

SaaS Software Cloud Update – November 2017

Public Markets and M&A Activity

The Navidar SaaS Software Cloud Index was flat in November but is up 30% in 2017 through the end of the month, compared with the NASDAQ's +2% and +28%, respectively. Following is a summary of the company-specific issues related to selected stocks in our coverage universe that meaningfully out- or under-performed as well as relevant M&A activity.

Cisco Systems (NASDAQ:CSCO +9.2%) – The hardware and software conglomerate reported strong fiscal 1Q18 results. While the top line fell 2% YOY in the quarter; recurring revenue grew to a greater mix of the total, up three points to 32%. Also, the applications (\$1.2B, up 6%) and security (\$585M, up 8%) business units posted positive growth, but were more than offset by infrastructure platforms' decline (\$6.97B, down 4%). BroadSoft, which Cisco is acquiring for \$1.9B, reported above-plan results too. It will help grow the application business and return overall revenue growth to positive soon. We expect CSCO to continue buying software businesses.

Yext (NYSE:YEXT +24.7%) – The Internet knowledge listing provider reported strong 3Q17 results. Revenue of \$44.3M grew 39.0% YOY and loss per share of -\$0.12 both exceeded expectations. YEXT added 55 new enterprise clients and has 1.4M licenses under management, encompassing locations and people (e.g., financial advisors and doctors). The only negative in the quarter is that YP's merger with Dex Media will reduce revenue growth by about one percentage point.

Callidus (NASDAQ:CALD +15.5%) – The lead-to-money SaaS provider beat and raised expectations in 3Q17, driven by success of its multi-product strategy. Multi-product deals continue to represent about 50% of new business. SaaS revenue of \$50.7M grew 31% YOY and total revenue of \$64.2M advanced 22.3% YOY. CALD also introduced 2018 SaaS revenue growth guidance at a healthy 25-28% pace.

Bazaarvoice (NASDAQ:BV +13.0%) – The online product rating-and-review provider is being acquired by Marlin Equity Partners for \$521M, a 14.5% premium to its pre-announcement value. Management has successfully led BV's recovery after the Department of Justice forced it to spinoff PowerReviews in 2014. Profit margins have since improved and BV launched or acquired multiple new products. Its flagship ratings-and-reviews platform is now complemented by higher growth offerings, such as advertising. **Navidar represented FeedMagnet for its sale to Bazaarvoice in 2014.**

Asure Software (NASDAQ:ASUR +27.3%) – The SaaS HR solutions provider reported better than expected 3Q17 revenue. Management reaffirmed plans to achieve double-digit organic revenue growth (currently at about 10%) with multiple tuck-in acquisitions of service bureaus that already license its HCM/Payroll software. Each bureau has about \$2.0M of revenue and would be purchased for around a 2x multiple. ASUR expects to reach \$70-80M of revenue in 2018, with \$16-20M of non-GAAP EBITDA.

Jeff Houston, CFA

Managing Director

+1 512 364 2258

jhouston@navidar.com



Tableau (NYSE:DATA -13.3%) – The data analytics provider's shares were under pressure after falling short of 3Q17 expectations and lowering guidance. Revenue of \$214.9M grew just 4% YOY as DATA's move to a subscription model has put downward pressure on revenue and profits. There is also heightened concerns with investors about competitive threats, such as Microsoft PowerBI and Hortonworks.

Hortonworks (NASDAQ:HDP +15.1%) – The data analytics provider reported strong 3Q17 result and raised guidance for the second consecutive quarter. It experienced strength in its flagship data platform as well as Big Data cloud services, Azure HDI Insight, and its IBM partnership. HDP closed 21 deals over \$1M in the quarter, up from 10 the prior two periods. Revenue of \$69M grew 45.2% YOY and exceeded expectations by about \$6M. Loss per share of -\$0.24 also beat consensus by \$0.16.

Wix.com (NASDAQ:WIX -21.3%) – The web development and marketing provider's stock was under pressure due in part to near-term uncertainty with revenue growth and FCF generation based on higher R&D spend. Also, WIX reported below-plan 3Q17 profitability, despite a revenue outperformance (\$111.0M, up 46.8% YOY).

ChannelAdvisor (NYSE:ECOM -23.6%) – The ecommerce enabler reported disappointing 3Q17 results and lowered guidance. Revenue of \$20.1M grew 7.5% YOY and EPS of -\$0.15 were below expectation. The headwinds are related to ECOM reorganizing its sales territories and slower-than-expected recovery for digital marketing, which is somewhat tied to large retailers. Still, management expects revenue growth to accelerate slightly in 2018 to 8.5-10.0%.

Pegasystems (NASDAQ:PEGA -13.5%) – The provider of software that assists clients in building, deploying, and evolving enterprise applications reported disappoint 3Q17 results, falling short of expectations for the second consecutive quarter. The weakness was attributed to a faster-than-expected transition to recurring arrangements (79% of revenue in the quarter vs. original plans of 50%), changes to its go-to-market approach, and lack of closing mega deals (over \$10M in size). Revenue of \$179.8M declined 2% and EPS of \$0.05 was \$0.12 below expectations.

Financial Engines (NASDAQ:FNGN -22.7%) – The SaaS financial-advisory provider reported revenue of \$122.2M, representing 9% YOY growth, but below expectations. FNGN is investing more than anticipated by lowering pricing and increasing sales/marketing spend to target SMBs. Investors are concerned about competitive pressure and long-term profitability. On a positive note, the growth of its higher margin Personal Advisor business could offset price reductions for its 401(k) business. Also, 3Q17's AUM of \$160.2B increased 19% YOY.

