



MEDIA SECTOR REVIEW

Key Takeaways From The NAB

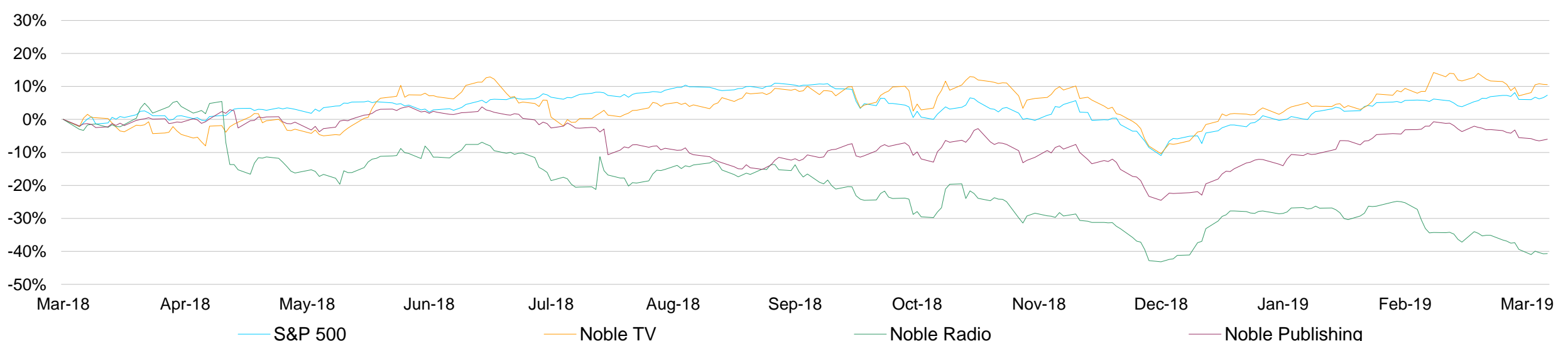
Investors were focused on the Federal Communications Commissioners' (FCC) comments at the National Association of Broadcaster's (NAB) convention in Las Vegas last week. At our NAB investor meetings, Commissioner Michael O'Reilly and former Commissioner Harold Furchtgott-Roth, offered insights into the prospect of relaxation of media ownership rules. Both seemed sanguine about the prospect that the FCC will move to relax ownership rules for radio in the quadrennial media ownership review expected later this year, but pushed back on the prospect that there will be relaxation of ownership rules for television. Lifting the current ownership cap from 39% of total TV households for the television industry may take an act of Congress, with both Commissioners agreeing that there is no political will to push for it. Given that the courts recently ruled that the UHF discount rule may remain in place, (which was surprising to the Commissioners), the ownership cap would theoretically be 78% if all stations were UHF. The discount rule allows owners of UHF stations to count the households covered by $\frac{1}{2}$. It was the interest of the FCC last year to do away with the UHF discount rule and to raise the ownership caps.

Now, the FCC is likely to keep the UHF discount rule. Nonetheless, the prospect that there will be no movement in ownership caps for TV will 1) likely throw some cold water on the pace of television consolidation, 2) make UHF stations more valuable, and 3) slightly tip the hand of negotiating power for retransmission fees back to the satellite and cable operators. The FCC offered some wiggle room in that companies may try to push the cap higher through acquisitions that put companies above the current cap. Such a move would be a protracted process given a left leaning Department of Justice that utilizes archaic media methodologies and almost certain court battle. The radio industry seems to be in a better position to benefit from the Quadrennial review. The FCC indicated that it plans to lift radio ownership rules, including in-market rules that would allow a company to own more FM stations in a market. In our view, investors should focus on television companies that are below the current caps that have the capacity to make acquisitions and enhance its competitive position, which include Entravision, Tegna, and E.W. Scripps. In radio, we would focus on companies that could benefit from in-market consolidation including Salem Media and Townsquare.

INSIDE THIS ISSUE

Outlook: Traditional Media	2
TV	4
Radio	5
Publishing	6
Industry M&A Activity	7
Outlook: Internet and Digital Media	8
Digital Media	10
Advertising Tech.	11
Marketing Tech.	12
Social Media	13
Industry M&A Activity	14
Noble Overview	16

STOCK MARKET PERFORMANCE: TRADITIONAL MEDIA



NOBLE Capital Markets, Inc., dba NOBLE Capital Markets is a FINRA registered broker/dealer. Member - SIPC (Securities Investor Protection Corporation). Refer to the segment analysis part of the Newsletter to see the components of NOBLE Media Segment Indexes



OUTLOOK - TRADITIONAL MEDIA

TELEVISION BROADCASTING

Deal activity propels stock valuations

Television stocks were on fire in the last quarter, up 18% versus the S&P 500 Index of up 13% in the comparable time frame. Interest by investors was fueled by better than expected political advertising and heightened M&A activity. Some of our closely followed companies significantly outperformed both the TV Index and the general stock market. The shares of Gray Television (GTN) jumped 65% and the shares of E.W. Scripps (SSP) and Tegna (TGNA) soared more than 50% from lows in December 2018. All of the companies were involved in announced acquisitions or station sales late in the quarter. The groundswell of interest, we believe, was set earlier in the quarter with the sale of Cox Media's broadcast stations for a deal valued at a hefty \$3 billion. The transaction of 13 television stations was estimated to be at a strong 11 times cash flow, well above public market valuations of roughly 8.4 times blended 2019/2020 cash flow estimates.

While the transaction at 11 times cash flow was supportive of public market valuations, we caution investors that the multiple is likely not the new benchmark for private television transactions. Financial buyers typically "pay up" to establish a position in the industry, but then pay more "normalized" multiples to build out the TV platform. So, what is in store for the TV stocks for the rest of the year? Without the prospect of the FCC lifting ownership restriction, we believe that the M&A market will ease somewhat, even though we believe it will remain elevated. In this environment, investors likely will focus on the current fundamentals, with an eye toward the upcoming 2020 political season. Based on the updates we received at the NAB, we believe that advertising trends are somewhat tepid. Auto advertising seems to be holding together despite the likely lower unit volume sales this year. Television companies that focus on used cars, which is an area of focus for dealerships, are likely to fair better in this important category. In our view, it will be a long summer and investors are encouraged to be opportunistic in adding or building positions in the sector. Our current favorite for the upcoming quarter is Entravision (EVC).

RADIO BROADCASTING

Is it a multiple problem?

Radio stocks under performed in the last quarter, not getting a strong first quarter bounce like other mediums. Radio stocks were essentially flat, up 0.5% versus the general market that was up 13%. The underwhelming performance of the industry masked the stand outs in the quarter. The shares of Townsquare (TSQ) increased over 40% from its lows on December 31, 2018, a reflection of the company's above average revenue performance in 2018. Even more remarkable, the shares of Cumulus Media (CMLS) increased a significant 70% in the comparable time frame, a reflection of the company's recently announced asset sales and aggressive debt pare down. The disappointing performance for the radio stocks is despite the fact that many companies indicated improving revenue trends in the first quarter 2019. We pondered the problems with traction in radio stocks in a presentation at the NAB. The radio stocks trade in the middle of the pack in terms of cash flow multiples, an estimated 7.1 times 2019 estimates. Notably, the industry has struggled to reflect significant revenue growth, a modest 1% over the past 10 years.

In our view, the industry needs to drive improved revenue growth or it may suffer the prospect of a contraction in multiples more in line with the publishing stocks, currently roughly 5.1 times 2019 cash flow estimates. What is notable about the prospect of a contraction in the enterprise to cash flow multiples? Many companies in the radio industry given the enhanced debt levels from acquisitions on average have debt to cash flow of 5.3 times, with most of the companies trading at roughly 6.5-7.5 times. This implies that a contraction in cash flow valuations would imply very little equity value for the industry. As such, it is not a surprise that most managements are highly focused on reducing debt levels, and, at the same time, on enhancing revenues through digital, programmatic, data, and attribution strategies. We are encouraged that many radio managements indicated that revenue trends appear to be improving into the second quarter, with one management team indicating that pacsings were up as much as 4%. We believe that the radio stocks should show improved performance in the second half 2019 as investors focus on improving revenue trends in 2020, bolstered by political advertising.



OUTLOOK - TRADITIONAL MEDIA

PUBLISHING

Will investors look beyond takeover attempts?

Noble's publishing index outperformed the general market, as well as all advertising driven mediums in the latest quarter, up a solid 21% versus a 13% gain for the S&P 500 Index. The stand out performance in the industry was driven by Lee Enterprise (LEE) and the New York Times (NYT), both up nearly 50%. Other publishing stocks have been buoyed by take over attempts, including the shares of Gannett (GCI), up roughly 21% for the quarter. Despite all of the noise regarding takeovers in the industry, there are some fundamental bright spots. Terry Jimenez, the CFO of Tribune Publishing, participated in the NAB investor meetings, providing his view of the publishing industry.

Notably, Mr. Jimenez indicated that advertising declines in the publishing industry should further moderate in 2019, a function of easing comparables with the year earlier advertising disruptions and strength in national print. While the print advertising business is likely in a perpetual state of decline, the company believes that in larger markets that it has some ability to impact the slope of the decline. Importantly, the company indicated that there is a far greater amount of a fragmented advertiser base. The company has already had the big hits from the likes of Macy's, Sears and others. While the company still has some big advertisers, most of those advertisers already restructured and are in a better financial position. National print advertising seems to be benefiting from mobile communications companies from E-Cigarette advertising, with some companies introducing in-home nicotine products. On the cost front, Mr. Jimenez indicated that there are further areas that the company can cut costs, especially fixed costs. Consequently, it appears no surprise that financial players may be hunting in the publishing group given the favorable cash flow dynamics. Now, it is a question whether investors will recognize the value of a publishing company. We believe that the publishing stocks will reflect the improving revenue trends in the industry and remain constructive on the industry.

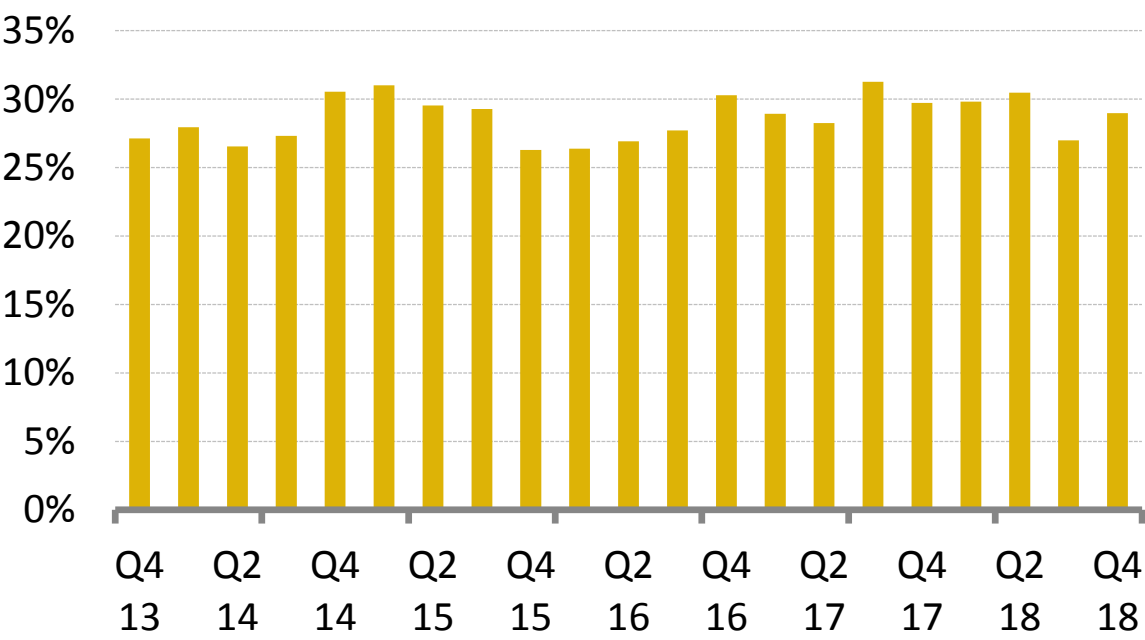
*Source: Noble Capital Markets Equity Research Report: "Will The Momentum Continue?"



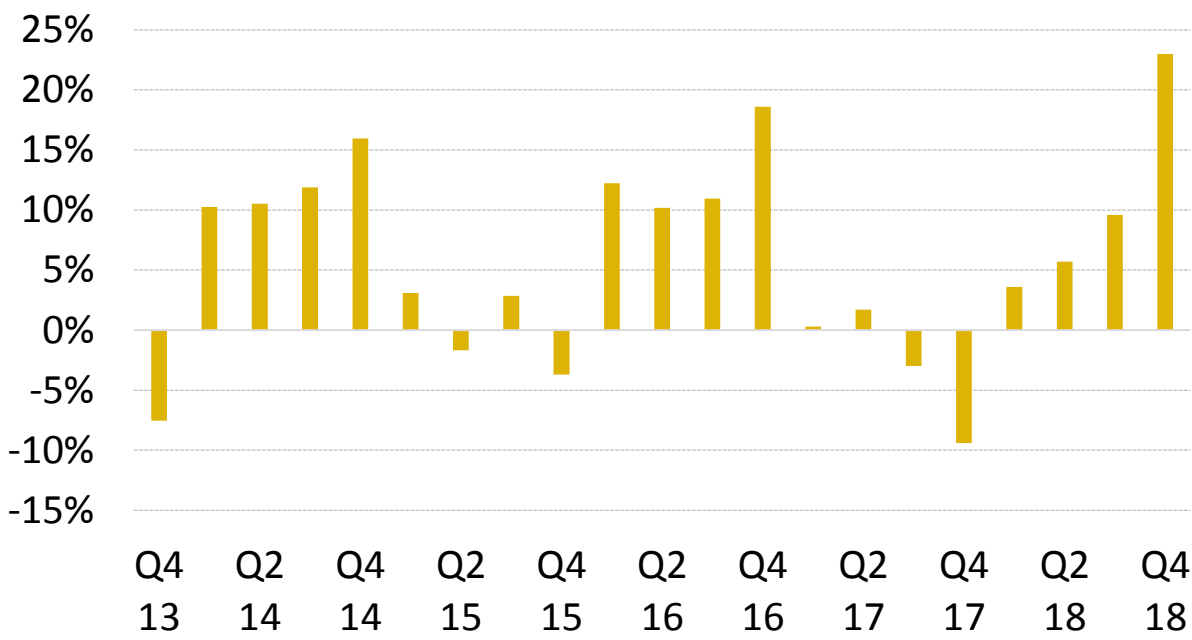
TV – SEGMENT ANALYSIS

	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /						Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Dividend Yield	
						Revenues (\$M)	EBITDA (\$M)	Revenues			EBITDA							
								LTM	2019E	2020E	LTM	2019E	2020E					
CBS Corporation	\$52.24	87.7%	\$19,572	\$9,830	\$29,400	\$14,514	\$3,124	2.0x	1.9x	1.8x	9.4x	8.5x	7.8x	3.1x	4.6%	21.5%	1.4%	
Nexstar Media Group	117.96	100.8%	5,396	3,836	9,248	2,767	1,048	3.3x	3.4x	3.0x	8.8x	10.6x	7.9x	3.7x	45.6%	37.9%	1.5%	
Sinclair Broadcast	44.98	100.8%	4,111	2,832	6,904	3,055	921	2.3x	2.3x	2.0x	7.5x	9.2x	6.8x	3.1x	11.2%	30.1%	1.8%	
TEGNA	16.44	101.1%	3,553	2,809	6,361	2,207	784	2.9x	2.9x	2.5x	8.1x	9.7x	7.2x	3.6x	7.7%	35.5%	1.7%	
Tribune Media	46.18	99.4%	4,076	1,863	5,944	2,010	618	3.0x	3.1x	2.8x	9.6x	13.6x	10.0x	3.0x	3.7%	30.8%	2.2%	
Gray Television	24.36	96.2%	2,445	1,882	4,317	1,084	447	4.0x	2.1x	1.8x	9.7x	6.6x	4.8x	4.2x	22.0%	41.2%	0.0%	
The E.W. Scripps	23.11	98.7%	1,866	582	2,447	1,208	209	2.0x	1.9x	1.5x	11.7x	12.5x	6.4x	2.8x	22.7%	17.3%	0.9%	
Entravision	3.05	53.7%	271	59	330	289	50	1.1x	1.1x	1.0x	6.6x	6.6x	6.0x	1.2x	30.3%	17.4%	6.4%	
								Mean	2.6x	2.3x	2.0x	8.9x	9.6x	7.1x	3.1x	18.5%	29.0%	2.0%
								Median	2.6x	2.2x	1.9x	9.1x	9.4x	7.0x	3.1x	16.6%	30.5%	1.6%

