

MEDIA SECTOR REVIEW

INTERNET AND DIGITAL MEDIA COMMENTARY

Global Pandemic Spares Few Internet and Digital Media Stocks

During the first quarter of 2020, the S&P 500 fell by 20%. Only the Noble ad tech sector underperformed (-28%) the S&P 500's performance during the first quarter, with social media stocks (-19%) declining in-line with the S&P 500, and digital media (-10%) and marketing tech (-7%) stocks outperforming the broader market.

One might think that the Corona virus pandemic and the resulting stay-at-home mandates would be good for internet and digital media companies given the accompanying spike in consumer usage. However, stock price performance varied widely primarily based upon the business model associated with each company. This divergence in performance was apparent in the prices of the FAANG stocks in the first quarter. Shares of Netflix were up +16% thanks to increased usage combined with a relatively recession resistant subscription-based business model, and shares of Amazon were up +6% as retail store closures required consumers to look for purchasing certain goods online. On the other end of the spectrum, shares of Google and Facebook decreased 13% and 19%, respectively, as concerns that entire advertising verticals (travel, retail, auto, energy) would be down in the coming months.

Similarly, the vast difference between the performance of the ad tech stocks (-28%) and the marketing tech (-7%) stocks is best explained by the difference in their respective business models. Ad tech stocks generate revenues as a percentage of ad spend going through their platforms, while marketing tech stocks sell software licenses that generate monthly recurring revenues.

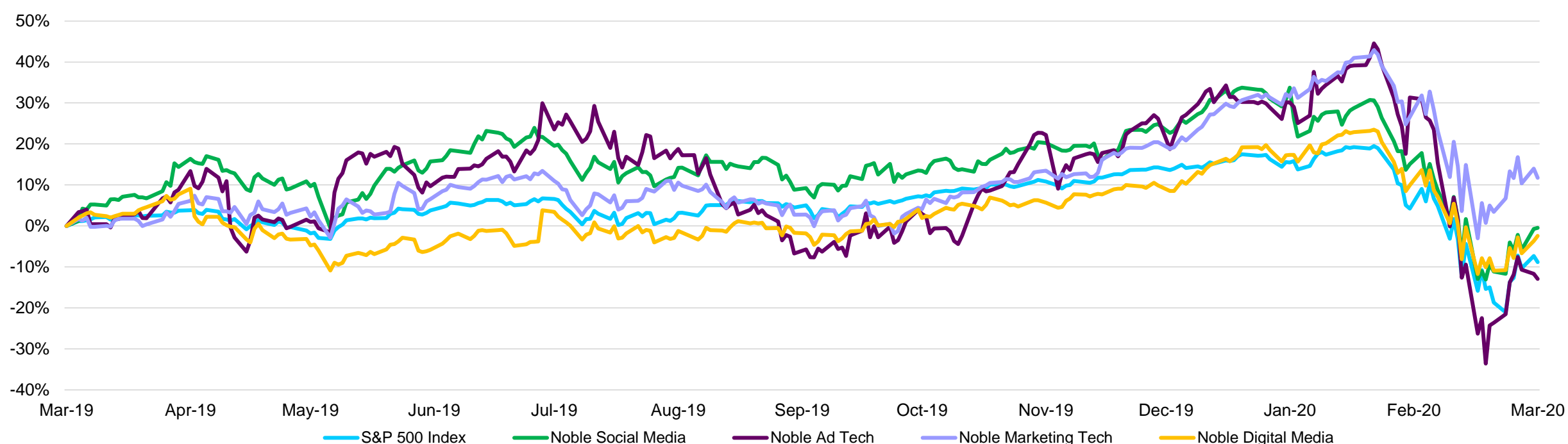
Corona Virus to Test the Resiliency of Digital Advertising

In 2009, digital advertising decreased by 3% from the prior year. That was the last year in which digital advertising experienced a down year. Since then, digital advertising has grown at a compound annual growth rate of roughly 19%, and likely finished 5.5x bigger in 2019 (\$125B-\$130B) than it was in 2009 (\$23B).

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STOCK MARKET PERFORMANCE: INTERNET AND DIGITAL MEDIA



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OUTLOOK – INTERNET AND DIGITAL MEDIA

INTERNET AND DIGITAL MEDIA COMMENTARY

We believe digital advertising trends were robust entering 2020 and continued that way in January and February. However, like all media, digital advertising began to feel the pinch in March, and we expect that trend to continue in the second quarter. A survey in late March by the Interactive Advertising Bureau (IAB) revealed that 75% of agency and brand buy-side decision makers believe the corona virus pandemic will have an even worse effect on U.S. ad budgets than in the Great Recession, with 44% saying it would have a “substantially more negative” impact. A quarter of those surveyed noted that they had paused all advertising.

A separate survey in late March by Advertiser Perceptions found that 90% of buy-side respondents had taken some type of action such as holding back an ad campaign (49% of respondents) or stopping a campaign mid-flight (45% of respondents). This same survey found that agencies/brands expect the worst impact would be on 2Q budgets, but that the 3Q impact would be worse than that in 1Q. A return to normal was forecast for 4Q. According to this survey the ad channels that would be most impacted would be display, social media and digital video, while paid search was the ad channel that was most likely to retain advertising budgets.

Global M&A Declines in 1Q 2020

According to MergerMarket, global M&A deal values fell by 39% to \$564B in the first quarter of 2020, compared to \$925B in the first quarter of 2019, despite the number of deals increasing by 3.6% in 1Q 2020 compared to 1Q 2019. Focusing solely on U.S. deals, MergerMarket found that M&A deal values in the U.S. fell by 57% to \$206B in the first quarter of 2020 versus \$476B, though the technology sector held up relatively well; down 14% to \$56B in 1Q 2020 vs. \$65B in 1Q 2019.

The decline in deal activity is not a surprise, as travel restrictions have prevented site visits and face-to-face meetings due to social distancing measures implemented to contain the Covid-19 virus. While latter stage deals may have been able to cross the finish line, we believe most deals in the bidding phase or earlier were likely paused given the business disruption.

Internet and Digital Media M&A “Bucks the Trend”

Noble tracks deals in several subsectors of the internet and digital media sectors, and Noble’s analysis found a 42% *increase* in deal value to \$6.3B in the first quarter of 2020 vs. \$4.5B in the first quarter of 2019, and 62% *increase* in the number of deals in 1Q 2020 (144 deals vs. 89 in the first quarter of 2019). Interestingly, the number of deals with transaction values was the same in each quarter: 33.

Not surprisingly, the number of M&A deals fell in each month of the first quarter. We tracked 58 deals in the month of January, 49 in February, and 37 in March.

While internet and digital media M&A deal values increased year over year, they declined dramatically on a sequential basis: the \$6.3B in M&A deal value in 1Q 2020 was 60% lower than 4Q 2019, when deal values came in at \$15.7B.

Most Active M&A Sectors: Marketing Tech, Agency & Analytics, and Digital Content

The sectors with the most number of M&A deals were marketing tech (47 deals, or 33% of all deals), agency and analytics (39 deals) and digital content (30). Our analysis typically shows that these three sectors are regularly the sectors with the highest number of deals. Activity levels picked up in each of these segments in 1Q 2020 relative to 4Q 2019, as shown below.

# of M&A Deals by Sector		
	4Q 2019	1Q 2020
Marketing Tech	16	47
Agency & Analytics	24	39
Digital Content	24	30
Information	9	6
Software	4	6
Ad Tech	16	5
eCommerce	4	5
Mobile	1	3
Social Media	1	3
Total	99	144

Source: Noble Capital Markets

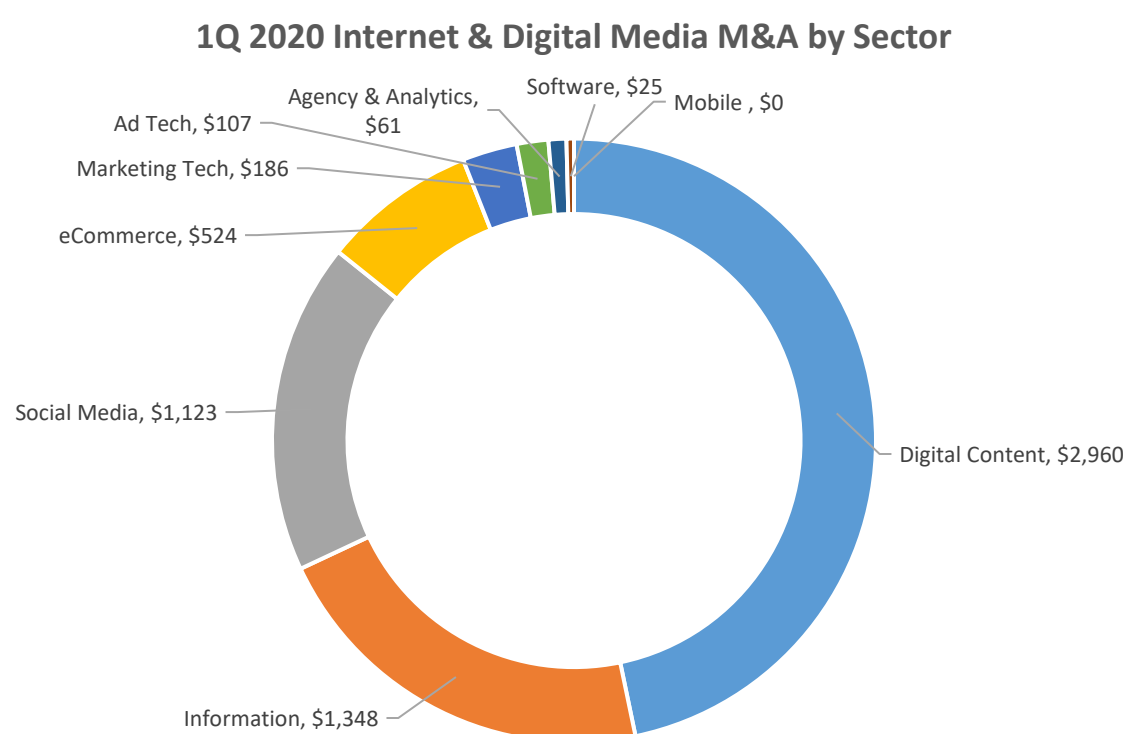


OUTLOOK – INTERNET AND DIGITAL MEDIA

INTERNET AND DIGITAL MEDIA COMMENTARY

M&A Deal Values Highest in the Digital Content, Information and Social Media Sectors

What is most notable about M&A activity in the first quarter of 2020 is that digital content deals accounted for nearly half (47%) of M&A deal values. Digital content deals represented nearly \$3B of the \$6.3B in deal values we tracked in 1Q 2020. This was followed by \$1.3B in M&A deal value in the information sector and \$1.1B in deals in the social media sector, as shown in the chart below.



Driving digital content M&A deal values in 1Q 2020 were several gaming acquisitions such as Embracer Group's \$569 million acquisition of Saber Interactive, Stillfront's \$404 million acquisition of Storm8, and Tencent's \$138 million acquisition of Funcom.

Another area of digital content deal activity was announced of several over-the-top (OTT) TV deals. For example, Fox Corporation agreed to acquire Tubi TV for \$490 million, and Comcast agreed to acquire Xumo for \$100 million. While the press has focused on the subscription-based video on demand (SVOD) wars between Netflix, Disney+, Amazon Prime and others, the deal market was focused on advertising based (AVOD) platforms. On the SVOD front, sports focused FuboTV agreed to a reverse merger with publicly traded Facebook Group (FBNK).

Data and analytics were the big drivers behind deal values in the information sector, driven by Clarivate Analytics' \$950 million acquisition of healthcare data and analytics firm Decision Resources, and LexisNexis Risk Solution's \$375 million acquisition of data, analytics and risk solutions provider ID Analytics for \$375 million.

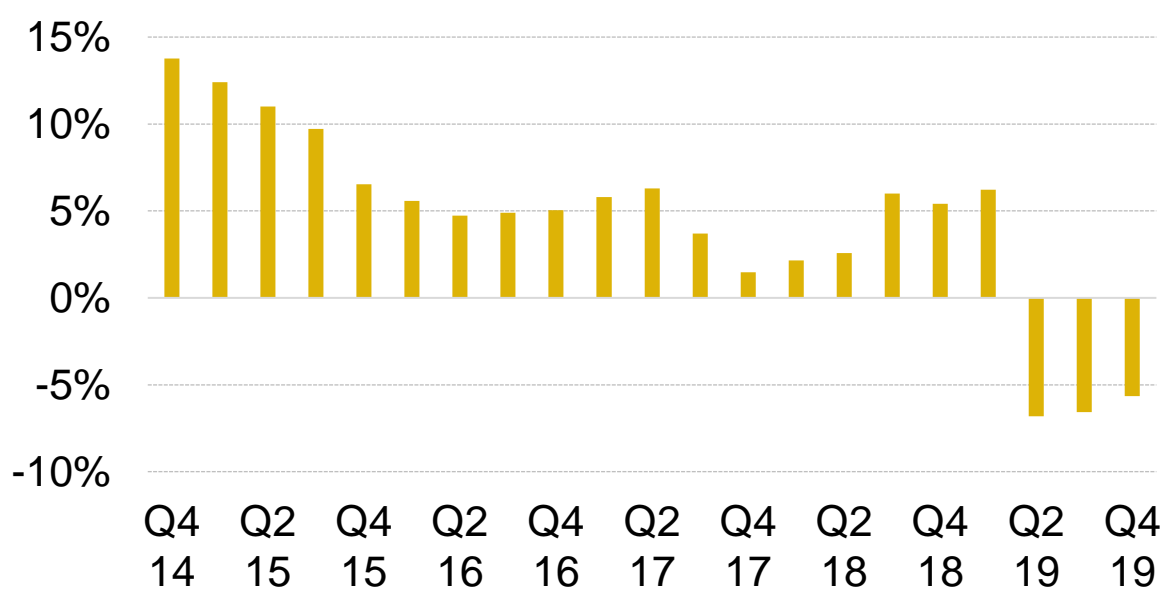
Finally, while the number of social media deals was small, the dollar amounts were big. On back-to-back days in early March, the Parship Group agreed to acquire The Meet Group (MEET) for \$506 million, and the San Vicente Acquisition group agreed to acquire Grindr for \$609 million from the Chinese gaming company Beijing Kunlun Tech Co. Ltd. The Chinese firm's ownership of the app had drawn scrutiny from privacy advocacy groups.