Faster Growth

(2018E growth > 20%, excluding micro-caps)

Ticker	11/30 \$Price	Nov %ch	Ticker	11/30 \$Price	Nov %ch
AMZN	1176.75	6.5	MULE	22.95	-1.9
APPF	43.15	-6.0	NOW	123.00	-2.7
ASUR	14.36	27.3	OKTA	29.21	1.0
AYX	24.96	10.5	PAYC	82.00	-0.2
BL	36.67	3.2	PCTY	46.14	-13.6
BOX	21.03	-4.2	QTWO	41.85	-1.6
CLDR	15.83	4.6	SHOP	103.82	4.4
COUP	35.43	2.0	TEAM	46.69	-3.5
CSLT	3.90	1.3	TWLO	26.66	-16.6
EVBG	26.50	-0.5	TWOU	64.10	0.7
FB	177.18	-1.6	WDAY	103.00	-7.2
HDP	19.01	15.1	WIX	54.90	-21.3
HUBS	80.95	-6.5	YEXT	14.31	24.7
INST	34.75	-0.1	ZEN	33.61	8.4
MB	32.60	1.1			

Slower Growth

(2018E growth < 20%, excluding micro-caps)

Ticker	11/30 \$Price	Nov %ch	Ticker	11/30 \$Price	Nov %ch
ACTA	15.50	0.3	INTU	157.22	4.1
ALRM	40.99	-12.2	LOGM	119.00	-1.7
AMBR	7.34	-1.6	LPSN	11.10	-21.0
APTI	22.31	-8.0	MODN	16.25	11.7
ATHN	132.89	3.9	MSFT	84.17	1.2
BCOV	7.40	-7.5	ORCL	49.06	-3.6
BNFT	27.10	-1.1	PEGA	50.45	-13.5
BSFT	55.00	0.3	PYPL	75.73	4.4
BV	5.45	13.0	RP	45.35	4.7
CALD	29.28	15.5	RST	12.19	19.9
CRM	104.32	1.9	SAP	113.08	-0.6
CSCO	37.30	9.2	SNCR	10.04	-11.4
CSOD	36.97	-3.6	SPSC	50.46	2.6
CTXS	87.63	6.1	SREV	2.87	-17.5
DATA	70.30	-13.3	STMP	168.40	-25.0
EBAY	34.67	-7.9	TWTR	20.58	-0.2
ECOM	8.60	-23.6	ULTI	211.03	4.2
ELLI	88.39	-1.7	UPLD	23.44	6.7
ENV	49.15	-8.0	VEEV	60.21	-1.2
FNGN	27.90	-22.7	VRNS	50.30	15.4
GDDY	48.65	4.2	WAGE	64.15	0.6
GOOGL	1036.17	0.3	WEB	23.00	-4.6
GWRE	74.39	-7.0	WK	21.75	-2.7
IBM	153.97	-0.1			

Indexes

(% change in Nov)

Faster SaaS	-0.1	NASDAQ	2.2
Slower SaaS	-0.6	S&P 500	2.8
Others	0.0	Russell2000	2.7
Overall SaaS	-0.2	S&P Volatility	10.8

Data source: S&P Capital IQ. 11/30/2017 Prices. 11/1-30/2017 %Change. All investing involves risk, including the risk of losing the entire investment. Prices are subject to change without prior notice.

Paylocity Holding Corp (NASDAQ:PCTY -13.6%) – The SaaS HCM provider reported roughly in line 3Q17 results, pressuring the stock because investors are used to PCTY handily outperforming. Revenue of \$81.5M increased 25% YOY. The company continues to win customers from ADP and Paychex due to its high-quality customer service and portfolio of products.

Twilio (NYSE:TWLO -16.6%) – The SaaS communications provider reported roughly in-line 3Q17 results. Revenue of \$100.5M grew 40.5% YOY and loss per share was -\$0.08. The stock has been under pressure as gross margin has declined the past three quarters (to 53.4% from 59.0%) fueling concerns that its solution (voice, SMS, video, authentication) is a commodity, further demonstrated by its lessened Uber relationship. Competition is also a concern and is top of mind as Bandwidth (NASDAQ:BAND) recently went public.

ServiceSource (NASDAQ:SREV -17.5%) – The SaaS revenue lifecycle provider reported good 3Q17 results but reduced 2017 revenue guidance due to longer-than-expected ramping of a large client and the bankruptcy of another. Revenue of \$57.13M declined 8.6% YOY but exceeded expectations as SREV continues to shift to software from hardware (still 35% of the business).

More M&A Transactions

- **Proofpoint** (NASDAQ:PFPT -1.8%) is acquiring browser-isolation provider Weblife.io for \$60M. Weblife's cloud-based detective control platform monitors and controls employees' Internet usage. It should assist in extending PFPT's protection capabilities to web-based personal email accessed on corporate devices. It also helps PFPT to compete more effectively with Symantec's Fireglass solution as well as Menlo Security.

PFPT also closed its acquisition of Cloudmark, which provides security in messaging for Internet Service Providers and mobile carriers, for \$110M. It will be incorporated into PFPT's Nexus platform. The deal enhances PFPT's e-mail security and data loss prevention solutions.

- **Qualys** (NASDAQ:QLYS +3.9%) purchased cybersecurity company NetWatcher, which provides managed detection and response solutions to SMBs. Functionality includes asset discovery, vulnerability management, intrusion detection, and continuous threat intelligence. The deal brings a managed security provider channel into QLYS's fold as well as new technology. NetWatcher will be integrated into the QLYS's Cloud Platform.

- **Barracuda Networks** (NYSE:CUDA +25.7%) — The security and storage solution provider is being taken private by Thoma Bravo, for \$1.6B, representing a 2018 EV/revenue multiple of 3.2x (4.0x of recurring revenue) and EV/CFO of 14.0x. It will be easier for CUDA to transition to its cloud offering as a private company, in our opinion.

Select Horizontal Companies¹

Ticker	11/30 \$Price	Nov %ch	Ticker	11/30 \$Price	Nov %ch
IPG	0.01	0.0	LPSN	11.10	-21.0
APTI	22.31	-8.0	LVT	0.19	-8.3
ASUR	14.36	27.3	MFON	1.15	-4.2
AYX	24.96	10.5	MRIN	9.50	-34.5
BCOV	7.40	-7.5	MSFT	84.17	1.2
BL	36.67	3.2	MULE	22.95	-1.9
BNFT	27.10	-1.1	NOW	123.00	-2.7
BOX	21.03	-4.2	OKTA	29.21	1.0
CALD	29.28	15.5	ORCL	49.06	-3.6
CCUR	6.06	-1.1	PAYC	82.00	-0.2
CLDR	15.83	4.6	PCTY	46.14	-13.6
COUP	35.43	2.0	PEGA	50.45	-13.5
CRM	104.32	1.9	PYDS	2.27	-12.4
CSCO	37.30	9.2	PYPL	75.73	4.4
CSOD	36.97	-3.6	SAP	113.08	-0.6
CTXS	87.63	6.1	SHSP	4.36	-3.1
DATA	70.30	-13.3	SMSI	2.29	38.8
EGAN	3.55	7.6	SPRT	2.39	3.9
EVBG	26.50	-0.5	SREV	2.87	-17.5
FNJN	2.29	10.1	TEAM	46.69	-3.5
FUEL	2.60	0.0	TWLO	26.66	-16.6
GDDY	48.65	4.2	ULTI	211.03	4.2
GOOGL	1036.17	0.3	UPLD	23.44	6.7
GSB	3.65	-9.9	VRNS	50.30	15.4
HDP	19.01	15.1	WAGE	64.15	0.6
HUBS	80.95	-6.5	WDAY	103.00	-7.2
IBM	153.97	-0.1	WEB	23.00	-4.6
INLX	0.16	-34.9	WK	21.75	-2.7
INTU	157.22	4.1	YEXT	14.31	24.7
LOGM	119.00	-1.7	ZEN	33.61	8.4