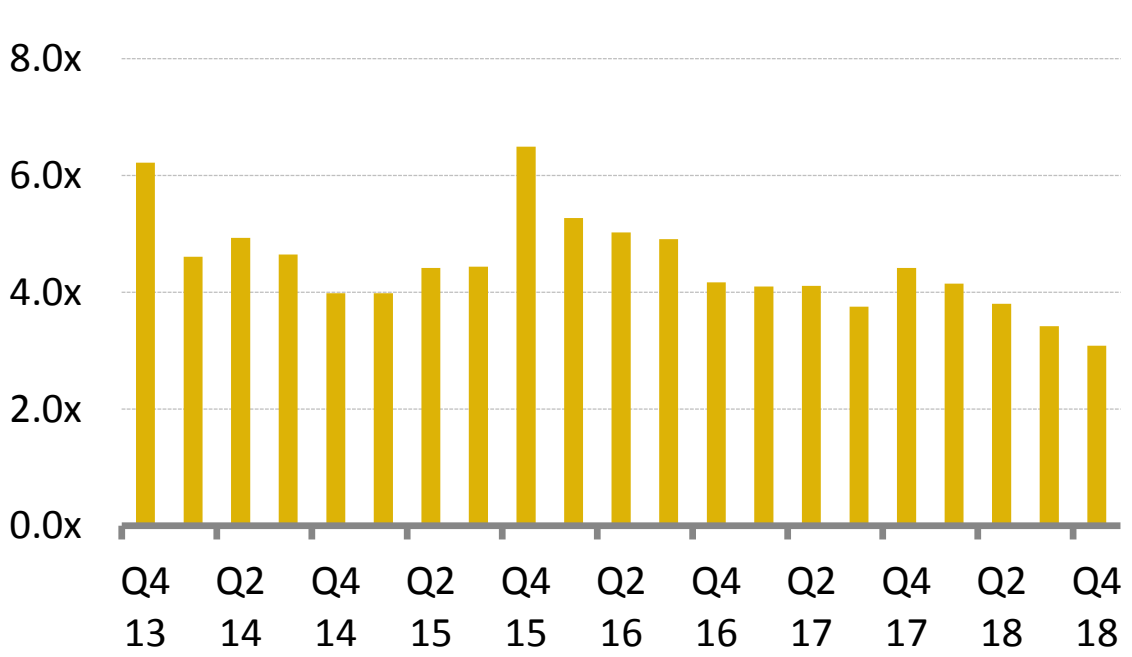
LTM EBITDA MARGIN



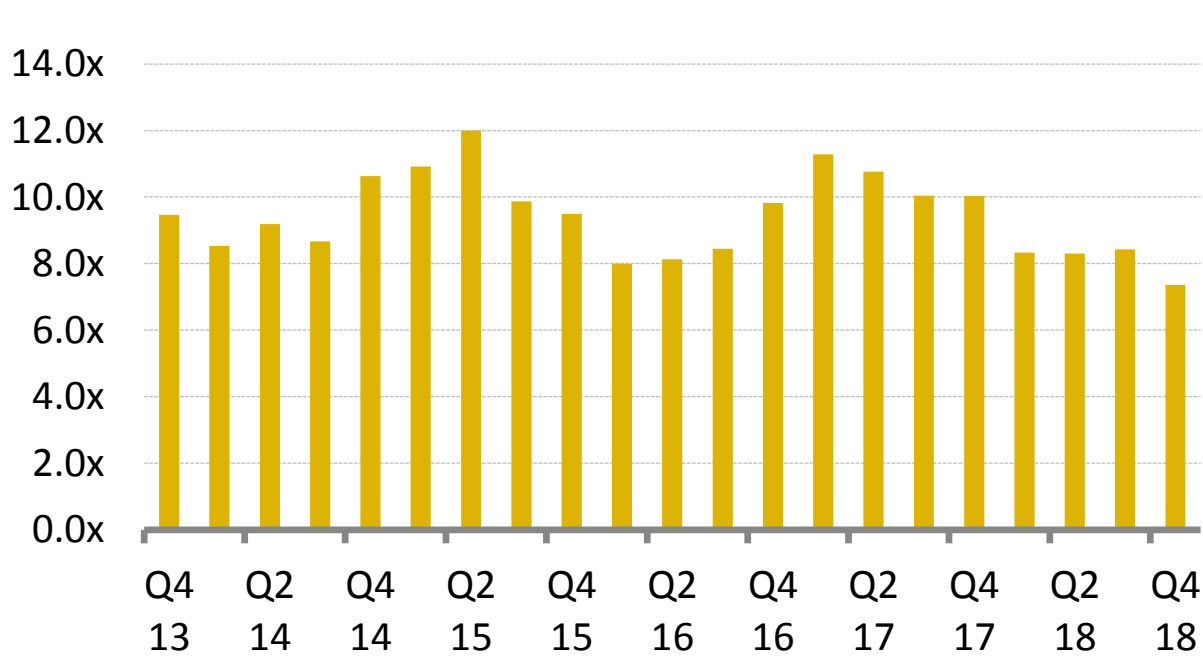
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA





RADIO – SEGMENT ANALYSIS

	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			EBITDA			Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Dividend Yield
						Revenues (\$M)	EBITDA (\$M)	LTM	2019E	2020E	LTM	2019E	2020E				
Entercom	\$6.24	57.0%	\$862	\$1,801	\$2,663	\$1,571	\$378	1.8x	1.8x	1.7x	7.0x	7.2x	6.8x	4.1x	52.2%	24.1%	5.7%
Cumulus Media	18.64	71.7%	310	1,216	1,526	1,140	226	1.3x	1.4x	1.3x	6.7x	7.3x	7.0x	5.4x	(0.8%)	19.8%	NA
Urban One	1.95	81.0%	84	897	992	439	131	2.3x	NA	NA	7.6x	NA	NA	6.9x	(0.9%)	29.8%	NA
Townsquare Media	5.68	58.0%	108	494	603	431	95	1.4x	1.3x	1.3x	6.4x	6.3x	5.8x	5.2x	(0.8%)	22.0%	5.2%
Beasley	3.76	30.5%	104	230	334	257	45	1.3x	1.3x	1.3x	7.3x	7.2x	6.5x	5.1x	34.4%	17.7%	5.2%
Salem Media Group	2.33	37.3%	61	254	315	263	40	1.2x	1.2x	NA	7.8x	8.0x	NA	4.6x	(0.4%)	15.3%	NA
Saga Communications	32.40	80.8%	193	(25)	168	125	26	1.3x	NA	NA	6.3x	NA	NA	NM	3.7%	21.2%	3.7%
Emmis Communications	3.82	65.4%	50	77	156	121	12	1.3x	NA	NA	12.6x	NA	NA	6.2x	(14.5%)	10.3%	0.0%

Mean

Median

1.5x

1.4x

1.4x

7.7x

7.2x

6.5x

5.3x

22.0%

13.8%

4.0%

1.3x

1.3x

1.3x

7.2x

7.2x

6.7x

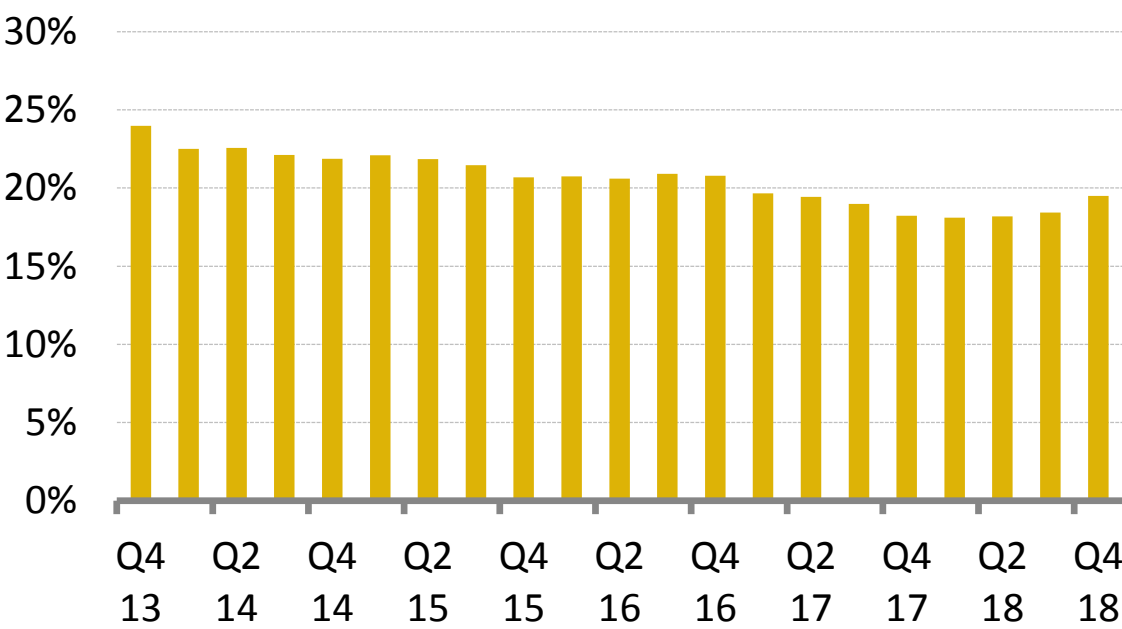
5.2x

23.1%

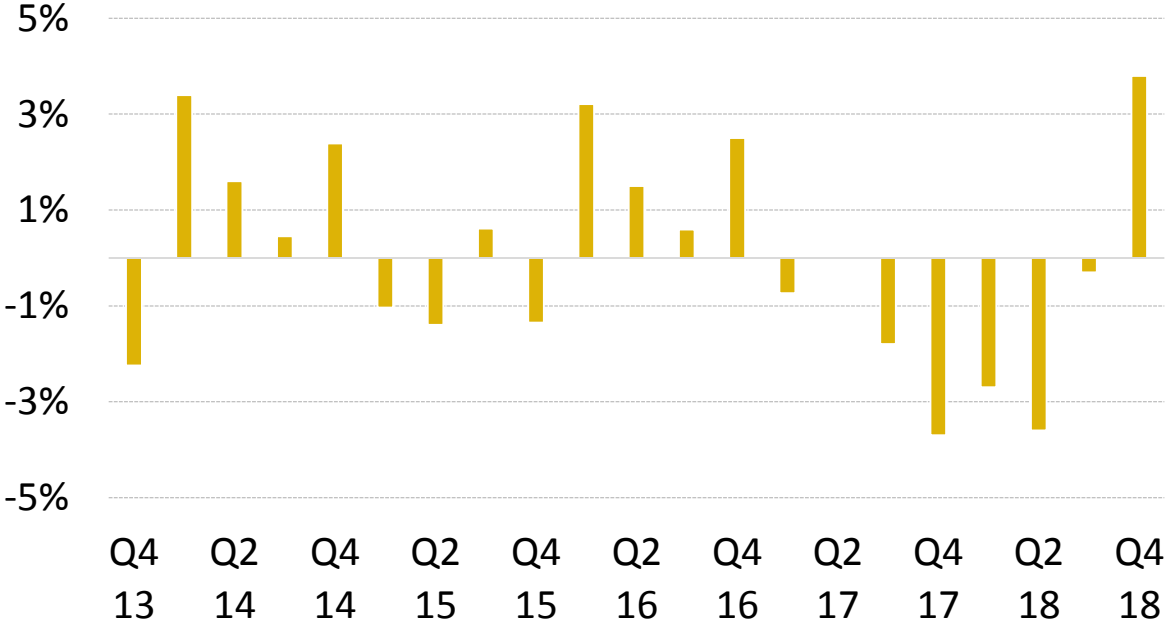
15.3%

5.2%

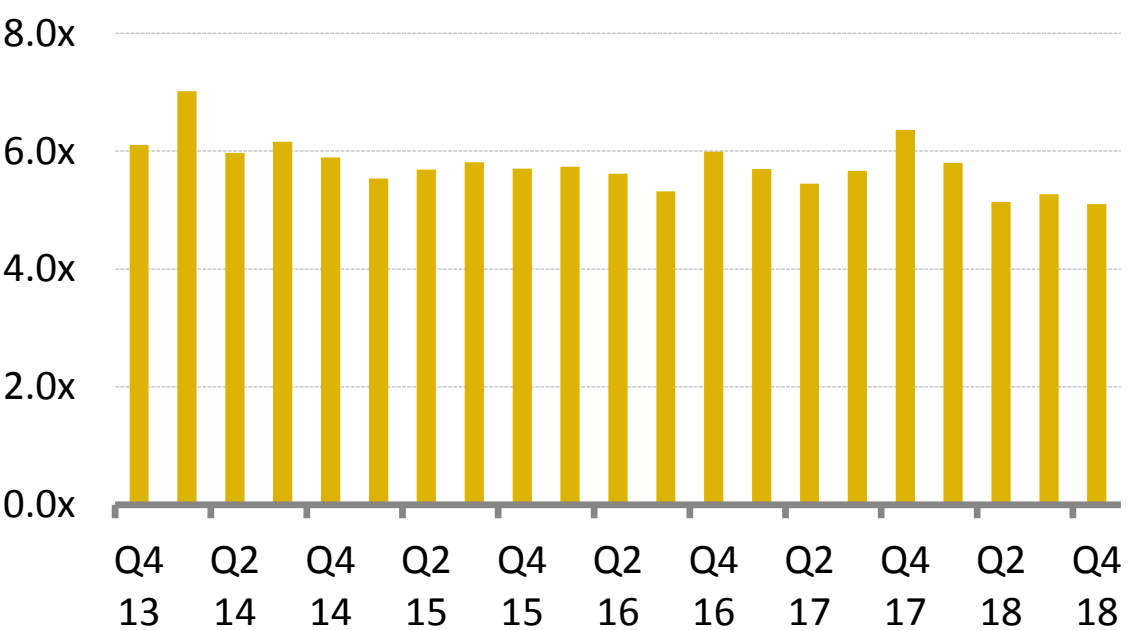
LTM EBITDA MARGIN



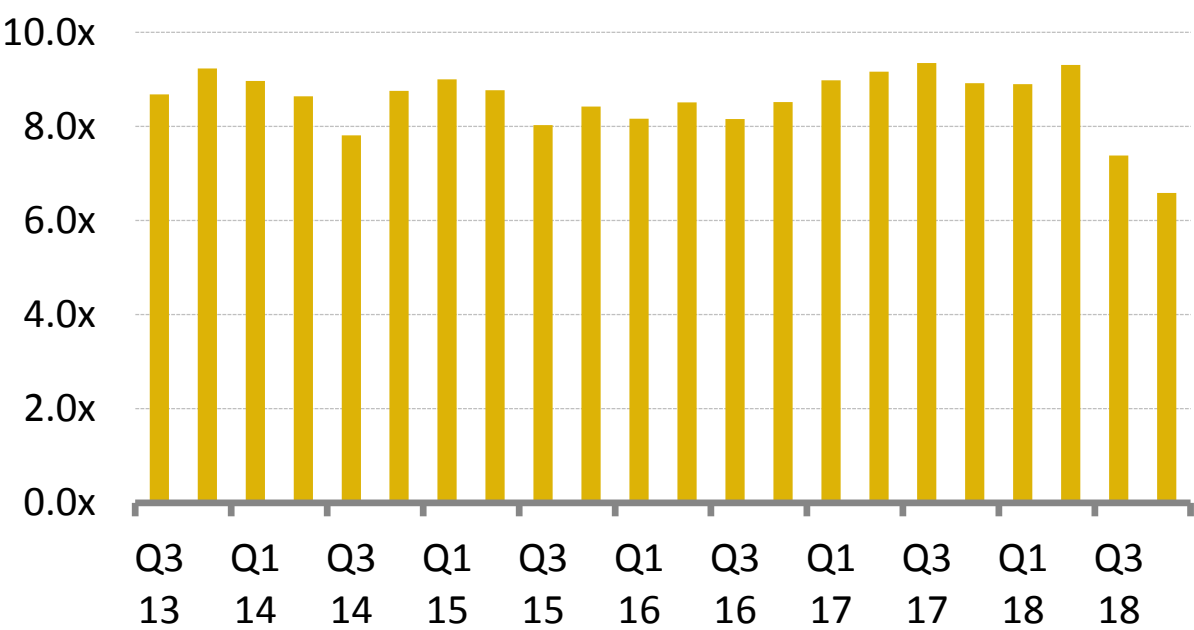
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