DIGITAL MEDIA – SEGMENT ANALYSIS

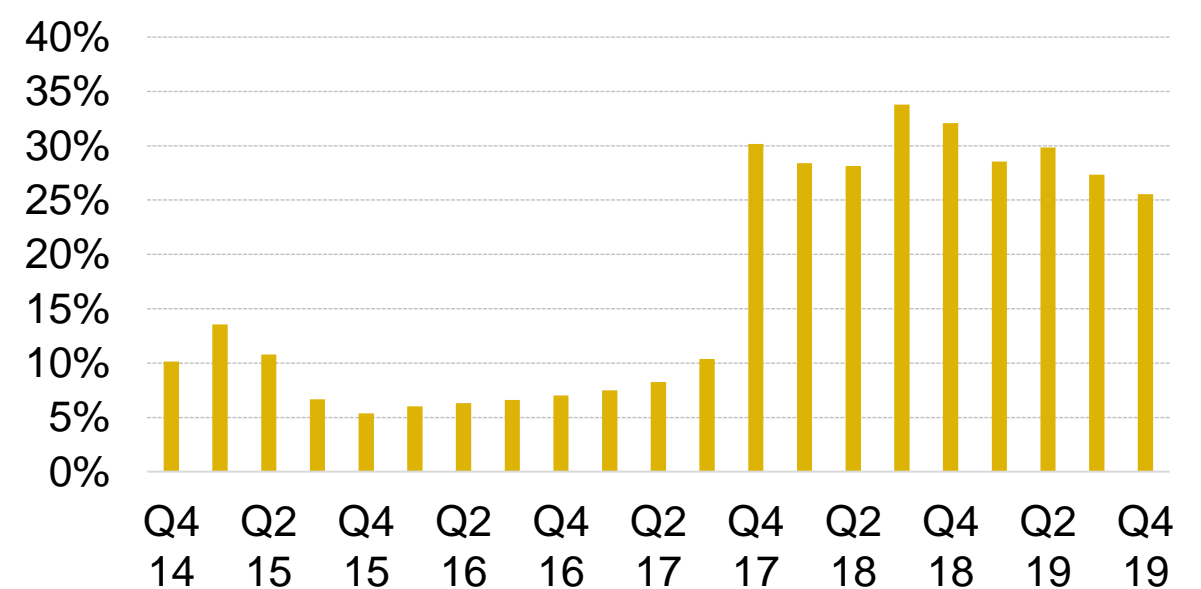
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Gross Margin			
						Revenues (\$M)	EBITDA (\$M)	Revenues LTM	2020E	2021E					EBITDA LTM	2020E	2021E
Alphabet Inc.	\$1,207.00	78.9%	\$829,554	(\$103,708)	\$726,965	\$161,857	\$48,133	4.5x	4.1x	3.4x	15.1x	11.8x	9.8x	NM	21.5%	29.7%	55.6%
Netflix, Inc.	371.12	94.3%	162,850	11,354	174,204	20,156	2,708	8.6x	7.2x	6.0x	64.3x	39.1x	29.2x	3.9x	31.7%	13.4%	38.3%
Spotify Technology S.A.	126.04	78.1%	23,415	(972)	22,324	6,764	(16)	2.9x	2.5x	2.1x	NM	NM	215.3x	NM	31.8%	(0.2%)	25.5%
IAC/InterActiveCorp	197.65	70.9%	16,753	200	17,967	4,757	814	3.8x	3.4x	3.0x	22.1x	17.6x	13.2x	0.2x	14.9%	17.1%	76.4%
Tencent Music Entertainment Group	10.99	58.9%	18,436	(22,323)	15,243	25,434	4,493	4.2x	3.6x	2.8x	3.4x	23.4x	16.5x	NM	80.0%	17.7%	34.1%
Pinterest, Inc.	16.83	45.7%	9,637	(1,493)	8,144	1,143	(1,361)	7.1x	6.0x	4.4x	NM	NM	67.2x	NM	0.0%	(119.1%)	68.6%
Akazoo S.A.	2.80	37.4%	139	(45)	90	130	9	0.6x	0.4x	0.3x	9.6x	4.4x	2.8x	NM	0.0%	7.2%	23.6%
Leaf Group Ltd.	1.50	16.3%	40	(0)	40	155	(17)	0.3x	0.3x	0.2x	NM	NM	39.8x	NM	11.0%	(10.9%)	40.2%
TheMaven, Inc.	0.48	48.0%	15	5	21	0	(11)	55.1x	NA	NA	NM	NA	NA	NM	0.0%	NM	NA

Mean	9.7x	3.4x	2.8x	22.9x	19.2x	49.2x	2.0x	21.2%	(5.6%)	45.3%
Median	4.2x	3.5x	2.9x	15.1x	17.6x	22.9x	2.0x	14.9%	10.3%	39.3%

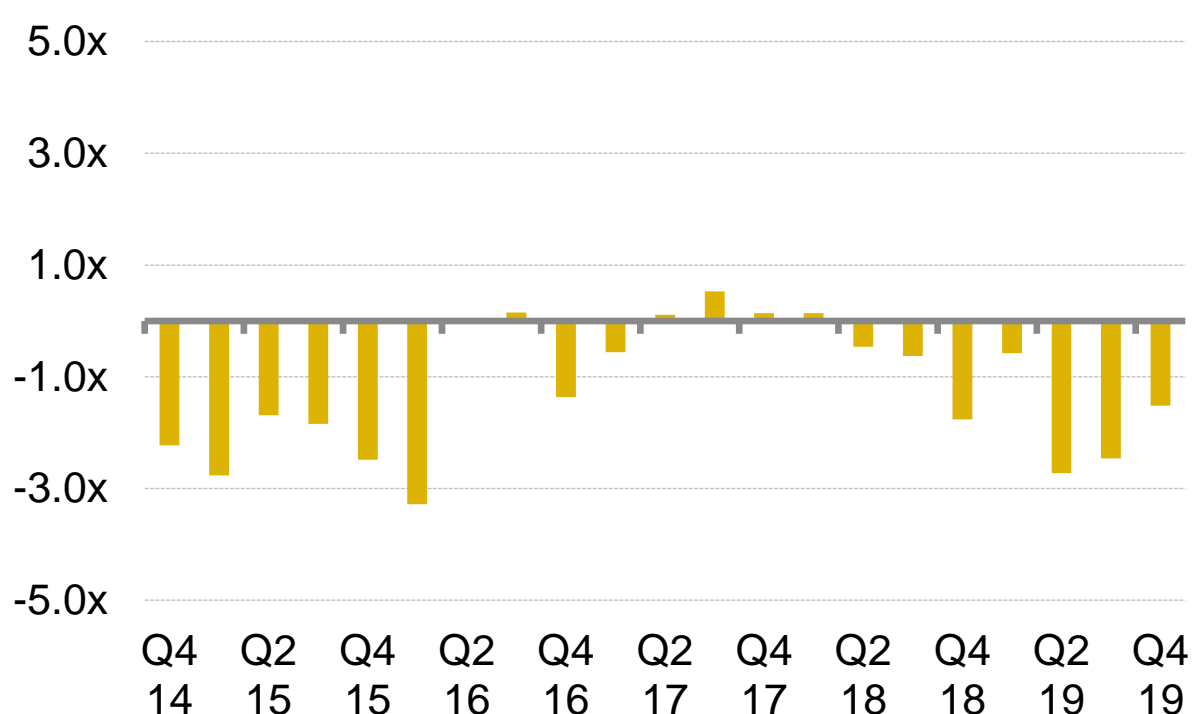
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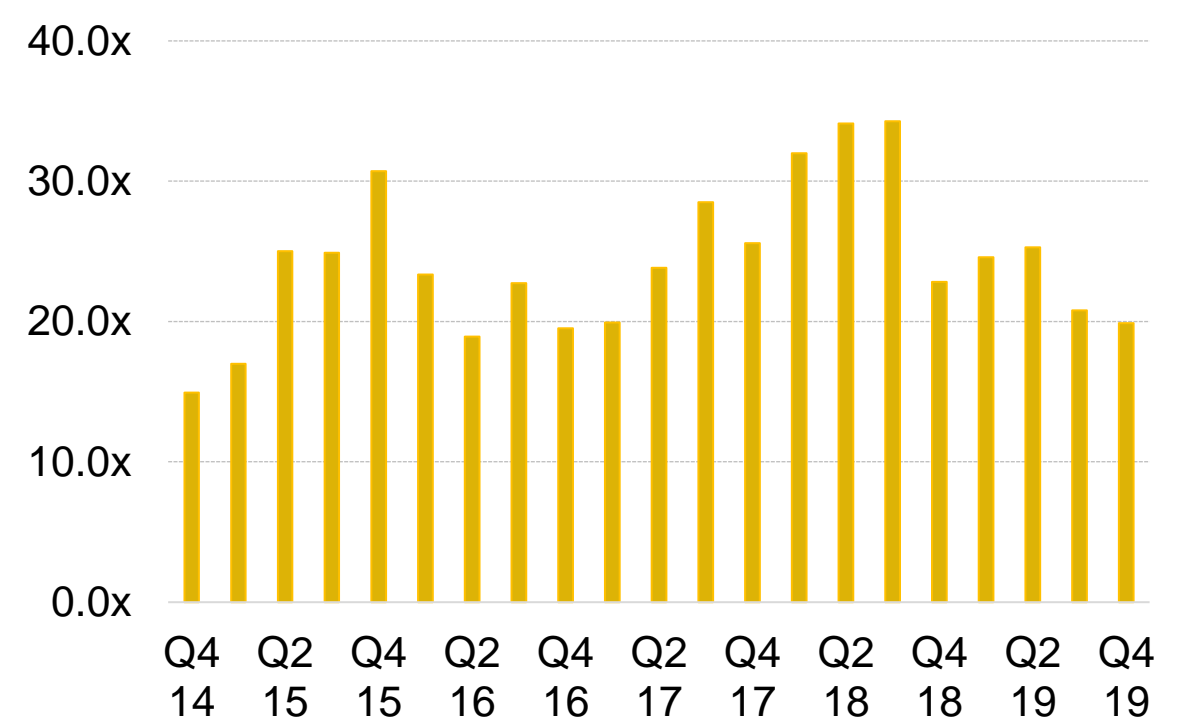
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



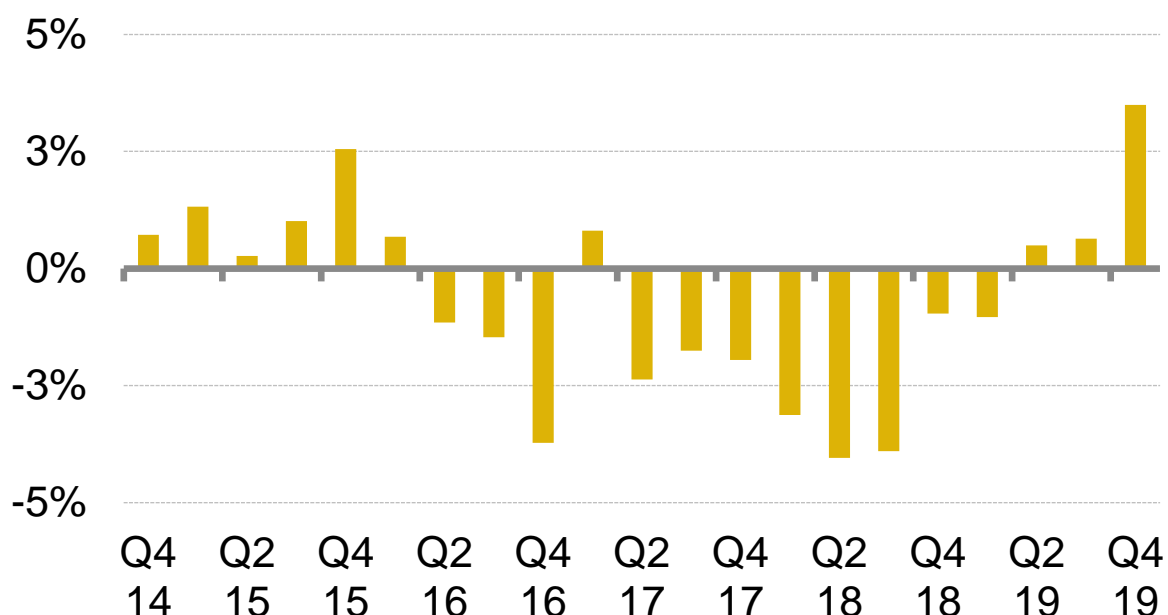


ADVERTISING TECHNOLOGY – SEGMENT ANALYSIS

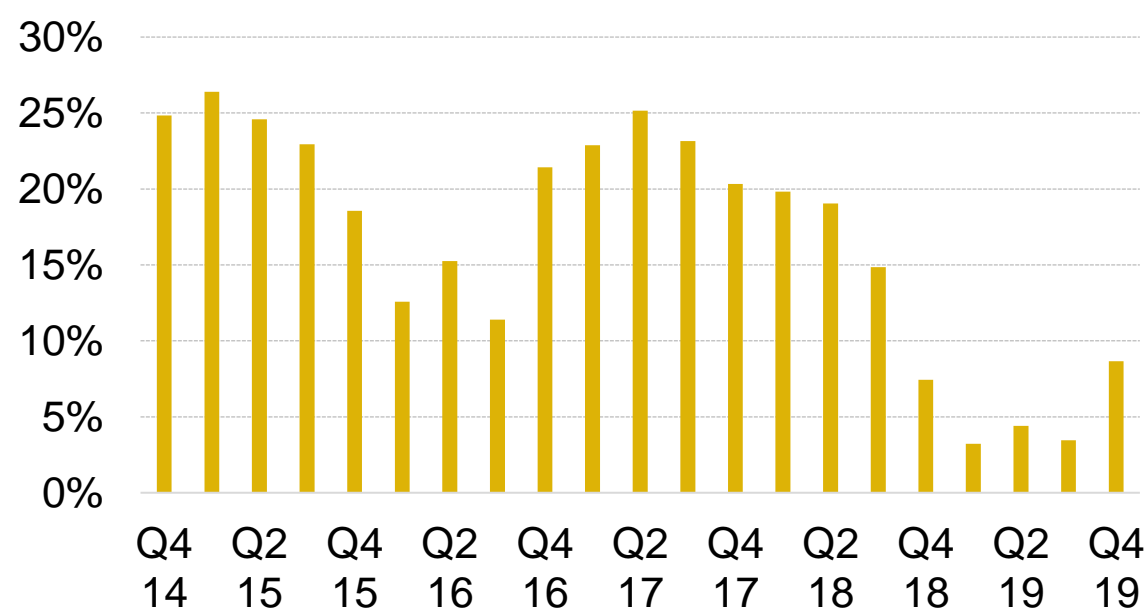
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						Revenues (\$M)	EBITDA (\$M)	Revenues			EBITDA						
								LTM	2020E	2021E	LTM	2020E	2021E				
The Trade Desk, Inc.	\$207.35	64.0%	\$9,450	(\$66)	\$9,384	\$661	\$128	14.2x	11.5x	9.0x	73.1x	39.3x	29.4x	NM	48.2%	19.4%	76.4%
iClick Interactive Asia Group Limited	4.41	80.3%	308	50	361	199	(11)	1.8x	1.5x	1.2x	NM	53.7x	18.2x	NM	27.9%	(5.6%)	28.4%
QuinStreet, Inc.	7.94	46.4%	410	(61)	349	483	23	0.7x	0.7x	0.6x	15.5x	6.3x	4.4x	NM	15.2%	4.7%	12.1%
Criteo S.A.	8.98	39.1%	556	(251)	336	2,262	247	0.1x	0.5x	0.4x	1.4x	1.6x	1.5x	NM	7.9%	10.9%	36.7%
The Rubicon Project, Inc.	5.43	41.4%	299	(66)	232	156	(3)	1.5x	1.1x	0.9x	NM	15.5x	4.8x	NM	(17.5%)	(1.9%)	63.3%
Fluent, Inc.	1.51	20.2%	115	44	159	282	22	0.6x	0.5x	0.5x	7.2x	4.3x	3.7x	1.8x	14.7%	7.8%	31.0%
Tremor International Ltd	1.25	56.3%	167	(55)	126	326	26	0.5x	0.4x	NA	4.8x	2.1x	NA	NM	37.3%	8.0%	42.5%
Perion Network Ltd.	4.95	51.0%	132	(21)	111	261	23	0.4x	0.4x	0.3x	4.7x	3.3x	2.8x	NM	(5.8%)	9.0%	38.3%
Synacor, Inc.	1.05	56.5%	41	(3)	38	122	5	0.3x	0.4x	0.4x	7.1x	5.7x	4.8x	NM	(1.5%)	4.4%	49.3%
SRAX, Inc.	1.93	33.0%	27	(2)	25	4	(16)	6.9x	NA	NA	NM	NA	NA	NM	(31.2%)	(458.1%)	62.6%
Matomy Media Group Ltd.	0.04	62.0%	4	25	23	74	8	0.4x	NA	NA	2.9x	NA	NA	3.1x	(35.6%)	10.7%	22.8%
Inuvo, Inc.	0.23	12.9%	14	0	14	62	(5)	0.2x	0.3x	0.2x	NM	NM	23.3x	NM	(4.9%)	(8.8%)	63.1%
SITO Mobile, Ltd.	0.20	8.5%	5	3	8	36	(10)	0.2x	NA	NA	NM	NA	NA	NM	45.9%	(28.7%)	36.8%

Mean	2.2x	1.7x	1.5x	14.6x	14.6x	10.3x	2.5x	7.7%	(32.9)%	43.3%
Median	0.5x	0.5x	0.5x	6.0x	5.7x	4.8x	2.5x	7.9%	4.7%	38.3%

