

MEDIA SECTOR REVIEW

Climbing the Wall of Worry?

There seems to be positive news on a number of fronts in the media universe, but the stocks seem to discount much of it. Consider that the traditional media stocks all underperformed the general market in the latest quarter, with Publishing stocks down 12.7%, Radio down 5.4% and Television up a modest 3.0%, versus a 7.2% advance by the general market as measured by the S&P 500 Index, which hit new highs. The gain in the TV stocks could be viewed as disappointing given the favorable industry developments in the latest quarter, including the prospect for heightened M&A activity, which has been a key driver for past TV stock performance.

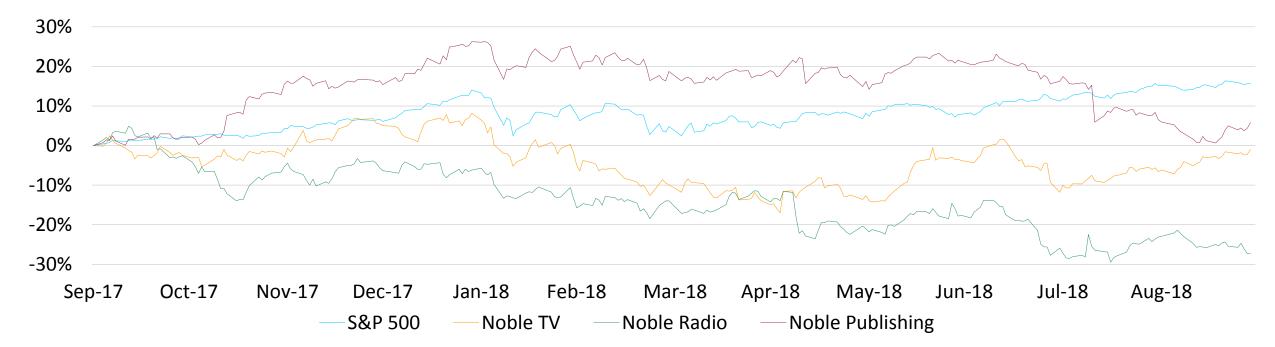
What is happening? We believe that investors are not buying into the future and only trading on positive news. In our view, investors appear to be wary of looking too far into a future, possibly fearing an economic recession at some point. Certainly, the current economic recovery is in its 111th month, one of the longest recoveries in history. While it currently appears possible that this recovery may surpass the record 120-month recovery in the 1990s, it is not surprising that investors have a cautious eye on cyclical investments given the late stage of this economic cycle.

We would encourage investors to be cautious on investing in highly levered stocks and focus on companies with strong balance sheets. As such, investors should prune here and there and make investments selectively to strengthen portfolios. In our view, it is very likely that there will be a trading mentality in Media stocks, especially driven by news, in coming months. While we remain constructive, we encourage to be selective.

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STOCK MARKET PERFORMANCE: TRADITIONAL MEDIA



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OUTLOOK - TRADITIONAL MEDIA

TELEVISION BROADCASTING

Political break through

Television stocks got a lift in the quarter from positive news on the regulatory front. The appeals court declined to overturn the FCC's decision to reimpose the "UHF discount" rule. This rule allows broadcasters to count ½ of the market population of a station on a UHF band. Everyone knows the real motive of the implementation of the UHF Discount rule: it was to circumvent the current 39% ownership cap of US Television Households. As we stated before, we believe that the FCC would like to get rid of the antiquated rule, even though the courts allow it. The interest of the FCC is likely to lift ownership caps, which we believe it will do upon the recommendation of the Quadrennial Media Review, which we expect early next year. Once this is completed, we believe that the FCC will seek to do away with the UHF discount rule. Nonetheless, the recent FCC move highlighted the prospect of continued industry consolidation and M&A activity in the TV group, which has been a key driver for TV stocks.

In the very near term, however, we believe that TV stocks will be driven by additional favorable news. In our view, we believe that there are positive upside surprises, largely driven by the significant influx of political advertising. Many broadcasters were initially cautious about the level of political advertising spend this year given the lackluster level of political advertising in 2016. As such, many broadcasters indicated that political advertising may be roughly the levels of 2014. Notably, a number of broadcasters have now indicated that political is coming in fast and furious, indicating that political advertising may be as much as 50% higher or more than 2014 levels. Notably, political advertising carries very high margins, 80% to 90%. Consequently, we believe that the upcoming third and fourth quarters likely will have positive upside surprises on revenues, cash flow and earnings. With a favorable backdrop of heightened M&A and positive upside surprises on fundamentals, we believe that there is upside in the coming months in the TV stocks.

RADIO BROADCASTING

The view from Orlando

Radio executives converged in Orlando, September 25-28th for the annual industry trade convention, the NAB Radio Show. The backdrop for this confab was lackluster fundamentals for the industry in the first half, which were down in revenues on average 3%. We believe that there were two significant themes from the conference: 1) radio's interest in becoming a player in the data driven advertising marketplace, and, 2) the prospect of lifting ownership rules.

There was a lot of buzz around radio's development into data driven analytics and, specifically, around the data analytic firm, Analytic Owl. This service monitors radio advertising and determines an advertiser's traffic lift on its web site shortly following the airing of the ad. While the solution is not ideal, it does allow the industry to be competitive with data driven advertising.

On the second front, industry execs seemed very excited about the prospect of lifting radio ownership rules. In our view, that prospect could be delivered in the FCC's Quadrennial Media Review. Assuming that the Quadrennial Media Review would be delivered in the Spring of next year, it may take the end of 2019 before radio ownership rules could be lifted, if at all. The problem is that not everyone in the industry agrees with the proposed rules that the NAB and some industry leaders have agreed upon. The NAB suggestion to the FCC is to allow a company to own 8 FM stations in the top 75 markets, with no ownership limits on markets smaller than the top 75.

In addition, AM stations would not be counted against ownership limits. This would be a significant change from the current rule which allows 8 stations in the top markets, but only 5 can be AM or FM. In addition, in the smaller markets, only two stations can be owned, one AM and one FM. We believe that industry consolidation is likely to continue given the secular pressures on the industry. It also appears likely that there will be a lot of station swapping to take advantage of the economies from in market consolidation. While selective with our recommendations, we remain constructive on the industry.





OUTLOOK - TRADITIONAL MEDIA

PUBLISHING BROADCASTING

Clearing the decks

The publishing industry seems to be preparing for the next economic downturn by shoring up balance sheets and lengthening debt maturities. Gannett (GCI: Rated Outperform) completed a \$175 million, convertible notes offering in the latest quarter, which provides significant flexibility for the company to seek acquisition fueled growth. Notably, McClatchy (MNI: Rated Market Perform) recently refinanced and extended debt maturities by roughly 3 ½ years, with interest costs largely at the same level it is currently paying.

The most notable company that recently made an aggressive step to reduce liabilities was tronc (TRNC: Rated Outperform), which will be renamed as Tribune Publishing Company, effective October 9th. The company recently sold its Los Angeles Times newspaper and California papers for a significant \$500 million in cash. This allowed tronc to largely pay off its long-term debt, significantly reduce its unfunded pension liabilities, and maintain a large cash balance of over \$100 million.

Not surprisingly, this move has heightened interest in the company as a takeover target. The recent speculation in news articles indicate that McClatchy Company (MNI: Rated Market Perform) may be interested in a merger. This would make sense. McClatchy is among the highest debt levered in the industry, currently 4.9 times debt to cash flow. A possible merger may allow the company to de-lever to roughly 3 times debt to cash flow on a "Newco" basis. The industry's focus on getting its debt in order is a good move. Investors remember the last cycle when banks were unwilling to lend.

We believe that the publishing industry is among the most at risk for an economic downturn given the relatively high infrastructure cost of the business. As such, we encourage investors to focus on companies that appear to have favorable balance sheets and haves a favorable trajectory for its digital transition.