Select Vertical Companies²

Ticker	11/30 \$Price	Nov %ch	Ticker	11/30 \$Price	Nov %ch
ACTA	15.50	0.3	GSVC	6.35	13.6
AKDS	0.75	-36.4	GWRE	74.39	-7.0
ALRM	40.99	-12.2	INST	34.75	-0.1
AMBR	7.34	-1.6	INUV	0.93	10.5
AMZN	1176.75	6.5	IPAS	0.64	2.4
APPF	43.15	-6.0	MB	32.60	1.1
ATHN	132.89	3.9	MODN	16.25	11.7
BSFT	55.00	0.3	QTWO	41.85	-1.6
BV	5.45	13.0	RP	45.35	4.7
CAFN	0.19	-52.5	RST	12.19	19.9
COYN	0.03	0.3	SCIL	0.33	-5.7
CSLT	3.90	1.3	SHOP	103.82	4.4
CSTI	9.75	6.6	SNCR	10.04	-11.4
CXDO	1.95	2.6	SPSC	50.46	2.6
EBAY	34.67	-7.9	STMP	168.40	-25.0
ECOM	8.60	-23.6	SVVC	8.47	7.4
ELLI	88.39	-1.7	TWOU	64.10	0.7
ENV	49.15	-8.0	TWTR	20.58	-0.2
EVOL	4.55	-2.2	VEEV	60.21	-1.2
FB	177.18	-1.6	WIX	54.90	-21.3
FNGN	27.90	-22.7	WSTL	4.08	40.7

Indexes

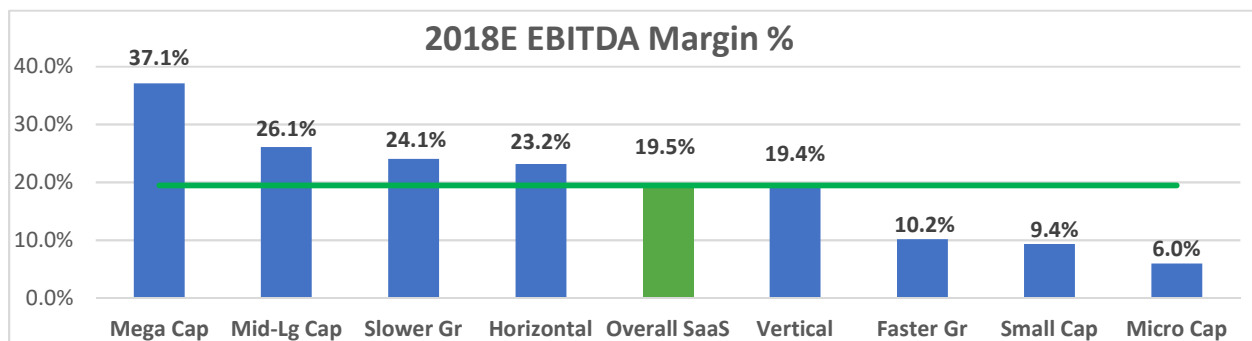
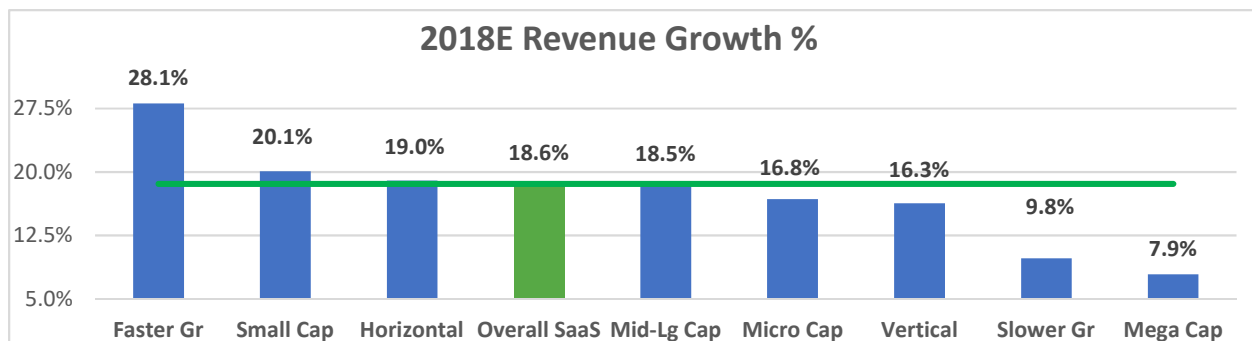
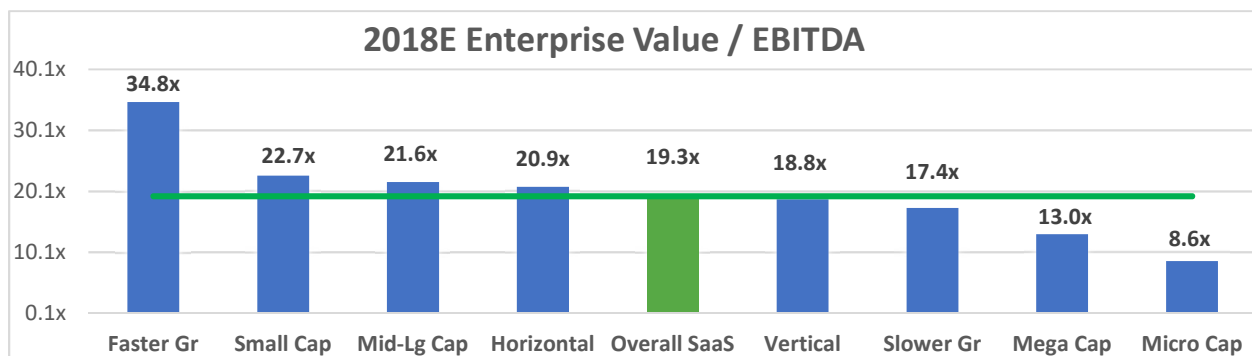
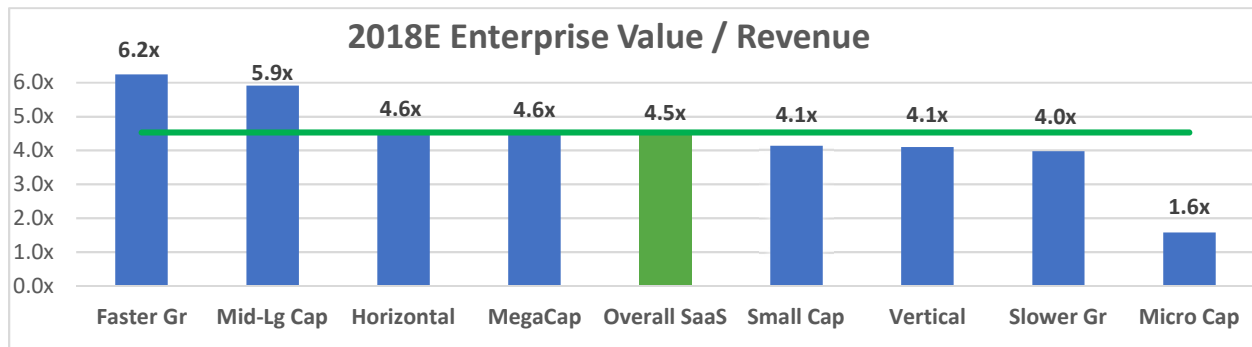
(% change in Nov)