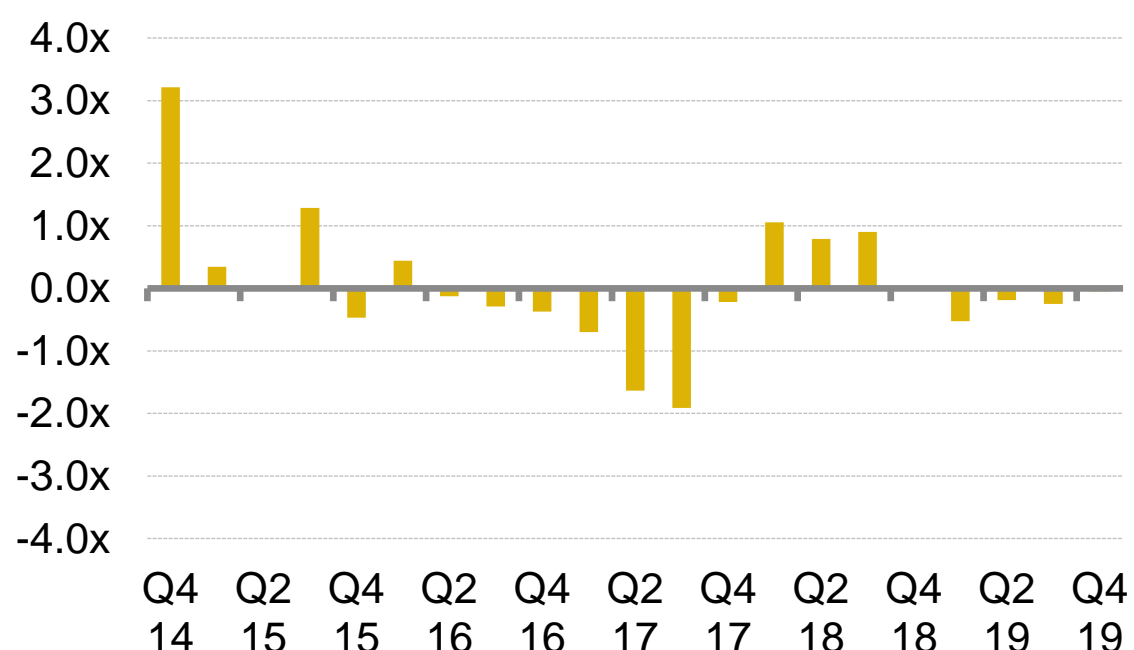
LTM EBITDA MARGIN



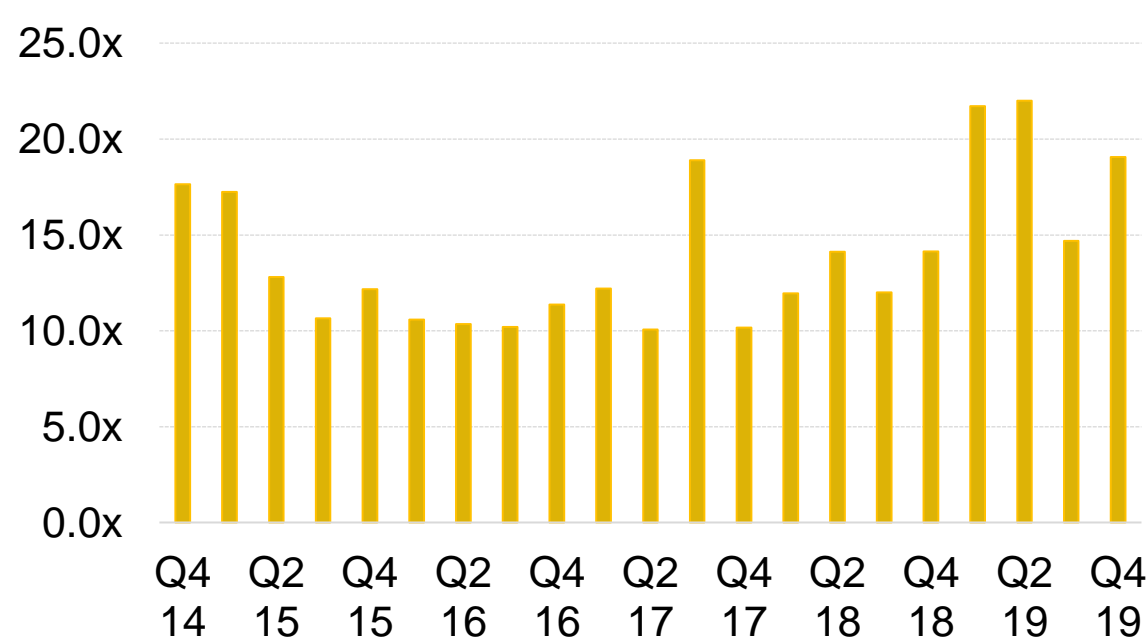
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA

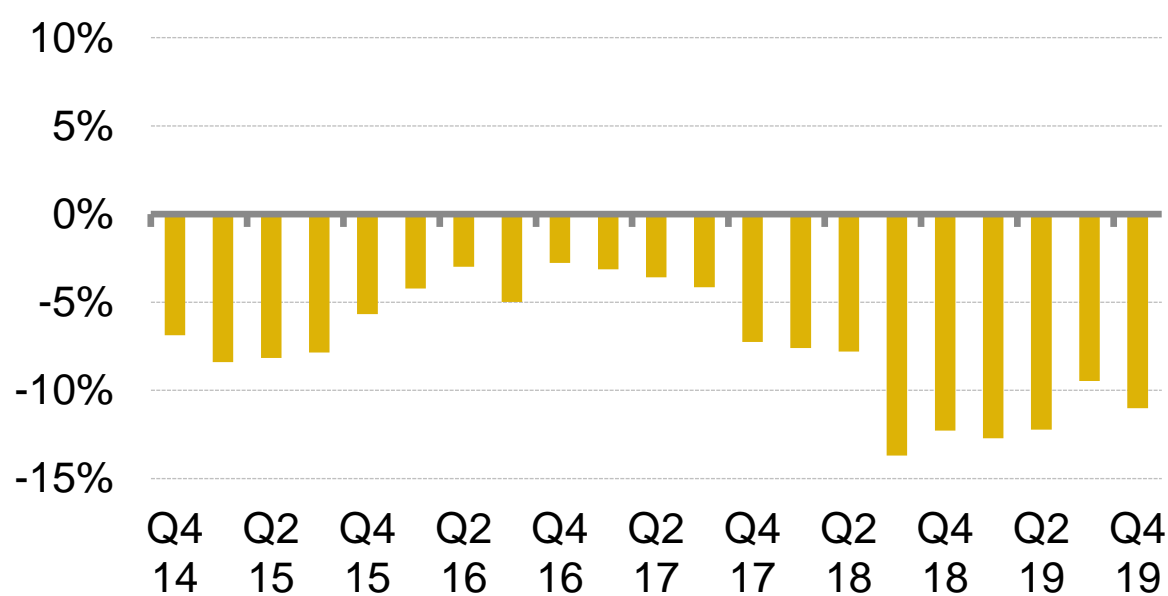


MARKETING TECHNOLOGY – SEGMENT ANALYSIS

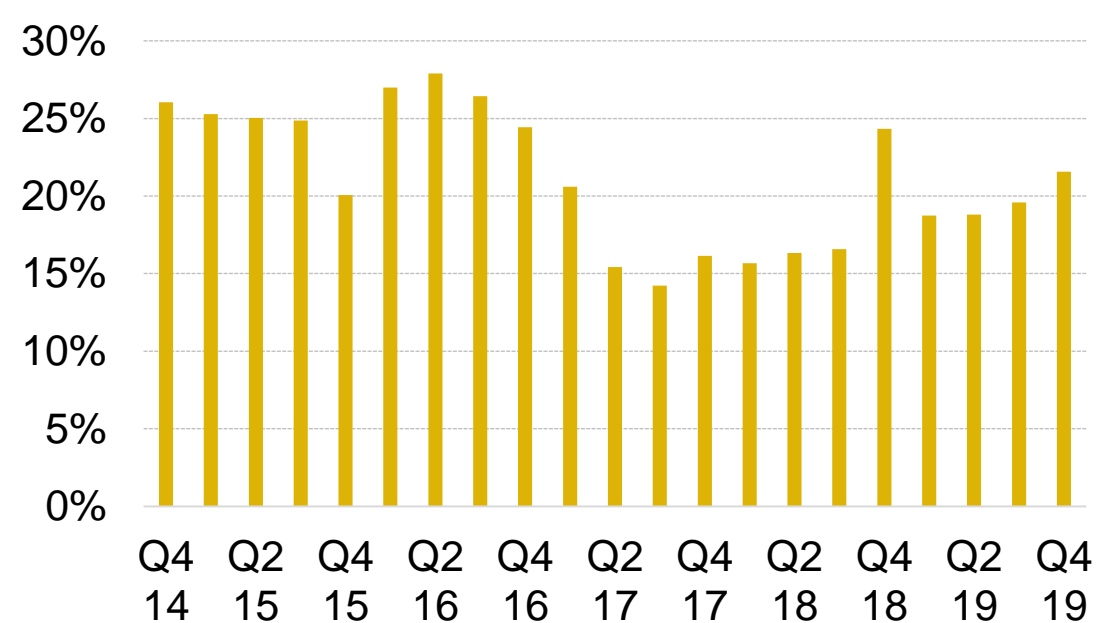
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						Revenues (\$M)	EBITDA (\$M)	Revenues		EBITDA							
								LTM	2020E	2021E	LTM	2020E	2021E				
Adobe Inc.	\$317.18	82.0%	\$152,818	\$540	\$153,358	\$11,661	\$4,078	13.2x	11.8x	10.2x	37.6x	25.6x	21.7x	0.1x	24.0%	35.0%	85.2%
salesforce.com, inc.	151.12	77.2%	135,252	(1,694)	133,558	17,098	2,278	7.8x	6.4x	5.4x	58.6x	21.9x	18.6x	NM	26.5%	13.3%	75.2%
Shopify Inc.	414.51	69.8%	48,525	(2,316)	46,208	1,578	(113)	29.3x	22.8x	16.3x	NM	NM	NM	NM	59.4%	(7.2%)	54.9%
Akamai Technologies, Inc.	97.37	94.2%	15,762	1,134	16,897	2,894	845	5.8x	5.5x	5.1x	20.0x	12.8x	11.8x	1.1x	7.2%	29.2%	65.9%
HubSpot, Inc.	139.52	67.1%	6,040	(353)	5,686	675	(29)	8.4x	6.9x	5.6x	NM	65.6x	44.5x	NM	35.5%	(4.3%)	80.7%
SVMK Inc.	12.79	57.4%	1,746	176	1,922	307	(44)	6.3x	5.1x	4.2x	NM	45.2x	31.7x	NM	14.0%	(14.2%)	75.1%
LiveRamp Holdings, Inc.	32.00	52.9%	2,156	(746)	1,410	353	(183)	4.0x	3.2x	2.4x	NM	NM	49.5x	NM	(30.5%)	(51.9%)	56.5%
LivePerson, Inc.	20.70	45.8%	1,330	22	1,352	292	(61)	4.6x	3.9x	3.2x	NM	NM	78.3x	NM	9.4%	(20.8%)	73.0%
Yext, Inc.	10.97	48.4%	1,271	(132)	1,139	299	(114)	3.8x	3.1x	2.5x	NM	NM	NM	NM	34.0%	(38.1%)	74.2%
Cardlytics, Inc.	42.89	39.9%	1,145	(104)	1,041	210	(13)	4.9x	4.4x	3.2x	NM	103.4x	32.8x	NM	23.1%	(6.1%)	37.8%
Sprout Social, Inc.	13.47	59.9%	658	(115)	543	103	(43)	5.3x	4.2x	3.2x	NM	NM	NM	NM	0.0%	(41.9%)	72.6%
Brightcove Inc.	8.08	62.7%	315	(5)	310	184	(4)	1.7x	1.6x	1.5x	NM	19.3x	18.6x	NM	7.1%	(2.3%)	59.2%
ChannelAdvisor Corporation	7.93	63.6%	224	(36)	188	130	11	1.4x	1.4x	1.4x	17.6x	9.2x	7.9x	NM	4.7%	8.2%	77.9%
SharpSpring, Inc.	5.53	26.2%	64	(7)	57	23	(9)	2.5x	1.9x	1.6x	NM	NM	NM	NM	25.3%	(39.4%)	68.5%
Marin Software Incorporated	1.18	20.4%	8	(2)	7	49	(14)	0.1x	NA	NA	NM	NA	NA	NM	(21.1%)	(27.9%)	53.6%

Mean	6.6x	5.9x	4.7x	33.5x	37.9x	31.5x	0.6x	14.6%	(11.2)%	67.4%
Median	4.9x	4.3x	3.2x	28.8x	23.7x	26.7x	0.6x	14.0%	(7.2)%	72.6%

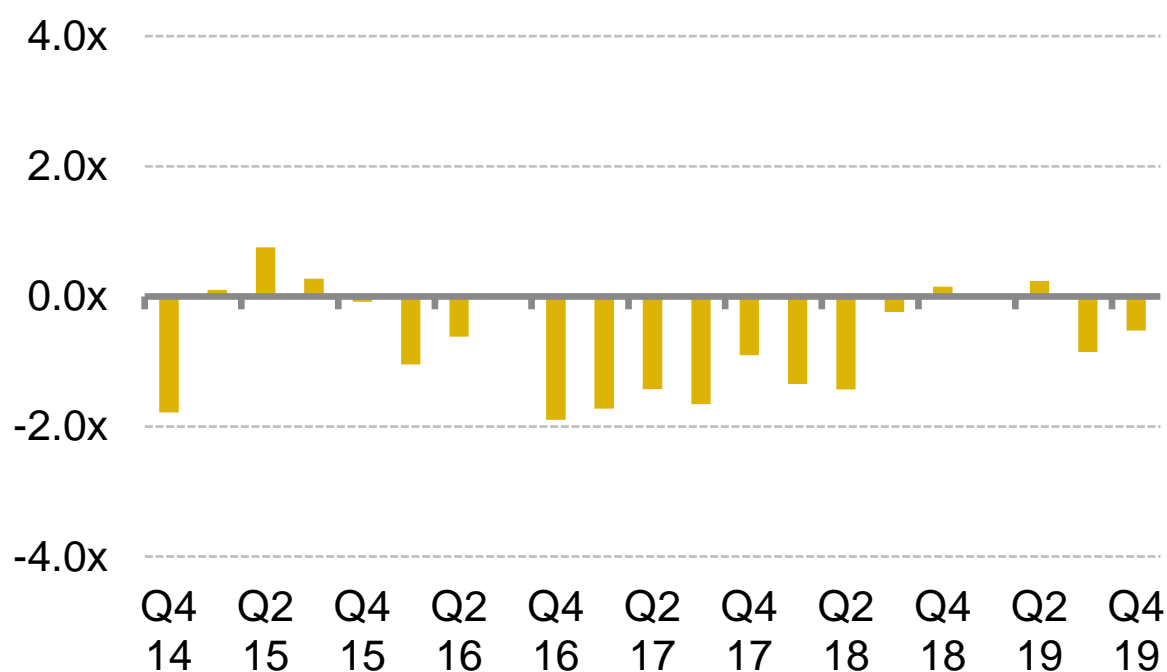
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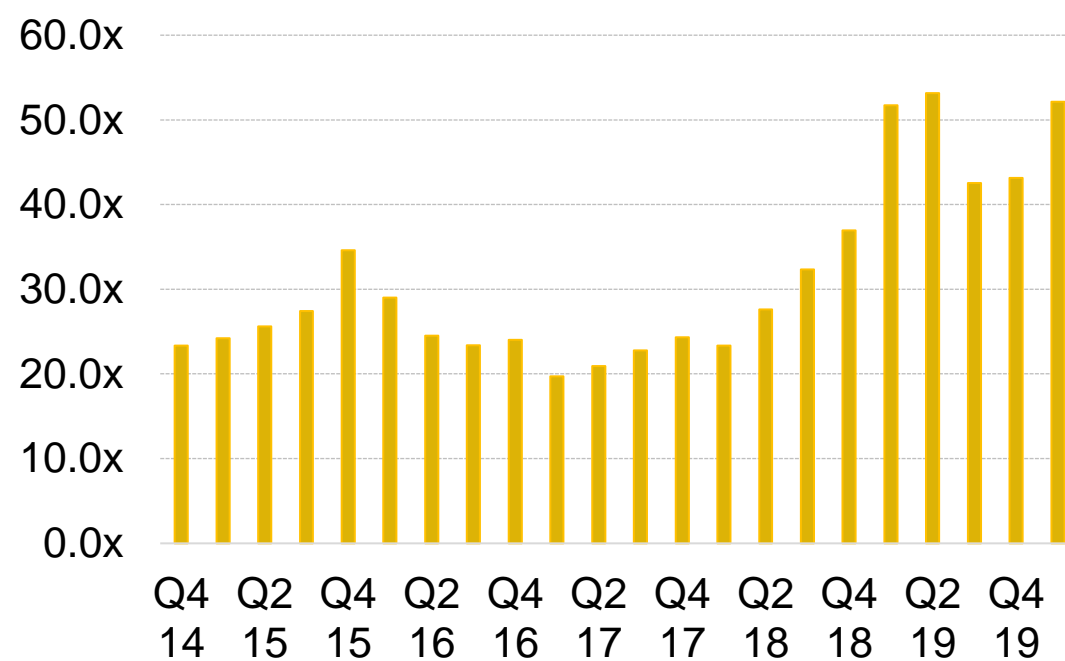
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA