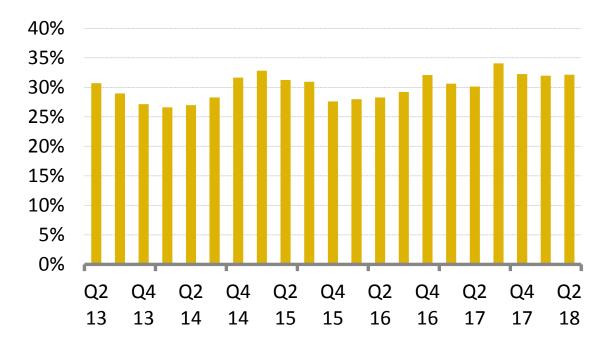




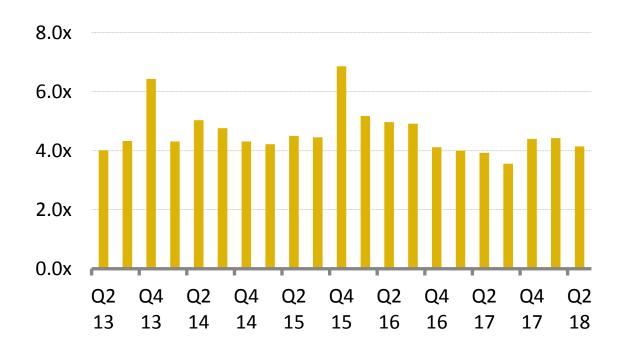
TV - SEGMENT ANALYSIS

		% of				LTN	1			Ent. Va	alue /			Net	3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA	F	Revenues			EBITDA		Debt /	Revenue	EBITDA	Dividend
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	EBITDA	CAGR	Margin	Yield
CBS Corporation	\$55.32	89.8%	\$20,802	\$9,598	\$30,411	\$14,319	\$3,112	2.1x	2.1x	1.9x	9.8x	9.2x	8.6x	3.1x	3.0%	21.7%	1.3%
Nexstar Media Group	\$79.45	88.5%	\$3,619	\$4,140	\$7,768	\$2,541	\$890	3.1x	2.9x	2.9x	8.7x	7.9x	8.7x	4.7x	56.8%	35.0%	1.9%
Sinclair Broadcast	\$28.53	71.1%	\$2,918	\$2,894	\$5,776	\$2,850	\$757	2.0x	2.0x	1.9x	7.6x	6.8x	7.4x	3.8x	11.4%	26.5%	2.5%
TEGNA Inc.	\$11.75	75.3%	\$2,529	\$3,107	\$5,636	\$1,981	\$637	2.8x	2.6x	2.6x	8.8x	7.6x	8.4x	4.9x	(10.2%)	32.2%	2.4%
Tribune Media	\$37.90	86.7%	\$3,321	\$2,094	\$5,415	\$1,873	\$542	2.9x	2.8x	2.8x	10.0x	9.3x	11.8x	3.9x	1.3%	28.9%	2.6%
Gray Television, Inc.	\$17.53	97.4%	\$1,539	\$1,326	\$2,856	\$929	\$318	3.1x	2.7x	2.9x	9.0x	6.8x	9.0x	4.2x	20.2%	34.2%	0.0%
The E.W. Scripps	\$16.23	84.5%	\$1,330	\$567	\$1,897	\$988	\$98	1.9x	1.6x	1.6x	19.3x	9.6x	12.1x	5.8x	20.1%	9.9%	1.2%
Entravision	\$4.86	61.5%	\$432	\$53	\$485	\$549	\$42	0.9x	1.6x	1.6x	11.6x	9.1x	9.6x	0.2x	30.3%	7.6%	4.1%
							Mean	2.4x			10.6x					24.5%	
							Median	2.5x	2.3x	2.3x	9.4x	8.5x	8.8x	4.0x	15.8%	27.7%	2.1%

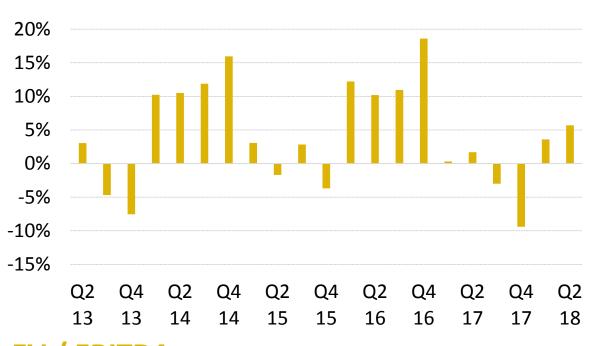
LTM EBITDA MARGIN

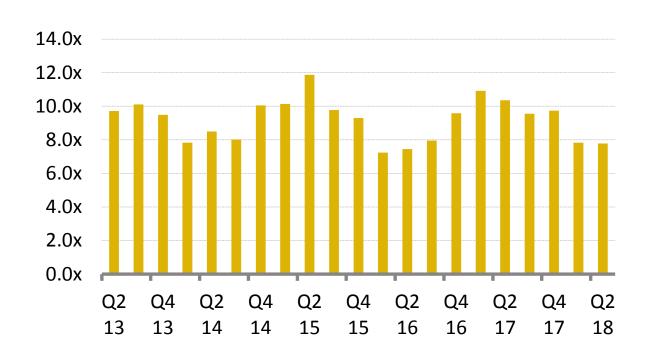


NET DEBT / LTM EBITDA



REVENUE GROWTH





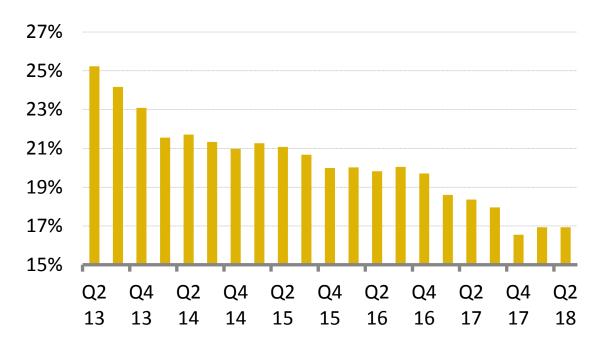




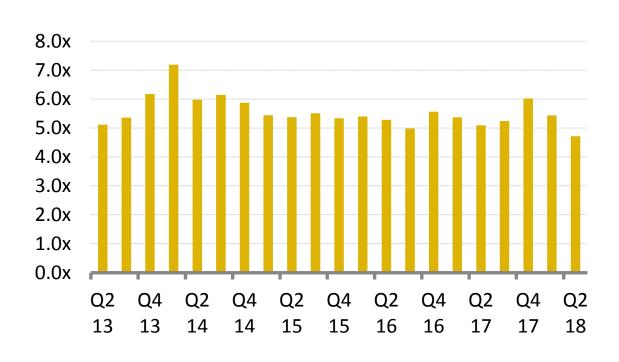
RADIO – SEGMENT ANALYSIS

		% of				LTN				Ent. V	alue /			Net	3 Year		
	Share	52 Week	Market	Net		Revenues	EBITDA	F	Revenues			EBITDA		Debt /	Revenue	EBITDA	Dividend
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	EBITDA	CAGR	Margin	Yield
Entercom	\$7.27	58.5%	\$1,036	\$1,801	\$2,837	\$1,571	\$378	NMF	2.0x	2.0x	NMF	10.4x	8.0x	4.1x	16.0%	24.1%	5.0%
Urban One	\$2.09	87.1%	\$95	\$909	\$1,016	\$436	\$115	2.3x	NA	NA	8.8x	NA	NA	7.9x	(0.1%)	26.4%	NA NA
Townsquare Media	\$7.71	73.4%	\$146	\$494	\$640	\$513	\$99	1.2x	1.5x	1.5x	6.5x	6.7x	6.6x	5.0x	10.7%	19.3%	NA NA
Beasley Media	\$6.56	45.6%	\$180	\$196	\$376	\$234	\$42	1.6x	1.5x	1.5x	9.1x	7.4x	7.5x	4.7x	58.1%	17.7%	3.0%
Salem Media Group	\$3.29	48.7%	\$86	\$252	\$338	\$263	\$40	1.3x	1.3x	1.2x	8.4x	7.7x	7.4x	6.2x	(0.4%)	15.4%	7.9%
Saga Communications	\$35.65	76.5%	\$211	(\$28)	\$183	\$122	\$25	1.5x	NA	NA	7.3x	NA	NA	NM	(4.1%)	20.6%	5.6%
Emmis Communications	\$4.95	84.8%	\$64	\$78	\$171	\$136	\$16	1.3x	NA	NA	10.9x	NA	NA	4.6x	(14.5%)	11.6%	NA NA
							Mean	1.5x	1.6x	1.6x	8.5x	8.0x	7.4x	5.4x	9.4%	19.3%	5.4%
							Median	1.4x	1.5x	1.5x	8.6x	7.5x	7.4x	4.8x	-0.1%	19.3%	5.3%