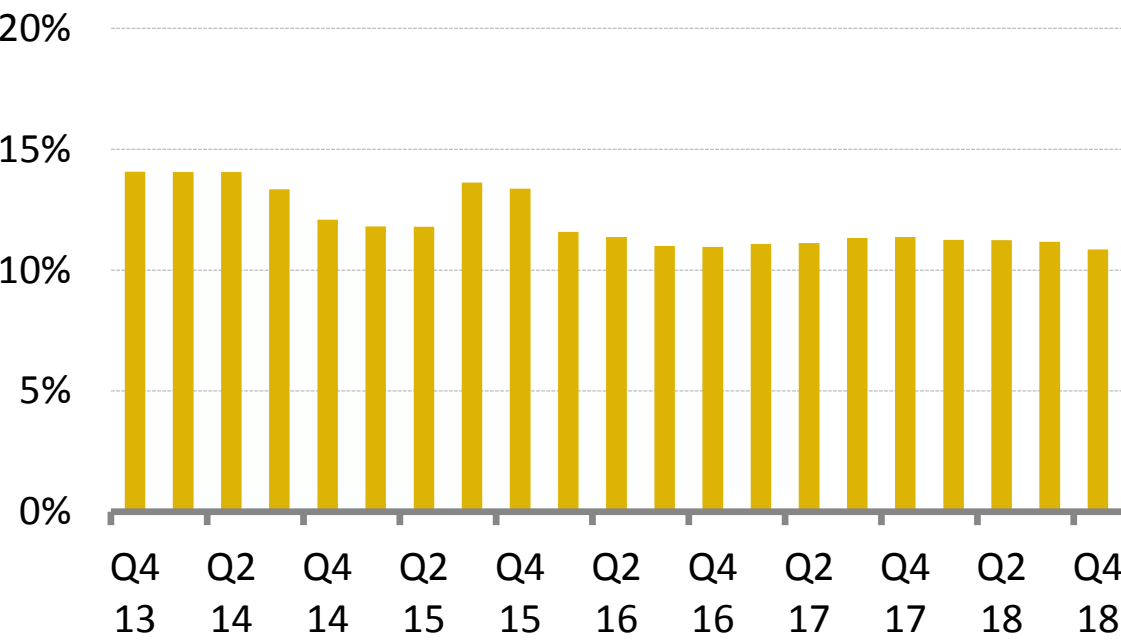


PUBLISHING – SEGMENT ANALYSIS

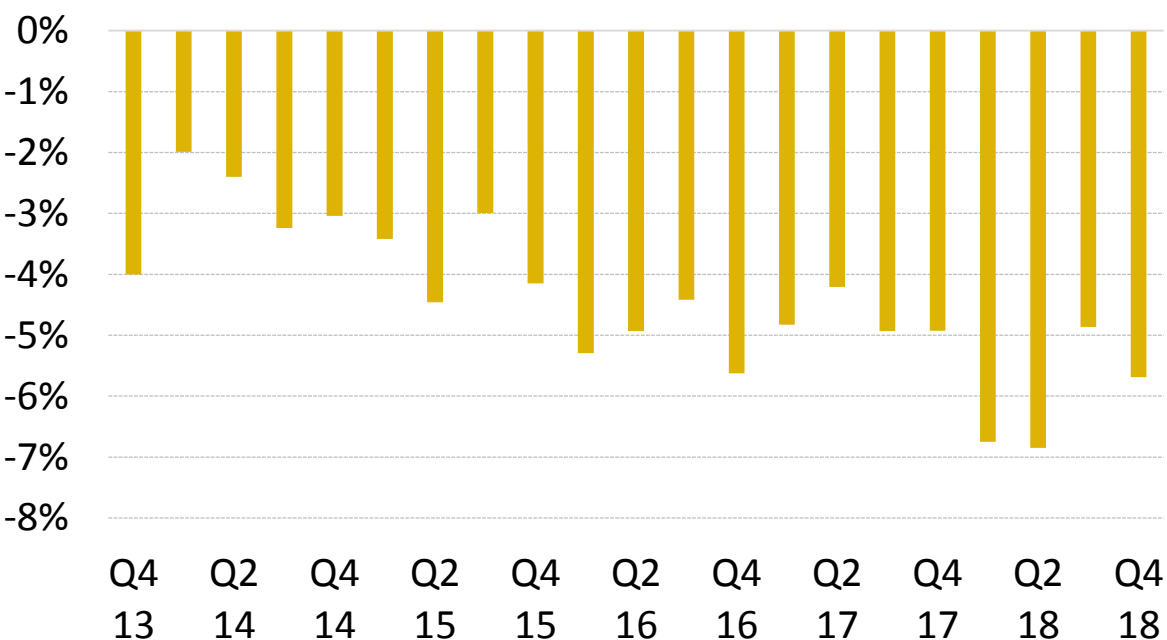
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /						Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Dividend Yield
						Revenues (\$M)	EBITDA (\$M)	Revenues LTM	Revenues 2019E	Revenues 2020E	Ent. Value LTM	EBITDA 2019E	EBITDA 2020E				
News Corporation	\$12.67	76.1%	\$7,415	\$36	\$8,637	\$9,937	\$1,060	0.9x	0.8x	0.8x	8.1x	6.7x	6.2x	0.0x	1.9%	10.7%	1.6%
The New York Times	33.95	97.4%	5,633	(359)	5,276	1,726	232	3.1x	2.9x	2.7x	22.8x	21.3x	19.5x	NM	3.4%	13.4%	0.5%
Gannett Co	10.25	85.5%	1,173	211	1,384	2,917	311	0.5x	0.5x	0.5x	4.5x	4.8x	4.6x	0.7x	0.4%	10.7%	6.3%
New Media	10.89	57.0%	656	392	1,049	1,526	155	0.7x	NA	NA	6.8x	NA	NA	2.5x	8.5%	10.1%	14.0%
The McClatchy Company	3.44	32.1%	27	734	762	807	75	0.9x	1.0x	NA	10.1x	7.4x	NA	9.7x	(8.6%)	9.3%	NA
Lee Enterprises	3.08	83.5%	178	446	624	536	120	1.2x	NA	NA	5.2x	NA	NA	3.7x	(5.7%)	22.4%	NA
Tribune Publishing Company	11.82	58.1%	423	(90)	373	1,031	82	0.4x	0.4x	0.3x	4.6x	3.7x	3.4x	NM	(14.9%)	7.9%	NA
A.H. Belo Corporation	3.97	68.4%	86	(55)	30	202	5	0.1x	NA	NA	6.7x	NA	NA	NM	(9.4%)	2.2%	NA

Mean	1.0x	1.1x	1.1x	8.6x	8.8x	8.4x	3.3x	(3.1%)	10.8%	5.6%
Median	0.8x	0.8x	0.7x	6.7x	6.7x	5.4x	2.5x	(2.7%)	10.4%	4.0%