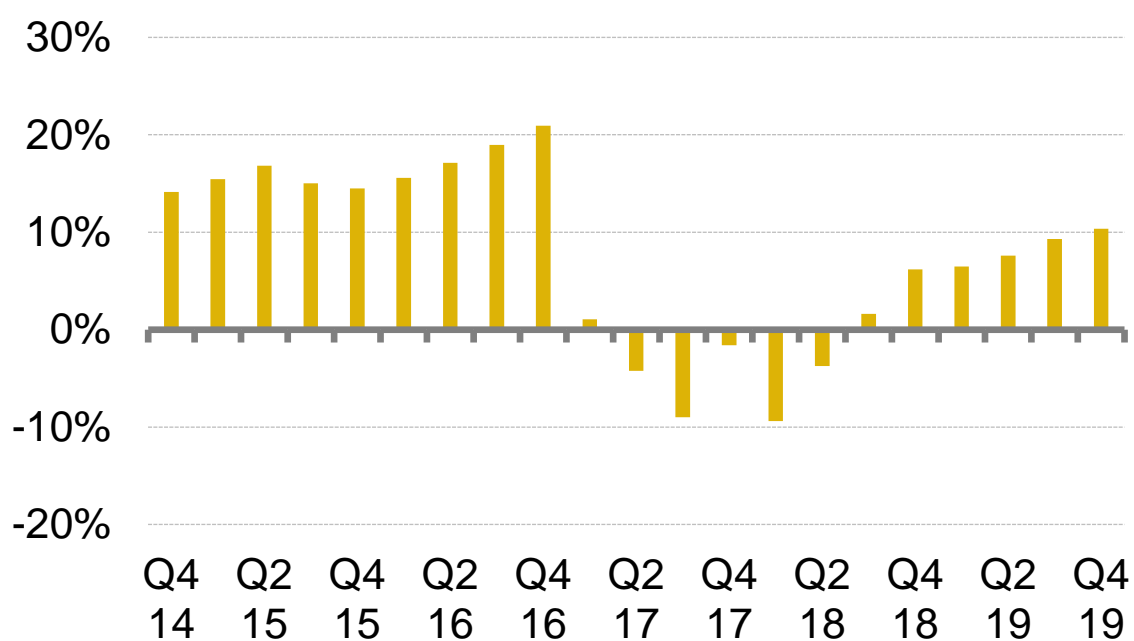




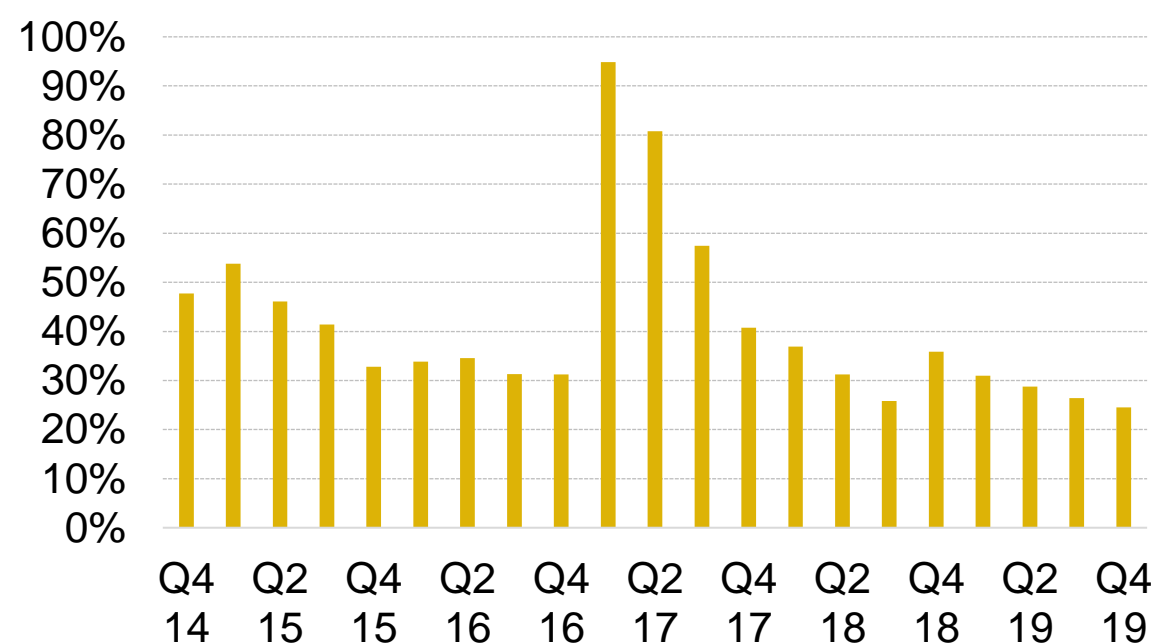
SOCIAL MEDIA– SEGMENT ANALYSIS

	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /					Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Gross Margin	
						Revenues (\$M)	EBITDA (\$M)	Revenues LTM	2020E	2021E	LTM	2020E					2021E
Facebook, Inc.	\$174.28	77.7%	\$496,777	(\$43,781)	\$452,996	\$70,697	\$29,727	6.4x	5.6x	4.6x	15.2x	11.3x	9.1x	NM	36.8%	42.0%	81.9%
Match Group, Inc.	69.21	72.6%	19,569	1,184	20,755	2,051	690	10.1x	8.9x	7.7x	30.1x	23.8x	19.4x	1.7x	22.4%	33.6%	74.5%
Twitter, Inc.	27.86	60.8%	21,755	(3,350)	18,404	3,459	716	5.3x	5.7x	4.4x	25.7x	20.6x	13.6x	NM	11.0%	20.7%	67.1%
Snap Inc.	13.22	66.9%	18,775	(876)	17,899	1,716	(916)	10.4x	8.3x	6.1x	NM	NM	49.9x	NM	61.9%	(53.4%)	47.8%
The Meet Group, Inc.	6.02	86.0%	429	14	442	212	30	2.1x	1.9x	1.6x	14.7x	9.1x	7.3x	0.4x	40.6%	14.2%	NA
Spark Networks SE	3.21	21.4%	83	(2)	82	101	5	0.7x	NA	NA	16.0x	NA	NA	NM	20.0%	5.1%	35.1%
Mean								5.8x	6.1x	4.9x	20.4x	16.2x	19.8x	1.0x	32.1%	10.4%	61.3%
Median								5.9x	5.7x	4.6x	16.0x	15.9x	13.6x	1.0x	29.6%	17.4%	67.1%

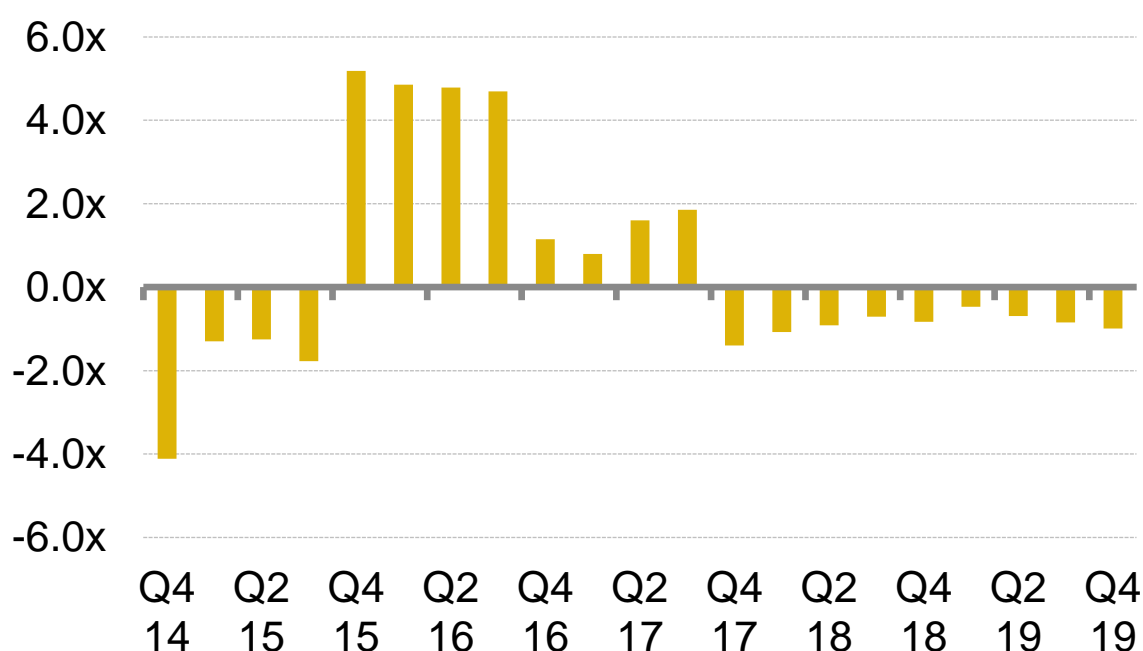
LTM EBITDA MARGIN



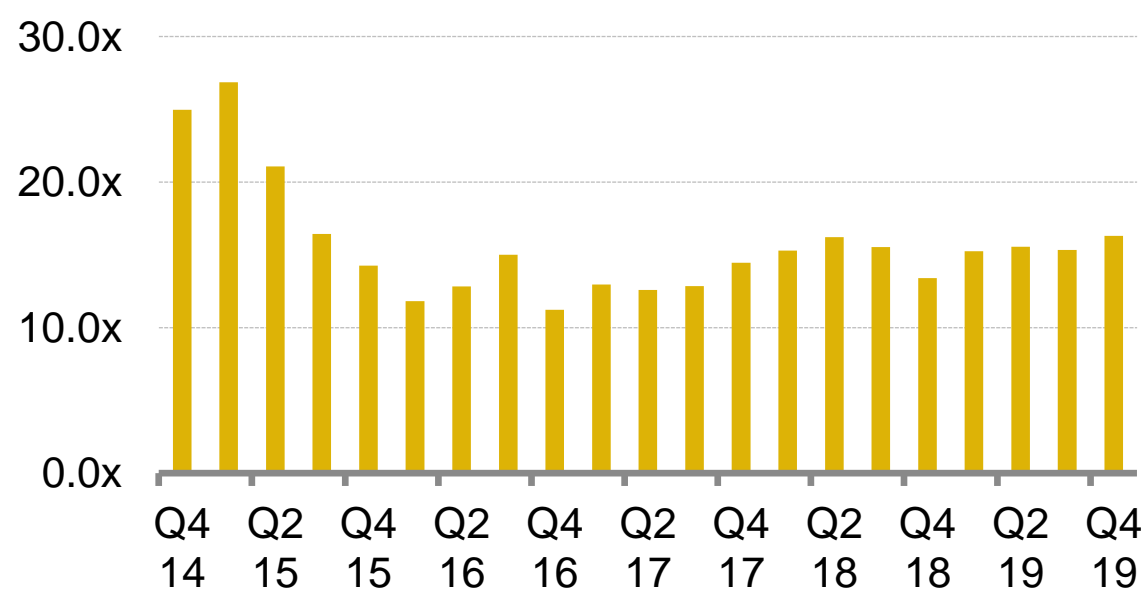
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



INTERNET AND DIGITAL MEDIA M&A ACTIVITY

Date	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV / EBITDA	CLASSIFICATION
3/30/2020	AlleyCorp Enterprises, LLC	Meetup, Inc.	NA	NA	NA	Social Media
3/26/2020	Lambert, Edwards & Associates, Inc.	Fairly Painless Advertising, Inc.	NA	NA	NA	Digital Agency
3/25/2020	OfferUp, Inc.	Ambatana Inc.	NA	NA	NA	eCommerce;
3/25/2020	Stadiumred, Inc.	Mediakix, LLC	NA	NA	NA	Digital Agency; Influencer Marketing
3/24/2020	Wookey Search Technologies Corporation	Sansar	NA	NA	NA	Digital Content; Virtual Reality (VR) Simulation
3/23/2020	Cognizant Technology Solutions Corporation	Levementum LLC	NA	NA	NA	Customer Experience; Engagement
3/23/2020	Facebank Group, Inc.	fuboTV Inc.	NA	NA	NA	Video; SVOD; Sports
3/23/2020	The New York Times Company	Listen in Audio, Inc.	NA	NA	NA	Audio; Text to Audio
3/20/2020	NA	All Assets of AOL MovieFone, Inc.	\$1.1	NA	NA	Digital Content;
3/19/2020	Defiance Ventures	The Refinery Haus	NA	NA	NA	Digital Agency
3/19/2020	TheMaven, Inc.	Petametrics, Inc.	NA	NA	NA	Machine Learning; Recommendations
3/17/2020	Madavor Media, LLC	Imaging Resource	NA	NA	NA	Digital Content; Product Reviews
3/17/2020	Fox Corporation	Tubi, Inc.	\$490.0	NA	NA	Video; AVOD
3/17/2020	VideoAmp, Inc.	Conversion Logic	NA	NA	NA	Attribution; Cross Channel; Optimization
3/17/2020	Growth Catalyst Partners	Government Executive Media Group LLC	NA	NA	NA	News; Government Agencies
3/16/2020	Uptime Systems, LLC	Inbound Interactive Inc.	NA	NA	NA	SEO; Marketing; Legal Vertical
3/16/2020	Some Spider Inc.	Fatherly	NA	NA	NA	Digital Content; Video; Podcasts; Parenting
3/15/2016	Yellow Pages Digital and Media Solutions Limited	Juice DMS Advertising Limited	\$26.2	1.4x	NA	Ad Tech; Mobile; Programmatic
3/12/2020	Billups, Inc.	MacDonald Media, LLC	NA	NA	NA	Digital Agency; OOH; Non Traditional Ad Spend
3/11/2020	Kantar	Mavens Limited	NA	NA	NA	Analytics; Digital Consultancy
3/11/2020	Havas SA	Cicero Consulting Limited	NA	NA	NA	Market research
3/10/2020	RBmedia	Graphic Audio, LLC	NA	NA	NA	Audio; Audiobooks
3/9/2020	Amplitude Analytics, Inc.	ClearBrain, Inc.	NA	NA	NA	Analytics; Predictive Analytics
3/9/2020	Seek Now	HouseLens, Inc.	NA	NA	NA	Marketing; Video; Real Estate Vertical
3/7/2020	Chargify	Keen Labs, Inc.	NA	NA	NA	Video; Event Streaming
3/6/2020	Pexeso, Inc.	Dubset Media Holdings	NA	NA	NA	Audio; Licensing
3/6/2020	NA	Grindr LLC	\$617.2	NA	NA	Social Media; Dating App
3/5/2020	Parship Group GmbH	The Meet Group, Inc.	\$505.5	2.4x	15.4x	Social Media
3/5/2020	Group M Worldwide Inc	Sandtable Limited	NA	NA	NA	Market research
3/4/2020	TechTarget, Inc.	All of the operating assets of Data Science Central LLC	\$7.5	NA	NA	Publishing; Data Analytics Vertical
3/3/2020	Wpromote, Inc.	Metric Digital LLC	NA	NA	NA	SEO; Email Mktg; Paid Social
3/3/2020	af&co., LLC	Ellipses Public Relations, Inc.	NA	NA	NA	IR/PR; Communications Agency
3/3/2020	Bracken Marketing LLC	The Brite Mind LLC	NA	NA	NA	SEO; PPC; Optimization
3/3/2020	Nowspeed, Inc.	Strand Marketing, Inc.	NA	NA	NA	Marketing; B2B
3/3/2020	Matter Communications, Inc.	Calypso Communications, LLC	NA	NA	NA	Digital Agency; IR/PR
3/2/2020	Haley Marketing Group, Inc.	Mamu Media, LLC	NA	NA	NA	Marketing; Web Design; SEM; Content Mktg
3/2/2020	Sapient Corp.	Third Horizon Consulting Pty Ltd	NA	NA	NA	Consulting; Digital Transformation
2/28/2020	Merge Design & Interactive, Inc.	Sandbox Group LLC	\$34.6	NA	NA	Digital Agency
2/27/2020	Constellation Web Solutions, Inc.	Enterprise Online, LLC	NA	NA	NA	Marketing
2/26/2020	InMoment, Inc.	MaritzCX LLC	NA	NA	NA	Market research; Software
2/26/2020	INVNT LLC	Folk Hero	NA	NA	NA	Brand Strategy;
2/25/2020	Gregory FCA Communications Inc.	KM Digital Relations	NA	NA	NA	Lead Gen; Digital Agency; Social
2/25/2020	Facebook Technologies, LLC	Sanzaru Games, Inc.	NA	NA	NA	Games; Virtual Reality (VR)
2/25/2020	salesforce.com, inc.	Vlocity, Inc.	NA	NA	NA	CRM
2/24/2020	NA	Browning Productions & Entertainment, Inc.	NA	NA	NA	Content Mgmt; Entertainment
2/21/2020	Valiant Eagle Inc.	Franchise X Entertainment LLC	NA	NA	NA	Talent mgmt; Music
2/21/2020	Wipro Digital	Rational Interaction Inc.	\$52.0	NA	NA	Customer Experience; Map Customer Journey
2/21/2020	Lyft, Inc.	Halo Cars, Inc.	NA	NA	NA	DOOH; Alternative Outdoor
2/20/2020	SKDKnickerbocker LLC	Sloane & Company LLC	\$26.0	NA	NA	IR/PR
2/20/2020	Ansira, Inc.	Digital Marketing Business of CDK Global, Inc.	NA	NA	NA	Customer Experience; SEO
2/19/2020	Endurance Music Group	Wide Open Music	NA	NA	NA	Publishing; Music
2/19/2020	Google LLC	Cornerstone Technology B.V.	NA	NA	NA	Cloud; App Migration
2/19/2020	Embracer Group AB (publ)	Saber Interactive, Inc.	\$568.8	5.4x	9.2x	Games; Online; Interactive
2/18/2020	Stadiumred, Inc.	Creative Riff, LLC	NA	NA	NA	Brand/reputation mgmt
2/18/2020	800-Flowers, Inc.	PersonalizationMall.com, LLC	\$252.0	1.7x	NA	eCommerce
2/18/2020	Twitter, Inc.	Chroma Labs, Inc.	NA	NA	NA	Content mgmt; Video Editing Tools
2/18/2020	Benchmark Internet Group, LLC	MarketVolt LLC	NA	NA	NA	Email; Marketing Services
2/14/2020	Touchstone Merchandise Group	Freestyle Marketing LLC	NA	NA	NA	Marketing
2/13/2020	Merkle Inc.	Water Cooler Group, LLC	NA	NA	NA	Media Services; Media Buying
2/13/2020	Merkle Inc.	Media Storm LLC	NA	NA	NA	Media Buying; Data Driven Marketing
2/12/2020	Capgemini Invent	Purpose Campaigns LLC	NA	NA	NA	Digital Agency; Social
2/12/2020	Green Street Advisors Inc.	Harrison Street Publications Inc.	NA	NA	NA	Publishing; B2B; Newsletters
2/11/2020	Synacor, Inc.	Qumu Corporation	\$25.3	1.0x	NA	CMS; Video Creation; Distribution