Horizontal SaaS	-0.4	NASDAQ	2.2
Vertical SaaS	0.1	S&P 500	2.8
Overall SaaS	-0.2	Russell2000	2.7
		S&P Volatility	10.8

¹ Horizontal companies provide software that can

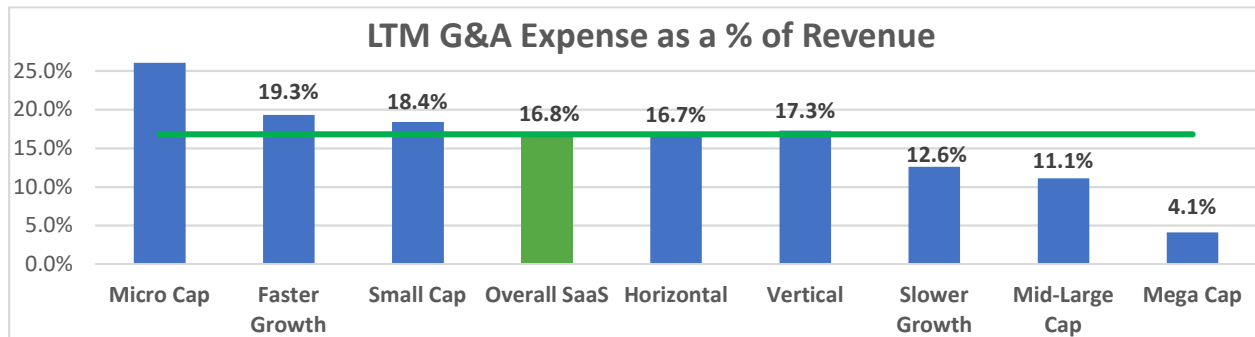
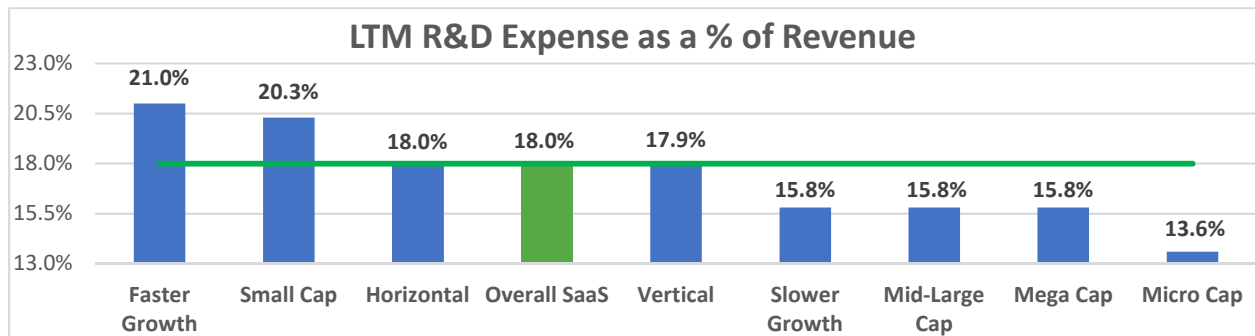
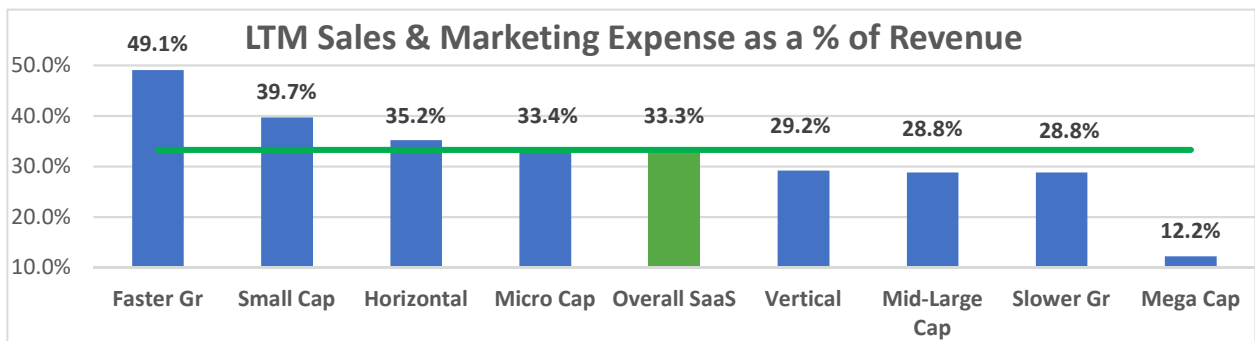
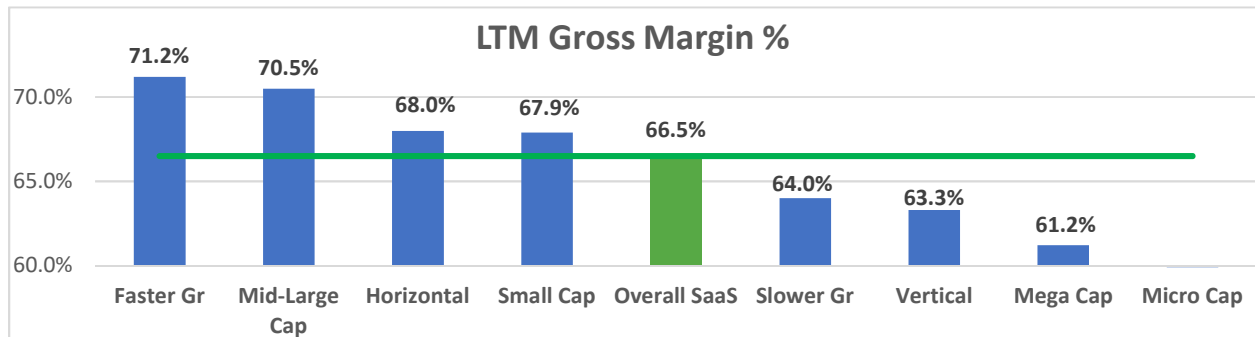
² Vertical companies provide software for specific
 Data source: S&P Capital IQ, 11/30/2017 Prices.