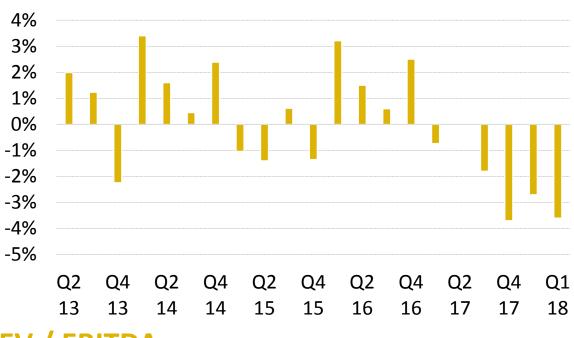
LTM EBITDA MARGIN

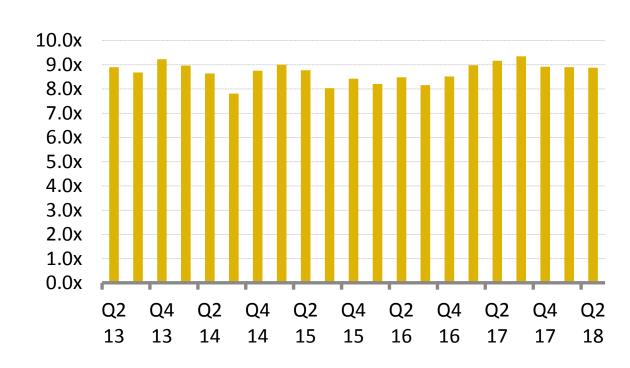


NET DEBT / LTM EBITDA



REVENUE GROWTH





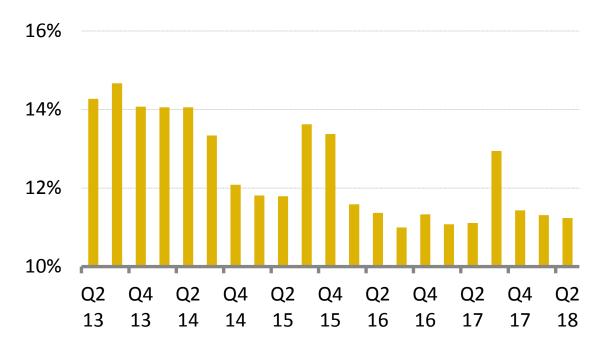




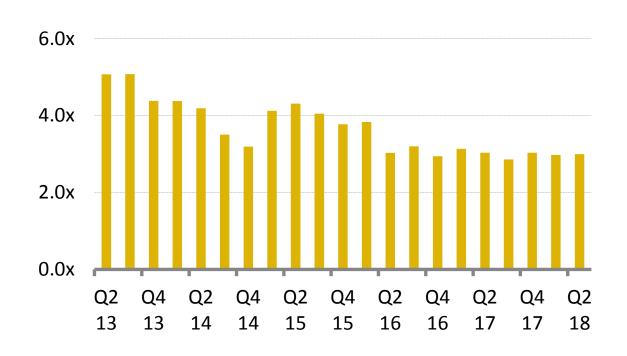
PUBLISHING – SEGMENT ANALYSIS

		% of				LTN	Л			Ent. V	alue /			Net	3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA	F	Revenues			EBITDA		Debt /	Revenue	EBITDA	Dividend
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	EBITDA	CAGR	Margin	Yield
News Corporation	\$13.29	76.9%	\$7,772	(\$82)	\$8,966	\$9,024	\$862	1.0x	0.9x	0.9x	10.4x	7.6x	6.9x	. NM	1.9%	9.6%	1.5%
New York Times	24.30	90.5%	4,007	(278)	3,729	1,680	253	2.2x	2.2x	2.1x	14.7x	13.9x	12.2x	. NM	1.8%	15.1%	0.7%
Gannett	10.24	82.7%	1,157	127	1,284	3,052	298	0.4x	0.4x	0.4x	4.3x	3.8x	3.8x	0.4x	(0.3%)	9.8%	6.3%
New Media Investment	15.77	82.6%	945	334	1,279	1,441	158	0.9x	0.8x	0.8x	8.1x	6.8x	6.6x	2.1x	27.2%	11.0%	9.4%
McClatchy Co.	8.25	74.7%	64	774	838	860	101	1.0x	1.0x	. NA	8.3x	6.4x	NA	7.7x	(7.6%)	11.7%	NA
Lee Enterprises	2.89	87.6%	165	465	632	544	124	1.2x	NA	. NA	5.1x	NA	NA	3.7x	(5.0%)	22.8%	NA
tronc	16.12	65.2%	572	(207)	406	1,532	106	0.3x	0.4x	0.4x	3.8x	3.7x	4.2x	. NM	(3.7%)	6.9%	NA
A.H. Belo Corp.	4.40	75.9%	96	(57)	39	225	3	0.2x	NA	. NA	14.3x	NA	NA	. NM	(3.0%)	1.2%	NA
							Mean	0.9x	1.0x	0.9x	8.6x	7.0x	6.7x	3.5x	1.4%	11.0%	4.4%
							Median	0.9x	0.9x	0.8x	8.2x	6.6x	6.6x	2.9x	(1.7)%	10.4%	3.9%