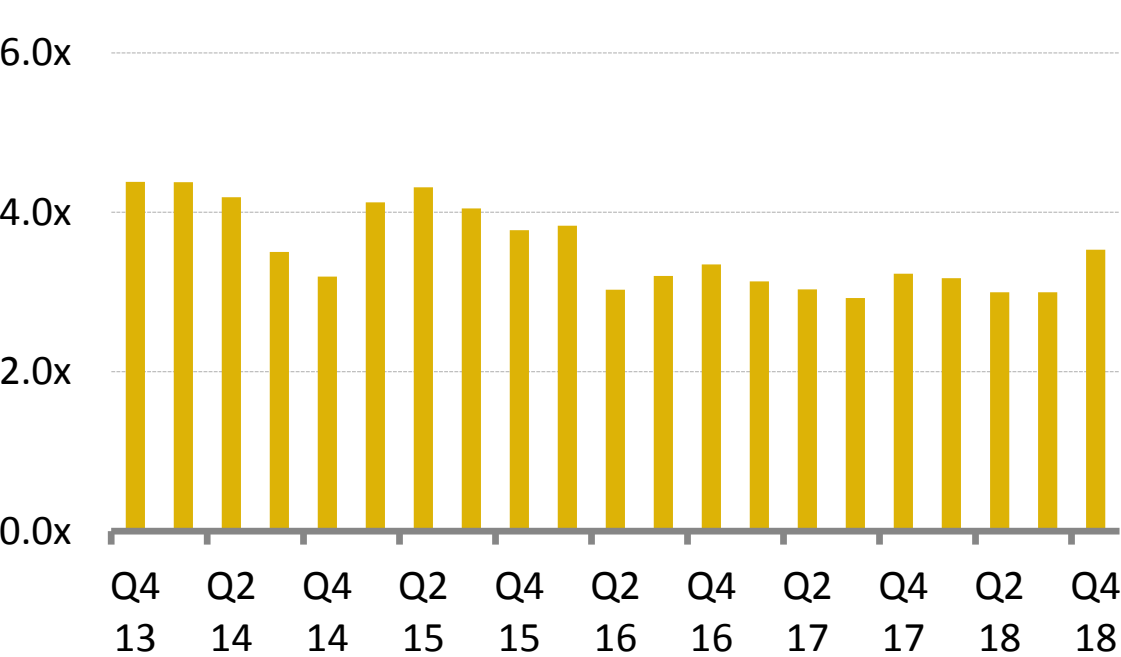
LTM EBITDA MARGIN



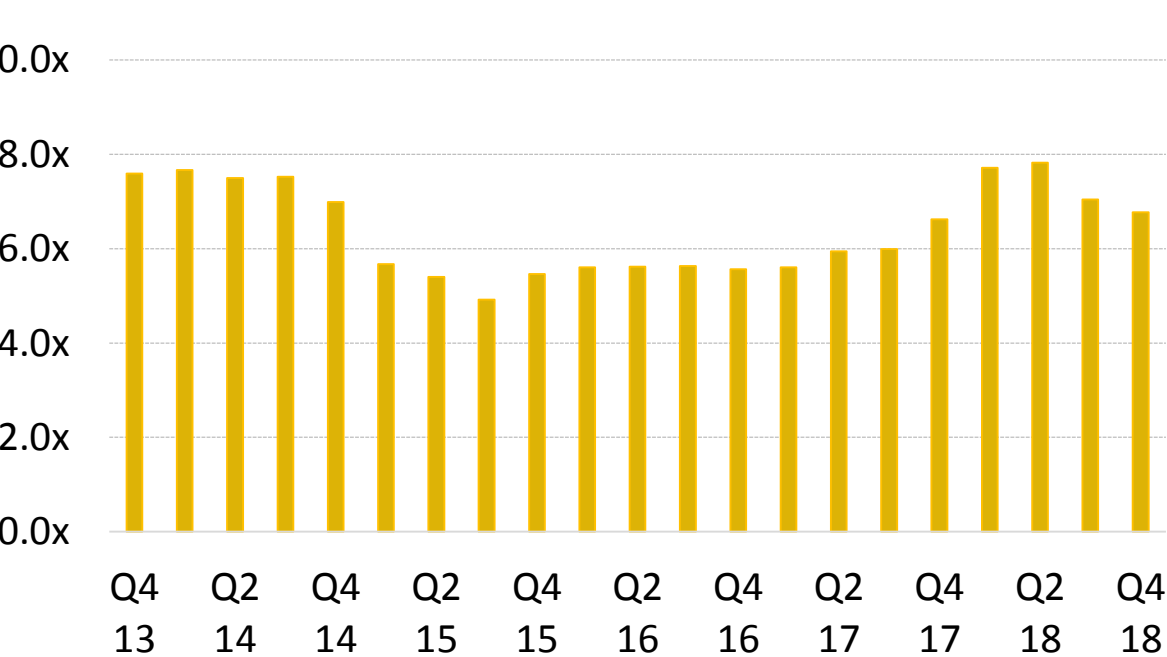
REVENUE GROWTH



NET DEBT / LTM EBITDA



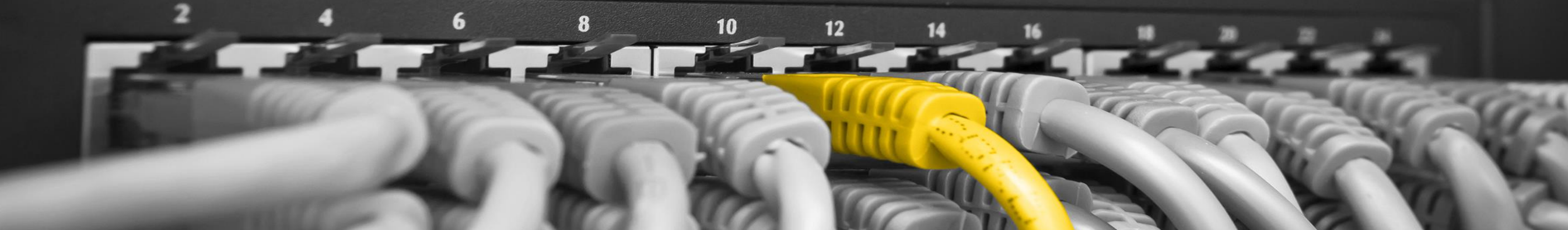
EV / EBITDA





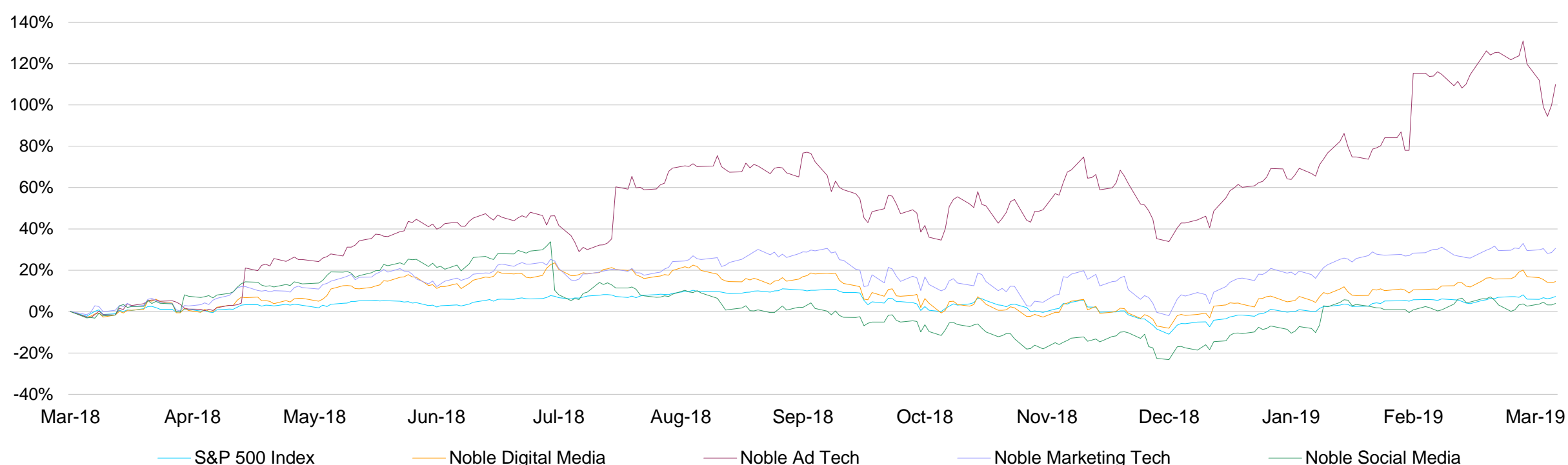
TRADITIONAL MEDIA M&A ACTIVITY

DATE	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
3/29/2019	Allied Media Partners LLC	Radio stations from Rocking M Radio	NA	NA	NA	Radio Stations
3/28/2019	Omni Broadcasting, LLC	WKGC 1480 AM	NA	NA	NA	Radio Station
3/27/2019	iHeartMedia, Inc.	7 Radio Stations of Connoisseur Media	NA	NA	NA	Radio Stations
3/27/2019	Connoisseur Media, LLC	2 Radio Stations from iHeartMedia	NA	NA	NA	Radio Stations
3/20/2019	TEGNA Inc.	11 Local Television Stations In 8 Markets	740.0	NA	NA	TV Stations
3/20/2019	Scripps Broadcasting Holdings LLC	8 TV Stations of Nexstar Media Group	580.0	2.2x	10.4x	TV Stations
3/20/2019	St. Joseph Communications, Inc.	Portfolio of Brands of Rogers Media Inc.	NA	NA	NA	Magazines
3/12/2019	CBS Interactive Inc.	Pop Media Group, LLC	NA	NA	NA	Cable TV Network
3/4/2019	LTN Global Communications	Niles Media Group	NA	NA	NA	TV Production
3/4/2019	Educational Media Foundation, Inc.	Swap of 4 radio stations with iHeart	NA	NA	NA	Radio Stations
3/4/2019	Gray Television, Inc.	WVIR-TV in Charlottesville	12.0	NA	NA	TV Station
3/4/2019	Lockwood Broadcast Group	2 Television Stations of Gray Television	NA	NA	NA	TV Stations
2/27/2019	Educational Media Foundation, Inc.	WFXF-FM from Alpha Media	0.9	NA	NA	Radio Station
2/26/2019	Magic Valley Media, LLC	4 Radio stations from Rich Broadcasting	0.5	NA	NA	Radio Stations
2/22/2019	TVA Group Inc.	Incendo Media Inc.	19.5	NA	NA	TV Production
2/22/2019	Endeavor Business Media, LLC	Media Properties of PennWell	NA	NA	NA	B2B Publishing; Events
2/18/2019	Nexus Capital Management LP	US K12 Courseware Business of Pearson	250.0	0.5x	NA	Publishing; Textbooks
2/15/2019	Apollo Global Management, LLC	14 TV Stations from Cox Television	3,100.0	NA	NA	TV Stations
2/13/2019	Educational Media Foundation, Inc.	6 radion stations from Cumulus Media	103.5	17.3x	NA	Radio Stations
2/13/2019	Cumulus Media Inc.	Swap with ETM	NA	NA	NA	Radio Stations
2/8/2019	Alpha Media USA LLC	2 FM Stations of Matrix Broadcasting LLC	4.7	NA	NA	Radio Stations
2/8/2019	Southern Torch, Inc.	2 radio stations and a FM Translator	0.6	NA	NA	Radio Stations
2/8/2019	Gray Television, Inc.	WWNY and WNYF and KEYC of United	45.0	NA	NA	TV Stations
2/6/2019	Forever Media, Inc.	Delmarva Broadcasting Company, Inc.	18.5	NA	NA	Radio Stations
2/4/2019	Midwest Communications, Inc.	Six Stations from Alpha Media	21.6	NA	NA	Radio Stations
1/31/2019	Penske Media Corporation	Rolling Stone, LLC	NA	NA	NA	Magazine
1/31/2019	Pocket Outdoor Media LLC	Bicycle Retailer & Industry News	NA	NA	NA	Magazines
1/29/2019	Clipper Magazine LLC	Get1free, Inc.	NA	NA	NA	Direct Mail
1/28/2019	Lee Enterprises, Incorporated	Kenosha News & Lake Geneva Regional	NA	NA	NA	Newspapers
1/28/2019	GateHouse Media, LLC	Publishing Division of Schurz	30.0	NA	NA	Newspapers
1/17/2019	Sonshine Family Television	WLYH-TV from Winemiller Television	2.7	NA	NA	TV Station
1/4/2019	John Murray (Publishers) Ltd.	Sheldon Press	NA	NA	NA	Publishing



OUTLOOK – INTERNET AND DIGITAL MEDIA

STOCK MARKET PERFORMANCE: INTERNET AND DIGITAL MEDIA



INTERNET AND DIGITAL MEDIA COMMENTARY

1Q 2019 – Regulatory Issues Take Center Stage

While FCC ownership rules were a focus of traditional media companies at the NAB meetings, regulatory issues weighed heavily on the internet sector as well. First, net neutrality reared its head again. In 2018, the FCC lifted its rules on net neutrality, but last week, the House passed a pro-net neutrality bill called the Save the Internet Act of 2019. The debate will now move to the Senate, where the bill is unlikely to pass. Second, Senator Mark Warner (D-Va) rolled out the first of a series of bills aimed at regulating Facebook and other social media companies. The bill would ban online platforms with over 100M monthly active users from using “dark patterns”, which refers to interfaces designed to coax users into taking actions that often results in giving up more information than the user realizes. The legislation, known as the Deceptive Experiences To Online Users Reduction (DETOUR) Act, would also create a regulator within the Federal Trade Commission that would enforce best practices as platforms evolve to protect users’ interests. The bill is one of several that are expected to address social media practices in the wake of data breaches, privacy scandals, and the dissemination of harmful content (“hate speech”).

This new legislation was announced on the same day that Social Reality (SRAX) announced that it had 11 million registered users for its Big Token app, which allows consumers to own and earn from their own data. SRAX had announced its earnings the prior week and noted that it had half a million users. Within days the service went viral and within a week, another 10.5M users signed up for the service, validating the company’s contention that consumers value their privacy and are seeking tools to own their own data and to be compensated for it. The app also enables Big Token consumers to delete data and opt out of data sales. SRAX’s Big Token initiative is GDPR compliant and the company will begin monetizing its scalable audience in 2Q 2019.

Sector Performance: All four of Noble’s internet and digital media sectors outperformed the S&P 500 in the first quarter of 2019. While the S&P 500 was up 13%, Noble’s ad tech, social media, marketing tech, and digital media indices were up 45%, 28%, 20%, and 16% respectively.



OUTLOOK – INTERNET AND DIGITAL MEDIA

INTERNET AND DIGITAL MEDIA COMMENTARY

Digital Media

Noble's digital media sector also outperformed the S&P 500, but by far less than the other sectors. All six stocks in the sector outperformed, led by Netflix (NFLX, +33%) and Spotify (SPOT, +22%). Netflix performed well based on strong 4Q results and 1Q guidance, driven by strong net additions despite announced price increases. However, at last week's Disney investor day, the company announced the launch of Disney+, a competitive OTT service to Netflix. Disney introduced the streaming media service at a \$6.99 price point (considerably lower than Netflix's lowest price service of \$8.99) and forecasted 60-90 million subscribers by year-end 2024. Disney's service will include over 7,500 TV episodes, 35+ original series/movies, and 500+ licensed movies from Disney classic animated films to Marvel, Pixar and Lucas Film (Star Wars) film libraries.

Advertising Technology

Following a rough 4Q 2018, ad tech stocks rebounded dramatically, with 10 of the 12 stocks in the sector posting share price gains, led by Telaria (TLRA, +132%), SITO Mobile (SITO, +102%), The Trade Desk (TTD, +71%), Social Reality (SRAX, +67%), Rubicon Project (RUBI) and Fluent (FLNT, +56%). Given that Noble's sector returns are market cap weighted, The Trade Desk had by far the biggest impact on the sector. As usual, TTD significantly outperformed expectations, with 4Q 2018 revenue and EBITDA results exceeding Street consensus estimates by 8% and 25% respectively. Telaria also significantly beat Street consensus estimates, with revenue and EBITDA beats of 25% and 400% (\$4M vs. \$0.8M in EBITDA) in 4Q 2018.

Marketing Technology

Noble's marketing technology sector finished the quarter up 20%, with 10 of the sector's 11 stocks up for the quarter. Performance leaders include LivePerson (LPSN, +54%), Cardlytics (CDLX, +53%), Survey Monkey (SVMK, +48%), and Yext (YEXT, +47%). As usual, beating Street consensus estimates was the driver of each of the sector's strongest performers.

Social Media

While social media stocks outperformed the broader market again, for once, it wasn't solely due to Facebook. The real sector outperformer was Snap, Inc. (SNAP, +100%), which posted stronger than expected results, and allayed investor concerns over user growth, as daily active users (DAUs) were flat vs. the year ago period, when investors were concerned that DAUs would decline. While Facebook (FB, +27%) came under intense regulatory scrutiny, the company's business continued to exceed Street consensus expectations.

*Source: Noble Capital Markets Equity Research Report: "Will The Momentum Continue?"

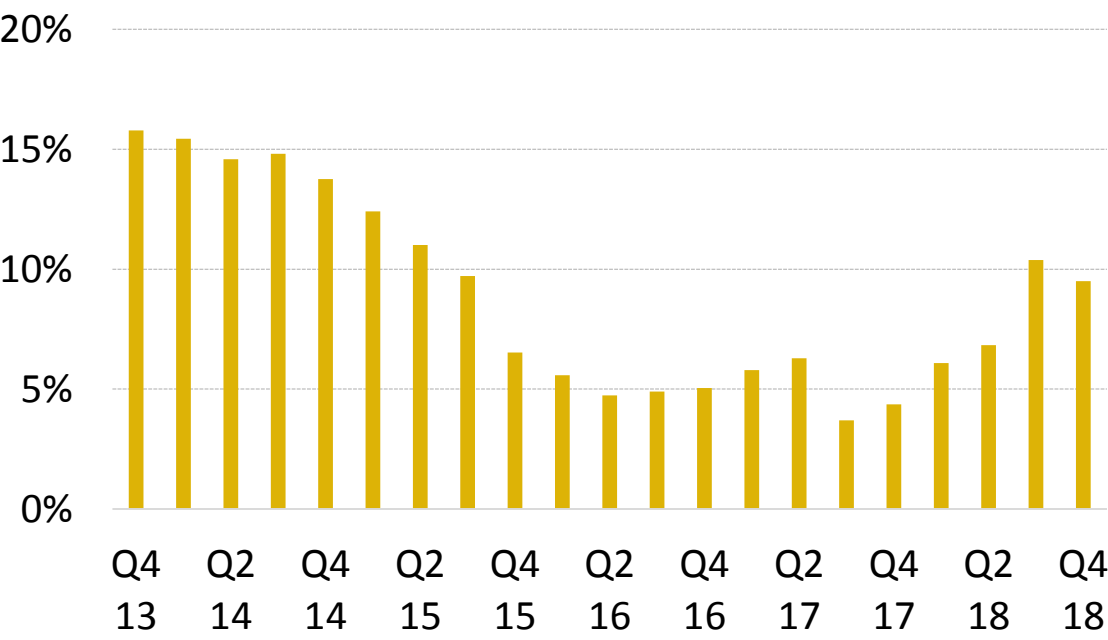


DIGITAL MEDIA – SEGMENT ANALYSIS

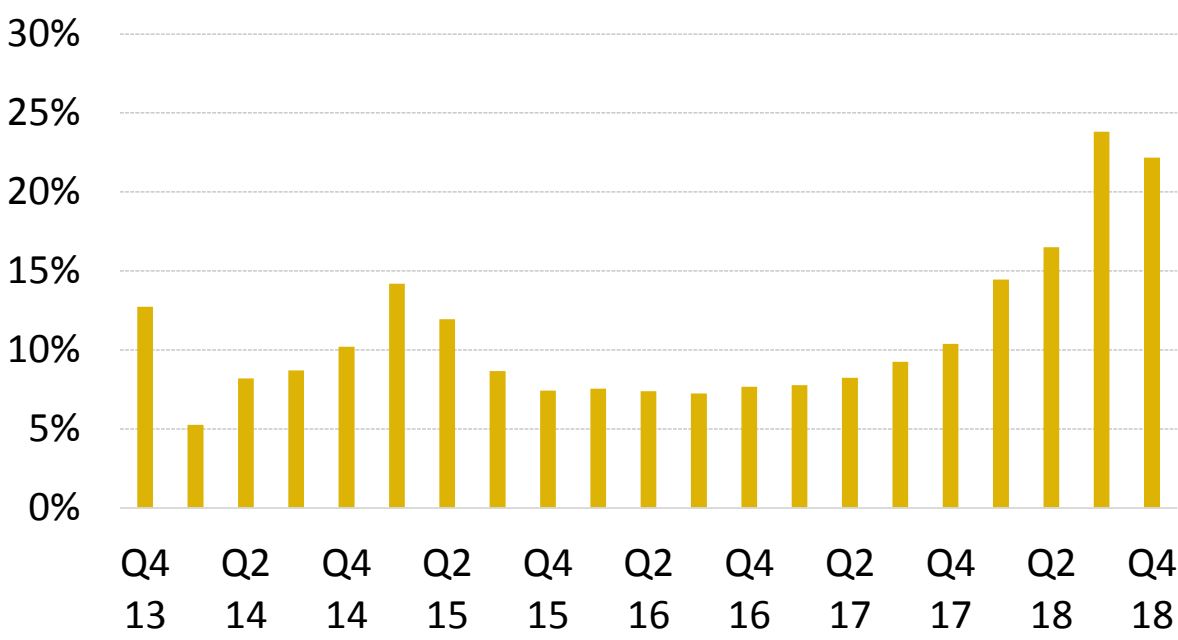
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /						3 Year Revenue CAGR	EBITDA Margin	Gross Margin
						Revenues (\$M)	EBITDA (\$M)	LTM	Revenues 2019E	2020E	LTM	EBITDA 2019E	2020E			
Alphabet	\$1,231.91	95.4%	\$856,407	(\$105,128)	\$749,609	\$136,819	\$40,421	5.5x	4.6x	3.9x	18.5x	12.7x	11.0x	22.2%	29.5%	56.48%
Netflix	359.46	84.9%	156,940	6,566	163,505	15,794	1,688	10.4x	8.1x	6.5x	NM	52.7x	36.1x	32.6%	10.7%	36.89%
Tencent Music	17.94	89.8%	29,340	(17,437)	26,812	18,985	3,632	9.7x	6.9x	5.1x	7.4x	35.0x	24.5x	0.0%	19.1%	38.33%
Spotify	139.41	70.1%	25,188	(1,462)	23,514	5,259	(17)	3.9x	3.1x	2.5x	NM	NM	NM	39.4%	(0.3%)	25.73%
IAC/InterActiveCorp	216.00	96.2%	18,101	4	18,879	4,263	820	4.4x	4.0x	3.5x	23.0x	17.2x	13.7x	9.7%	19.2%	78.63%
Leaf Group	9.08	75.4%	232	(31)	201	155	(13)	1.3x	1.2x	1.0x	NM	NM	38.2x	7.2%	(8.4%)	41.20%
TheStreet	2.47	98.8%	127	(37)	90	53	0	1.7x	3.0x	3.0x	NM	NM	NM	(7.8%)	0.0%	57.09%

Mean	5.3x	4.4x	3.6x	16.3x	29.4x	24.7x	14.8%	10.0%	47.8%
Median	4.4x	4.0x	3.5x	18.5x	26.1x	24.5x	9.7%	10.7%	41.2%