Public Comparisons - Calendar Year (CY) 2018E Metrics - SaaS Software Cloud



Data Source: S&P Capital IQ | **Mega Cap** = \$100B+ mcap | **Mid-Large Cap** = \$3B-\$100B mcap | **Small Cap** = \$150M-3B mcap | **Micro Cap** = <\$150M mcap | **Fast Growth** = 2018E rev gr >20% | **Slow Growth** = 2018E rev gr <20% | **Horizontal** = Industry-neutral | **Vertical** = Industry-specific | **Overall SaaS** = median | **EBITDA** = earnings before int., tax, depr., amort.

Public Comparisons - Last Twelve Months (LTM) Metrics - SaaS Software Cloud



Data Source: S&P Capital IQ | **Mega Cap** = \$100B+ mcap | **Mid-Large Cap** = \$3B-\$100B mcap | **Small Cap** = \$150M-3B mcap | **Micro Cap** = <\$150M mcap | **Fast Gr** = 2018E rev gr >20% | **Slow Gr** = 2018E rev gr <20% | **Horizontal** = Industry-neutral solution | **Vertical** = Industry-specific solution | **Overall SaaS** = Group median

Selected Fast Growth – SaaS Software Cloud Public Company Valuation Metrics

Ticker	Company Name	12/20/17 Price	Market Cap	Enterprise Value (EV)	2018E Street		EBITDA margin	2019E Growth	EV/Sales		EV/FCF		Price % Change From			60D avg Volume	Short as % of Float	Insider Ownership
					Sales	Growth			CY18E	CY19E	CY18E	CY19E	1M	3M	12M			
Fast Growth (2018E Revenue Growth > 20%, excluding Micro Caps)																		
AMZN	Amazon	\$1,177.62	\$572,165	591,041	\$228,215	29%	11.2%	21%	2.6x	2.1x	34.0x	26.9x	5%	21%	53%	\$4,652.11	1.3%	16%
APPF	AppFolio	41.85	1,426	1,383	181	28%	20.0%	28%	7.6x	6.0x	na	na	-7%	-8%	75%	6.72	4.2%	45%
ASUR	Asure Software	15.17	197	245	71	28%	24.8%	24%	3.5x	2.8x	44.5x	29.5x	7%	38%	68%	2.92	25.4%	9%
AYX	Alteryx	25.01	1,580	1,424	176	36%	na	32%	8.1x	6.1x	na	58.7x	-9%	30%	0%	14.18	7.0%	21%
BL	BlackLine	34.88	1,846	1,737	224	29%	4.1%	28%	7.7x	6.1x	na	77.8x	-7%	6%	29%	9.70	6.0%	7%
BOX	Box	20.92	2,844	2,756	625	23%	4.0%	22%	4.4x	3.6x	62.0x	32.1x	-8%	17%	46%	41.45	7.0%	5%
CLDR	Cloudera	17.28	2,408	2,019	460	27%	na	23%	4.4x	3.6x	na	na	10%	1%	0%	39.82	4.6%	3%
COUP	Coupa	32.50	1,756	1,537	225	24%	na	23%	6.8x	5.5x	na	70.4x	-5%	5%	29%	12.82	3.5%	1%
CSLT	Castlight Health	3.95	522	440	164	26%	na	18%	2.7x	2.3x	na	10.5x	4%	-4%	-23%	1.35	7.4%	6%
EVBG	Everbridge	29.02	820	773	131	26%	2.9%	23%	5.9x	4.8x	na	57.4x	9%	15%	46%	12.44	4.7%	12%
FB	Facebook	177.89	521,622	483,333	53,551	33%	59.8%	25%	9.0x	7.2x	28.6x	24.3x	0%	3%	49%	3,140.77	0.8%	18%
HDP	Hortonworks	20.23	1,418	1,354	327	27%	na	23%	4.1x	3.4x	na	29.0x	2%	19%	117%	16.46	5.5%	5%
HUBS	HubSpot	90.35	3,468	3,270	473	27%	7.5%	24%	6.9x	5.6x	na	71.8x	13%	21%	88%	59.69	14.4%	7%
INST	Instructure	33.50	1,032	965	201	28%	na	26%	4.8x	3.8x	na	na	-5%	0%	70%	8.62	7.1%	11%
MB	MINDBODY	30.65	1,429	1,219	228	25%	9.1%	26%	5.3x	4.3x	na	45.1x	-9%	24%	48%	15.59	20.3%	10%
MULE	MuleSoft	21.95	2,859	2,678	396	36%	na	30%	6.8x	5.2x	na	na	-3%	9%	0%	37.58	3.2%	7%
NOW	ServiceNow	129.00	22,445	21,930	2,516	31%	25.1%	28%	8.7x	6.8x	33.0x	24.3x	1%	12%	65%	208.96	5.9%	2%
OKTA	Okta	25.40	2,597	2,373	335	32%	na	33%	7.1x	5.3x	na	93.3x	-14%	-13%	0%	21.02	6.9%	12%
PAYC	Paycom	82.33	4,807	4,775	543	26%	30.7%	24%	8.8x	7.1x	46.6x	34.0x	-1%	10%	78%	49.83	16.7%	19%
PCTY	Paylocity	47.45	2,462	2,364	407	22%	20.5%	22%	5.8x	4.8x	56.5x	37.0x	-2%	1%	51%	14.85	3.6%	35%
QTWO	Q2 Holdings	37.65	1,590	1,501	240	24%	8.3%	25%	6.2x	5.0x	na	77.0x	-11%	-3%	22%	8.38	3.1%	2%
SHOP	Shopify	105.24	10,560	9,633	955	45%	5.1%	34%	10.1x	7.5x	na	na	-3%	-12%	154%	220.57	7.0%	17%
TEAM	Atlassian	46.69	10,585	9,971	960	31%	28.1%	27%	10.4x	8.2x	33.4x	25.7x	-8%	29%	90%	51.97	7.7%	36%
TWLO	Twilio	25.09	2,327	2,043	481	24%	0.7%	24%	4.2x	3.4x	na	na	-4%	-18%	-16%	50.56	23.4%	13%
TWOU	2U	64.36	3,486	3,301	395	38%	3.8%	33%	8.4x	6.3x	na	na	-1%	18%	95%	28.72	14.1%	2%
WDAY	Workday	102.00	21,615	19,878	2,662	25%	16.8%	23%	7.5x	6.1x	50.4x	37.4x	-10%	-3%	49%	211.16	9.7%	35%
WIX	Wix.com	60.85	2,750	2,543	557	31%	19.5%	26%	4.6x	3.6x	24.2x	16.2x	10%	-12%	39%	43.87	6.4%	3%
YEXT	Yext	12.37	1,135	1,021	225	32%	na	33%	4.5x	3.4x	na	na	-5%	-4%	0%	7.45	10.8%	25%
ZEN	Zendesk	33.59	3,459	3,233	554	30%	4.8%	28%	5.8x	4.5x	84.5x	46.5x	-3%	17%	50%	30.28	4.5%	4%
Select Faster Growth (2018E Rev. Growth >20%) Median					396	28%	10.2%	25%	6.2x	5.0x	44.5x	37.0x	-3%	6%	51%	28.72	6.9%	10%

