

### Ad Market: Updating 2018 Forecast To +4.8% Underlying Growth

May 17, 2018

**BOTTOM LINE:** We are refining expectations for US advertising growth. We now call for +4.8% underlying expansion this year following on +4.5% growth in 2017. Key trends and our forecast model follows.

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2017 was a stronger year than initially expected, and now having reviewed 1Q18 results, by all current indications 2018 is looking like it is growing faster than previously expected as well. Although rising levels of inflation are a factor, healthy personal consumption expenditures are evidently the main factor (as it is the single economic variable we have found most tightly correlated to advertising growth), rising this year at the fastest pace since the period preceding the global financial crisis. Similarly, Industrial Production (from our work on the topic the second most important economic variable correlated with advertising growth) is also pacing up significantly during 2018 closer to levels observed earlier in the decade. The relationship between the two factors and advertising are simple: one reflects consumers buying goods and the other reflects manufacturers producing goods, both of which coincide with advertising expenditures.

The advertising economy sees an additional tailwind in the form of spending on advertising from Chinabased marketers (those physically in China rather than US subsidiaries of global marketers with headquarters in China) on digital platforms, including Facebook and Google. Much of this spending is not captured in growth rates described here, as underlying sources for domestic digital advertising only capture revenue generated by advertisers whose billing addresses are in the United States. In a recent note we estimated with some degree of certainty that Chinese advertisers will spend ~\$5bn on Facebook this year in markets outside of China, and with less certainty we can estimate that this group represents \$1bn in the US, probably up by more than 60% year-over-year. If these figures were held in proportion we could assume \$3bn of spending on Google and Facebook combined for 2018, up from around \$2bn in 2017. This would add another half percentage point of growth in 2018 to the industry-wide figures we forecast.

The evolution of categories are also important. For example, we point to the emergence of direct brands who sell products and services to consumers without physical retail intermediaries. Looking solely at newly emerging independent direct-to-consumer apparel and packaged goods brands, we estimate that there will be \$20-25bn of consumer spending this year and perhaps \$1-\$2bn in ad spending, mostly on digital media. The figure balloons as we include direct-to-consumer brands owned by larger conglomerates and those in other categories. Other kinds of categories of advertisers will undoubtedly emerge, as seems likely over time with the recent Supreme Court ruling on sports betting, although it is hard to tell if growth from those categories offsets softness from more mature brands who are either looking to reduce spending broadly or are shifting away from paid media for their marketing activities. Similarly, M&A in certain areas with significant ad spend volumes (such as wireless services) can cause near-term bursts of spending with rebranding campaigns, but longer-term declines for related categories.

In general, 2018 should produce faster underlying (ex-Olympics and political) growth than 2017, which means something in excess of +4.5%. Our specific forecast calls for +4.8% following on underlying growth during the first quarter of +5.5%. We expect growth to taper towards +3.5% in subsequent years (higher than prior forecasts, but not necessarily so because of higher levels of inflation in the overall economy).

Looking at specific media, we forecast another year of nearly +20% growth for digital advertising, leading digital to account for 47% of all advertising during 2018. Ongoing growth through 2022 leads us to forecast 61% share by that point in time – achieved through a five-year CAGR of +17% for the medium. Television including local and national – probably fell by -1% in the quarter despite the presence of the Olympics, and we forecast it to grow by +2% for the year despite what should be a significant amount of spending from political advertising during the year. At a national level, after initially seeing some growth, we now think the first quarter was probably slightly less than flat and expect a slight decline during the year. Local TV was down by more on an underlying basis, although it appears that local cable probably grew slightly. Among other media, print's declines look as if they are accelerating (unsurprisingly, considering how much they are probably contributing to digital's growth), while outdoor is relatively stable. By contrast, radio was likely down mid-single digits in the quarter. These latter two media types are likely to be durable even as digital grows given their unique attributes as marketing vehicles and advertiser bases, but they and television will continue to be "melting ice-cubes" unless the overall economy reverts back to an era where large brands with mass market appeal take back share from their smaller direct-to-consumer and mid-sized competitors.

Additional data associated with the different media types are contained in our model, which follows.