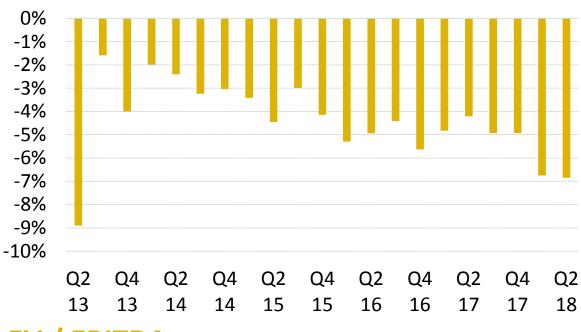
LTM EBITDA MARGIN

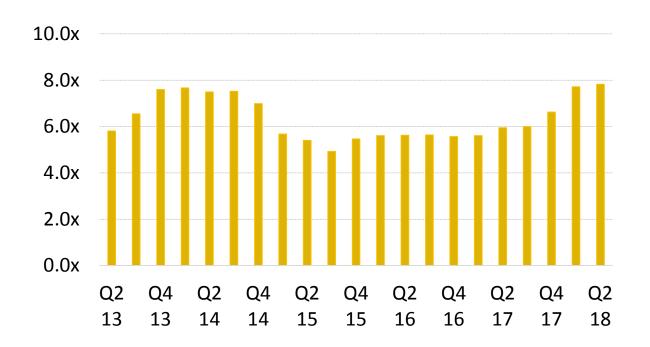


NET DEBT / LTM EBITDA



REVENUE GROWTH





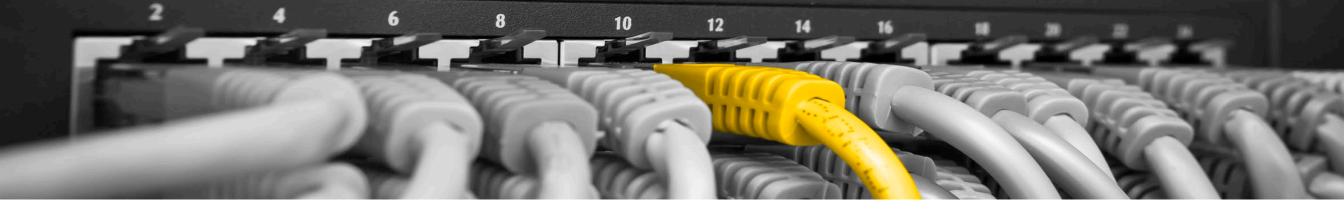




TRADITIONAL MEDIA M&A ACTIVITY

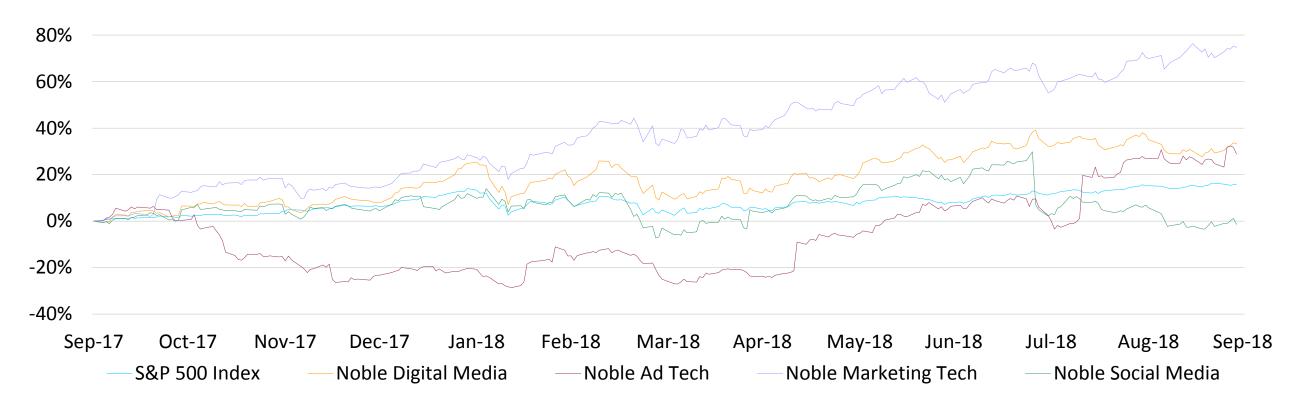
			TRANSACTION	EV /	EV/	
DATE	BUYER	TARGET	VALUE (\$M)	REVENUE	EBITDA	CLASSIFICATION
9/28/2018	ION Media Networks, Inc.	Trinity Broadcasting Networks 4 TV Stations	NA	NA	NA	TV Stations
9/28/2018	ION Media Networks, Inc.	Sunbelt Television LA TV Station	NA	NA	NA	TV Station
9/27/2018	Hubbard Radio	Alpha Media stations in West Palm Beach	NA	NA	NA	Radio Stations
9/25/2018	Comcast	30% stake in Sky plc from 21st Century Fox	11,661.6	NA	NA	Satellite TV
9/25/2018	High Times Holding Co.	Assets of DOPE Media, Inc.	11.2	NA	0.3x	Magazines
9/20/2018	Global Media & Entertainment Limited	Primesight/Outdoor Plus	NA	NA	NA	Outdoor Advertising
9/16/2018	Marc Benioff	Time Media Brand of Time Inc.	190.0	1.1x	5.8x	Magazine
8/31/2018	Link Media Omaha, LLC	All Assets of Waitt Outdoor LLC	82.0	NA	NA	Outdoor Advertising
8/22/2018	Link Media Midwest, LLC	Operating Assets of Key Outdoor, Inc.	38.0	NA	NA	Outdoor Advertising
8/20/2018	The E.W. Scripps Company	2 ABC Affiliated TV Stations In FL And Tx Raycom Media	55.0	NA	NA	TV Stations
8/20/2018	TEGNA Inc.	WTOL-Toledo & KWES, Odessa-Midland of Gray Television	105.0	NA	NA	TV Stations
8/20/2018	Lockwood Broadcast Group	Stations of Gray Television	NA	NA	NA	TV Stations
8/16/2018	Marquee Broadcasting, Inc.	WSWG-TV of Gray Television, Inc.	NA	NA	NA	TV Station
8/15/2018	Summit Media Group LLC	19 Radio Stations Of The E.W. Scripps Company	47.0	NA	NA	Radio Stations
8/7/2018	Lotus Communications Corp.	Eight Radio Stations Of The E.W. Scripps Company	8.0	NA	NA	Radio Stations
8/3/2018	Bonneville International Corporation	Eight Radio Stations in San Francisco and Sacramento	141.0	NA	NA	Radio Stations
8/2/2018	Nexstar Broadcasting, Inc.	KRBK-TV of KRBK LLC	16.5	NA	NA	TV Station
8/2/2018	Nexstar Broadcasting, Inc.	WHDF-TV	3.0	NA	NA	TV Station
7/31/2018	Link Media Georgia, LLC	Tammy Lynn Outdoor, LLC	NA	NA	NA	Outdoor Advertising
7/30/2018	Hearst Television Inc.	WPXT-TV in Portland, ME from Ironwood	3.4	NA	NA	TV Station
7/27/2018	Good Karma Broadcasting, L.L.C.	2 Radio Stations in Milwaukee of The E.W. Scripps	16.0	NA	NA	Radio Stations
7/19/2018	Entercom Communications Corp.	WBEB-FM of Jerry Lee Radio, LLC	57.5	NA	NA	Radio Station
7/19/2018	Beasley Broadcast Group, Inc.	92.5 XTU FM in Philadelphia of Entercom	38.0	3.7x	NA	Radio Station
7/12/2018	Newcap Inc.	CKEC-FM and CKEZ-FM of Hector Broadcasting	NA	NA	NA	Radio Stations
7/10/2018	Branded Cities	Portion of the Chicago Assets of Red Star Outdoor	NA	NA	NA	Outdoor Advertising
7/9/2018	Ogden Newspapers, Inc.	Publishing Assets of The Virginia News Group	NA	NA	NA	Newspaper





OUTLOOK – INTERNET AND DIGITAL MEDIA

STOCK MARKET PERFORMANCE: INTERNET AND DIGITAL MEDIA



INTERNET AND DIGITAL MEDIA

Data at the Center of Recent M&A Deals

M&A in the digital media and marketing sectors continued to be robust, with several large transactions announced during the quarter. The largest announced deals in the digital media/marketing sectors were Adobe's \$4.5 billion acquisition of Marketo, SiriusXM's \$3.3 billion acquisition of Pandora, and IPG's \$2.3 billion acquisition of Acxiom's core data management business (IPG is not acquiring Acxiom's LiveRamp business). Several of the largest deals in the sector revolved around data, analytics, and automation. For example, Adobe claims the Marketo deal will bring together its own analytics, content, personalization, advertising and commerce capabilities with Marketo's lead management and account based B2B marketing tech. The two companies share a belief in the ability of content and data to drive business results. Marketo's former COO stated that "adding Marketo to the Adobe product lineup is as much about data as it is about functionality". The Marketo deal is seen by many as an effort by Adobe to take on Salesforce (which bought ExactTarget) and Oracle (which bought Eloqua) in the enterprise marketing space.

The IPG/Acxiom Marketing Services (AMS) acquisition was also a data driven deal. AMS brings anonymized data on 2.2 billion consumers and 1,600 data and analytics experts to IPG. IPG was already working closely with AMS and using Acxiom's cross platform IDs to inform IPG's media planning and buying process. IPG has always worked with first party data but the Acxiom acquisition enables IPG to activate data at scale in a privacy compliant manner, that it couldn't do on its own. IPG's CEO stated that "AMS provides IPG with the deepest set of capabilities for helping companies navigate the complexity of creating personalized brand experiences across every consumer touchpoint."

Another data-centric deal was Salesforce's \$800 million acquisition of Datorama, a leading cloud-based, AI-powered marketing intelligence and analytics platform for enterprises. Datorama works with over 3,000 global agencies and brands to help them optimize their marketing campaigns, automate reporting, and make data-driven decisions faster. Salesforce expects that "with one unified view of data and insights, companies can make smarter decisions across the entire customer journey and optimize engagement at scale."





OUTLOOK – INTERNET AND DIGITAL MEDIA

INTERNET AND DIGITAL MEDIA COMMENTARY

Audio Companies Catch a Bid

The third quarter of 2018 was also notable for an increase in audio related acquisitions. In addition to SiriusXM's acquisition of Pandora, we would note iHeartMedia's \$55 million acquisition of Stuff Media, a leading podcast company. The combination of iHeart and Stuff Media's podcast programs create the 2nd largest podcasting programming company in the U.S. (based on monthly uniques), behind only NPR. Finally, we'd note Veritone's \$11 million acquisition of Performance Bridge Media, a podcast agency. Clearly, the on-demand audio marketplace seems to have gained the requisite scale and growth to garner attention from acquirers.