Data Source: S&P Capital IQ | EV = Enterprise value | EBITDA = Earnings before int., tax, depr., amort | FCF = Free cash flow

Selected Slower Growth - SaaS Software Cloud Public Company Valuation Metrics

(In \$ million, except per share values)

Ticker	Company Name	12/20/17	Market Cap	Enterprise Value (EV)	2018E Street		EBITDA margin	2019E Growth	EV/Sales		EV/FCF		Price % Change From			60D avg Volume	Short as % of Float	Insider Ownership
		Price			Sales	Growth			CY18E	CY19E	CY18E	CY19E	1M	3M	12M			
Slower Growth (2018E Revenue Growth < 20%, excluding Micro Caps)																		
ACTA	Actua	15.63	469	452	149	16%	4.8%	na	3.0x	na	na	na	0%	27%	5%	2.24	1.0%	9%
ALRM	Alarm.Com	\$36.54	\$1,706	1,693	\$382	14%	21.9%	14%	4.4x	3.9x	43.7x	8.3x	-19%	-19%	33%	\$21.51	3.8%	3%
AMBR	Amber Road	7.50	207	221	87	10%	3.9%	11%	2.6x	2.3x	na	19.3x	15%	-1%	-24%	0.92	2.3%	16%
APTI	Apptio	22.64	922	787	215	15%	2.7%	15%	3.7x	3.2x	97.4x	17.2x	2%	29%	18%	11.17	6.7%	16%
ATHN	AthenaHealth	134.11	5,360	5,514	1,344	11%	25.3%	12%	4.1x	3.7x	53.5x	na	4%	8%	21%	54.87	12.5%	1%
BCOV	Brightcove	7.00	246	224	165	6%	3.3%	na	1.4x	na	na	na	-7%	0%	-14%	1.22	2.4%	2%
BNFT	Benefitfocus	27.00	844	910	282	10%	9.9%	15%	3.2x	2.8x	na	17.0x	4%	-13%	-9%	5.12	19.2%	18%
BSFT	BroadSoft	55.00	1,746	1,586	432	12%	23.6%	13%	3.7x	3.2x	22.5x	5.7x	1%	10%	30%	100.84	13.5%	1%
BV	Bazaarvoice	5.45	471	405	218	5%	14.3%	4%	1.9x	1.8x	19.3x	7.6x	12%	15%	6%	8.75	0.8%	2%
CALD	CallidusCloud	29.65	2,003	1,826	299	20%	15.5%	21%	6.1x	5.1x	62.4x	7.3x	3%	18%	78%	11.98	2.1%	2%
CRM	salesforce.com	103.39	75,307	74,267	12,536	20%	21.8%	19%	5.9x	5.0x	29.2x	4.0x	-4%	9%	48%	511.60	2.8%	5%
CSCO	Cisco	38.74	189,341	153,678	48,975	2%	34.2%	3%	3.1x	3.1x	10.8x	3.5x	6%	19%	27%	837.22	1.1%	0%
CSOD	Cornerstone	35.23	2,034	1,971	504	4%	17.7%	11%	3.9x	3.5x	28.1x	4.7x	-5%	-12%	-15%	22.70	10.4%	9%
CTXS	Citrix	88.14	13,238	13,151	2,882	2%	32.1%	3%	4.6x	4.4x	14.9x	3.0x	2%	15%	-4%	158.72	7.4%	1%
DATA	Tableau	70.06	5,636	4,693	944	9%	7.9%	14%	5.0x	4.4x	28.8x	5.0x	0%	-7%	64%	68.41	9.0%	22%
EBAY	eBay	37.93	39,485	43,453	10,252	7%	36.2%	7%	4.2x	4.0x	17.0x	3.5x	7%	-2%	30%	340.46	3.2%	6%
ECOM	ChannelAdvisor	9.20	239	186	135	10%	5.7%	9%	1.4x	1.3x	36.6x	11.1x	8%	-20%	-40%	1.57	1.0%	9%
ELLI	Ellie Mae	95.11	3,243	2,877	493	20%	27.4%	21%	5.8x	4.8x	52.1x	6.0x	8%	12%	15%	41.66	12.2%	2%
ENV	Envestnet	52.80	2,308	2,519	788	16%	19.6%	15%	3.2x	2.8x	23.3x	6.3x	6%	8%	46%	12.08	3.4%	4%
FNGN	Financial Engines	30.00	1,865	1,667	512	7%	32.8%	9%	3.3x	3.0x	15.0x	4.4x	10%	-7%	-21%	17.76	12.5%	1%
GDDY	GoDaddy	50.40	6,898	9,038	2,541	14%	27.6%	11%	3.6x	3.2x	15.0x	3.7x	0%	13%	45%	85.68	5.5%	0%
GOOGL	Alphabet	1073.56	747,053	650,874	130,338	19%	40.1%	17%	5.0x	4.3x	19.3x	3.5x	4%	13%	32%	1,750.02	0.5%	12%