## **Pivotal Advertising Forecast May 2018: Summary Totals**

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	2010A	2011A	2012A	2013A	2014A	2015A	2016A	1Q17A	2Q17A	3Q17A	4Q17A	2017A	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E
TOTAL NATIONAL	\$61,622.9	\$65,175.1	\$66,034.1	\$70,120.0	\$70,325.5	\$73,413.9	\$79,987.2	\$20,699.2	\$21,242.1	\$19,787.9	\$24,592.0	\$86,321.2	\$22,296.4	\$22,969.9	\$21,531.6	\$26,353.3	\$93,151.2	\$97,972.2	\$102,539.8	\$106,832.2	\$111,223.7
Annual Growth / Decline	7.5%	5.8%	13%	6.2%	0.3%	4.4%	9.0%	6.9%	11.5%	5.8%	7.5%	7.9%	7.7%	8.1%	8.8%	7.2%	7.9%	5.2%	4.7%	4.2%	4.1%
• % of M ass Advertising	48.5%	50.2%	50.6%	52.2%	53.1%	54.8%	57.5%	61.1%	59.2%	57.9%	62.6%	60.3%	63.7%	62.3%	612%	65.7%	63.3%	65.3%	67.0%	68.5%	70.0%
TOTAL LOCAL	\$65,428.8	\$64,704.3	\$64,473.1	\$64,183.1	\$62,104.4	\$60,574.0	\$59,030.9	\$13,202.3	\$14,643.4	\$14,358.8	\$14,688.0	\$56,892.6	\$12,713.0	\$13,920.4	\$13,632.9	\$13,766.1	\$54,032.5	\$52,086.8	\$50,415.4	\$49,038.2	\$47,578.6
Annual Growth / Decline	14%	-1.1%	-0.4%	-0.4%	-3.2%	-2.5%	-2.5%	-4.5%	-3.4%	-4.5%	-2.1%	-3.6%	-3.7%	-4.9%	-5.1%	-6.3%	-5.0%	-3.6%	-3.2%	-2.7%	-3.0%
• % of M ass Advertising	515%	49.8%	49.4%	47.8%	46.9%	45.2%	42.5%	38.9%	40.8%	42.1%	37.4%	39.7%	36.3%	37.7%	38.8%	34.3%	36.7%	34.7%	33.0%	31.5%	30.0%
TOTAL NATIONAL AND LOCAL	\$127,051.7	\$129,879.4	\$130,507.2	\$134,303.1	\$132,429.9	\$133,987.9	\$139,018.1	\$33,901.5	\$35,885.5	\$34,146.7	\$39,280.0	\$143,213.8	\$35,009.4	\$36,890.3	\$35,164.6	\$40,119.4	\$147,183.7	\$150,059.0	\$152,955.3	\$155,870.5	\$158,802.3
Annual Growth / Decline	4.2%	2.2%	0.5%	2.9%	-1.4%	1.2%	3.8%	2.2%	4.9%	12%	3.7%	3.0%	3.3%	2.8%	3.0%	2.1%	2.8%	2.0%	19%	1.9%	1.9%
• % of Normalized Advertising	75.7%	75.0%	74.5%	74.0%	71.8%	70.2%	69.2%	68.3%	69.2%	68.0%	67.6%	68.2%	66.8%	67.8%	66.9%	66.2%	66.9%	65.9%	64.9%	63.9%	62.9%
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TOTAL DIRECT + SMB ADVERTISING	\$40,815.2	\$43,343.2	\$44,770.4	\$47,236.4	\$52,137.0	\$56,954.2	\$61,771.8	\$15,752.4	\$16,007.2	\$16,032.7	\$18,858.8	\$66,651.1	\$17,384.5	\$17,484.9	\$17,411.3	\$20,450.8	\$72,731.5	\$77,553.3	\$82,623.4	\$87,953.5	\$93,555.4
Annual Growth / Decline	-0.5%	6.2%	3.3%	5.5%	10.4%	9.2%	8.5%	6.2%	5.7%	8.6%	10.7%	7.9%	10.4%	9.2%	8.6%	8.4%	9.1%	6.6%	6.5%	6.5%	6.4%
% of Normalized Advertising	24.3%	25.0%	25.5%	26.0%	28.2%	29.8%	30.8%	31.7%	30.8%	32.0%	32.4%	318%	33.2%	32.2%	33.1%	33.8%	33.1%	34.1%	35.1%	36.1%	37.1%