Digital Marketing/Advertising Stocks Continue to Perform Well

Through the first nine months of the year, stocks in the ad tech, marketing tech, and digital media sectors significantly outperformed the S&P 500 (which was up 9% through the end of September) posting returns of 67%, 53%%, and 23%, while the social media sector was down 5%. Our indices are market-cap weighted, and the ad tech sector benefited from the sector's largest stock, The Trade Desk, which was up 230%. On the other end of the spectrum, Facebook (-7%) and Snap (-42%) dragged down the social media index.

Marketing tech stock are significantly outperforming the broader market year-to-date. The strong performance in the sector runs very deep, with several stock up more than 50% YTD, including LivePerson (+126%), Yext (+97%), Cardlytics (+93%), Hubspot (+71%), Salesforce (+56%), Adobe (+54%) and SendGrid (+54%). The group currently trades at a robust 7.3x 2018E revenues.

Year-to-date, the FAANG stocks are up 42%, led by led by Netflix (+95%), Amazon (+71%), Apple (+33%) and Alphabet (+15%), with only Facebook (-7%) underperforming the broader market.



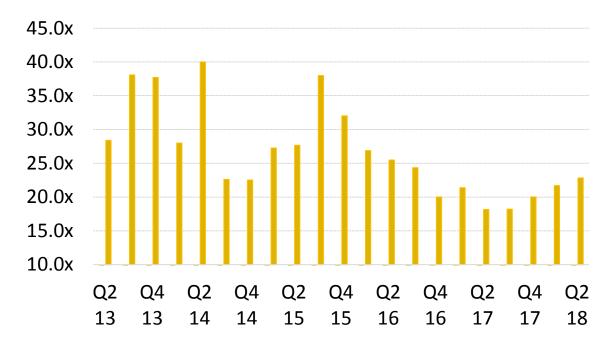


DIGITAL MEDIA – SEGMENT ANALYSIS

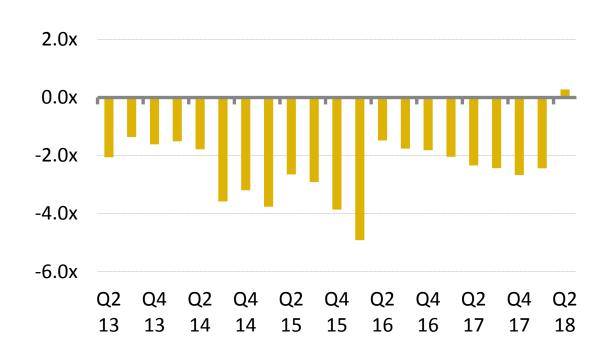
		% of				LT	М			Ent. Va	lue /			3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA	F	Revenues			EBITDA		Revenue	EBITDA	Gross
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	CAGR	Margin	Margin
Alphabet Inc.	\$1,167.83	90.4%	\$812,433	(\$98,273)	\$710,494	\$123,898	\$38,205	5.7x	5.2x	4.4x	18.6x	14.2x	11.7x	18.9%	30.8%	57.41%
Netflix, Inc.	351.35	83.0%	152,998	4,436	157,434	13,879	1,440	11.3x	9.9x	8.0x	NM	NM	NM	28.5%	10.4%	38.13%
Spotify Technology	164.38	82.6%	29,552	(1,414)	27,902	4,593	(253)	5.2x	4.6x	3.6x	NM	NM	NM	0.0%	(5.5%)	24.47%
IAC/InterActiveCorp	208.24	93.2%	17,329	231	18,297	3,833	510	4.8x	4.4x	3.8x	35.9x	18.5x	15.3x	2.1%	13.3%	79.49%
Pandora Media, Inc.	8.95	88.9%	2,414	(171)	2,749	1,478	(272)	1.9x	1.8x	1.6x	NM	NM	NM	16.8%	(18.4%)	32.63%
XO Group Inc.	34.51	96.3%	869	(117)	752	162	23	4.6x	4.5x	4.1x	33.1x	20.4x	18.3x	3.8%	14.0%	93.87%
Leaf Group Ltd.	10.10	83.8%	237	(32)	205	141	(14)	1.5x	1.3x	1.1x	NM	NM	80.3x	(9.2%)	(10.1%)	40.68%
							Mean	5.0x	4.5x	3.8x	49.2x	32.3x	35.2x	8.7%	4.9%	52.4%