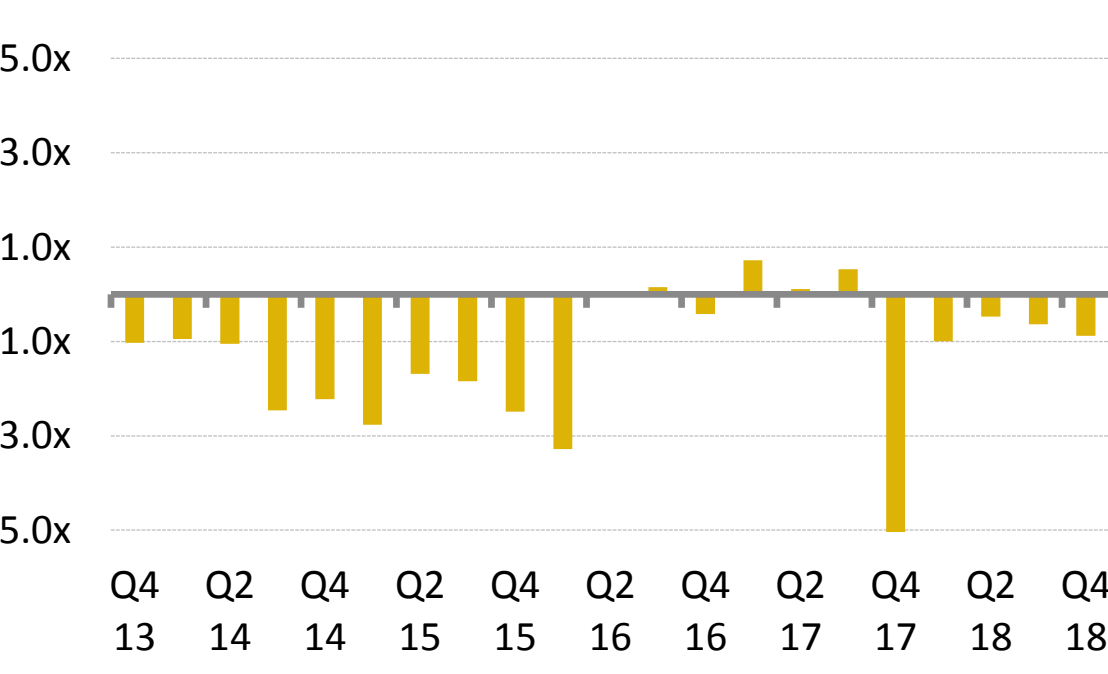
LTM EBITDA MARGIN



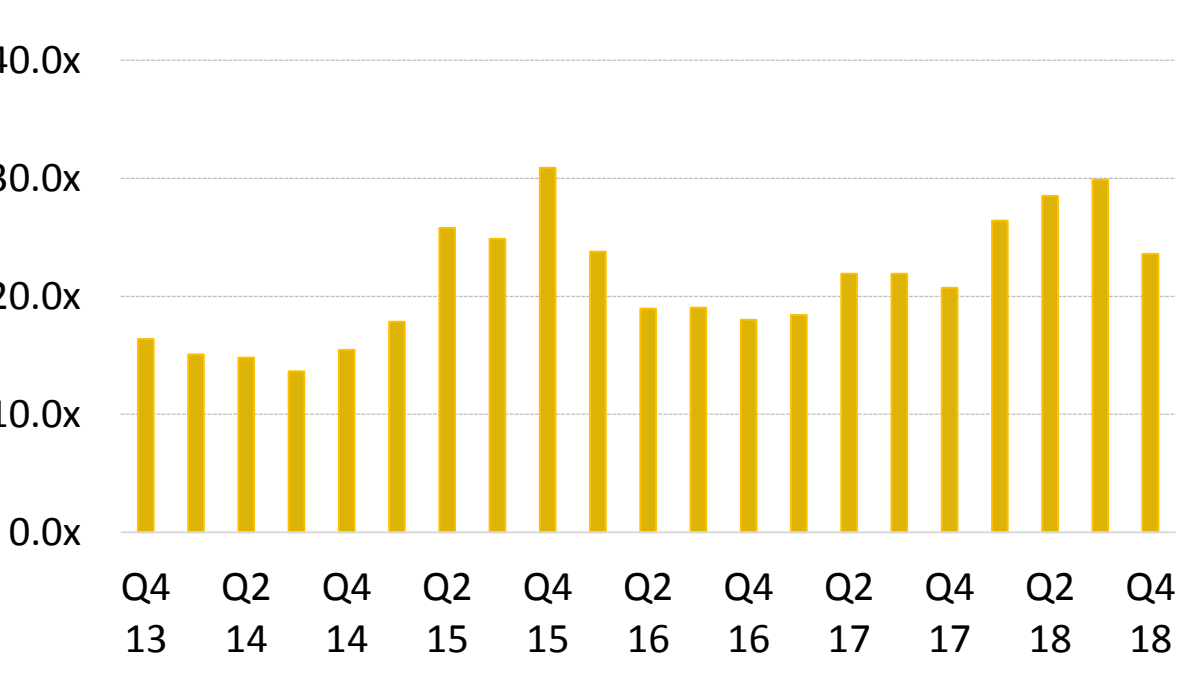
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA

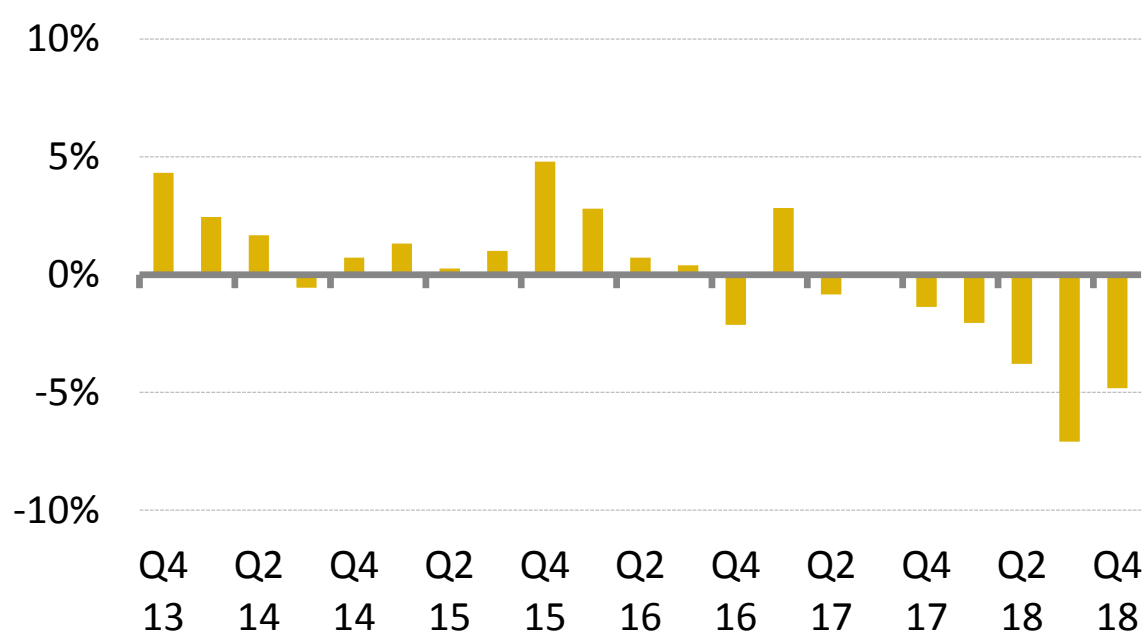


ADVERTISING TECHNOLOGY – SEGMENT ANALYSIS

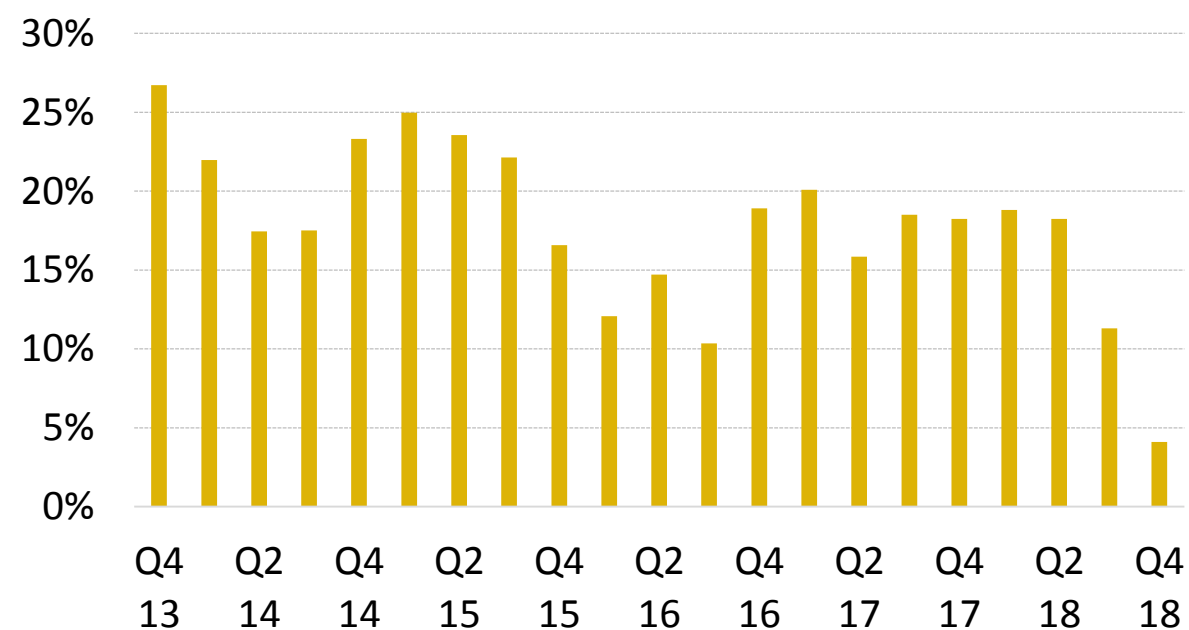
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			EBITDA			3 Year Revenue CAGR	EBITDA Margin	Gross Margin
						Revenues (\$M)	EBITDA (\$M)	LTM	2019E	2020E	LTM	2019E	2020E			
The Trade Desk	\$203.26	94.7%	\$9,009	(\$207)	\$8,802	\$477	\$116	18.4x	13.6x	10.6x	NM	46.2x	34.7x	61.3%	24.2%	76.1%
Criteo	21.73	59.3%	1,394	(361)	1,057	2,300	227	0.5x	1.1x	1.0x	4.7x	3.5x	3.1x	20.2%	9.9%	36.3%
QuinStreet	13.42	67.0%	668	(62)	606	446	26	1.4x	1.2x	1.1x	23.1x	11.6x	8.8x	12.7%	5.9%	14.3%
Fluent	6.43	100.6%	487	38	525	250	37	2.1x	1.8x	1.6x	14.2x	11.0x	7.0x	160.9%	14.8%	35.4%
Telaria	6.79	94.8%	309	(48)	262	55	(10)	4.7x	4.0x	3.4x	NM	NM	26.0x	79.0%	(18.9%)	87.6%
The Rubicon Project	6.01	85.9%	310	(88)	222	125	(32)	1.8x	1.5x	1.3x	NM	15.2x	9.5x	(20.5%)	(25.7%)	51.9%
Taptica International	1.78	44.3%	240	(54)	197	277	37	0.9x	0.7x	0.6x	5.4x	4.7x	4.0x	54.0%	13.3%	40.2%
Perion Network	3.18	78.5%	82	(3)	80	253	22	0.3x	0.3x	0.3x	3.6x	3.3x	2.6x	4.6%	8.8%	39.8%
Social Reality	5.05	84.2%	61	(11)	49	15	(8)	3.2x	2.7x	NA	NM	NM	NA	65.8%	(53.6%)	74.8%
Synacor	1.56	62.4%	61	(12)	49	144	2	0.3x	0.3x	0.3x	24.3x	4.5x	3.7x	9.3%	1.4%	49.6%
SITO Mobile	1.95	46.8%	50	(3)	47	40	(18)	1.2x	1.0x	NA	NM	NM	NA	45.9%	(44.5%)	46.3%
Inuvo	1.40	90.3%	46	1	47	73	(3)	0.6x	0.6x	NA	NM	13.0x	NA	1.4%	(4.1%)	59.2%
SeaChange International	1.41	40.6%	51	(24)	27	62	(14)	0.4x	0.4x	0.4x	NM	NM	NA	(16.4%)	(22.7%)	59.8%
Matomy Media Group	0.05	8.9%	5	18	19	89	11	0.3x	NA	NA	1.7x	NA	NA	(31.1%)	12.9%	21.3%

Mean	2.6x	2.3x	2.1x	11.0x	12.6x	11.0x	31.9%	(5.6)%	49.5%
Median	1.0x	1.1x	1.0x	5.4x	11.0x	7.0x	16.5%	3.6%	47.9%

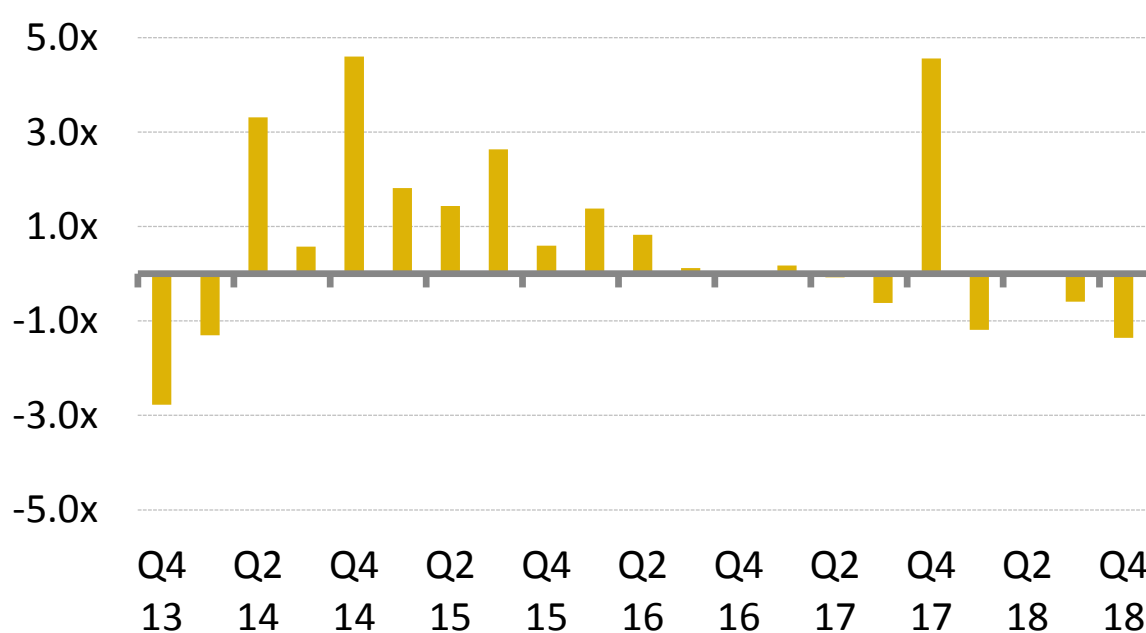
LTM EBITDA MARGIN



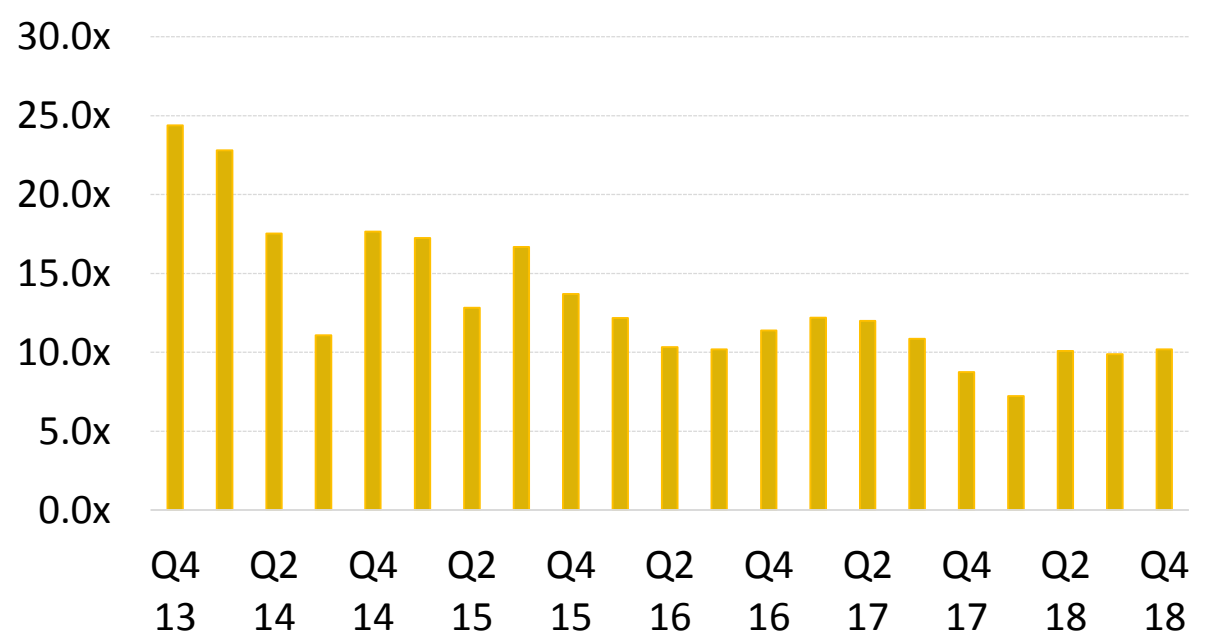
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