5-YR CAGE

-4.2% 2.7%

# **Pivotal Advertising Forecast May 2018: National Media**

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NATIONAL MASS MEDIA ADVERTISING REVENU	2010A	2011A	2012A	2013A	2014A	2015A	2016A	1Q17A	2Q17A	3Q17A	4Q17A	2017A	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E	5-YR CAGR
	JES																					
National Television National Cable <sup>(a)</sup>	\$20,424.4	\$22,137.8	\$23.106.3	\$24.622.0	\$25,039.0	\$25,651.7	\$26.240.3	\$6.504.6	\$6.823.2	\$5.916.5	\$6.624.4	\$25.868.8	\$6,634.7	\$6.823.2	\$5.857.3	\$6,425.7	\$25.741.0	\$25,006.6	\$24 377 5	\$23.695.5	\$23.083.2	-2.5%
Annual Growth / Decline	12.5%	8.4%	4.4%	6.6%	1.7%	2.4%	2.3%	-0.5%	-12%	-2.0%	-2.0%	-14%	2.0%	0.0%	-10%	-3.0%	-0.5%	-2.9%	-2.5%	-2.8%	-2.6%	-2.576
• % of National TV	55.8%	56.4%	57.2%	57.6%	57.8%	58.2%	58.0%	54.2%	614%	62.4%	55.4%	58.1%	55.7%	61.4%	62.2%	55.2%	58.4%	58.0%	57.5%	56.9%	56.4%	
National Broadcast - English <sup>(a)</sup> • Annual Growth / Decline	13,094.9	13,691.6	13,606.0	14,222.5	14,223.5	14,360.0	14,776.1	4,575.6	3,202.7	2,495.3	4,147.2 -2.0%	14,420.8	4,346.8	3,202.7	2,470.3	4,022.8	14,042.6	13,767.4	13,591.9	13,380.9	13,203.3	-2.2%
% of National TV	35.8%	34.9%	33.7%	33.3%	32.9%	32.6%	32.7%	38.1%	28.8%	26.3%	34.7%	32.4%	36.5%	28.8%	26.2%	34.6%	318%	319%	32.0%	32.1%	32.2%	
National Broadcast - Spanish	978.6	1,142.7	1,259.1	1,381.6	1,420.5	1,413.0	1,465.4	290.8	387.2	264.7	422.4	1,365.1	276.2	348.5	251.5	401.3	1,277.5	1,140.8	1,101.5	1,060.2	1,022.4	-6.9%
Annual Growth / Decline     % of National TV	-3.1% 2.7%	16.8% 2.9%	10.2% 3.1%	9.7% 3.2%	2.8% 3.3%	-0.5% 3.2%	3.7% 3.2%	-10.7% 2.4%	17% 3.5%	-6.4% 2.8%	-11.3% 3.5%	-6.8% 3.1%	-5.0% 2.3%	-10.0% 3.1%	-5.0% 2.7%	-5.0% 3.4%	-6.4% 2.9%	-10.7% 2.6%	-3.4% 2.6%	-3.7% 2.5%	-3.6% 2.5%	
National Syndication + Long-Form/Pro Video	2,127.3	2,271.5	2,419.1	2,500.3	2,612.2	2,669.4	2,748.9	632.3	706.0	801.9	754.3	2,894.5	663.9	741.3	842.0	792.0	3,039.2	3,185.8	3,347.5	3,493.4	3,641.1	5.8%
Annual Growth / Decline     % of National TV	12.9% 5.8%	6.8% 5.8%	6.5% 6.0%	3.4% 5.9%	4.5% 6.0%	2.2% 6.1%	3.0% 6.1%	1.4% 5.3%	5.3% 6.3%	6.6% 8.5%	7.4% 6.3%	5.3% 6.5%	5.0% 5.6%	5.0% 6.7%	5.0% 8.9%	5.0% 6.8%	5.0% 6.9%	4.8% 7.4%	5.1% 7.9%	4.4% 8.4%	4.2% 8.9%	
Total National Television	\$36,625.1	\$39,243.6	\$40,390.6	\$42,726.4	\$43,295.2	\$44,094.1	\$45,230.7	\$12,003.3	\$11,119.1	\$9,478.4	\$11,948.4	\$44,549.1	\$11,921.7	\$11,115.7	\$9,421.1	\$11,641.8	\$44,100.3	\$43,100.6	\$42,418.4	\$41,630.1	\$40,950.0	-2.0%