Median

LTM EBITDA MARGIN



NET DEBT / LTM EBITDA

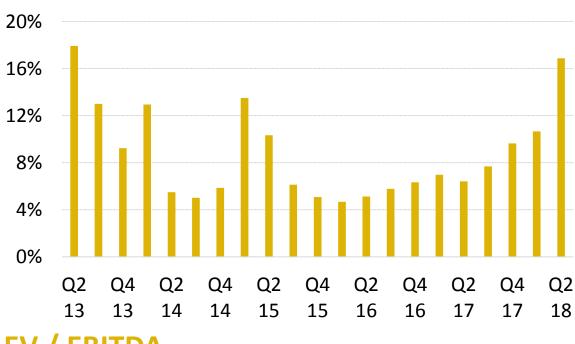


REVENUE GROWTH

3.8x 34.5x

19.5x

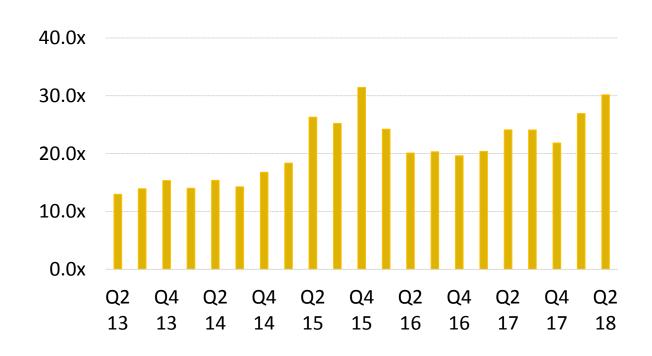
18.3x



3.8%

10.4%

40.7%





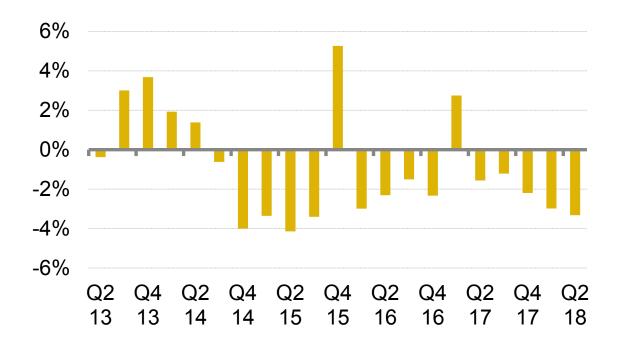


ADVERTISING TECHNOLOGY – SEGMENT ANALYSIS

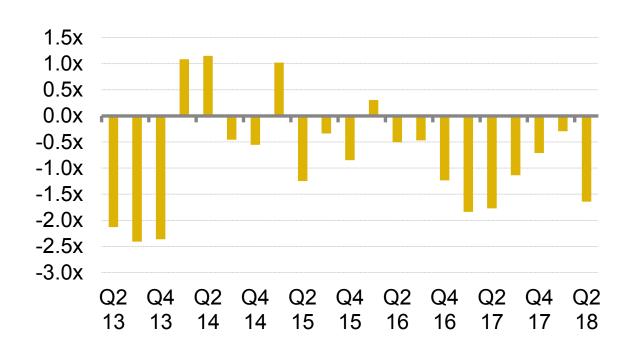
		% of				LTP	∕I			Ent. Va	ilue /			3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA		Revenues			EBITDA		Revenue	EBITDA	Gross
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	CAGR	Margin	Margin
The Trade Desk, Inc.	\$133.40	82.6%	\$5,725	(\$142)	\$5,583	\$380	\$90	14.7x	12.1x	9.2x	61.8x	39.0x	29.6x	90.6%	23.8%	76.8%
Criteo S.A.	23.10	48.6%	1,548	(477)	1,089	2,339	255	0.5x	1.1x	1.1x	4.3x	3.6x	3.4x	32.5%	10.9%	36.8%
QuinStreet, Inc.	13.79	84.0%	677	(65)	612	404	21	1.5x	1.4x	1.3x	28.9x	15.4x	12.1x	12.7%	5.2%	14.4%
Fluent, Inc.	2.39	34.4%	180	53	233	233	8	1.0x	1.0x	0.9x	29.6x	5.4x	4.4x	307.0%	3.4%	36.3%
Taptica International Ltd	3.65	70.2%	248	(42)	216	289	38	1.0x	0.9x	0.8x	5.7x	6.4x	5.9x	49.5%	13.2%	39.1%
RhythmOne plc	1.96	60.9%	154	13	164	255	6	0.9x	0.6x	0.5x	28.0x	5.0x	3.5x	5.9%	2.3%	40.7%
Perion Network Ltd.	3.05	75.3%	79	6	85	266	20	0.3x	0.3x	0.3x	4.3x	3.5x	2.3x	(11.0%)	7.5%	41.8%
Synacor, Inc.	2.20	77.2%	86	(10)	75	151	5	0.5x	0.5x	0.5x	16.1x	9.4x	5.2x	9.5%	3.1%	49.4%
The Rubicon Project, Inc.	3.47	82.6%	175	(104)	71	120	(55)	0.6x	0.6x	0.5x	NM	NM	NM	7.5%	(45.6%)	51.5%
Telaria, Inc.	2.45	46.2%	130	(65)	65	50	(14)	1.3x	1.3x	1.0x	NM	NM	6.8x	(35.0%)	(28.6%)	92.1%
Matomy Media Group	0.28	29.1%	28	26	47	177	10	0.4x	NA	NA NA	4.6x	NA	NA	1.1%	5.8%	19.9%
Social Reality, Inc.	3.57	44.9%	37	2	40	19	(5)	2.1x	NA	. NA	NM	NA	NA	65.8%	(27.1%)	70.6%
SeaChange International	1.76	43.7%	63	(26)	37	73	(4)	0.5x	0.5x	0.5x	NM	NM	7.3x	(11.4%)	(5.7%)	66.5%
SITO Mobile, Ltd.	1.69	19.7%	43	(7)	36	45	(14)	0.8x	0.9x	0.6x	NM	NM	NM	0.0%	(31.3%)	46.3%
Inuvo, Inc.	0.64	56.9%	21	0	21	84	(1)	0.2x	0.2x	0.2x	NM	6.9x	4.8x	17.1%	(1.4%)	55.8%
						Γ	Mean	1.8x	1.6x	1.3x	20.4x	10.5x	7.8x	36.1%	(4.3)%	49.2%

Median

LTM EBITDA MARGIN

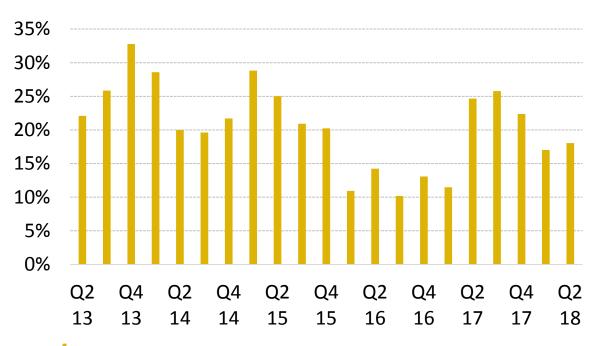


NET DEBT / LTM EBITDA

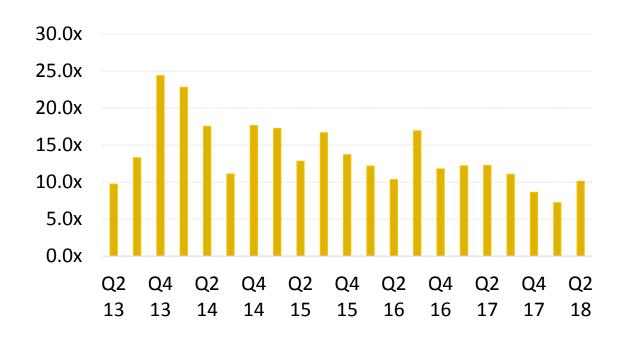


REVENUE GROWTH

0.9x



46.3%

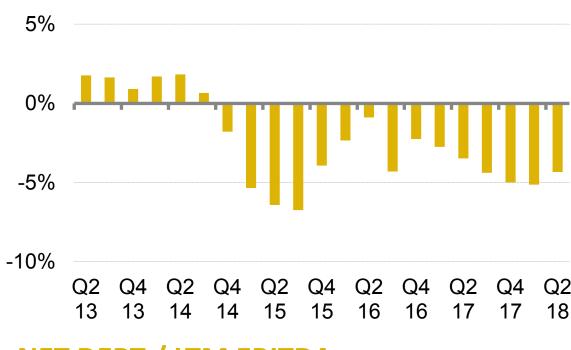




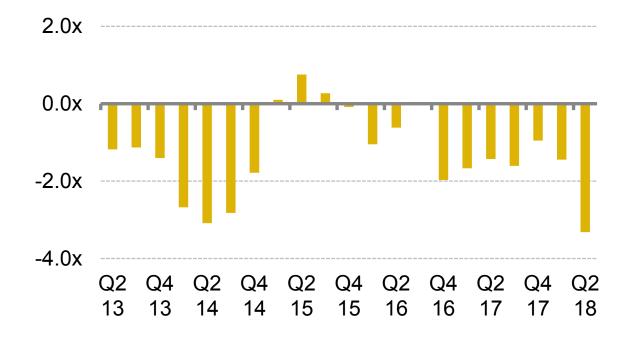
MARKETING TECHNOLOGY – SEGMENT ANALYSIS

		% of				LTI	M			Ent. Va	lue /			3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA		Revenues			EBITDA		Revenue	EBITDA	Gross
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	CAGR	Margin	Margin
Adobe Systems	263.22	94.8%	128,487	(3,060)	125,427	8,572	3,090	14.6x	13.9x	11.7x	40.6x	31.3x	25.4x	20.8%	36.0%	87.1%
salesforce.com, inc.	155.07	96.2%	117,341	971	118,312	11,793	1,103	10.0x	9.0x	7.5x	107.3x	37.7x	30.5x	24.9%	9.4%	74.0%
Akamai Technologies	66.24	79.7%	11,228	(327)	10,901	2,628	671	4.1x	4.0x	3.7x	16.2x	10.3x	9.3x	8.4%	25.5%	64.8%
HubSpot, Inc.	145.83	89.9%	5,657	(242)	5,415	441	(35)	12.3x	10.9x	8.7x	NM	114.0x	77.2x	48.0%	(8.0%)	80.2%
SVMK Inc.	13.83	69.2%	1,721	367	2,088	234	1	8.9x	NM	NM	NM	NM	NM	NM	0.6%	71.1%
Yext, Inc.	21.00	77.2%	2,070	(125)	1,945	199	(68)	9.8x	8.5x	6.5x	NM	NM	NM	41.6%	(34.2%)	74.4%
SendGrid, Inc.	33.92	87.7%	1,573	(166)	1,408	128	6	11.0x	9.8x	7.8x	NM	77.2x	59.8x	37.8%	4.6%	74.3%
LivePerson, Inc.	23.58	86.1%	1,472	(70)	1,402	234	8	6.0x	5.7x	5.1x	165.4x	62.3x	48.3x	1.4%	3.6%	74.6%
Cardlytics, Inc.	22.80	80.6%	486	(3)	483	139	(23)	3.5x	3.1x	2.2x	NM	NM	NM	0.0%	(16.5%)	38.0%
Brightcove Inc.	8.07	75.1%	290	(27)	262	162	(9)	1.6x	1.6x	1.5x	NM	121.8x	30.7x	7.6%	(5.5%)	59.0%
SharpSpring, Inc.	12.47	83.9%	106	(4)	102	16	(7)	6.4x	5.6x	4.3x	NM	NM	NM	21.5%	(43.7%)	66.2%
Marin Software	3.28	21.2%	19	(13)	5	66	(25)	0.1x	NA	NM	NM	NM	NM	(9.0%)	(37.9%)	53.7%
						Γ	Mean	7.4x	7.2x	5.9x	82.4x	64.9x	40.2x	18.5%	(5.5)%	68.1%
							Median	7.7x	7.1x	5.8x	73.9x	62.3x	30.7x	20.8%	(2.4)%	72.5%