*Source: Capital IQ as of 03/31/2020

INTERNET AND DIGITAL MEDIA M&A ACTIVITY

Date	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
2/11/2020	Raffetto Herman Strategic	MIX Public Relations Inc.	NA	NA	NA	IR/PR
2/11/2020	Bond Brand Loyalty Inc.	rDialogue, LLC	NA	NA	NA	Loyalty; Marketing
2/11/2020	Brain Labs Digital LTD.	Hanapin Marketing LLC	NA	NA	NA	Digital Agency; PPC; Search
2/11/2020	CoStar Group, Inc.	Assets of RentPath, LLC	\$587.5	2.6x	12.5x	Classifieds
2/10/2020	TTEC Digital, LLC	Serendebite Inc.	\$12.9	NA	NA	BPO
2/10/2020	Quad/Graphics, Inc.	Apple 3 Group S.A. De C.V.	NA	NA	NA	In-Store; Marketing
2/10/2020	Digital Turbine Media, Inc.	Mobile Posse, Inc.	\$66.0	1.1x	5.2x	Content Mgmt
2/7/2020	Upland Software, Inc.	Char Software, Inc.	\$68.0	NA	NA	Analytics; Mobile; Measurement
2/6/2020	Digital Media Solutions, LLC	Leo Holdings Corp.	NA	NA	NA	Lead Gen
2/6/2020	LiveXLive Events, LLC	Disco Donnie Presents	NA	NA	NA	Digital Content; Events
2/6/2020	Comcast Corporation	Xumo, LLC	\$100.0	NA	NA	Video; AVOD
2/6/2020	Mobius Solutions, Ltd.	Axonite	NA	NA	NA	CDP; Real-Time Analytics
2/5/2020	Spotify Technology S.A.	The Ringer	\$196.0	9.8x	NA	Audio; Podcast; Sports
2/5/2020	Engage Software	SMB Creative Group	NA	NA	NA	SEO; Marketing
2/5/2020	Known Global LLC	Stun Creative/Blackbird	NA	NA	NA	Digital Agency; Brand Mgmt
2/5/2020	Comqi Inc.	John Ryan Company	NA	NA	NA	In-Store; Digital Signage; DOOH
2/4/2020	About, Inc.	Mother Nature Network/TreeHugger, Inc.	NA	NA	NA	Publishing; Environment Vertical
2/3/2020	Cards Against Humanity LLC	ClickHole	NA	NA	NA	Digital Content; Humor
2/3/2020	Qonverge, LLC	Borns B2B	NA	NA	NA	Marketing; B2B
2/3/2020	salesforce.com, inc.	Evergage, Inc.	NA	NA	NA	CDP; Customer Data Platform
2/3/2020	Ipsos SA	Mystery Shopping Business of MaritzCX LLC	NA	NA	NA	Market Research
2/3/2020	LexisNexis Risk Solutions Inc.	Emailage Corp.	NA	NA	NA	Identity; Email; Fraud Detection
2/3/2020	CAA Sports LLC	Kauffman Sports Management Inc.	NA	NA	NA	Talent Mgmt
1/31/2020	Bounteous	Cohesive Strategies, Inc.	NA	NA	NA	Digital Agency
1/31/2020	French/West/Vaughan, LLC	CGPR LLC	NA	NA	NA	IR/PR
1/31/2020	Facebook, Inc.	DeepTide Ltd	NA	NA	NA	Software; AI
1/31/2020	Multiplied Marketing Communications LLC	Multiplied LLC	NA	NA	NA	IR/PR
1/30/2020	Merkle Inc.	4Cite Marketing, LLC	NA	NA	NA	Identity; Data; Personalization
1/29/2020	HALO Branded Solutions, Inc.	Axis Promotions	NA	NA	NA	Merchandising
1/29/2020	GoDaddy Inc.	Over, Inc.	NA	NA	NA	Content mgmt
1/29/2020	Penn National Gaming, Inc.	Barstool Sports, Inc.	\$452.8	NA	NA	Publishing; Ecommerce
1/27/2020	Merkle Inc.	Digital Pi, Inc.	NA	NA	NA	Marketing; Automation; B2B
1/24/2020	SPORTORITY UK Ltd	Fansided, LLC	\$15.0	NA	NA	Publishing; Sports
1/24/2020	Aki Technologies	Assets of Eyeview Inc.	NA	NA	NA	Ad Tech; Personalization; Video
1/23/2020	gamigo AG	Substantially All Assets of Verve Wireless, Inc.	NA	NA	NA	Mobile; Location; Data
1/23/2020	Graphic Village, LLC	Intrinziq Inc.	NA	NA	NA	Brand/Reputation mgmt
1/22/2020	Tencent Cloud Europe B.V.	Funcom SE	\$137.8	5.2x	11.3x	Games
1/22/2020	Scopely, Inc.	FoxNext Games, LLC	NA	NA	NA	Games; VR/AR; Mobile
1/22/2020	Vectra Digital LLC	iPartnerMedia, Inc.	NA	NA	NA	SEO; Web Design
1/21/2020	Platinum Equity, LLC	Centerfield Media Holdings, LLC	NA	NA	NA	Marketing; SEM; RTB
1/21/2020	Stillfront Group AB (publ)	Storm8, Inc.	\$403.9	3.4x	6.6x	Games; Mobile; Social
1/20/2020	Everyman Media Works, LLC	Landtroop Strategies	NA	NA	NA	IR/PR
1/20/2020	Horse & Country TV Ltd.	EQ Sports Net	NA	NA	NA	Video; Streaming Video; Sports
1/17/2020	Ticker Tocker, LLC	Eff Creative Group, LLC	NA	NA	NA	Web; Creative Design
1/17/2020	Clarivate Analytics Plc	Decision Resources, Inc.	\$950.0	4.6x	20.0x	Data; Analytics; Health Care
1/17/2020	Fyllo Inc.	CannaRegs, Ltd.	\$10.0	NA	NA	Information
1/16/2020	CarGurus, Inc.	Auto List, Inc.	\$22.0	NA	NA	eCommerce; Auto Marketplace
1/15/2016	Next Glass, Inc.	Untappd, Inc.	NA	NA	NA	Mobile; Software
1/15/2020	Image Quest Multi Media Inc.	ANGLES PR	NA	NA	NA	IR/PR; Communications Agency
1/15/2020	X-Mode Social, Inc	Location Data Assets	\$0.6	NA	NA	Data; Mobile; Location
1/15/2020	Travelzoo	JFC Travel Group Co.	\$20.0	NA	NA	Ecommerce; Travel
1/14/2020	Spectrio, LLC	Ad-Comm International, Inc.	NA	NA	NA	Messaging; In-Store
1/14/2020	Hawke Media, LLC	Trident Growth Partners LLC	NA	NA	NA	SEO; SEM; Marketing
1/14/2020	LeadingResponse, LLC	LeadRival	NA	NA	NA	Lead Gen; Legal Vertical
1/14/2020	Perion Network Ltd.	Content IQ LLC	\$62.1	1.6x	10.3x	Ad Tech; Content Optimization
1/14/2020	Cardinal Path, LLC	E-Nor, Inc.	NA	NA	NA	Analytics; A/B Testing
1/14/2020	Lambert, Edwards & Associates, Inc.	Casteel Schoenborn	NA	NA	NA	IR/PR
1/14/2020	Google LLC	Appsheet	NA	NA	NA	Mobile; App Developer
1/13/2020	LexisNexis Risk Solutions Inc.	ID Analytics, LLC	\$375.0	NA	NA	Data; Analytics; Risk Solutions
1/13/2020	Google LLC	Pomo Search Limited	NA	NA	NA	NA
1/13/2020	W2O Group	21 Grams, Inc.	NA	NA	NA	Digital Agency; Healthcare

*Source: Capital IQ as of 03/31/2020

INTERNET AND DIGITAL MEDIA M&A ACTIVITY

Date	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
1/13/2020	Google LLC	Pomo Search Limited	NA	NA	NA	Merchandising; Local Inventory;
1/12/2020	NA	Jumei International Holding Limited	\$229.7	NA	NA	eCommerce
1/10/2020	Nielsen Holdings plc	Precima Inc.	NA	NA	NA	Merchandising; Loyalty; Analytics
1/10/2020	KWSM	Modi Marketing LLC	NA	NA	NA	Lead Gen; Marketing
1/9/2020	The Dun & Bradstreet Corporation	Orb Intelligence, Inc.	NA	NA	NA	Database; B2B; Identity
1/9/2020	CG Life	The Market Element LLC	NA	NA	NA	SEO; Content Marketing
1/8/2020	NA	Fitzgerald & Company Inc.	NA	NA	NA	Digital Agency;
1/8/2020	Fruition Growth LLC	Wandrblu Digital	NA	NA	NA	Digital Agency;
1/8/2020	Studio City	Pxl Agency	NA	NA	NA	Digital Agency
1/8/2020	Meredith Corporation	SwearBy Inc.	NA	NA	NA	Affinity;
1/8/2020	MediaMonks B.V.	Circus Marketing DF, S.A.P.I. de C.V	NA	NA	NA	Digital Agency;
1/7/2020	Michael Best Strategies LLC	Bottom Line Marketing & Public Relations, Inc.	NA	NA	NA	IR/PR
1/7/2020	Concord Music Group, Inc.	Pulse Recordings Inc.	NA	NA	NA	Talent mgmt; Music
1/7/2020	Red Star Outdoor, L.L.C.	Select assets of Total Outdoor Corp. in Chicago	NA	NA	NA	Outdoor; Billboards
1/6/2020	Tremor International Ltd	Unruly Group Limited	\$19.0	0.3x	NA	Ad Network; Video;
1/6/2020	Perficient, Inc.	All the Assets Of MedTouch LLC	NA	NA	NA	CEM; Digital Transformation;
1/6/2020	Brodeur Partners LLC	TechTHiNQ	NA	NA	NA	IR/PR
1/3/2020	Snap Inc.	AI Factory, Inc.	NA	NA	NA	Software; VR; Video editing
1/3/2020	GMLV, LLC	The Byne Group, Inc.	NA	NA	NA	Media Buying; Media Services
1/2/2020	Cadent, LLC	4INFO, Inc.	NA	NA	NA	Identity; Cross Device;

*Source: Capital IQ as of 03/31/2020



OUTLOOK - TRADITIONAL MEDIA

Overview

Bracing For The Worst

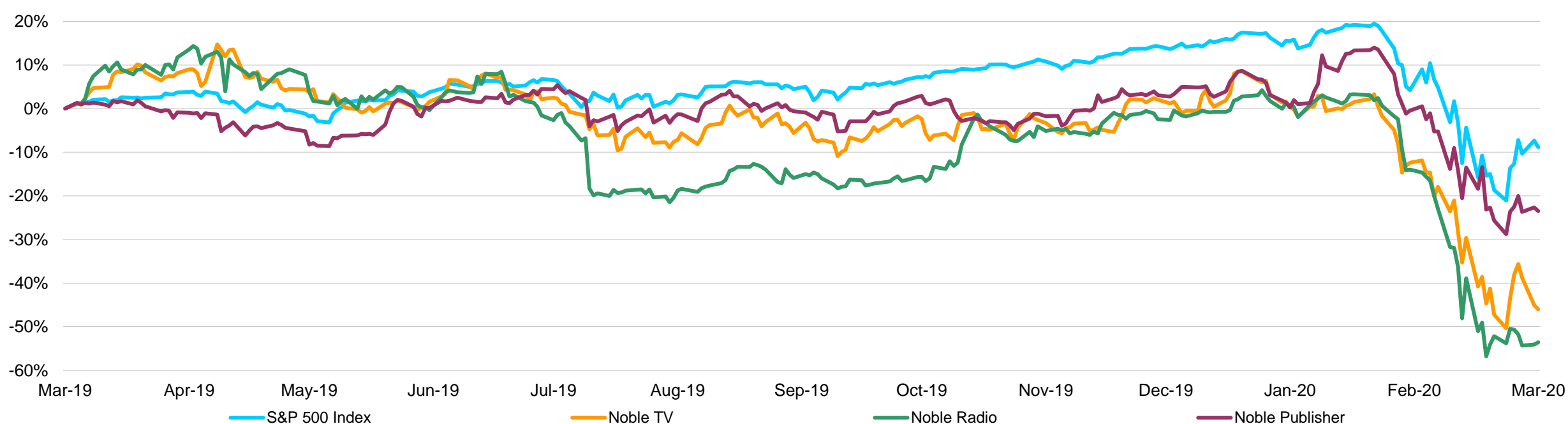
Favorable fourth quarter results, better than expected political advertising and a great start in the New Year provided a backdrop of strong advertising momentum and a very promising 2020. By the second week of March, that optimism turned to gloom as the coronavirus disrupted local and national advertising. What began as a trickle of cancellations and advertising campaign postponements, became a wave. Not all advertising categories were affected, but some large ones were, including travel, restaurants, legal services, local auto dealerships, to name a few. March is the most important month of the quarter for media companies. With the quarter off to a strong start and the impact of the falloff in advertising late in March, the "miss" in quarterly expectations likely will not be as bad as most investors fear. It is the second quarter guidance that likely will give investors pause.

Based on our estimates, it is likely that the advertising decline will be greater than that of previous recessions, including the 2008 financial crisis and the fallout from 9/11. In those periods, advertising declined in the range of 15% to 20%, with a varying duration of the advertising meltdown. In 2008, there was a protracted decline of several years of lackluster advertising. We expect that second quarter core television advertising could be down in the range of 32% to 36%, reflecting the disruption in the local economies as a result of "stay at home" State and Federal mandates/guidelines to combat the coronavirus, or COVID-19. Radio, which skews heavily toward local advertising (80% plus), could be down as much as 65%. Newspapers are expected to be down roughly 35% to 40%. The question is: How long will it take for advertising to recover? How quickly will the unprecedented unemployed get back to work? Given models for COVID-19 that stretch well into the fall 2020 and beyond, we believe that there will be a lingering economic fallout.

