.4%	7.7%	-15.6%	21.7%	32.4%	40.8%	13.6%	12.1%	4.6%	2.8%	-6.7%	-8.6%	-6.9%	-1.3%	0.3%	-4.2%	2.3%
Operating Income	34.7%	-28.1%	6.9%	41.8%	47.2%	69.1%	-43.0%	3.8%	17.6%	-10.1%	-18.1%	15.5%	15.6%	10.2%	6.3%	11.2%	12.2%
Net Income	-3.1%	-26.3%	28.5%	76.4%	68.1%	73.0%	-47.1%	7.5%	23.9%	-13.0%	-20.4%	25.1%	15.7%	9.7%	0.4%	10.3%	13.4%
Non GAAP Earnings Per Share	-20.9%	-26.6%	28.4%	70.5%	52.9%	51.4%	-47.5%	4.6%	21.8%	-9.7%	-21.0%	24.8%	17.1%	11.2%	3.2%	12.0%	15.0%
Diluted Shares Outstanding	19.3%	2.5%	0.3%	3.9%	10.1%	14.2%	0.5%	2.7%	1.8%	-3.8%	0.4%	0.3%	-1.2%	-1.3%	-2.7%	1.0%	0.3%
Percentage of Revenue																	
System solutions revenue	87.4%	87.4%	86.1%	82.8%	79.2%	71.3%	62.7%	62.1%	65.4%	61.6%	57.9%	57.9%	60.8%	57.0%	56.1%	57.9%	56.9%
Services revenue	12.6%	12.6%	13.9%	17.2%	20.8%	28.7%	37.3%	37.9%	34.6%	38.4%	42.1%	42.1%	39.2%	43.0%	43.9%	42.1%	43.1%
Total cost of revenue	60.5%	64.2%	64.0%	60.7%	58.4%	55.6%	58.1%	58.1%	57.4%	58.2%	59.8%	59.1%	58.3%	57.6%	57.2%	58.0%	57.2%
R&D expense	6.6%	7.2%	7.0%	7.1%	8.0%	7.4%	9.6%	10.0%	9.5%	9.9%	10.1%	10.2%	9.8%	9.5%	9.4%	9.7%	9.5%
Sales and marketing	9.6%	8.9%	7.7%	8.5%	8.9%	8.4%	10.3%	10.3%	10.2%	10.1%	9.8%	10.5%	10.0%	9.8%	9.5%	9.9%	9.8%
General & administrative	6.5%	7.9%	7.4%	7.1%	6.1%	6.7%	8.2%	8.6%	8.4%	9.0%	9.0%	9.8%	9.3%	9.1%	8.9%	9.3%	9.3%
Total operating expenses	22.7%	24.0%	22.1%	22.7%	23.0%	22.5%	28.2%	28.9%	28.2%	28.9%	28.9%	30.5%	29.0%	28.4%	27.9%	28.9%	28.6%
Margin Analysis																	
Total Gross profit	39.5%	35.8%	36.0%	39.3%	41.6%	44.4%	41.9%	41.9%	42.6%	41.8%	40.2%	41.0%	41.7%	42.4%	42.8%	42.0%	42.8%
Operating income	16.8%	11.8%	13.8%	16.6%	18.6%	21.9%	13.8%	13.0%	14.3%	12.9%	11.3%	10.5%	12.7%	14.0%	14.9%	13.1%	14.2%
Net income	6.9%	5.0%	7.0%	10.4%	13.3%	16.0%	9.3%	9.2%	10.6%	9.2%	7.9%	6.9%	8.7%	9.7%	10.7%	9.1%	9.9%

Source: Company reports & Hilliard Lyons estimates

SUITABILITY

We assign shares of PAY a suitability rating of 4 on our scale of 1-4 (1 = most conservative, 4 = most aggressive). We believe Verifone is suitable only for the most aggressive investors. A 4 rating is given based on high net debt levels, lower than historical near term free cash flow generation, and weak visibility from management, offset by the gradual increase in recurring revenue from new service offerings. Also, a significant percentage of total revenue is derived from emerging market economies which have struggled to provide stable growth in recent years. We believe longer term, the company has ample ability to generate significant free cash flow and has a manageable balance sheet, yet currently carries significant debt, greater than our typical technology holding. We believe a suitability rating of 4 incorporates these attributes. We note Verifone is in good financial standing and remains compliant with all financial covenants. We believe shares of PAY are suitable for aggressive growth oriented investors seeking long-term capital appreciation through global exposure to the growing electronic payments industry.