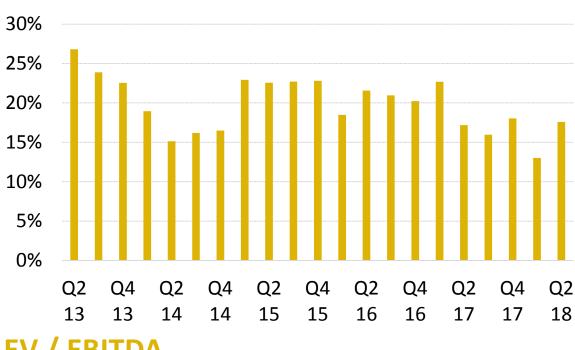
LTM EBITDA MARGIN

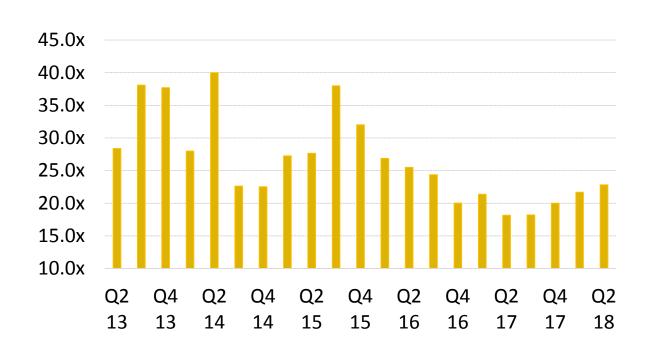


NET DEBT / LTM EBITDA



REVENUE GROWTH





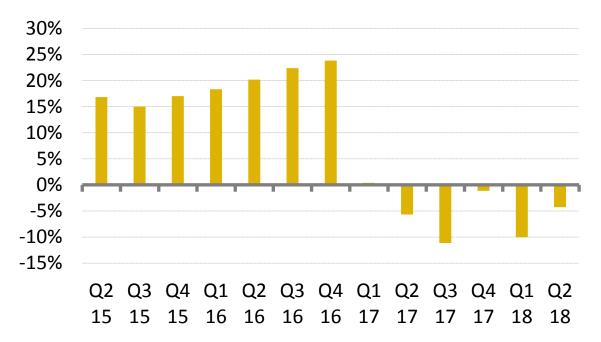




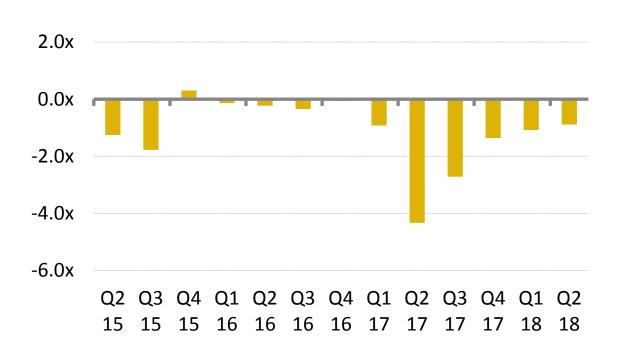
SOCIAL MEDIA- SEGMENT ANALYSIS

		% of				LTN	1			Ent. Va	lue /			3 Year		
	Share	52 Week	Market	Net	Ent.	Revenues	EBITDA	F	Revenues			EBITDA		Revenue	EBITDA	Gross
	Price	High	Cap (\$M)	Debt (\$M)	Value (\$M)	(\$M)	(\$M)	LTM	2018E	2019E	LTM	2018E	2019E	CAGR	Margin	Margin
Facebook, Inc.	\$157.33	72.0%	\$454,246	(\$42,188)	\$412,058	\$48,497	\$27,395	8.5x	7.4x	5.9x	15.0x	12.3x	10.3x	48.3%	56.5%	85.2%
Twitter, Inc.	28.39	59.4%	21,433	(2,965)	18,468	2,697	586	6.8x	6.3x	5.6x	NM	17.3x	14.8x	20.3%	21.7%	67.3%
Match Group, Inc.	55.97	91.8%	15,498	945	16,461	1,551	515	10.6x	9.6x	8.2x	32.0x	25.4x	21.2x	14.4%	33.2%	77.5%
Snap Inc.	7.77	36.6%	9,925	(1,554)	8,371	987	(1,449)	8.5x	7.3x	5.3x	NM	NM	NM	NA	(146.9%)	24.0%
The Meet Group	5.39	96.4%	394	28	422	153	23	2.8x	2.5x	2.3x	18.4x	15.1x	13.3x	40.3%	15.0%	100.0%
PeerStream, Inc.	5.00	60.2%	34	(8)	27	25	(1)	1.1x	NA	NA	NM	NA	NA	4.2%	(5.2%)	81.1%
						Γ	Mean	6.4x	6.6x	5.5x	21.8x	17.5x	14.9x	51.1%	(4.3%)	72.5%
							Median	7.7x	7.3x	5.6x	18.4x	16.2x	14.1x	48.3%	18.4%	79.3%