In the worst-case scenario of a protracted weak economy, we believe advertising will not rebound until the first quarter of 2022. In our best-case scenario, advertising would grow in the second quarter of 2021. Nonetheless, we believe that media investors should be prepared for a weak advertising picture for a protracted period of time. In addition, investors should be prepared that the large influx of political advertising, which will fall mostly in the fourth quarter 2020, may be disappointing as well. In our view, political advertising may be adversely affected as large donors rein in spending and/or races become less competitive.

Our best estimates anticipate core television advertising to decline in the range of 32% to 36% in the second quarter, down 25% to 30% in the third quarter, down 13% to 18% in the fourth quarter, and, finally, down 12% to 17% in the first quarter 2021. We believe that radio and newspaper advertising will decline more than television. This weak advertising outlook may be devastating to highly levered companies and it is certain that some will need to financially restructure and/or seek waivers from creditors.

As the chart below illustrates, the fallout from COVID-19 on the media stocks has been swift. Media stocks declined between 40% to 50% on average in the first quarter 2020. This, after a year of nice stock performance in 2019, with the average media stocks up in the range of 10% to 17%. The more debt levered companies performed more poorly in the first quarter, with some stocks down 50% to 70%. In our view, the weakness in this group reflects the prospect that some will not be able to service their debt given the profound advertising weakness. For some of those, there is further downside risk. As such, we urge caution to investors looking to bottom fish on the recent weakness, be opportunistic, and seek companies with significant financial flexibility to withstand the unprecedented deterioration in fundamentals.





OUTLOOK - TRADITIONAL MEDIA

TELEVISION BROADCASTING

What does increased viewership mean?

Under normal circumstances, the TV industry would be able to capitalize on an unprecedented spike in viewership. Television viewership is up 33% and even as high as 80%, in certain day parts for some television stations. The increased viewership is due to government guidelines/mandates for people to stay at home and their watching TV. Notably, the viewing is not just news, but across all programming. Typically, higher viewership would give broadcasters the leverage to seek increased advertising rates. But, not when there is low advertising demand.

As a result, advertising is significantly down despite increased viewership. Notably, core television advertising revenues are not expected to be down as much as other mediums. That is not saying much given that we expect television core advertising to be down as much as 32% to 36% in the second quarter, far greater than previous recessionary cycles when advertising was down 17% to 20%. At this point, we do not anticipate that there will be a quick recovery, as we expect that economic activity will not likely rebound for a few quarters at best. In our view, there will be societal behavior changes that may adversely affect parts of the economy, including travel, sporting, concert and other entertainment venues that host large gatherings. As mentioned earlier, we expect core television advertising to decline in the range of 32% to 36% in the second quarter, down 25% to 30% in the third quarter, down 13% to 18% in the fourth quarter, and, finally, down 12% to 17% in the first quarter 2021.

While core advertising is expected to be better than most mediums, television will benefit from the influx of political advertising, particularly in the fourth quarter, and from retransmission revenue. While many analysts, including myself, have raised political advertising expectations following the strong fourth quarter 2019 results, we believe that the recent events may cast some doubt on that prospect. Importantly for the industry, retransmission revenue has become a significant portion of total television revenue. In 2008, retransmission revenue was a mere 15% of total TV revenue. Now, retransmission revenue is over 50%. This growing revenue stream should provide a ballast to TV broadcast company's revenue and cash flow.

Television cash flow is expected to be significantly impacted by the dramatic falloff in revenues. We estimate that second quarter cash flow for the industry will be down roughly 45% to 50% in the second quarter, down 30% in the third quarter, and down 15% in the fourth quarter.

Television stocks declined 47% in the latest quarter, following a strong performance in 2019, up a solid 17%. The TV stocks were nearly uniformly down, which suggests that investors have not differentiated between the winners and the losers. We continue to like Gray Television and E.W. Scripps as our favorite plays in the industry. Most recently, Gray cancelled its interest in acquiring TEGNA. Given the current environment, this appears to be a good move. While E.W. Scripps has a significant amount of debt following recent acquisitions, we believe that the company has financial flexibility to manage through the crisis and has attractive assets it could sell to more aggressively pare down debt. Furthermore, the company is expected to benefit from a step up in retransmission revenue from Comcast subs and the recent negotiation of Retrans for roughly 42% of its subscriber base.

RADIO BROADCASTING

A serious issue

Like most advertising mediums, the first quarter radio advertising started out strong and faded quickly in March. The stay-at-home guidelines and mandates as a result of the strategy to combat the coronavirus pandemic significantly affected the radio industry. It is estimated that over half of radio listenership is in the car. Not surprisingly, advertisers postponed or cancelled advertising as stay-at-home policies were implemented. Furthermore, Radio is a very transactional business and was deeply affected by the closing of businesses.

Based on our estimates, we believe that second quarter radio advertising revenues are likely to be down a stunning 65%. We believe that some diversified companies with meaningful digital businesses or companies in smaller communities likely will perform better than that. The larger markets are where most of the economy is felt. Coincidentally, the larger markets were the most affected by the coronavirus.



OUTLOOK - TRADITIONAL MEDIA

RADIO BROADCASTING (Continued)

The recovery in radio depends upon how quickly people get back to work in offices and the economic stimulus policies take hold. We estimate that it will be a slow climb back. As such, we estimate that third quarter revenues will be down 35% and fourth quarter revenues down 25%.

Radio companies operate fairly lean. As such, the steep revenue decline will be significant to cash flow. As a result, there have been drastic measures to preserve cash flow by streamlining staff, corporate management wage reductions, postponement of dividends, cut back in planned capital expenditures, to name a few. These measures are necessary given that most in the industry have levered balance sheets, in the range of 4 to 6 times cash flow. We would expect that companies will draw upon their revolvers to have cash to fund its business as it navigates through the crisis. But, it is likely, given our revenue forecast, that debt covenants for some will be tripped. In our view, some of the radio companies will not survive without a financial restructuring. At this point, the industry is looking at ways that it may receive support from the US Government and Small Business Administration to ride through the crisis.

Not surprising, the radio stocks have been some of the hardest hit, down roughly 50% within the past quarter. Some stocks, like highly leveraged Cumulus Media (view most recent report) and Entercom are down near 70%. Given the uncertainty over the duration of the stay at home orders and the timing of a reboot to the economy, we encourage investors to seek radio companies that are diversified into areas not as adversely affected by the weakness, such as digital businesses. In addition, we prefer companies that are in smaller markets, which do not appear to be as affected by the economic downturn. Our current favorite play in the industry is Townsquare Media (TSQ).

PUBLISHING

Cost cutting is second nature

The newspaper industry already faced secular challenges to its business. As such, managements have been accustomed to cutting costs and managing cash flow. But, that action was staying ahead of the curve. In this case, it would be hard for management to react that quickly to the complete advertising meltdown that happened the last weeks in March. We believe that newspapers will fare better than radio, however, given that audiences have gravitated to news sources following the latest measures to combat the coronavirus. In fact, managements have indicated that traffic to its websites have increased 1 1/2 to 2 1/2 times the normal levels.

We estimate that publishing advertising will be down roughly 35% to 40%, but digital publishing advertising will decline a more modest 15% to 20%. We estimate that publishing advertising will be down 30% to 40% in the third quarter and digital advertising to be down a more modest 10% to 12%. In the fourth quarter, we anticipate advertising to be down 25% to 30% with digital advertising to be down 5% to 10%.

The industry has taken a significant amount of fixed costs out of the business. But, this level of advertising decrease will make it hard to preserve cash flow. It is not surprising that there has been internal communications at publishing companies of significant cost reductions, including management salary reductions, staff reductions, capital spending postponement and the like. We believe that debt heavy companies, like Gannett, may need to financially restructure. Notably, McClatchy (view most recent report) filed for voluntary Chapter 11 in the last quarter, before the devastating impact of the coronavirus was realized.

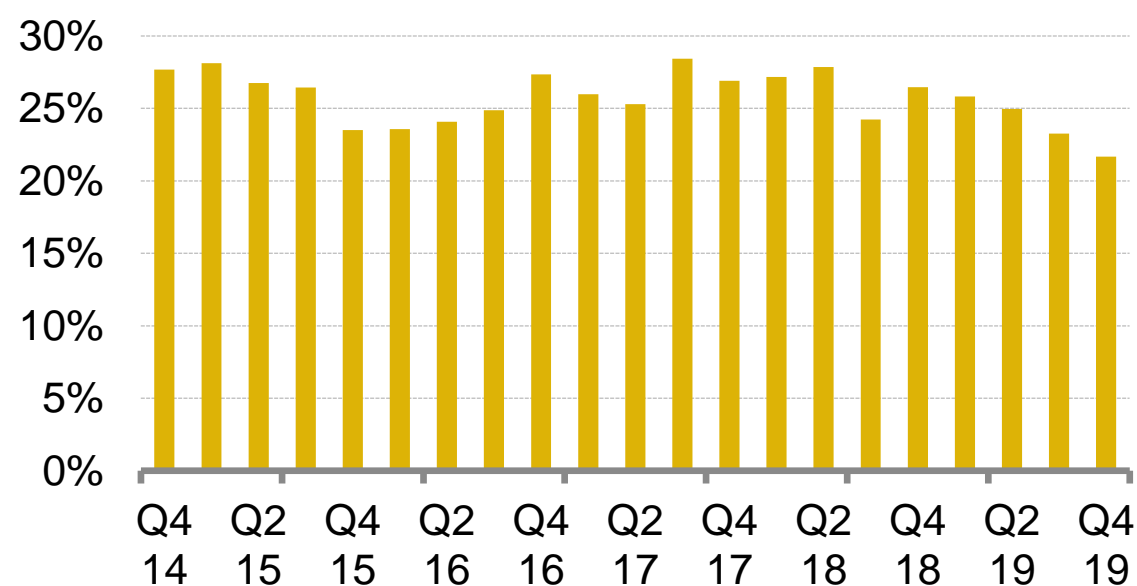
The Publishing stocks actually performed better than most media companies, down 37% in the quarter. The shares of Gannett, GCI, declined 77% in the quarter, as investors raised concern over the company's debt leverage following the merger with New Media. In looking at this sector, we favor Tribune Publishing (view most recent report). In our view, the company has the balance sheet to ride through the storm, with a large cash position and virtually no debt.

TV – SEGMENT ANALYSIS

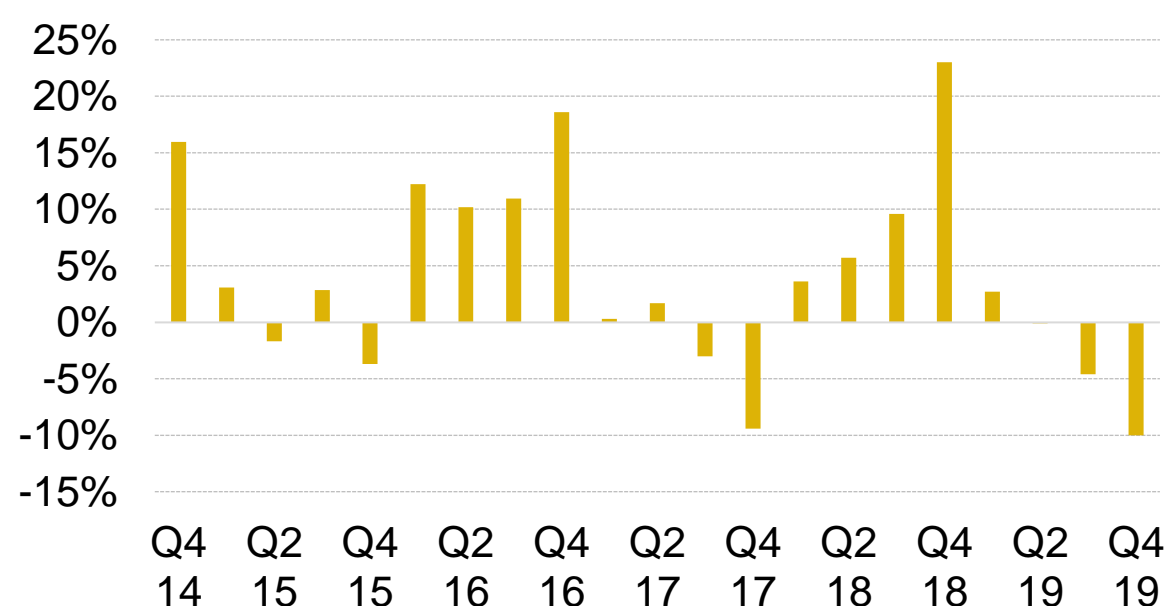
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Dividend Yield			
						Revenues (\$M)	EBITDA (\$M)	Revenues LTM	Revenues 2020E	Revenues 2021E					EBITDA LTM	EBITDA 2020E	EBITDA 2021E
ViacomCBS Inc.	\$15.80	29.4%	\$9,714	\$20,288	\$30,514	\$27,812	\$4,837	1.1x	1.1x	1.0x	6.3x	6.1x	5.4x	4.2x	28.3%	17.4%	6.1%
Fox Corporation	26.30	66.2%	15,960	5,333	21,402	11,710	2,592	1.8x	1.7x	1.7x	8.3x	8.2x	7.1x	2.0x	8.6%	22.1%	1.7%
Sinclair Broadcast Group, Inc.	15.62	23.5%	1,430	11,360	14,060	4,240	864	3.3x	2.0x	2.0x	16.3x	7.2x	7.9x	12.5x	17.4%	20.4%	5.1%
Nexstar Media Group, Inc.	64.50	48.4%	2,958	8,497	11,477	3,039	1,016	3.8x	2.5x	2.6x	11.3x	6.1x	6.9x	8.1x	40.2%	33.4%	3.5%
TEGNA Inc.	11.70	63.9%	2,555	4,267	6,822	2,299	704	3.0x	2.4x	2.4x	9.7x	7.2x	8.3x	5.9x	4.7%	30.6%	2.4%
Gray Television, Inc.	11.56	45.7%	1,153	3,538	5,343	2,122	698	2.5x	2.3x	2.4x	7.7x	6.2x	7.2x	5.0x	37.7%	32.9%	NA
The E.W. Scripps Company	7.53	32.4%	612	2,022	2,634	1,424	174	1.9x	1.3x	1.4x	15.2x	7.2x	11.6x	10.6x	17.6%	12.2%	2.7%
Entertainment Communications Corporation	1.53	43.7%	129	142	271	274	42	1.0x	0.9x	NA	6.5x	5.2x	NA	2.6x	1.9%	15.3%	13.1%

Mean	2.3x	1.8x	1.9x	10.1x	6.7x	7.8x	6.4x	19.6%	23.0%	4.9%
Median	2.2x	1.9x	2.0x	9.0x	6.7x	7.2x	5.5x	17.5%	21.3%	3.5%