GWRE	Guidewire	73.76	5,631	5,070	675	19%	19.5%	16%	7.5x	6.5x	37.6x	3.7x	-10%	-5%	44%	48.58	5.7%	0%
IBM	IBM	152.95	141,859	176,116	78,584	0%	25.3%	0%	2.2x	2.2x	14.9x	6.5x	2%	5%	-9%	729.76	1.8%	0%
INTU	Intuit	159.35	40,873	40,971	5,933	9%	36.8%	9%	6.9x	6.3x	24.7x	3.0x	1%	10%	35%	213.49	0.9%	5%
LOGM	LogMeIn	113.10	6,145	5,869	1,147	13%	38.5%	6%	5.1x	4.8x	16.3x	2.8x	-3%	2%	15%	73.07	6.1%	2%
LPSN	LivePerson	11.50	685	630	234	7%	9.4%	9%	2.7x	2.5x	na	19.2x	3%	-16%	39%	5.08	1.3%	8%
MODN	Model N	15.90	466	466	151	8%	4.2%	9%	3.1x	2.8x	65.5x	7.0x	7%	20%	80%	3.93	3.4%	20%
MSFT	Microsoft	85.52	662,143	617,483	110,377	9%	40.1%	8%	5.6x	5.2x	18.2x	3.0x	4%	14%	35%	2,083.81	0.6%	1%
ORCL	Oracle	47.90	197,956	187,484	40,528	4%	46.4%	4%	4.6x	4.4x	12.9x	2.5x	-2%	0%	23%	753.13	1.0%	27%
PEGA	Pegasystems	47.50	3,729	3,535	888	10%	13.1%	14%	4.0x	3.5x	31.7x	7.6x	-8%	-17%	32%	19.65	3.8%	52%
PYPL	PayPal Holdings	74.00	89,542	78,936	15,394	19%	26.1%	17%	5.1x	4.4x	21.6x	3.4x	-3%	14%	86%	712.65	1.8%	6%
RP	RealPage	44.50	3,709	3,997	821	22%	26.1%	12%	4.9x	4.4x	28.3x	4.7x	0%	13%	48%	23.12	4.8%	26%
RST	Rosetta Stone	12.77	288	250	188	1%	7.6%	na	1.3x	na	na	na	14%	34%	42%	1.64	1.6%	4%
SAP	SAP	113.33	135,874	136,562	29,810	7%	33.6%	7%	4.6x	4.3x	26.4x	5.0x	0%	3%	32%	0.59	0.0%	1%
SNCR	Synchronoss	9.03	427	550	419	-12%	19.4%	-1%	1.3x	1.3x	24.6x	4.9x	-19%	-5%	-78%	8.09	23.6%	9%
SPSC	SPS Commerce	48.01	825	661	244	11%	15.8%	11%	2.7x	2.4x	32.8x	9.1x	-2%	-16%	-32%	9.97	2.7%	1%
SREV	ServiceSource	3.10	281	243	243	3%	8.9%	5%	1.0x	1.0x	na	72.1x	3%	-11%	-47%	0.87	3.0%	4%
STMP	Stamps.com	184.45	3,217	3,182	533	16%	51.4%	15%	6.0x	5.2x	15.6x	2.2x	6%	-12%	61%	91.97	13.6%	6%
TWTR	Twitter	25.20	18,550	16,065	2,548	6%	33.3%	8%	6.3x	5.9x	31.2x	4.7x	19%	43%	41%	566.93	6.0%	12%
ULTI	Ultimate Software	219.36	6,594	6,465	1,112	19%	24.6%	18%	5.8x	4.9x	47.9x	6.9x	10%	19%	17%	76.95	9.7%	5%
UPLD	Upland Software	22.52	465	504	123	26%	35.5%	4%	4.1x	3.9x	19.8x	3.9x	5%	9%	158%	6.14	0.9%	16%
VEEV	Veeva Systems	57.10	8,009	7,250	806	18%	32.4%	18%	9.0x	7.6x	29.9x	2.7x	-8%	3%	33%	69.73	4.7%	20%
VRNS	Varonis Systems	48.90	1,360	1,231	250	19%	5.5%	17%	4.9x	4.2x	59.2x	7.4x	-6%	16%	84%	17.16	1.8%	1%
WAGE	WageWorks	60.65	2,390	1,743	526	9%	31.8%	8%	3.3x	3.1x	na	na	0%	2%	-16%	18.27	9.6%	1%
WEB	Web.com Group	22.85	1,111	1,769	783	4%	26.2%	4%	2.3x	2.2x	11.5x	4.8x	0%	-6%	11%	6.96	4.7%	4%
WK	Workiva	21.45	910	852	235	14%	na	14%	3.6x	3.2x	93.5x	11.6x	-4%	8%	60%	3.37	4.5%	43%
Select Slower Growth (2018E Rev. Growth < 20%) Median					533	10%	24.1%	11%	4.0x	3.8x	26.4x	4.9x	2%	8%	30%	21.51	3.6%	5%

Data Source: S&P Capital IQ | EV = Enterprise value | EBITDA = Earnings before int., tax, depr., amort | FCF = Free cash flow