Annual Growth / Decline     Gof National Advertising	7.8% 59.4%	7.1% 60.2%	2.9% 61.2%	5.8% 60.9%	1.3% 61.6%	1.8% 60.1%	2.6% 56.5%	-2.0% 58.0%	-0.6% 52.3%	-15% 47.9%	-18% 48.6%	-1.5% 51.6%	-0.7% 53.5%	0.0% 48.4%	-0.6% 43.8%	-2.6% 44.2%	-10% 47.3%	-2.3% 44.0%	-16% 414%	-1.9% 39.0%	-1.6% 36.8%	
Total Magazines®	\$13,865.2	\$13,747.5	\$12,645.6	\$12,003.9	\$10,651.0	\$9,290.4	\$8,481.0	\$1,768.7	\$2,111.3	\$1,662.3	\$1,808.8	\$7,351.1	\$1,503.4	\$1,762.9	\$1,363.1	\$1,447.0	\$6,076.4	\$4,921.3	\$3,869.0	\$2,962.7	\$2,250.3	-23.3%
Annual Growth / Decline     % of National Advertising	0.1% 22.5%	-0.8% 21.1%	-8.0% 19.2%	-5.1% 17.1%	-11.3% 15.1%	-12.8% 12.7%	-8.7% 10.6%	-12.8% 8.5%	-12.1% 9.9%	-14.1% 8.4%	-14.6% 7.4%	-13.3% 8.5%	-15.0% 6.7%	-16.5% 7.7%	-18.0% 6.3%	-20.0% 5.5%	-17.3% 6.5%	-19.0% 5.0%	-214% 3.8%	-23.4% 2.8%	-24.0% 2.0%	
National Digital(c)	22.370	211/6	10.2.70	17.170	D.176	E.776	10.076	0.376	0.076	0.476	7.476	0.576	0.7 /6	7.770	0.576	3.376	0.576	3.076	3.076	2.076	2.076	
National Digital Display (Including Mobile)  Annual Growth / Decline	\$7,198.0 19.5%	\$7,981.0 10.9%	\$8,536.3 7.0%	\$10,397.8 21.8%	\$10,741.8 3.3%	\$12,536.8 16.7%	\$15,821.0 26.2%	\$4,150.3 43.7%	\$4,983.5 63.0%	\$5,154.6 17.1%	\$7,001.2 27.9%	\$21,289.7 34.6%	5,395.4 30.0%	6,378.9 28.0%	6,494.9 26.0%	8,681.5 24.0%	\$26,950.6 26.6%	\$31,543.6 17.0%	\$35,673.9 13.1%	\$39,577.3 10.9%	\$43,339.3 9.5%	22.3%
• % of National Digital	86.3%	84.6%	82.7%	815%	77.2%	71.5%	66.2%	64.4%	67.1%	63.8%	68.9%	66.3%	64.4%	67.1%	63.8%	68.9%	66.3%	66.2%	66.1%	66.0%	65.9%	
Video Excluding Long-Form Professional Content	1,146.3	1,453.9	1,779.6	2,365.3	3,171.5	5,003.6	8,064.9	2,298.2	2,446.7	2,924.1	3,160.6	10,829.6	2,987.7	3,131.7	3,684.4	3,919.2	13,723.0	16,133.6	18,327.8	20,424.0	22,465.2	22.7%
Annual Growth / Decline     % of National Digital	31.5% 13.7%	26.8% 15.4%	22.4% 17.3%	32.9% 18.5%	34.1% 22.8%	57.8% 28.5%	612% 33.8%	38.3% 35.6%	36.7% 32.9%	34.5% 36.2%	29.6% 31.1%	34.3% 33.7%	30.0% 35.6%	28.0% 32.9%	26.0% 36.2%	24.0% 31.1%	26.7% 33.7%	17.6% 33.8%	13.6% 33.9%	11.4% 34.0%	10.0% 34.1%	
Total National Digital	\$8,344.3	\$9,435.0	\$10,315.9	\$12,763.1	\$13,913.3	\$17,540.4	\$23,885.9	\$6,448.5	\$7,430.2	\$8,078.8	\$10,161.8	\$32,119.3	\$8,383.1	\$9,510.7	\$10,179.2	\$12,600.6	\$40,673.6	\$47,677.3	\$54,001.7	\$60,001.3	\$65,804.5	22.5%