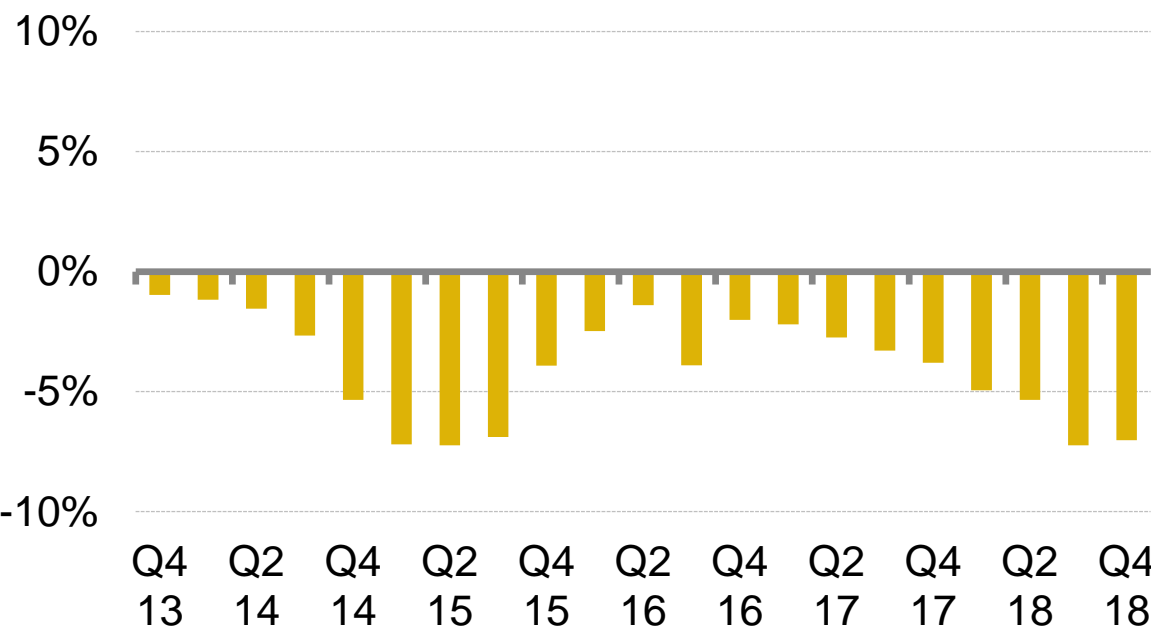


MARKETING TECHNOLOGY – SEGMENT ANALYSIS

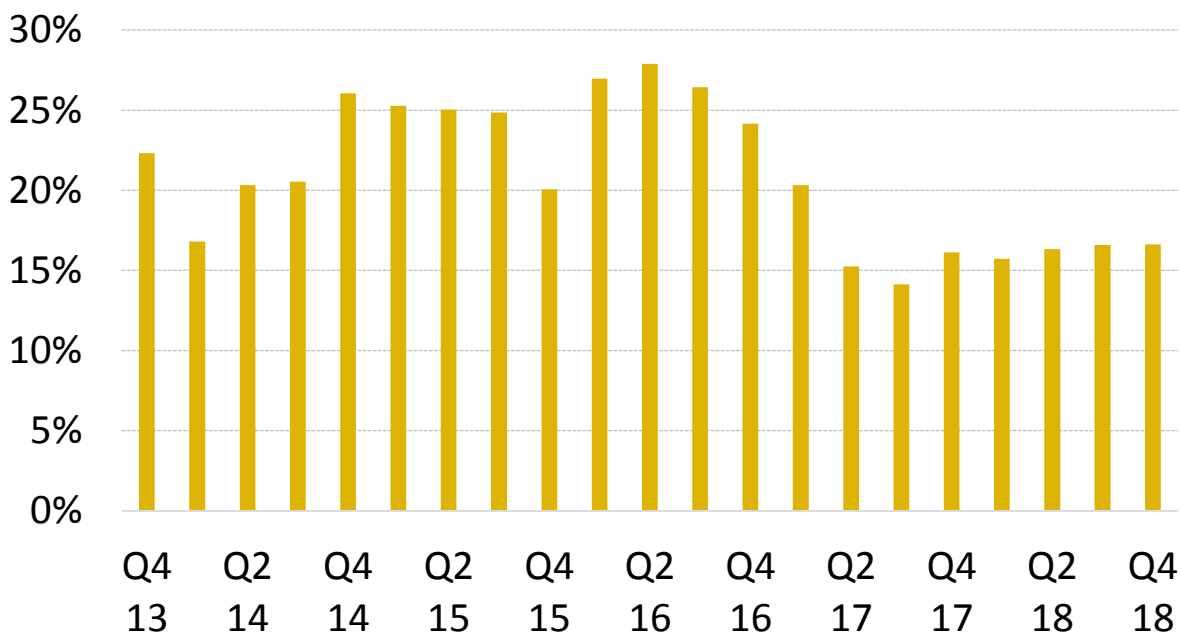
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /						3 Year Revenue CAGR	EBITDA Margin	Gross Margin
						Revenues (\$M)	EBITDA (\$M)	LTM	Revenues 2019E	2020E	LTM	EBITDA 2019E	2020E			
Adobe	271.43	97.8%	132,445	910	133,354	9,552	3,247	14.0x	11.9x	10.1x	41.1x	26.5x	21.9x	23.5%	34.0%	86.0%
salesforce.com	158.69	95.0%	122,965	(975)	121,990	13,282	1,524	9.2x	7.6x	6.3x	NM	30.5x	24.6x	25.8%	11.5%	74.0%
Shopify	215.40	98.0%	24,012	(1,979)	22,033	1,073	(69)	20.5x	14.8x	11.2x	NM	NM	NM	73.6%	(6.4%)	55.6%
Akamai Technologies	76.61	92.2%	12,553	(331)	12,222	2,714	720	4.5x	4.3x	4.0x	17.0x	10.5x	9.5x	7.3%	26.5%	64.9%
HubSpot	166.35	92.4%	6,849	(273)	6,575	513	(35)	12.8x	10.1x	8.2x	NM	NM	58.2x	41.3%	(6.9%)	80.4%
SVMK	17.31	86.6%	2,192	156	2,348	254	(99)	9.2x	8.0x	6.8x	NM	45.3x	37.0x	0.0%	(39.1%)	69.3%
Yext	21.50	79.1%	2,349	(143)	2,206	228	(69)	9.7x	7.4x	5.7x	NM	NM	NM	36.5%	(30.2%)	74.9%
LivePerson.	29.41	97.1%	1,880	(66)	1,814	250	2	7.3x	6.3x	5.3x	NM	NM	NM	1.5%	1.0%	75.0%
Cardlytics	15.51	54.8%	349	7	356	151	(38)	2.4x	1.9x	1.3x	NM	NM	22.4x	24.7%	(25.0%)	36.3%
Brightcove	8.44	78.5%	319	(29)	290	165	(9)	1.8x	1.7x	1.6x	NM	49.6x	21.5x	7.0%	(5.2%)	59.6%
ChannelAdvisor	11.86	75.9%	330	(44)	286	131	(1)	2.2x	2.1x	1.9x	NM	21.0x	16.1x	9.3%	(0.6%)	77.5%
SharpSpring	18.87	100.2%	177	(1)	176	19	(8)	9.4x	7.5x	6.1x	NM	NM	NM	26.6%	(41.4%)	68.9%
Marin Software	4.81	40.1%	29	(8)	20	59	(21)	0.3x	NA	NA	NM	NA	NA	(18.6%)	(35.9%)	54.0%

Mean	7.9x	7.0x	5.7x	29.0x	30.6x	26.4x	19.9%	(9.1)%	67.4%
Median	9.2x	7.4x	5.9x	29.0x	28.5x	22.1x	47.6%	35.1%	69.3%

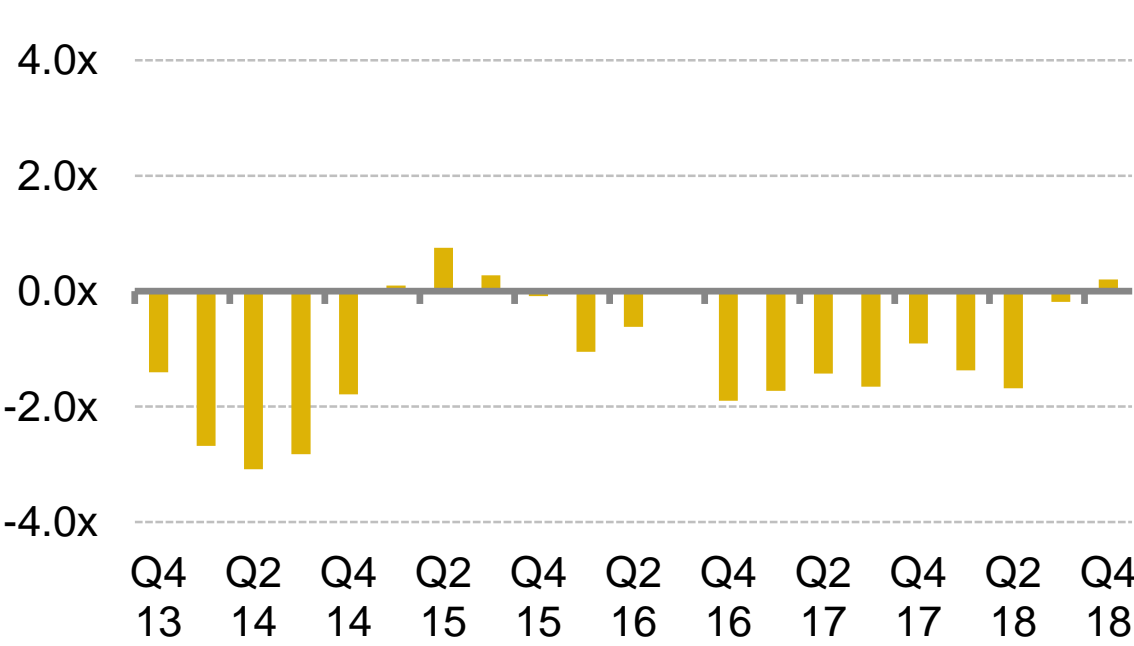
LTM EBITDA MARGIN



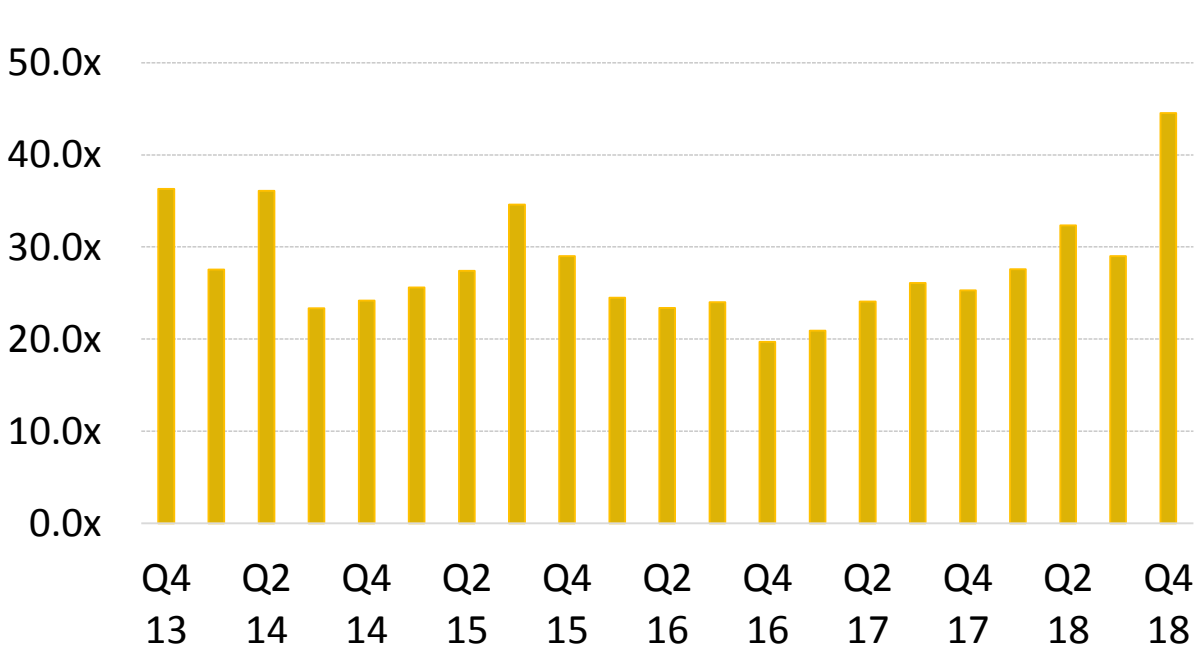
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA

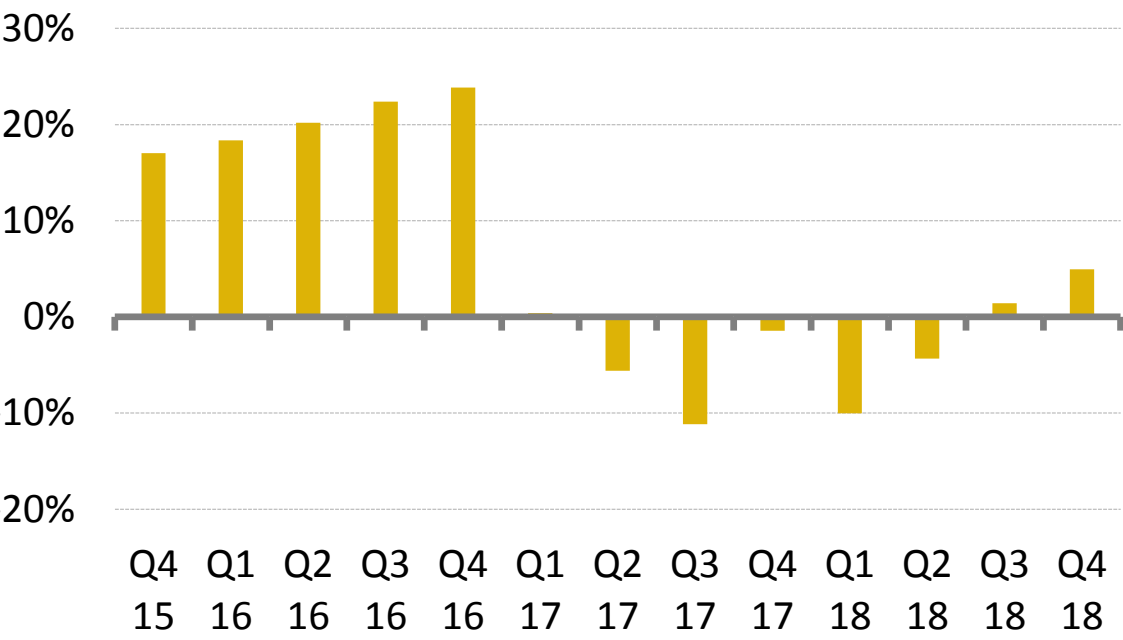




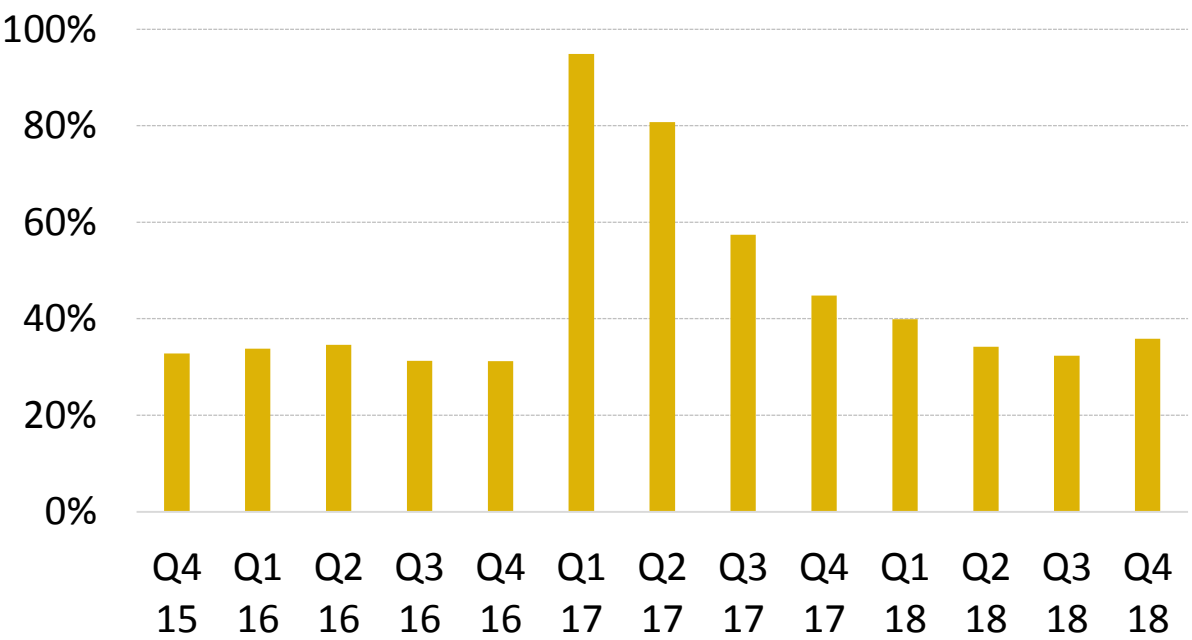
SOCIAL MEDIA– SEGMENT ANALYSIS

	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /						3 Year Revenue CAGR	EBITDA Margin	Gross Margin
						Revenues (\$M)	EBITDA (\$M)	LTM	Revenues 2019E	2020E	LTM	EBITDA 2019E	2020E			
Facebook	\$179.10	81.9%	\$511,441	(\$40,614)	\$470,536	\$55,838	\$29,228	8.4x	6.8x	5.6x	16.1x	12.9x	10.6x	46.0%	52.3%	83.2%
Twitter	34.37	71.9%	26,316	(3,489)	22,828	3,042	771	7.5x	6.5x	5.7x	29.6x	17.9x	15.2x	11.1%	25.4%	68.3%
Match Group.	57.20	93.3%	15,927	1,329	17,256	1,730	587	10.1x	8.6x	7.5x	29.4x	22.5x	18.7x	23.9%	33.9%	76.3%
Snap	11.97	75.0%	15,813	(1,262)	14,551	1,180	(1,146)	12.0x	9.4x	7.3x	NM	NM	NM	NA	(97.1%)	32.3%
The Meet Group	5.06	80.7%	379	8	387	179	23	2.2x	1.8x	1.6x	17.1x	9.9x	8.8x	46.4%	12.7%	100.0%
Spark Networks	14.22	80.6%	185	4	189	97	(3)	1.7x	NA	NA	NM	NA	NA	11.6%	(2.7%)	30.5%
Mean								7.0x	6.6x	5.6x	23.0x	15.8x	13.3x	48.2%	4.1%	65.1%
Median								8.0x	6.8x	5.7x	23.2x	15.4x	12.9x	46.0%	19.0%	72.3%

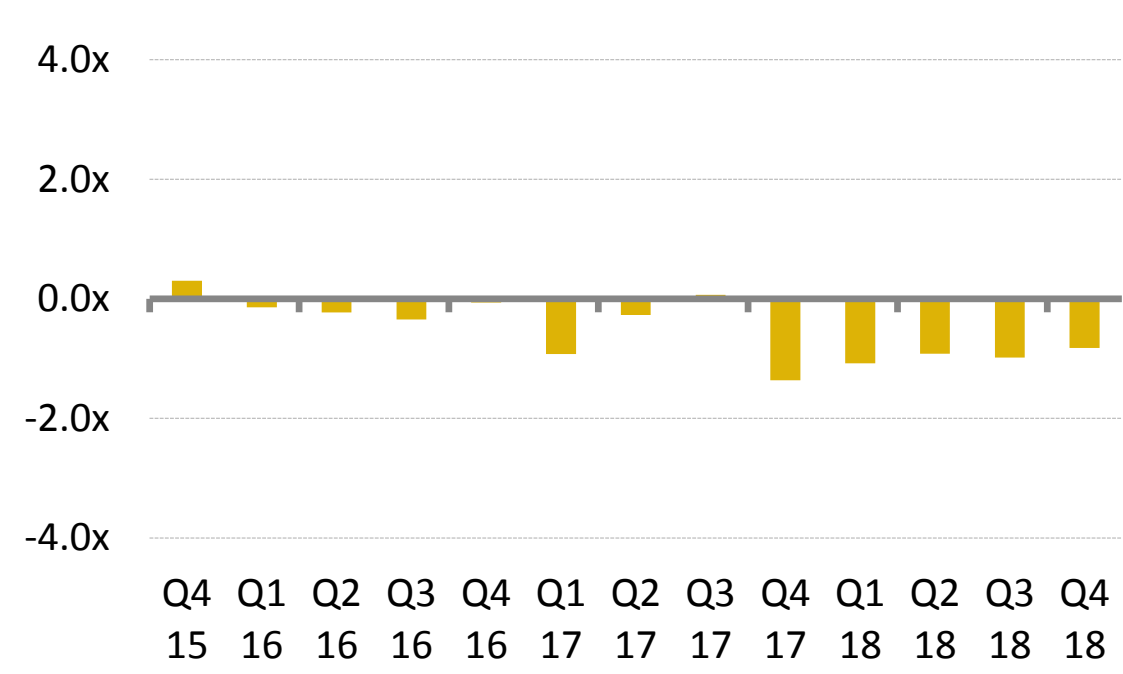
LTM EBITDA MARGIN



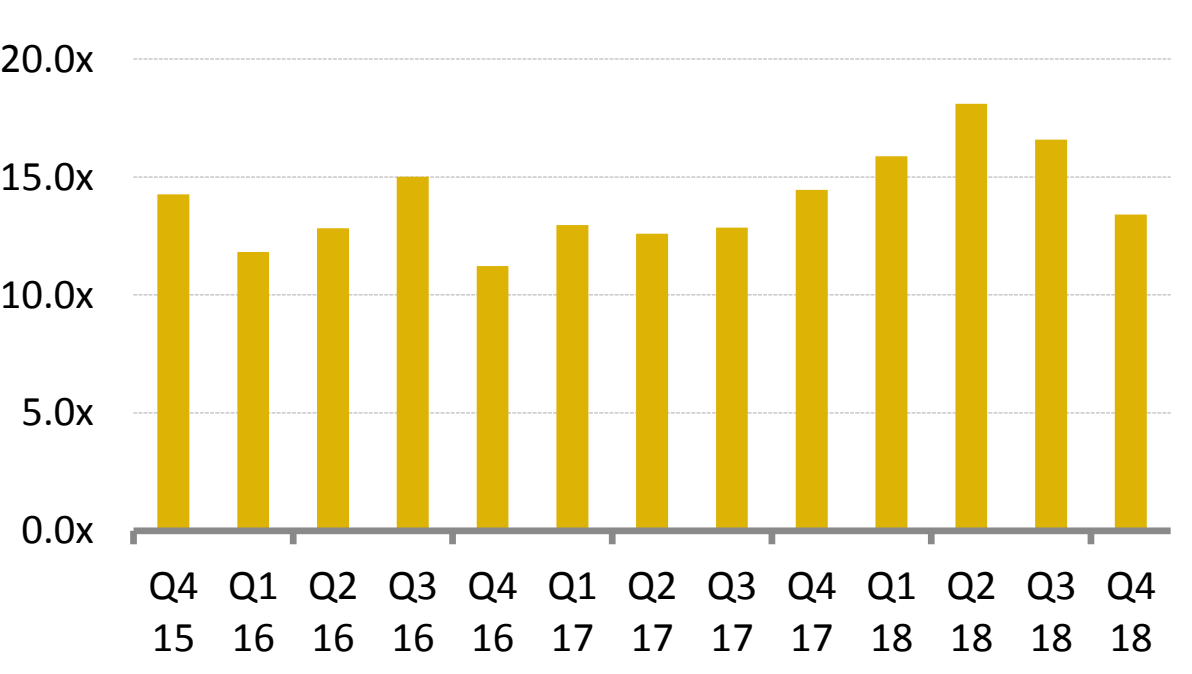
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA





INTERNET AND DIGITAL MEDIA M&A ACTIVITY

DATE	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
3/29/2019	Nativo, Inc.	SimpleReach, Inc.	NA	NA	NA	Analytics; Social
3/28/2019	Chicken Soup for the Soul	Crackle	NA	NA	NA	Video; OTT
3/27/2019	BDG Media Inc.	Independent Media Corp.	NA	NA	NA	Publishing
3/27/2019	The Rocket Science Group, LLC	LemonStand eCommerce Inc.	NA	NA	NA	eCommerce; Tools
3/26/2019	Spotify Technology S.A.	Cutler Media LLC	NA	NA	NA	Audio; Podcast
3/25/2019	McDonald's Corporation	Dynamic Yield Ltd.	300.0	NA	NA	Marketing; Personalization
3/21/2019	Spark Networks SE	Zoosk, Inc.	264.7	NA	NA	Social Media; Dating Apps
3/21/2019	ClickDimensions LLC	Sweetspot Data Solutions Inc.	NA	NA	NA	Analytics; Mktg Performance
3/19/2019	3i Group plc	Magnitude Software, Inc.	NA	NA	NA	CMS; Application Software
3/19/2019	MGG Investment Group, LP	VEGAS.com, LLC	45.0	0.7x	5.3x	Ecommerce; Travel Sites
3/18/2019	Roper Technologies, Inc.	The Foundry Visionmongers Ltd.	542.4	NA	NA	Software; Virtual Reality
3/15/2019	Accenture plc	Storm Digital B.V.	NA	NA	NA	Media Buying; Digital Agency
3/15/2019	Cinedigm Corp.	Future Today Inc.	81.7	3.4x	NA	CDN; OTT; SVOD
3/14/2019	SPORTORITY UK LTD	The Big Lead	NA	NA	NA	Publishing; Sports News
3/6/2019	The Meet Group, Inc.	Initech, LLC	13.8	NA	NA	Social Media; Dating App
3/5/2019	SVMK Inc.	Usabilla B.V.	80.0	NA	NA	Surveys; Cust. Experience
3/4/2019	Obility Inc.	Haatzama Marketing	NA	NA	NA	Marketing; Web Design
3/4/2019	Taboola, Inc.	Start Division of Celltick Technologies	NA	NA	NA	Publishing
3/1/2019	Osceola Capital Management, LLC	360 Quote LLC	NA	NA	NA	Information; Insurance
2/27/2019	Gen3 Marketing	OPM Pros	NA	NA	NA	Lead Gen; Affiliate Mktg
2/26/2019	Outbrain Inc.	Ligatus GmbH	NA	NA	NA	SSP; Performance Marketing
2/26/2019	Radio Computing Services, Inc.	Radiojar Information Technology S.A.	NA	NA	NA	CDN; Audio Streaming
2/21/2019	QlikTech International AB	Attunity Ltd.	516.4	6.0x	57.2x	Software; Data Management
2/21/2019	INN Partners, L.C.	Content ManagementBusiness of GTxcel	NA	NA	NA	CMS;
2/21/2019	Loop Media, Inc.	ScreenPlay Inc.	NA	NA	NA	In-Store; CMS; Video
2/19/2019	Google LLC	Alooma Ltd.	NA	NA	NA	Data
2/19/2019	Kibo Software, Inc	Certona Corporation	NA	NA	NA	Marketing; Personalization
2/19/2019	Bridgeline Digital, Inc.	All Assets of Stantive Technologies	3.9	NA	NA	CMS; CRM
2/18/2019	Dentsu Aegis Network Ltd.	BJL Group Limited	NA	NA	NA	Digital Agency
2/14/2019	Bridgeline Digital, Inc.	Certain Assets of Seevolution Inc.	1.0	NA	NA	Analytics
2/13/2019	Brightcove Inc.	Online Video Platform of Ooyala Inc.	14.9	NA	NA	Ad Tech; ; Video; OTT
2/11/2019	The Nielsen Company (US), LLC	Assets of Sorenson Media, Inc.	11.3	NA	NA	Measurement; Analytics
2/11/2019	SeaChange International, Inc.	Xstream A/S	5.5	0.9x	NA	CMS; OTT
2/7/2019	Multi Market Services France Holdings	Soft Computing	52.7	1.0x	20.3x	Data; Marketing; Consulting
2/6/2019	Spotify Technology S.A.	Anchor FM Inc.	50.0	NA	NA	CMS; Podcast Tools
2/6/2019	Spotify Technology S.A.	Gimlet Media Inc.	230.0	NA	NA	Audio; Podcast Co.
2/4/2019	DiscoverOrg, LLC	Zoom Information, Inc.	NA	NA	NA	B2B; Data & Business Info
2/4/2019	The Dating Company LLC	Assets of PeerStream, Inc.	1.6	NA	NA	Social Media; Dating Apps
1/30/2019	Taptica International Ltd	RhythmOne plc	162.3	0.5x	10.7x	Ad Tech
1/29/2019	Unity Technologies, Inc.	Vivox, Inc.	NA	NA	NA	Social Media; Voice/Chat
1/29/2019	FanAI Inc.	Waypoint Media, LLC	NA	NA	NA	Analytics; eSports
1/24/2019	Akazoo	Modern Media Acquisition Corp.	NA	NA	NA	Audio; Streaming
1/23/2019	Epic Games, Inc.	3Lateral DOO	NA	NA	NA	Games
1/23/2019	Epic Games, Inc.	Agog Labs Inc.	NA	NA	NA	Games
1/23/2019	Adobe Inc.	Allegorithmic SAS	NA	NA	NA	Digital Content; 3D