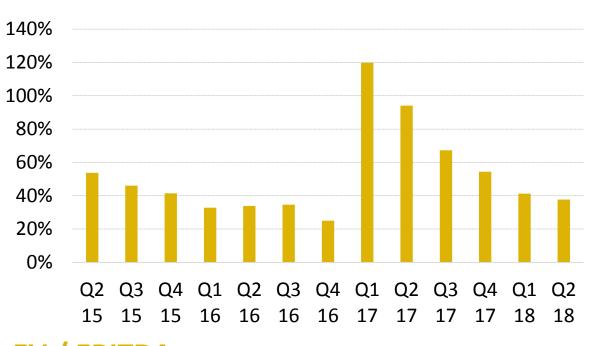
LTM EBITDA MARGIN

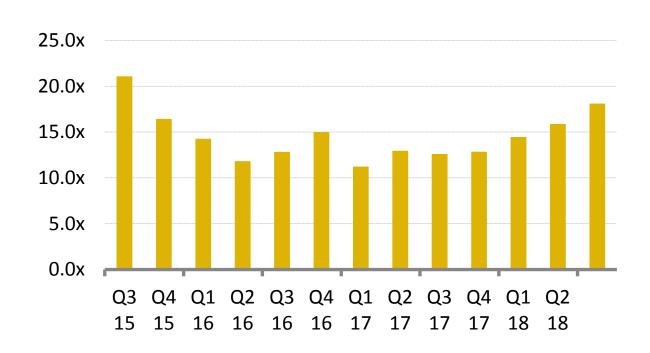


NET DEBT / LTM EBITDA

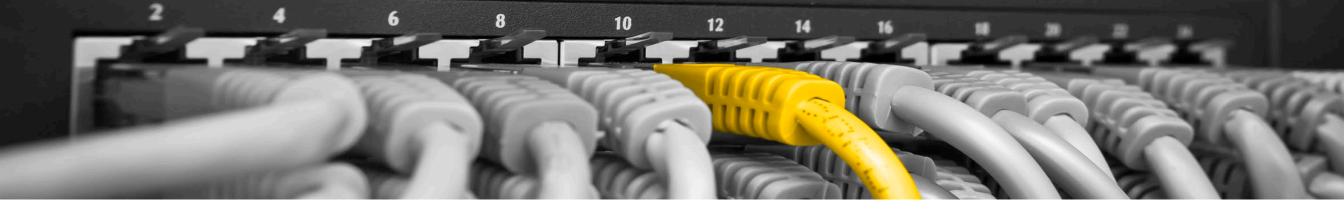


REVENUE GROWTH





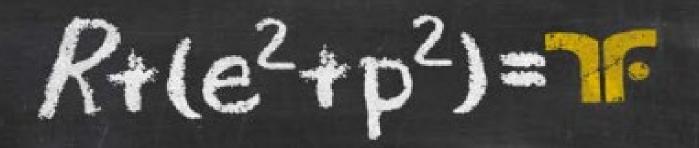




INTERNET AND DIGITAL MEDIA M&A ACTIVITY

			TRANSACTION	EV/	EV/	
DATE	BUYER	TARGET	VALUE (\$M)		EBITDA	CLASSIFICATION
9/28/2018	Snapfish, LLC	CafePress Inc.	5.9	0.1x	NM	eCommerce
9/25/2018	WeddingWire, Inc.	XO Group Inc.	810.7	5.0x	35.9x	eCommerce; Digital Media
9/24/2018	Sirius XM Holdings Inc.	Pandora Media, Inc.	3,318.0	2.2x	NM	Audio; Internet Radio
9/20/2018	Adobe Systems Incorporated	Marketo, Inc.	4,750.0	NA	NA	Marketing; Automation
9/20/2018	MinuteMedia	Mental Floss, LLC	NA	NA	NA	Publishing
9/18/2018	Impact Group	Cluep Inc.	NA	NA	NA	Targeting; AI; Social; CPG
9/13/2018	Volaris Group Inc.	IP Video business	NA	NA	NA	Software; Video; Storage; Caching
9/13/2018	iHeartMedia, Inc.	Stuff Media LLC	55.0	NA	NA	Audio; Podcasting
9/12/2018	Impact Tech, Inc.	Mediarails Inc	NA	NA	NA	CRM; Mktg Automation
9/12/2018	MidOcean Partners	Questex LLC	NA	NA	NA	B2B; Publisher; Events
9/12/2018	Management of Mediasmith	Mediasmith, Inc.	NA	NA	NA	Digital Agency
9/11/2018	Open Door Labs, Inc.	Open Listings Co.	NA	NA	NA	eCommerce; Classifieds
9/10/2018	Advantage Solutions Inc.	Jun Group Productions, LLC	NA	NA	NA	Ad Tech; Video
9/10/2018	Deloitte Digital	Artificial Intelligence Platform Business of Magnetic	NA	NA	NA	Targeting; AI; Machine Learning
9/10/2018	Veritone, Inc.	Machine Box, Inc.	5.0		NA	Software; AI; Machine Learning
9/10/2018	Branch Metrics, Inc.	Attribution Analytics Platform and Team of Tune, Inc.	NA	NA	NA	Attribution; Analytics
9/6/2018	Insight Venture Partners LLC	EPiServer AB	1,160.0		NA	Content Mgmt;
9/5/2018	Nielsen Holdings plc	SuperData Research Holdings, Inc.	NA	NA	NA	Analytics; Gaming Behaviour
9/5/2018	AppLovin Corporation	MAX Inc. (nka:MAX Advertising Systems, Inc.)	NA		NA	Ad Tech; In-App Header Bidding
9/5/2018	Wunderman Commerce	2Sales International S.A.	NA	NA	NA	Digital Agency; Content Mgmt;
8/31/2018	MyNewsdesk AB	Mention Solutions SAS	19.7	3.4x	NA	Media Monitoring
8/29/2018	Encompass Digital Media Group, Inc.	Babcock Media Services Limited	NA NA	NA	NA	Software; Video Distribution
8/22/2018	August Spark	BVAccel	NA		NA	Digital Agency; Ecommerce
8/14/2018	BDG Media Inc.	Flavorpill Productions LLC	NA	NA	NA	Digital Content
8/14/2018	AdSwerve, Inc.	Analytics Pros, Inc.	NA		NA	Analytics; Tag Mgmt; SEM
8/13/2018	Veritone One, Inc	Performance Bridge Media	11.0		NA NA	Analytics, Tag MgInt, 32M Audio; Podcasts
8/13/2018	Veritone, Inc.	Wazee Digital, Inc.	15.0		NA	Content Mgmt; Video
8/7/2018	Warner Media, LLC	Otter Media Holdings, LLC	NA	NA	NA NA	Video; OTT
8/2/2018	Warner Music Group Corp.	Some of the assets of Uproxx Media Group Inc.	NA NA		NA	Publishing
8/2/2018	Advantage Solutions Inc.	Beekeeper Marketing, Inc.	NA NA		NA NA	Marketing; Supply Chain Mgmt
8/1/2018	Criteo S.A.	STORETAIL Marketing Services S.A.S.	NA NA		NA	Ad Tech; Targeting; Retail
7/30/2018	Cision Ltd.	Technical Assets of ShareIQ, Inc.	NA NA	NA	NA NA	Media monitoring; Visual Recognition
7/30/2018	Cheetah Digital, Inc.	Stellar Loyalty Inc.	NA NA		NA	Loyalty; Cloud; Rewards; Gift Cards
7/30/2018	Halyard Capital	SRAXmd Product Line of Social Reality, Inc.	52.5		NA NA	Targeting; Digital Advertising
7/30/2018	Viacom, Inc.	AwesomenessTV Holdings, LLC	NA		NA	Digital Content; Video
7/26/2018	Facebook, Inc.	RedKix	NA NA	NA NA	NA NA	Email; Collaboration
	Future US, Inc.		132.5		13.1x	
7/18/2018 7/18/2018	,	B2C Business Division of Purch, Inc.	132.3 NA			Publishing; Consumer Tech Data
	VideoAmp, Inc.	IronGrid Data Services, LLC			NA	
7/17/2018	Niantic, Inc.	Seismic Games, Inc.	NA 800.0	NA NA	NA	Games; Mobile; Social
7/16/2018	salesforce.com, inc.	Datorama Inc.			NA	Marketing: Influencer Mita
7/12/2018	IZEA, Inc. (nka:IZEA Worldwide, Inc.)	TapInfluence, Inc.	7.1	1.2x	NA	Marketing; Influencer Mktg
7/11/2018	Dolphin Entertainment, Inc.	The Door Marketing Group, LLC	12.3	2.1x	41.7x	IR/PR
7/11/2018	PowerReviews, Inc.	BzzAgent, Inc.	NA		NA	Social Media
7/11/2018	Kelley Holmes	B2B assets of PrintingNews.com, Printing News,etc.	NA	NA	NA	B2B
7/9/2018	Kayak Software Corporation	HotelsCombined Pty Ltd	NA		NA	Search
7/9/2018	Electronic Arts Inc.	Industrial Toys Inc.	NA 50.4		NA	Games
7/3/2018	Ashfield Healthcare Limited	Create Group NYC, LLC	58.4		NA	Digital Agency; Healthcare
7/3/2018	UDG Healthcare plc	SMARTANALYST, Inc.	24.0	0.7x	NA	Consulting
7/2/2018	Uzabase, Inc.	Quartz Media LLC	110.0		NA	Publishing
7/2/2018	The Interpublic Group of Companies, Inc.	Acxiom LLC	2,300.0		NA	Data; Analytics
7/2/2018	Facebook, Inc.	Bloomsbury AI Limited	NA	NA	NA	Software; AI; NLP





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 growthfocused investors.

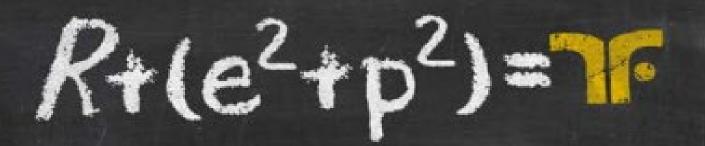
RESEARCH DRIVEN CAPITAL MARKETS PLATFORM

- 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.





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

- Secondary and Follow-on Offerings
- Registered Direct Offerings
- Initial Public Offerings
- At the market Offerings (ATM's)
- PIPEs/Private Sale Offerings

DEBT CAPITAL MARKETS

- Senior Debt
- Mezzanine
- Convertible Debt
- Bridge Financings

ADVISORY SERVICES

- Merger & Acquisitions
- Fairness Opinions
- Valuation Services

SELECT MEDIA TRANSACTIONS



(SRAX)

M&A Advisory

\$43,500,000 Sale of SRAXmd to Halyard Capital



August 2018



(BBGI)

\$23,500,000

Secondary Offering Co-manager



July 2018



(PRIVATE)

Valuation Services

Financial Advisory



July 2018



(CMLS)

Valuation Services

ASC 350 Analysis



April 2018



(MNI)

Valuation Services

Asc 350 Analysis



March 2018



(GTN)

\$250,125,000

Follow-on Offering Co-Manager



November 2017



M&A Advisory

Acquisition by ZenoRadio



July 2017



(SALM)

\$255,000,000

Senior Secured Note Co-Manager



May 2017





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.





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

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- 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

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- 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

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- 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





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