Annual Growth / Decline     % of National Advertising	21.0% 13.5%	13.1% 14.5%	9.3% 15.6%	23.7% 18.2%	9.0% 19.8%	26.1% 23.9%	36.2% 29.9%	41.7% 31.2%	53.3% 35.0%	22.8% 40.8%	28.4% 413%	34.5% 37.2%	30.0% 37.6%	28.0% 41.4%	26.0% 47.3%	24.0% 47.8%	26.6% 43.7%	17.2% 48.7%	13.3% 52.7%	11.1% 56.2%	9.7% 59.2%	
Total Network and Satellite Radio	\$1,166.5	\$1,209.7	\$1,245.0	\$1,211.3	\$1,173.0	\$1,208.3	\$1,196.0	\$262.4	\$320.2	\$312.9	\$325.7	\$1,221.2	\$275.6	\$336.2	\$325.4	\$338.7	\$1,275.9	\$1,317.4	\$1,353.2	\$1,383.1	\$1,412.2	3.4%
Annual Growth / Decline	4.2%	3.7%	2.9%	-2.7%	-3.2%	3.0%	-1.0%	-5.8%	4.9%	3.7%	5.0%	2.1%	5.0%	5.0%	4.0%	4.0%	4.5%	3.3%	2.7%	2.2%	2.1%	
*% of National Advertising     Total National Newspapers(b)	19% \$963.6	19% \$895.0	19% \$800.7	17% \$737.3	1.7% \$661.1	1.6% \$564.4	15% \$475.5	13% \$100.8	15% \$105.6	16% \$75.2	13% \$123.2	14% \$404.9	12% \$85.7	15% \$88.7	15% \$62.4	13% \$101.1	14% \$337.9	13% \$257.4	13% \$192.5	13% \$147.1	1.3% \$97.6	-27.1%
Annual Growth / Decline	5.0%	-7.1%	-10.5%	-7.9%	-10.3%	-14.6%	-15.8%	-17.9%	-10.5%	-20.1%	-12.3%	-14.8%	-15.0%	-16.0%	-17.0%	\$101.1 -18.0%	-16.5%	-23.8%	\$192.5 -25.2%	-23.6%	-33.7%	-27.170
% of National Advertising	1.6%	1.4%	12%	1.1%	0.9%	0.8%	0.6%	0.5%	0.5%	0.4%	0.5%	0.5%	0.4%	0.4%	0.3%	0.4%	0.4%	0.3%	0.2%	0.1%	0.1%	
Total Cinema  Annual Growth / Decline	\$658.3 12.7%	\$644.3 -2.1%	\$636.4 -12%	\$678.0 6.5%	\$631.9 -6.8%	\$716.4 13.4%	\$718.2 0.2%	\$115.4 -5.6%	\$155.8 -15.9%	\$180.3 -10%	\$224.1 -2.0%	\$675.5 -5.9%	\$126.9 10.0%	\$155.8 0.0%	\$180.3 0.0%	\$224.1 0.0%	\$687.1 17%	\$698.1 16%	\$705.1 10%	\$707.9 0.4%	\$709.2 0.2%	-0.3%
Not National Advertising	1.1%	1.0%	10%	1.0%	0.9%	1.0%	0.9%	0.6%	0.7%	0.9%	0.9%	0.8%	0.6%	0.7%	0.8%	0.9%	0.7%	0.7%	0.7%	0.7%	0.6%	
TOTAL NATIONAL	\$61,622.9	\$65,175.1	\$66,034.1	\$70,120.0	\$70,325.5	\$73,413.9	\$79,987.2	\$20,699.2	\$21,242.1	\$19,787.9	\$24,592.0	\$86,321.2	\$22,296.4	\$22,969.9	\$21,531.6	\$26,353.3	\$93,151.2	\$97,972.2	\$102,539.8	\$106,832.2	\$111,223.7	6.8%
Annual Growth / Decline     Annual Growth / Decline	7.5% 48.5%	5.8%	13% 50.6%	6.2% 52.2%	0.3% 53.1%	4.4% 54.8%	9.0% 57.5%	6.9% 61.1%	115% 59.2%	5.8%	7.5% 62.6%	7.9% 60.3%	7.7% 63.7%	8.1%	8.8% 612%	7.2% 65.7%	7.9%	5.2% 65.3%	4.7% 67.0%	4.2% 68.5%	4.1% 70.0%	
% of M ass Advertising	48.5%	50.2%	50.6%	52.2%	53.1%	54.8%	57.5%	611%	59.2%	57.9%	62.5%	60.3%	63.7%	62.3%	612%	65.7%	63.3%	65.3%	67.0%	68.5%	/0.0%	