RISKS & CONSIDERATIONS

Risks to our valuation include but are not limited to:

- Risk of a major security breach of consumer data
- The inability to comply with security standards, government mandated regulations, industry certifications, or card association standards, or noncompliance with payment processors or financial institutions
- Unexpected challenges integrating an acquired company, which could reduce the combined company's fair value, causing impairment charges to goodwill, impacting GAAP results
- Inability to properly manage international operations due to geopolitical concerns or other issues
- Weak global demand due to poor macroeconomic conditions
- Heavy reliance on a small number of large customers could materially affect ongoing operations
- Credit risks, currency fluctuations, and other operational risks
- Interest rate risk. The company has high levels of debt due to acquisitions that could have adverse effects if interest rates rise substantially
- Third party risk; VeriFone relies on manufacturers, typically in Asia, to supply parts or manufacture entire systems; any disruptions from these suppliers could impact sales
- Technological disruptions associated with advancements in the mobile payments industry, including mPOS providers and highly innovative competitors in the SMB market
- Negative effects associated with currency translation, as a large percentage of total revenue is derived from international sales
- Retail industry weakness from lower foot traffic could delay or reduce future payment terminal deployments
- Delays in product delivery or adoption of new technology

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.

The author of this report or members of his household have a long position in the common stock of Verifone Systems, but may not engage in buying or selling contrary to the recommendation.

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

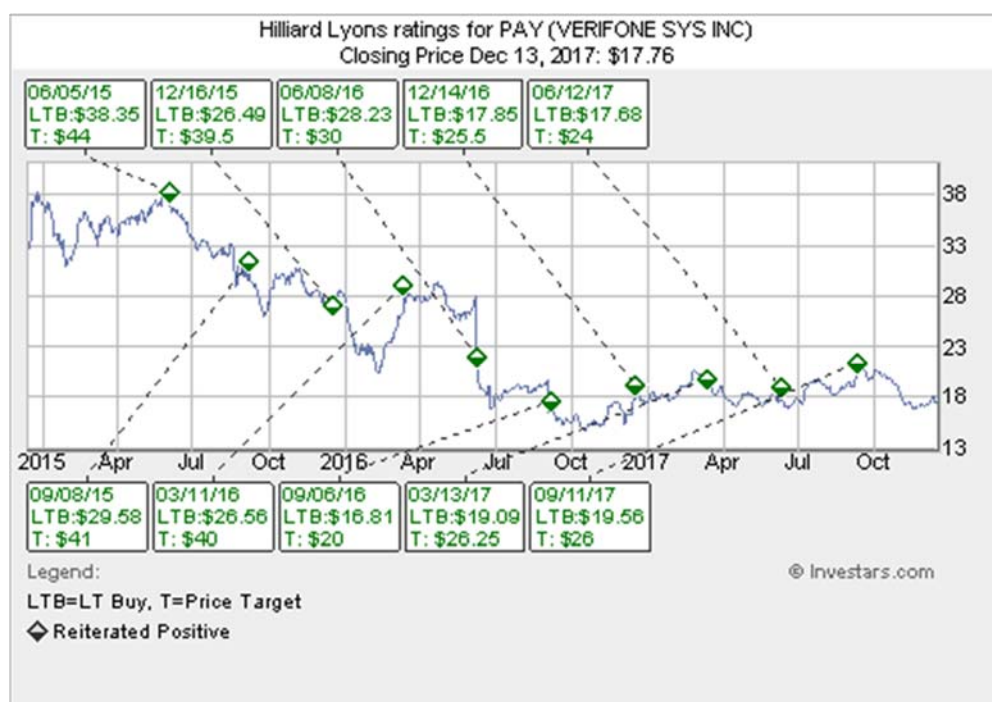
Investment Ratings

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	31	28%	13%	87%
Hold/Neutral	74	66%	9%	91%
Sell	7	6%	0%	100%

As of 6 December 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.