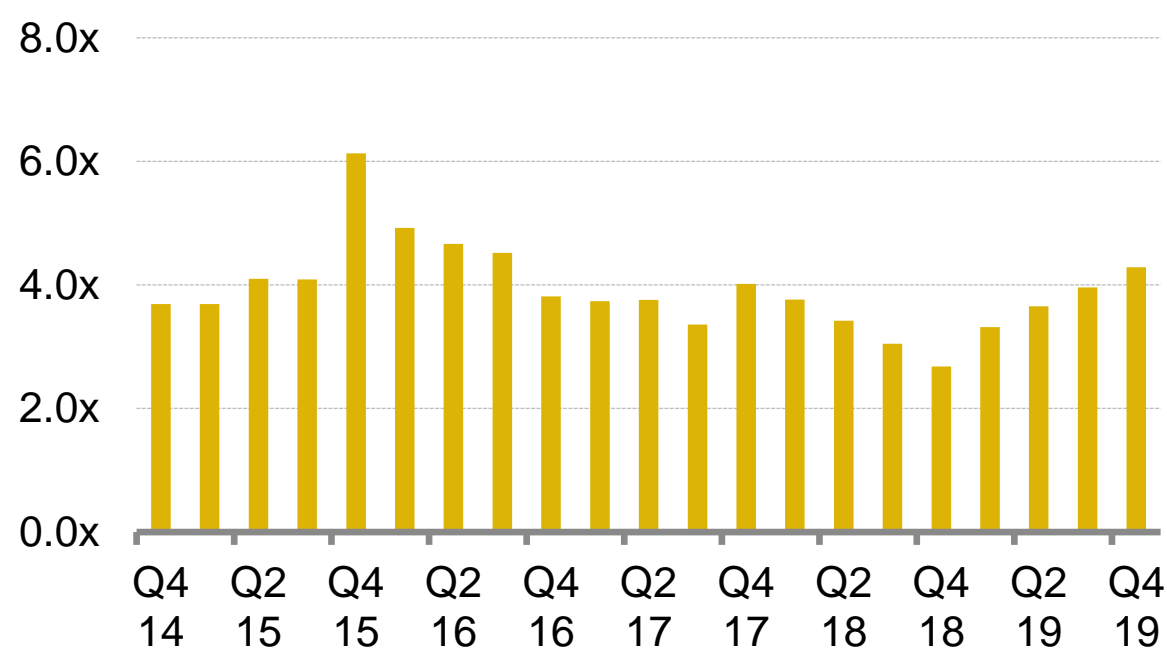
LTM EBITDA MARGIN



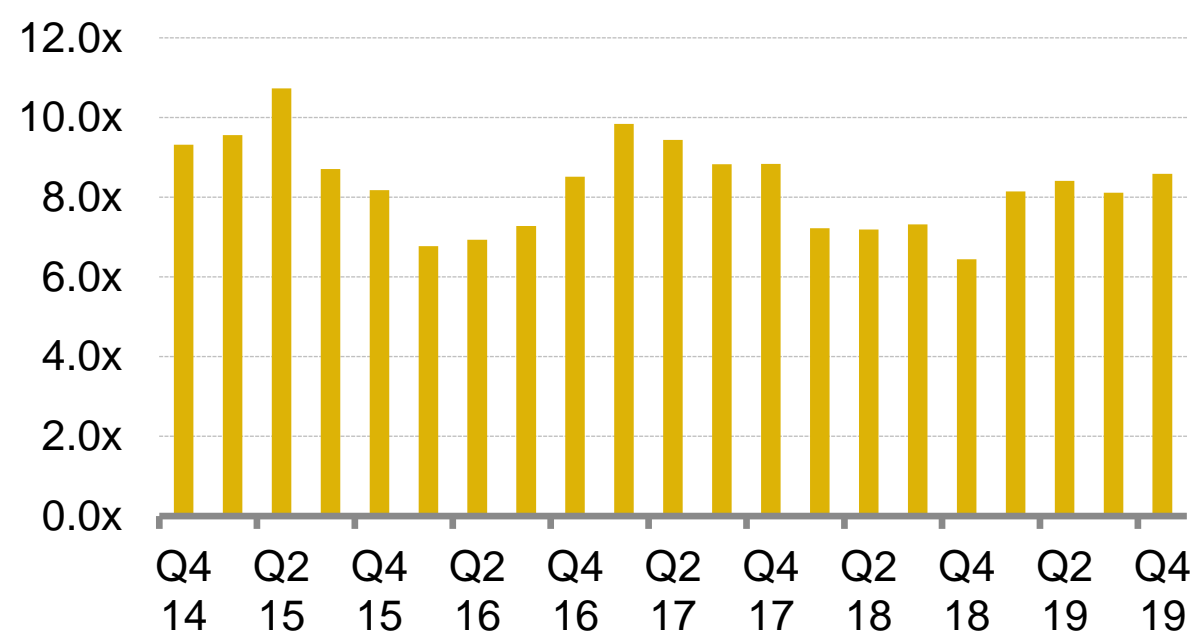
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



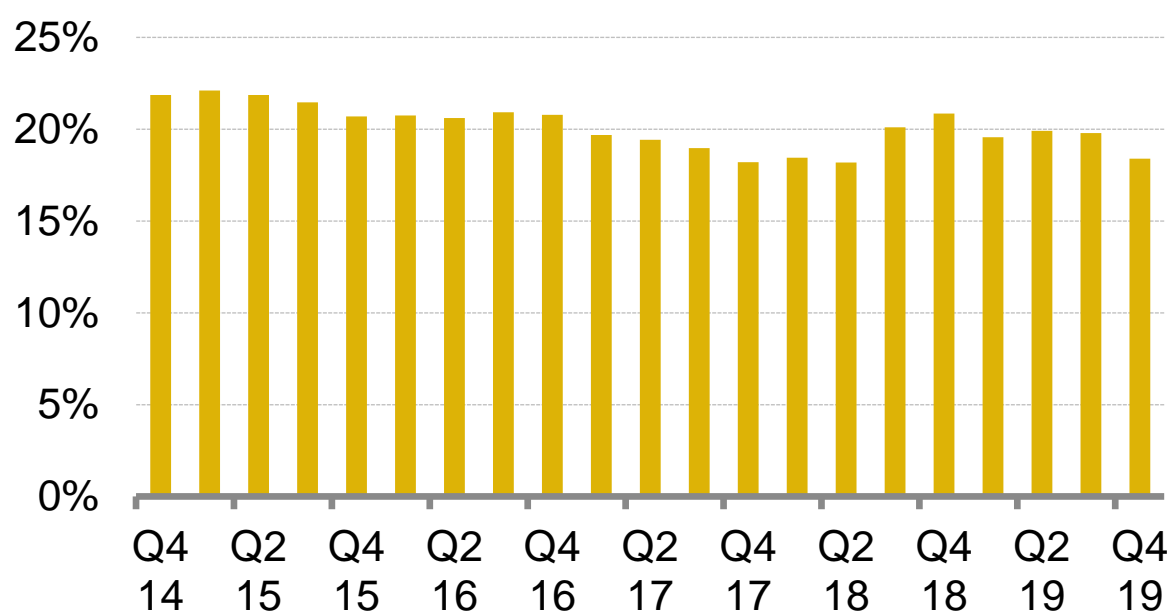


RADIO – SEGMENT ANALYSIS

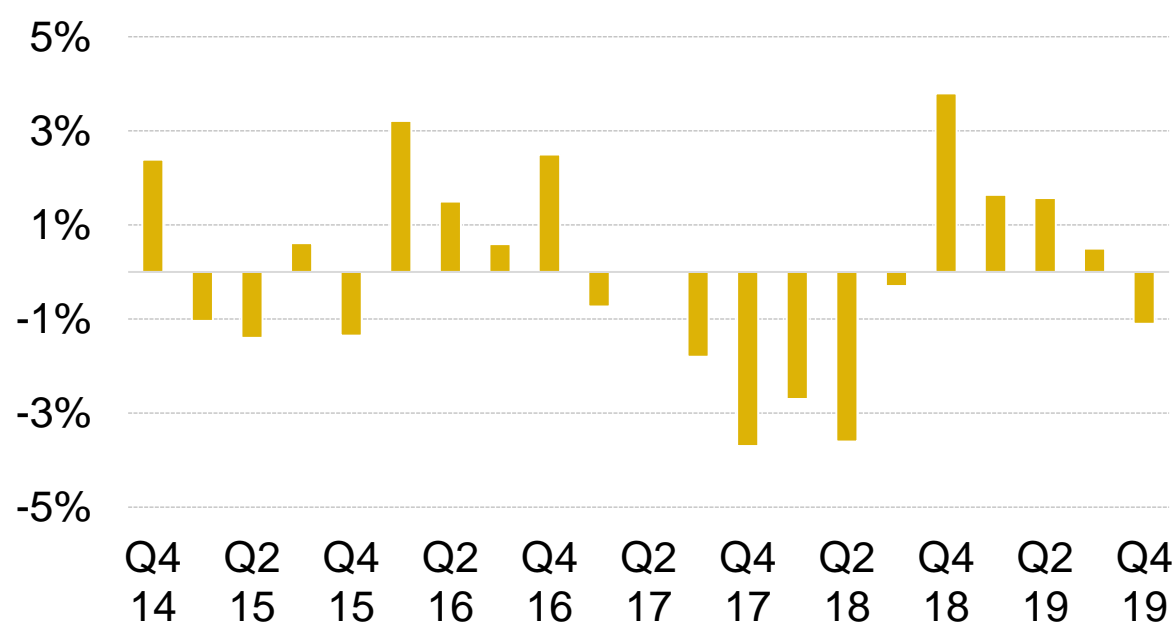
	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			Net Debt / EBITDA	3 Year Revenue CAGR	EBITDA Margin	Dividend Yield			
						Revenues (\$M)	EBITDA (\$M)	Revenues LTM	Revenues 2020E	Revenues 2021E					EBITDA LTM	EBITDA 2020E	EBITDA 2021E
iHeartMedia, Inc.	\$6.53	33.2%	\$951	\$6,296	\$6,316	\$3,684	\$905	1.7x	1.7x	1.7x	7.0x	6.7x	6.4x	5.8x	(16.2%)	24.6%	NA
Entercom Communications Corp.	0.80	11.2%	108	1,982	2,089	1,490	313	1.4x	1.5x	1.4x	6.7x	7.2x	7.0x	5.3x	47.4%	21.0%	10.0%
Cumulus Media Inc.	3.95	20.6%	70	1,143	1,206	1,113	203	1.1x	1.2x	1.2x	5.9x	8.1x	8.1x	4.7x	(0.8%)	18.3%	NA
Urban One, Inc.	0.76	33.7%	34	900	944	437	118	2.2x	NA	NA	8.0x	NA	NA	7.6x	(1.4%)	27.0%	NA
Townsquare Media, Inc.	4.20	40.6%	80	530	612	451	102	1.4x	1.4x	1.3x	6.0x	6.1x	6.0x	4.8x	(0.8%)	22.6%	7.1%
Beasley Broadcast Group, Inc.	1.82	43.9%	51	280	331	262	40	1.3x	1.2x	1.2x	8.3x	6.6x	6.6x	5.6x	24.2%	15.2%	11.0%
Salem Media Group, Inc.	0.80	32.1%	21	292	313	254	33	1.2x	1.2x	NA	9.5x	NA	NA	6.0x	(2.5%)	12.9%	12.5%
Saga Communications, Inc.	29.23	83.8%	175	(27)	148	123	26	1.2x	NA	NA	5.8x	NA	NA	NM	1.1%	20.9%	4.4%
Emmis Communications Corporation	1.92	28.4%	25	(38)	(33)	113	10	NM	NA	NA	NM	NA	NA	NM	(21.0%)	9.2%	NA

Mean	1.4x	1.4x	1.4x	7.2x	7.0x	6.8x	5.7x	3.3%	19.1%	9.0%
Median	1.3x	1.3x	1.3x	6.8x	6.7x	6.6x	5.6x	(0.8%)	20.9%	10.0%

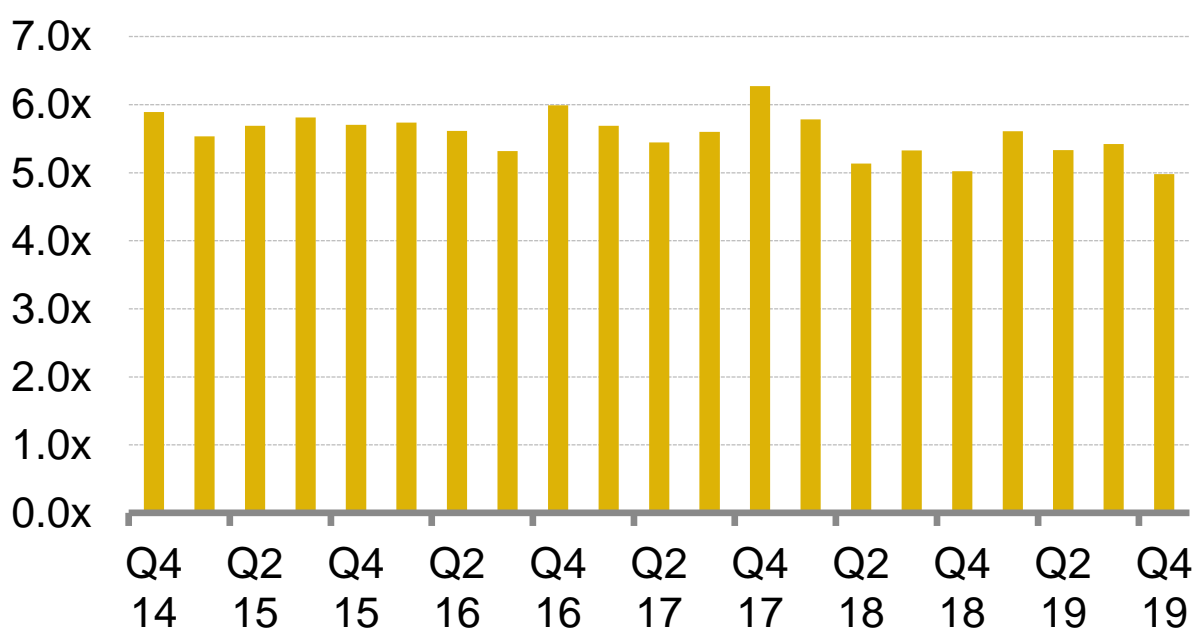
LTM EBITDA MARGIN



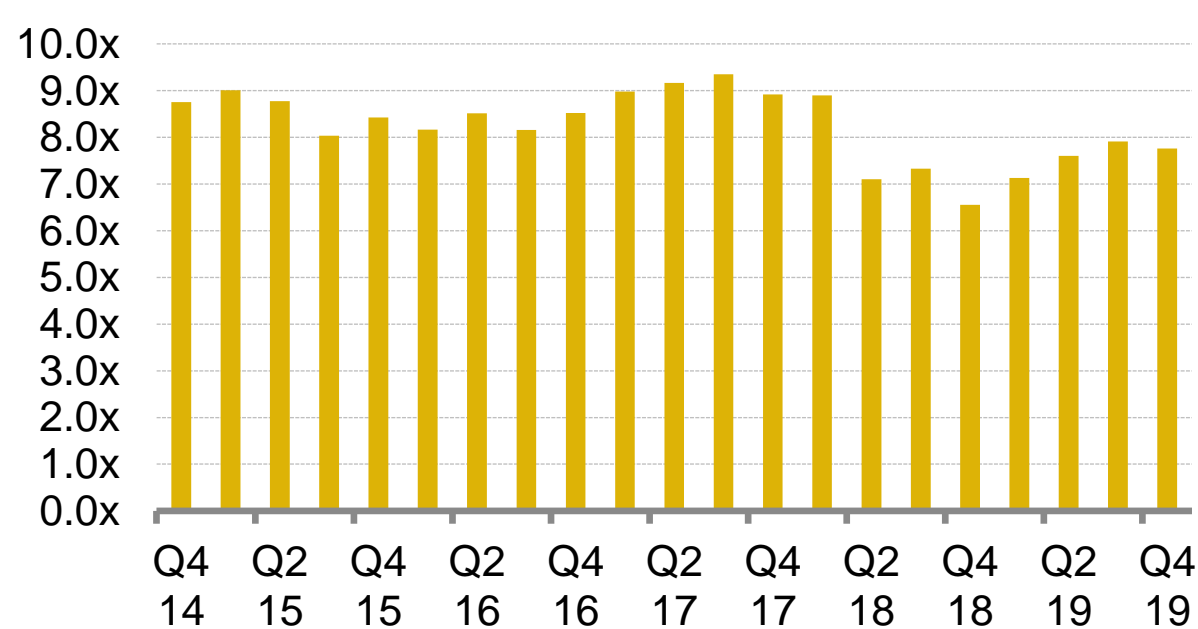
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA

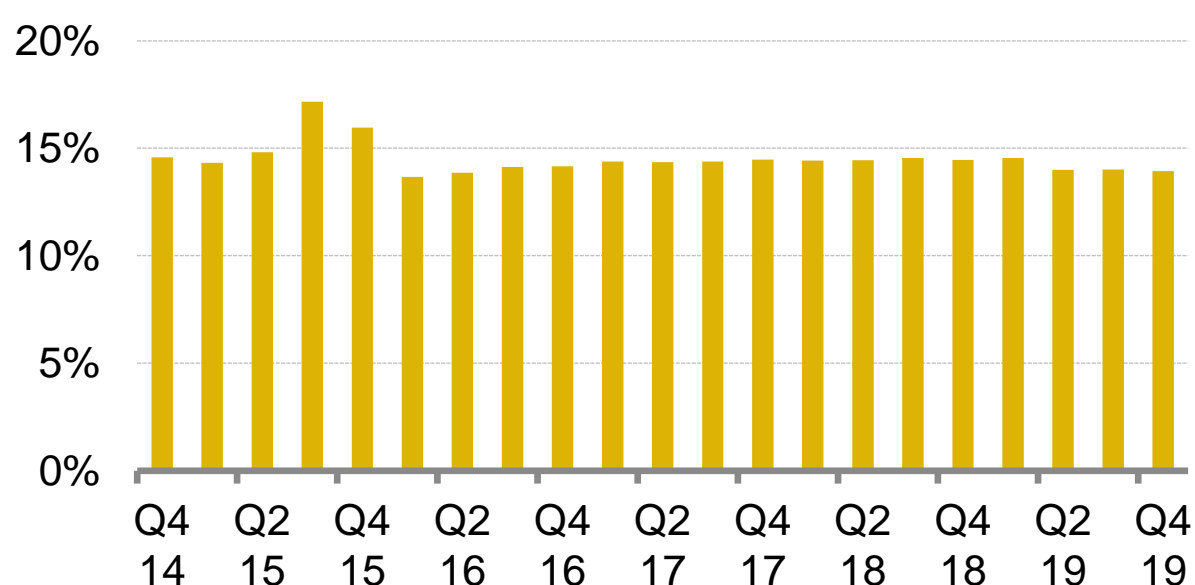




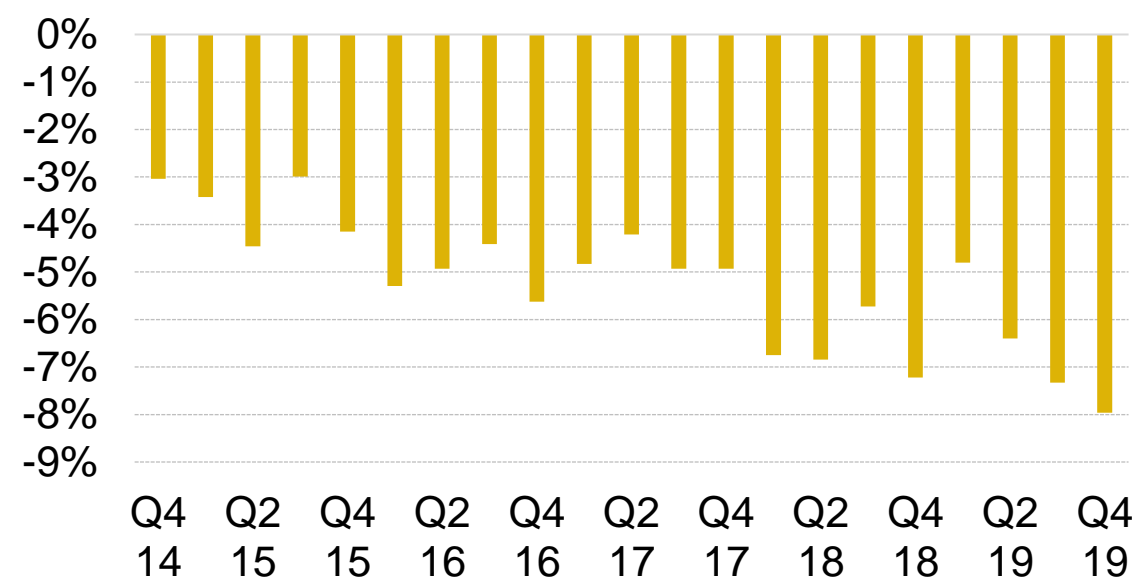
PUBLISHING – SEGMENT ANALYSIS

	Share Price	% of 52 Week High	Market Cap (\$M)	Net Debt (\$M)	Ent. Value (\$M)	LTM		Ent. Value /			Net Debt /			3 Year Revenue CAGR	EBITDA Margin	Dividend Yield	
						Revenues (\$M)	EBITDA (\$M)	Revenues	EBITDA		EBITDA	EBITDA					
								LTM	2020E	2021E	LTM	2020E	2021E				
News Corporation	\$8.95	59.4%	\$5,268	\$1,488	\$7,963	\$9,742	\$883	0.8x	0.9x	0.9x	9.0x	7.3x	6.5x	1.5x	6.7%	9.1%	2.2%
The New York Times Company	31.94	79.4%	5,315	(369)	4,947	1,780	218	2.8x	2.6x	2.5x	22.7x	22.4x	18.4x	NM	5.0%	12.2%	0.6%
Gannett Co., Inc.	0.74	6.5%	84	1,825	1,910	1,868	183	1.0x	0.5x	0.5x	10.5x	4.0x	3.9x	8.1x	14.2%	9.8%	NA
Lee Enterprises, Incorporated	0.88	27.2%	51	429	481	496	106	1.0x	NA	NA	4.5x	NA	NA	4.0x	(6.0%)	21.5%	NA
Tribune Publishing Company	8.02	57.9%	292	70	426	983	78	0.4x	0.5x	0.4x	5.5x	4.2x	3.6x	0.6x	(2.6%)	7.9%	12.5%
A.H. Belo Corporation	1.34	32.8%	29	(27)	2	195	4	0.0x	NA	NA	0.5x	NA	NA	NM	(9.4%)	2.3%	23.9%
Mean								1.0x	1.1x	1.1x	8.8x	9.5x	8.1x	3.6x	1.3%	10.5%	9.8%
Median								0.9x	0.7x	0.7x	7.2x	5.7x	5.2x	2.7x	1.2%	9.4%	7.4%

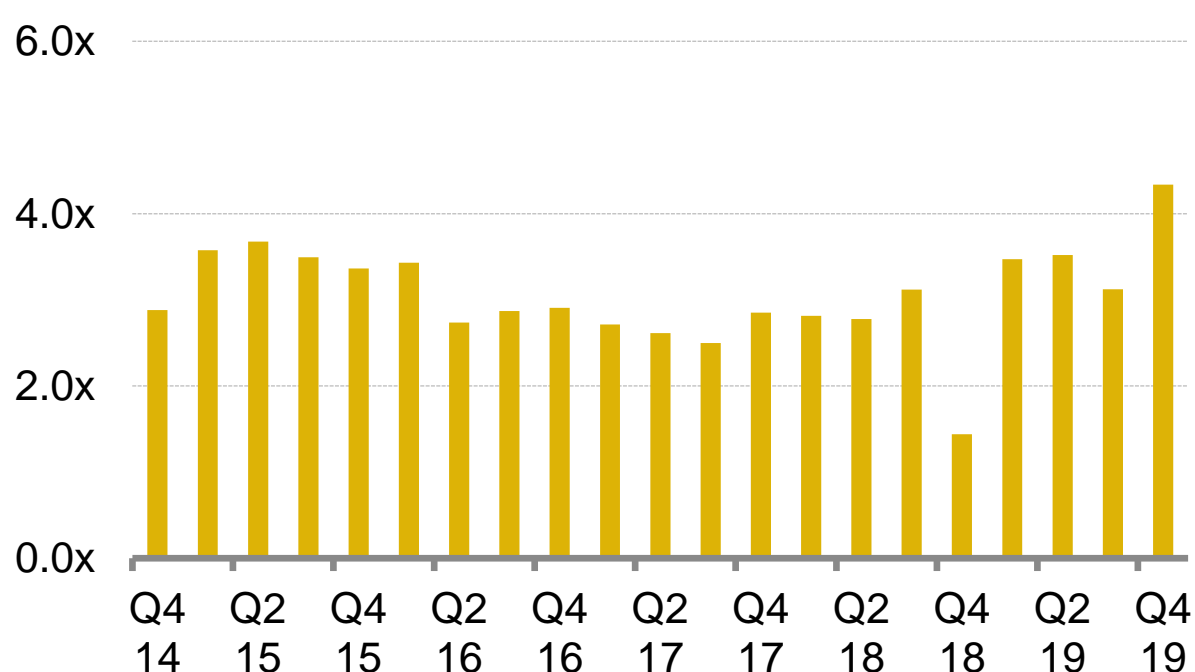
LTM EBITDA MARGIN



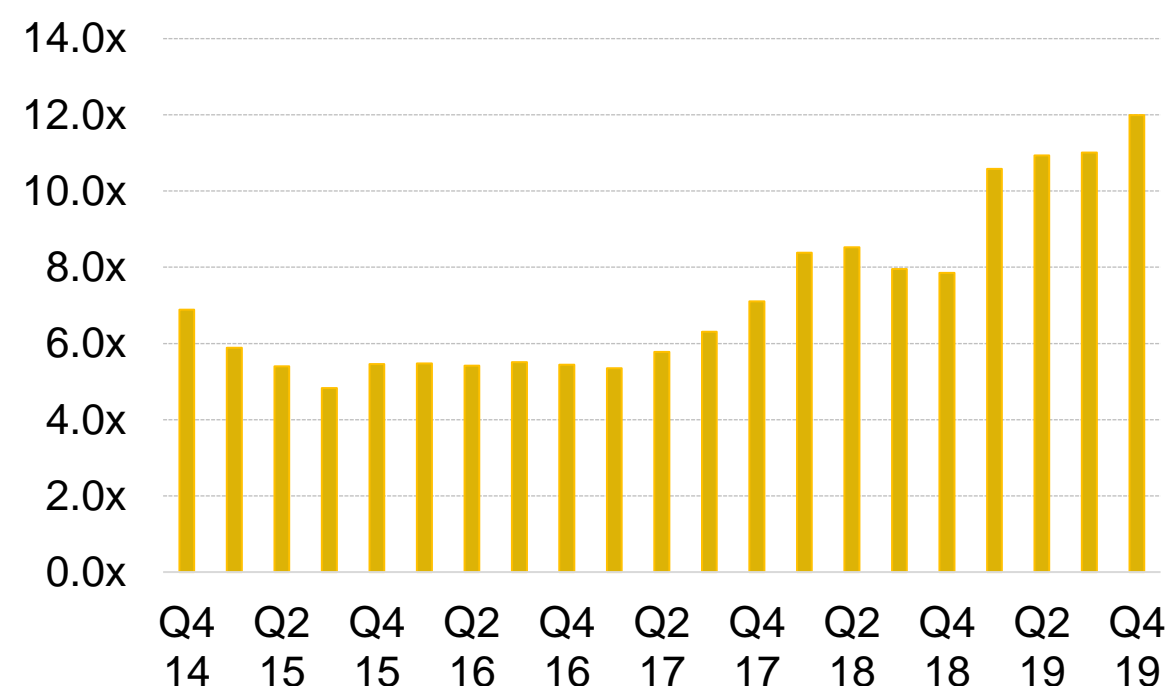
REVENUE GROWTH



NET DEBT / LTM EBITDA



EV / EBITDA



TRADITIONAL MEDIA M&A ACTIVITY

Date	BUYER	TARGET	TRANSACTION VALUE (\$M)	EV / REVENUE	EV/ EBITDA	CLASSIFICATION
3/30/2020	City Lead Developments Limited	Clear Media Limited	\$793.7	3.9x	6.7x	Lower Power TV Station
3/31/2020	Charlesbank Capital Partners, LLC	News America Marketing, Inc.	\$235.0	NA	NA	Radio Stations
3/20/2020	Village Media Inc.	Laurentian Publishing Limited	NA	NA	NA	Magazine
3/19/2020	RBmedia	Potomac Talking Book Services, Inc.	NA	NA	NA	Cable Network
3/19/2020	iHeartMedia, Inc.	KFMB-AM from Local Media San Diego, LLC	NA	NA	NA	Movie Theaters
3/17/2020	Comcast/NBC	KGMC-TV in Clovis, CA from Cocola Broadcasting & swap of KNSO-TV	\$4.5	NA	NA	TV Production
3/11/2020	HQ Global Education Inc.	1oneninety5, LLC	NA	NA	NA	TV Stations
3/11/2020	Hop Culture, LLC	The Hop Review, LLC	NA	NA	NA	Magazine
3/3/2020	Boyd's Mills & Kane	Michael Neugebauer Publishing Ltd	NA	NA	NA	Newspaper (UK)
3/2/2020	NA	Seattle Magazine	NA	NA	NA	TV Stations
2/29/2020	Paxton Media Group, LLC	The Madison Courier, Inc.	NA	NA	NA	TV Station
2/25/2020	Searchlight Capital Partners, L.P.	Univision Holdings, Inc.	NA	NA	NA	Magazine
2/24/2020	Prairie Mountain Publishing, LLP	Greeley Tribune	NA	NA	NA	Cable Network
2/18/2020	Educational Media Foundation	WAAF-FM 107.3	\$10.8	NA	NA	TV Production
2/14/2020	Pinnacle Marketing Group Inc.	Hanson Directory Service, Inc.	NA	NA	NA	Trade Publications; Trade Events
2/13/2020	InfoPro Digital Group B.V.	Haynes Publishing Group P.L.C.	\$102.6	2.8x	18.7x	TV Stations
2/10/2020	Cox Enterprises, Inc.	theDayton Daily News, theSpringfield News-Sun and theJournalNews	NA	NA	NA	TV Stations
2/5/2020	MediaNews Group, Inc.	Assets of Red Wing Publishing Company	NA	NA	NA	Radio Stations
2/4/2020	Sun Broadcast Group, Inc.	Envision Radio Networks, Inc.	NA	NA	NA	TV Stations
2/3/2020	Pacific Community Media, LLC	South Coast Publishing, Inc.	NA	NA	NA	TV Production
1/29/2020	TEGNA Inc.	KBTU-TV in Houston from Spanish Broadcasting System	\$15.0	NA	NA	TV Station
1/31/2020	Networld Media Group LLC	Vending Times Inc.	NA	NA	NA	TV Stations
1/31/2020	WNET	WPPB-FM	NA	NA	NA	Direct Mail
1/29/2020	Sony/ATV Music Publishing, LLC	THiS Music, LLC	NA	NA	NA	Book Publishing
1/29/2020	Lee Enterprises, Incorporated	The Buffalo News, Inc.\Certain Assets of BH Media Newspaper Business	\$140.0	0.4x	3.0x	TV Stations
1/27/2020	ION Media Networks, Inc.	Cranston II LLC	\$4.0	NA	NA	
1/10/2020	Do It Outdoors Media LLC	Street Blimps, Inc.	NA	NA	NA	
1/8/2020	Town Square Publications, LLC	MetroMedia, Inc.	NA	NA	NA	
1/7/2020	NA	Southeast Asian and Korean media network businesses of Sony Pictures Television, Inc.	NA	NA	NA	
1/7/2020	Sourcebooks LLC	Dawn Publications	NA	NA	NA	
1/7/2020	The Experiment, LLC	Appletree Press Inc.	NA	NA	NA	
1/6/2020	Media Central Corporation Inc.	Vancouver Free Press Publishing Corporation	\$1.4	NA	NA	
1/2/2020	Media Classified Corporation	City Parent	NA	NA	NA	
1/2/2020	Mango Media Inc.	Yellow Pear Press	NA	NA	NA	

*Source: Capital IQ though 12/31/2019

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

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.

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

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


THE MCCLATCHY COMPANY
Since 1857
(MNI)

Valuation Services


ASC 350 Analysis


April 2020


CUMULUS
(CMLS)

Valuation Services


ASC 350 Analysis


March 2020


collabra
TECHNOLOGY
(PRIVATE)

Convertible Notes

Private Placement -
Placement Agent


November 2019


MODERN
MEDIA
Acquisition
corporation


akazoo

PIPE acquisition financing for Akazoo
(SONG)

\$55,000,000


Co-Placement Agent



September 2019


SOCIAL REALITY
(SRAX)

Valuation Services


ASC 350 Analysis


May 2019


SeaChange®
(SEAC)

Valuation Services

ASC 350 Analysis


April 2019


SOCIAL REALITY
(SRAX)

M&A Advisory

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


August 2018


b BEASLEY
MEDIA GROUP, LLC
(BBGI)

\$23,500,000

Secondary Offering
Co-manager


July 2018

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

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.

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

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 – (917) 970-8850

- 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

Mark Suarez, Managing Director

msuarez@noblecapitalmarkets.com – (917) 810-5378

- Joined Noble as a Managing Director in 2017
- Over 12 years of investment banking and equity research experience
- Prior experience holding senior positions at McQuilling Partners and Euro Pacific Capital
- B.Com McGill University with concentrations in Economics and Finance; M.S. in Economics University of Toronto
- Holds a CFA and 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

Stephen McGee, Investment Banking Analyst

smcgee@noblecapitalmarkets.com – (561) 994-5726

- Joined Noble in 2019 and assists the TMT, Natural Resources and Transportation & Logistics bankers
- Previously spent 6+ years in the MILB for various affiliated teams
- B.S. Hospitality Management FSU
- Level II CFA candidate 2020

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

RESEARCH – MEDIA & ENTERTAINMENT

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Chief Compliance Officer
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