### **Pivotal Advertising Forecast May 2018: Local Media and Mass Media Total**

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LOCAL MASS MEDIA ADVERTISING REVENUES	2010A	2011A	2012A	2013A	2014A	2015A	2016A	1Q17A	2Q17A	3Q17A	4Q17A	2017A	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E
Local Television																					
Local Broadcast TV <sup>(v)</sup> • Annual Growth / Decline  •% of Local TV  Local Cable TV <sup>(a)</sup>	\$14,994.9 7.8% 79.5%	\$15,433.3 2.9% 78.9% 4.137.6	\$16,082.4 4.2% 78.7% 4.347.6	\$16,650.6 3.5% 78.7%	\$16,210.9 -2.6% 78.0%	\$15,855.3 -2.2% 77.1%	\$15,366.7 -3.1% 76.2%	\$3,691.1 -6.4% 77.0%	\$3,330.5 -5.0% 73.6%	\$4,084.0 -6.9% 78.0%	\$3,600.6 1.9% 73.9% 1,271.1	\$14,706.2 -4.3% 75.7%	\$3,543.5 -4.0% 76.1%	\$3,064.1 -8.0% 72.0%	\$3,757.3 -8.0% 76.5%	\$3,168.5 -12.0% 71.6%	\$13,533.4 -8.0% 74.1% 4.718.6	\$13,054.0 -3.5% 73.6%	\$12,641.5 -3.2% 73.1% 4.640.7	\$12,390.3 -2.0% 72.6%	\$12,110.4 -2.3% 72.1%
Annual Growth / Decline     % of Local TV	3,855.9	4,137.6	4,347.6	4,511.7	4,566.5	4,721.7	4,788.8	1,104.4	1,192.5	1,152.3	1,2/1.1	4,720.3	1,115.4	1,192.5	1,152.3	1,258.4	4,/18.6	4,671.0	4,640.7	4,665.1	4,675.2
	14.1%	7.3%	5.1%	3.8%	1.2%	3.4%	1.4%	-2.0%	-1.6%	-3.6%	1.3%	-1.4%	1.0%	0.0%	0.0%	-1.0%	0.0%	-1.0%	-0.6%	0.5%	0.2%
	20.5%	21.1%	21.3%	21.3%	22.0%	22.9%	23.8%	23.0%	26.4%	22.0%	26.1%	24.3%	23.9%	28.0%	23.5%	28.4%	25.9%	26.4%	26.9%	27.4%	27.9%
Total Local Television  Bi-Annual Growth / Decline  Annual Growth / Decline  Golden  Golden  Golden	\$18,850.8	\$19,570.9	\$20,430.1	\$21,162.3	\$20,777.4	\$20,577.0	\$20,155.5	\$4,795.5	\$4,523.0	\$5,236.3	\$4,871.7	\$19,426.5	\$4,658.9	\$4,256.6	\$4,909.6	\$4,426.9	\$18,252.0	\$17,725.0	\$17,282.2	\$17,055.3	\$16,785.6
	-5.6%	13.2%	8.4%	8.1%	1.7%	-2.8%	-3.0%	-4.4%	-5.2%	-4.1%	-8.6%	-5.6%	-8.1%	-9.7%	-12.1%	-7.5%	-9.4%	-8.8%	-5.3%	-3.8%	-2.9%
	9.0%	3.8%	4.4%	3.6%	-1.8%	-1.0%	-2.0%	-5.4%	-4.1%	-6.2%	1.8%	-3.6%	-2.8%	-5.9%	-6.2%	-9.1%	-6.0%	-2.9%	-2.5%	-1.3%	-1.6%
	28.8%	30.2%	31.7%	33.0%	33.5%	34.0%	34.1%	36.3%	30.9%	36.5%	33.2%	34.1%	36.6%	30.6%	36.0%	32.2%	33.8%	34.0%	34.3%	34.8%	35.3%