INTERNET AND DIGITAL MEDIA M&A ACTIVITY

DATE	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
1/23/2019	Cision Ltd.	Trendkite, Inc.	221.1	8.7x	NA	IR/PR; Application Software
1/22/2019	RealNetworks, Inc.	Rhapsody International Inc.	61.4	NA	NA	Audio; Streaming
1/22/2019	Viacom Inc.	Pluto, Inc.	340.0	NA	NA	Video; OTT; Ad Supported
1/21/2019	Claritas, LLC	AcquireWeb, Inc.	NA	NA	NA	Marketing; Identity
1/17/2019	Merkle Inc.	Filter LLC	NA	NA	NA	CEM; Customer Experience
1/16/2019	Urban Airship, Inc.	Accengage S.A.	NA	NA	NA	CEM; Customer Engagement
1/16/2019	Digital Air Strike Company	Assets of Target Media Partners	NA	NA	NA	Lead Gen;
1/15/2019	Campaign Monitor Pty Limited	Sailthru, Inc.	NA	NA	NA	Email; Cross-Channel
1/15/2019	CM Group	Livclicker, Inc.	NA	NA	NA	Email; Personalization
1/14/2019	DoubleVerify, Inc.	Leiki Oy	NA	NA	NA	Ad Tech; Semantic AI;
1/14/2019	RingCentral, Inc.	Connect First, Inc.	NA	NA	NA	CEM; Customer Engagement
1/10/2019	Smart Information Systems GmbH	Zuvoo Limited	NA	NA	NA	Marketing; Chatbot
1/10/2019	You & Mr Jones Inc	Inside Ideas Group Ltd	NA	NA	NA	Digital Agency;
1/9/2019	Sourcelink, LLC	Path Interactive Inc.	NA	NA	NA	Digital Agency; Seach; SEO
1/9/2019	IZEA Worldwide, Inc.	Fluvip LLC	NA	NA	NA	Marketing; Influencer Mktg
1/9/2019	Adobe Inc.	Marketo K.K.	4,730.0	NA	NA	Marketing
1/8/2019	About, Inc.	Byrdie and MyDomaine	NA	NA	NA	Publishing; Social Media
1/8/2019	Discovery, Inc.	Play Sports Group Limited	NA	NA	NA	Video; OTT Channels; Sports
1/8/2019	RTL Group SA	Yospace Technologies Ltd.	NA	NA	NA	Dynamic Ad Insertion
1/8/2019	About, Inc.	Byrdie and MyDomaine	NA	NA	NA	Publishing; Beauty
1/7/2019	Adweek	CMO Moves LLC	NA	NA	NA	Publishing; Social Media
1/7/2019	Gimbal, Inc.	Managed Media Business of UberMedia	NA	NA	NA	Ad Tech; Location; Targeting
1/7/2019	Akamai Technologies, Inc.	Janrain, Inc.	NA	NA	NA	Identity
1/4/2019	eLocal USA LLC	CityGrid Media, LLC	NA	NA	NA	Classifieds; Listings
1/4/2019	Google LLC	Superpod	NA	NA	NA	Mobile; App; Q&A
1/3/2019	Cision Ltd.	Falcon.io ApS	125.9	NA	NA	Analytics; Social Listening
1/3/2019	PWxyz, LLC	The Millions	NA	NA	NA	Publishing
1/2/2019	Vector Capital	Aspect Software, Inc.	NA	NA	NA	Customer Experience
1/2/2019	Chicken Soup for the Soul Entertainment	A Sharp Inc.	15.0	NA	NA	Publishing; Native; Social

$$R + (e^2 + p^2) = \text{NF}$$

NOBLE CAPITAL MARKETS

NOBLE CAPITAL MARKETS

NOBLE CAPITAL MARKETS is a research-driven investment and merchant bank focused on small cap, emerging growth companies in the healthcare, technology, media and natural resources sectors. That's what we are. Who we are is what makes us different.

Our people are talented, dedicated, experienced professionals who come together with a common cause; advising on long-term client solutions by employing innovative, collaborative and responsive strategies. We're passionate and personable. We approach things from our clients' perspective.

We know that developing lasting relationships is reliant upon putting our clients' interests before ours. We understand the impact of our services. Insightful advisory and effective capital procurement can change lives. Empowering our clients to create employment, engineer technological and medical breakthroughs, producing products and services that lay the foundation for the future. For more than 30 years these have been our guiding principles. While much has changed over the three decades since we began, these core values and our reputation have not. Our clients must know what to expect from us. Then we can strive to exceed expectations.

A SIMPLE FORMULA OUR VALUE PROPOSITION.

It starts with research With a fundamental belief that information guides the management process, NOBLE understands that there is no short-path to success. With this as a solid foundation, apply experience and execution delivered by people with passion. This is our formula to add value to your creation.

Research + Experience & Execution + People with Passion = Value

FULL-SERVICE INVESTMENT BANK

- Established 1984.
- Private firm, employee owned.
- Built on commitment to provide value and support for our clients.

FOCUSED INSTITUTIONAL SALES AND TRADING

- Seasoned sales and sales trading team.
- Long standing relationships with premier growth-focused investors.

RESEARCH DRIVEN CAPITAL MARKETS PLATFORM

- Experience team of Research Analysts covering approximately 100 companies.
- Focus on Technology, Media, Healthcare and Natural Resources.
- Strong Institutional Sponsorship.

INVESTMENT BANKING COMMITMENT

- Proven track record.
- Senior level attention to every client and transaction.
- Ability to deliver complete "mind share" of NOBLE on all transactions.
















$$R + (e^2 + p^2) = \gamma f$$

INVESTMENT BANKING

Our investment banking team, together with our well-recognized equity research analysts and the equity capital markets group, provide our clients with fundamental capital markets advisory and support - prior, during and most importantly, after a transaction. NOBLE’s investment banking team works closely with the management and Board of our corporate clients in order to fully understand operational and financial objectives. With this knowledge our banking team will develop an efficient and effective advisory program which offers a variety of services including:

EQUITY CAPITAL MARKETS <ul style="list-style-type: none"> ▪ Secondary and Follow-on Offerings ▪ Registered Direct Offerings ▪ Initial Public Offerings ▪ At the market Offerings (ATM’s) ▪ PIPEs/Private Sale Offerings 	DEBT CAPITAL MARKETS <ul style="list-style-type: none"> ▪ Senior Debt ▪ Mezzanine ▪ Convertible Debt ▪ Bridge Financings 	ADVISORY SERVICES <ul style="list-style-type: none"> • Merger & Acquisitions • Fairness Opinions • Valuation Services
---	---	---

SELECT MEDIA TRANSACTIONS

 <p>(SEAC)</p> <p>Valuation Services</p> <p>ASC 350 Analysis</p>  <p>April 2019</p>	 <p>(CMLS)</p> <p>Valuation Services</p> <p>ASC 350 Analysis</p>  <p>April 2019</p>	 <p>(MNI)</p> <p>Valuation Services</p> <p>ASC 350 Analysis</p>  <p>March 2019</p>	 <p>(SEAC)</p> <p>Valuation Services</p> <p>ASC 350 Analysis</p>  <p>October 2018</p>
 <p>(SRAX)</p> <p>M&A Advisory</p> <p>\$43,500,000 Sale of SRAXmd to Halyard Capital</p>  <p>August 2018</p>	 <p>(BBGI)</p> <p>\$23,500,000</p> <p>Secondary Offering Co-manager</p>  <p>July 2018</p>	 <p>(GTN)</p> <p>\$250,125,000</p> <p>Follow-on Offering Co-Manager</p>  <p>November 2017</p>	 <p>M&A Advisory</p> <p>Acquisition by ZenoRadio</p>  <p>July 2017</p>

$$R + (e^2 + p^2) = \hbar c$$

VALUATION SERVICES

NOBLE's Valuation and Advisory Services team specializes in providing business and intangible asset valuations, fairness opinions, financial and strategic analysis, and transaction support services covering a broad spectrum of industries and situations from early stage, middle market and Fortune 500 companies and capital market constituents. NOBLE's team is made up of professionals with numerous accreditations and bring excellence in accounting, taxation, and financial due diligence to provide companies with valuation advice for a multitude of purposes.

Valuation – NOBLE's professionals have significant experience in the valuation of privately owned and public businesses across a wide range of industries. We perform an extensive analysis of the business as well as evaluate industry trends and various other factors in order to inform our clients as to the likely range of value they can expect. Our services are characterized by intellectual and analytical rigor and our conclusions are backed by thorough documentation.

Chief Accounting Officers, Corporate Controllers, CFOs, and Corporate Boards rely on Noble's experienced valuation professionals to produce sophisticated, supportable, and timely valuations to assist in complying with financial reporting requirements, including:

- Purchase price allocation and fresh start accounting
- Goodwill and long-lived asset impairment testing
- Tangible asset valuation
- Fair Value measurement of financial assets & liabilities

Opinions - Whether our clients are looking to fulfill their fiduciary duties, mitigate risk or determine corporate value, we are there throughout the transaction process to offer objective advice based on rigorous analysis. We work on behalf of boards of directors, investors, trustees and other corporate leaders to advise and provide opinions on a wide range of transactions.

We have advised Corporate Boards, special transaction committees, independent trustees, management and other fiduciaries of middle market public and private companies on the financial aspects of a transaction. Our independent advice withstands scrutiny from shareholders, bondholders, the SEC, IRS, or counterparties to a transaction

MERCHANT BANKING

Our Principal Investment focus is primarily on private and small-cap public (\$10mill to \$50mill market caps) companies in industries within NOBLE's research verticals. Investments are made directly by NOBLE and its affiliates and may also involve syndicate participants. We work to identify those companies with game-changing or superior products and technologies that have management teams with proven track-records of success. NOBLE structures investments to meet a company's capital needs whether its growth capital, liquidity or debt repayment. Capital commitment ranges from \$200k to \$2million principal and \$2million above with syndicate.

The scope of our Merchant Banking activities includes:

- Targeting domestic companies within our areas of focus and expertise
- Analyzing a company's opportunities and assessing its risks within their respective industry
- Structuring, negotiating and executing the transaction
- Work in assessing the appropriate time and manner in which to harvest the investment

NOBLE's Merchant Banking Team works continuously with our portfolio companies to assist the management team and Board of Directors to create value and grow their businesses to facilitate long-term shareholder value. Through our extensive sector research coverage, institutional investor non-deal road shows, equity conferences and market making, we blend a powerful mix of capital markets acumen to procure success.

$$R + (e^2 + p^2) = \text{rf}$$

INVESTMENT BANKING TEAM

Richard Giles, Managing Director

rgiles@noblecapitalmarkets.com - 617.692.9346

- Joined NOBLE in 2010 as Head of the Technology, Media & Telecommunications Investment Banking Group.
- 25 years of investment banking experience.
- Executed more than 100 M&A and capital raising transactions totaling \$10+ billion.
- Former head of Stifel Nicolaus' Technology Group.
- Former head of A.G. Edwards' Emerging Growth. Group and member of Investment Committee for A.G. Edwards Capital.
- A.B., Harvard College; M.B.A., Harvard Business School.

Christopher Ensley, Managing Director

censley@noblecapitalmarkets.com - 646-790-5873

- Joined Noble in 2016
- 20 years of equity capital market expertise
- Previous experience at Salomon Brother, Lazard, Bear Stearns, Coady Diemar Partners
- Participated in \$16+ billion transactions over his tenure on Wall Street
- M.B.A., Vanderbilt University - Owen Graduate School of Management
- B.S., William & Mary

Joseph Hain, Director, Investment Banking

jhain@noblecapitalmarkets.com - 561.999.2265

- Prior experience holding senior positions at Robotti & Company, Wynston Hill Capital, SternAegis Ventures, West Park Capital, and Tejas Securities
- Experience working with institutional, retail and HNW clients
- B.S. SUNY Albany with concentration in Biology, Chemistry, and Physics
- Holds various FINRA licenses

Francisco Penafiel, Managing Director, Investment Banking Operations

fpenafiel@noblecapitalmarkets.com - 561.994.5740

- Executed M&A and capital raising transactions totaling over \$1 billion dollars in value.
- 7 years of sell side equity research experience, covering enterprise & infrastructure software, business services, media, communications, and banks.
- 6 years of portfolio managing experience.
- Manage the business development efforts in LATAM for NOBLE.
- Engineering, IT & Statistics, Escuela Superior Politecnica (Guayaquil, Ecuador); M.S. Economics, Florida Atlantic University.

Stevan Grubic, Director - Valuation Services

sgrubic@noblecapitalmarkets.com - 323.578.4936

- 15 years of middle-market investment banking experience
- Expertise in valuations, including business valuations, fairness opinions, litigation, and valuations for financial and tax reporting purposes (ASC805, ASC350, 123R, 409A).
- Accredited Senior Appraiser with the American Society of Appraisers (ASA) and has completed over 100 valuation engagements representing well over \$1.0 billion in asset values.
- Prior experience includes Orion Valuation Group, Singer Lewak, B. Riley & Co., L.H. Friend Weinress, Frankson & Presson and North American Capital Partners

Brittnee Fatigate, Analyst

bfatigate@noblecapitalmarkets.com - 561.999.2264

- Joined Noble Capital Markets in January 2017
- Has completed multiple M&A and capital raising assignments, accounting for nearly \$150 million+ of transaction value
- B.S. Finance, Florida Atlantic University

$$R + (e^2 + p^2) = \pi$$

RESEARCH – MEDIA & ENTERTAINMENT

Michael Kupinski,
Director of Research
mkupinski@noblecapitalmarkets.com - 561.994.5734

SALES & TRADING

Vincent Gioeni,
Director of Institutional Sales
vgioeni@noblecapitalmarkets.com - (561) 998-5473

Dan Pollitt, Managing Director,
Head of Institutional Equity Trading
dpollitt@noblecapitalmarkets.com - 561.998.5483

NOBLE CAPITAL MARKETS

225 NE Mizner Boulevard, Suite 150
Boca Raton, Florida 33432
Phone: 561-994-1191
Fax: 561-994-5741
www.nobleresearch.com



DISCLAIMER

All statements or opinions contained herein that include the words “we”, “us”, or “our” are solely the responsibility of NOBLE Capital Markets, Inc. and do not necessarily reflect statements or opinions expressed by any person or party affiliated with companies mentioned in this report. Any opinions expressed herein are subject to change without notice. All information provided herein is based on public and non-public information believed to be accurate and reliable, but is not necessarily complete and cannot be guaranteed. No judgment is hereby expressed or should be implied as to the suitability of any security described herein for any specific investor or any specific investment portfolio. The decision to undertake any investment regarding the security mentioned herein should be made by each reader of this publication based on their own appraisal of the implications and risks of such decision. This publication is intended for information purposes only and shall not constitute an offer to buy/ sell or the solicitation of an offer to buy/sell any security mentioned in this report, nor shall there be any sale of the security herein in any state or domicile in which said offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or domicile. This publication and all information, comments, statements or opinions contained or expressed herein are applicable only as of the date of this publication and subject to change without prior notice. Past performance is not indicative of future results.

WARNING

This report is intended to provide general securities advice, and does not purport to make any recommendation that any securities transaction is appropriate for any recipient particular investment objectives, financial situation or particular needs. Prior to making any investment decision, recipients should assess, or seek advice from their advisors, on whether any relevant part of this report is appropriate to their individual circumstances. If a recipient was referred to a NOBLE Company by an investment advisor, that advisor may receive a benefit in respect of transactions effected on the recipients behalf, details of which will be available on request in regard to a transaction that involves a personalized securities recommendation. This report may not be reproduced, distributed or published for any purpose unless authorized by NOBLE Capital Markets, Inc.

U.S. CLIENTS

For purposes of distribution in the United States, this report is prepared for persons who can be defined as “Institutional Investors” under U.S. regulations. Any U.S. person receiving this report and wishing to effect a transaction in any security discussed herein, must do so through a U.S. registered broker or dealer. NOBLE International Investments, Inc. is a U.S. registered broker dealer.

Noble Capital Markets is a member of FINRA, MSRB & SIPC. This document is not an offer to buy or sell securities.