Selected Micro-Caps – SaaS Software Cloud Public Company Valuation Metrics

Select Micro Cap (<\$150M mcap)																		
1PG	1-PAGE	0.01	1	(23)	na	na	na	na	na	na	na	na	0%	127%	-96%	0.00	0.7%	9%
AKDS	Arkados Group	0.60	14	24	na	na	na	na	na	na	na	na	-29%	-9%	-50%	0.04	0.0%	19%
CAFN	Cachet	0.13	1	(2)	24	67%	16.3%	na	na	na	na	na	-41%	-88%	-98%	0.00	0.2%	33%
CCUR	Concurrent	5.91	56	18	na	na	na	na	na	na	na	na	-3%	-2%	13%	0.19	1.0%	25%
COYN	COPsync	0.02	0	1	na	na	na	na	na	na	na	na	-40%	-83%	-98%	0.00	0.0%	12%
CSTI	Costar	9.65	13	22	na	na	na	na	na	na	na	na	2%	-12%	7%	0.02	0.0%	0%
CXDO	Crexendo	2.10	30	29	na	na	na	na	na	na	na	na	17%	26%	44%	0.01	1.1%	74%
EGAN	eGain	4.95	133	133	61	5%	4.0%	9%	2.2x	2.0x	na	na	43%	98%	151%	0.75	0.3%	38%
EVOL	Evolving Systems	4.70	58	59	na	na	na	na	na	na	na	na	3%	1%	16%	0.12	0.1%	35%
FNJN	FinJan	2.63	65	49	31	-6%	53.9%	na	1.6x	na	na	na	30%	22%	119%	0.60	1.4%	3%
FUEL	Rocket Fuel	2.60	na	na	na	na	na	na	na	na	na	na	0%	0%	42%	0.00	0.0%	0%
GSB	GlobalSCAPE	3.45	73	60	na	na	na	na	na	na	na	na	-11%	-9%	-12%	0.17	0.1%	21%
GSVC	GSV Capital	5.53	114	185	1	8%	na	na	na	na	na	na	-14%	5%	16%	0.65	0.0%	1%
INLX	Intellinetics	0.15	3	4	na	na	na	na	na	na	na	na	-26%	-49%	-81%	0.00	0.0%	54%
INUV	Inuvo	0.83	23	26	95	21%	3.4%	na	0.3x	na	na	na	7%	-14%	-49%	0.10	1.7%	18%
IPAS	iPass	0.56	37	30	64	17%	na	na	0.5x	na	na	na	-10%	-8%	-66%	0.23	1.8%	6%
LVT	LiveTiles	0.26	110	107	9	na	na	68%	11.4x	6.8x	na	na	30%	68%	232%	0.17	0.0%	59%
MFON	Mobivity	1.22	41	42	na	na	na	na	na	na	na	na	-1%	17%	72%	0.02	0.0%	19%
MRIN	Junein Software	11.05	65	38	na	na	na	na	na	na	na	na	15%	-10%	-33%	0.30	1.0%	29%
PYDS	Payment Data Sy	3.43	38	35	na	na	na	na	na	na	na	na	42%	98%	88%	4.24	1.6%	59%
SCIL	Scientific Learnin	0.60	14	na	na	na	na	na	na	na	na	na	67%	18%	20%	0.01	0.0%	0%
SHSP	SharpSpring	4.12	34	28	17	26%	na	na	1.7x	na	na	na	4%	18%	-22%	0.43	0.7%	21%
SMSI	Smith Micro Softv	3.16	46	45	na	na	na	na	na	na	na	na	65%	168%	93%	0.27	3.3%	15%
SPRT	Support.com	2.51	46	(3)	na	na	na	na	na	na	na	na	7%	5%	20%	0.10	0.2%	3%
SVVC	First Technology	8.91	66	59	na	na	na	na	na	na	na	na	8%	15%	12%	0.27	0.0%	8%
WSTL	Westell	3.98	62	38	67	4%	6.0%	na	0.6x	na	na	na	-2%	38%	47%	0.34	0.2%	33%
Select Micro Cap (<\$150M) Median					31	17%	6.0%	38%	1.6x	4.4x	na	na	3%	5%	14%	0.17	0.7%	21%

Data Source: S&P Capital IQ | EV = Enterprise value | EBITDA = Earnings before int., tax, depr., amort | FCF = Free cash flow

About Navidar

Navidar LLC is a Registered Investment Advisor and a subsidiary of Navidar Holdco LLC (which was referred to as “Navidar” in this report). For more information, please visit www.Navidar.com.

Disclaimer

Certain statements in this Monthly Report (the “Monthly”) may be “Forward-looking” in that they do not discuss historical facts but instead note future expectations, projections, intentions, or other items relating to the future. We caution you to be aware of the speculative nature of forward-looking statements as these statements are not guarantees of performance or results.

Forward-looking statements, which are generally prefaced by the words “may,” “anticipate,” “estimate,” “could,” “should,” “would,” “expect,” “believe,” “will,” “plan,” “project,” “intend” and similar terms, are subject to known and unknown risks, uncertainties and other facts that may cause actual results or performance to differ materially from those contemplated by the forward-looking statements.

We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. In light of these risks, uncertainties, and assumptions, the forward-looking events discussed might not occur.

This Monthly has been prepared solely for informational purposes and may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with us.

This Monthly is not intended to provide the sole basis for evaluating, and should not be considered a recommendation with respect to, any transaction or other matter. This Monthly does not constitute an offer, or the solicitation of an offer, to buy or sell any securities or other financial product, to participate in any transaction or to provide any investment banking or other services, and should not be deemed to be a commitment or undertaking of any kind on the part of Navidar Holdco LLC (“Navidar”) or any of its affiliates to underwrite, place or purchase any securities or to provide any debt or equity financing or to participate in any transaction, or a recommendation to buy or sell any securities, to make any investment or to participate in any transaction or trading strategy.

Although the information contained in this Monthly has been obtained or compiled from sources deemed reliable, neither Navidar nor any of the Company affiliates make any representation or warranty, express or implied, as to the accuracy or completeness of the information contained herein and nothing contained herein is, or shall be relied upon as, a promise or representation whether as to the past, present or future performance. The information set forth herein may include estimates and / or involve significant elements of subjective judgment and analysis. No representations are made as to the accuracy of such estimates or that all assumptions relating to such estimates have been considered or stated or that such estimates will be realized. The information contained herein does not purport to contain all of the information that may be required to evaluate a participation in any transaction and any recipient hereof should conduct its own independent analysis of the data referred to herein. We assume no obligation to update or otherwise revise these materials.

Navidar does and seeks to do business with companies covered in Navidar Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Navidar Research.

Navidar and its affiliates do not provide legal, tax or accounting advice. Prior to making any investment or participating in any transaction, you should consult, to the extent necessary, your own independent legal, tax, accounting and other professional advisors to ensure that any transaction or investment is suitable for you in the light of your financial capacity and objectives.