Total Local Newspapers <sup>(b)</sup> • Annual Growth / Decline • % of Local Advertising	\$22,795.2	\$20,691.8	\$18,944.2	\$17,462.5	\$15,401.1	\$13,449.7	\$11,836.3	\$2,383.1	\$2,751.2	\$2,244.6	\$2,626.1	\$10,005.0	\$1,978.0	\$2,256.0	\$1,818.1	\$2,100.9	\$8,152.9	\$6,557.2	\$4,960.4	\$3,353.7	\$1,826.5
	-8.2%	-9.2%	-8.4%	-7.8%	-11.8%	-12.7%	-12.0%	-14.9%	-13.9%	-17.0%	-16.2%	-15.5%	-17.0%	-18.0%	-19.0%	-20.0%	-18.5%	-19.6%	-24.4%	-32.4%	-45.5%
	34.8%	32.0%	29.4%	27.2%	24.8%	22.2%	20.1%	18.1%	18.8%	15.6%	17.9%	17.6%	15.6%	16.2%	13.3%	15.3%	15.1%	12.6%	9.8%	6.8%	3.8%
Total Local Radio <sup>(b)</sup> • Annual Growth / Decline • % of Local Advertising	\$14,181.0	\$14,060.0	\$14,205.0	\$14,054.0	\$13,633.0	\$13,231.0	\$12,826.1	\$2,661.9	\$3,297.2	\$3,247.9	\$3,271.7	\$12,478.7	\$2,555.4	\$3,165.4	\$3,118.0	\$3,140.8	\$11,979.6	\$11,678.4	\$11,303.7	\$10,994.9	\$10,667.6
	4.9%	-0.9%	1.0%	-1.1%	-3.0%	-2.9%	-3.1%	-4.0%	-2.1%	-2.3%	-2.6%	-2.7%	-4.0%	-4.0%	-4.0%	-4.0%	-4.0%	-2.5%	-3.2%	-2.7%	-3.0%
	21.7%	21.7%	22.0%	21.9%	22.0%	21.8%	21.7%	20.2%	22.5%	22.6%	22.3%	21.9%	20.1%	22.7%	22.9%	22.8%	22.2%	22.4%	22.4%	22.4%	22.4%
Total Outdoor  • Annual Growth / Decline  • % of Local Advertising	\$5,512.0	\$5,828.2	\$6,091.4	\$6,343.4	\$6,438.8	\$6,749.3	\$7,009.7	\$1,572.5	\$2,217.3	\$1,665.0	\$1,681.5	\$7,136.4	\$1,588.3	\$2,239.5	\$1,665.0	\$1,681.5	\$7,174.3	\$7,176.4	\$7,198.2	\$7,246.7	\$7,268.9
	3.2%	5.7%	4.5%	4.1%	1.5%	4.8%	3.9%	0.8%	3.0%	2.2%	0.8%	1.8%	1.0%	1.0%	0.0%	0.0%	0.5%	0.0%	0.3%	0.7%	0.3%
	8.4%	9.0%	9.4%	9.9%	10.4%	11.1%	11.9%	11.9%	15.1%	11.6%	11.4%	12.5%	12.5%	16.1%	12.2%	12.2%	13.3%	13.8%	14.3%	14.8%	15.3%
Total Local Digital  Annual Growth / Decline  Global Advertising	\$4,089.7	\$4,553.5	\$4,802.4	\$5,160.9	\$5,854.1	\$6,567.0	\$7,203.3	\$1,789.3	\$1,854.6	\$1,965.1	\$2,237.0	\$7,846.0	\$1,932.5	\$2,003.0	\$2,122.3	\$2,416.0	\$8,473.7	\$8,949.9	\$9,671.0	\$10,387.6	\$11,030.0
	14.6%	11.3%	5.5%	7.5%	13.4%	12.2%	9.7%	10.4%	7.4%	9.4%	8.7%	8.9%	8.0%	8.0%	8.0%	8.0%	8.0%	5.6%	8.1%	7.4%	6.2%
	6.3%	7.0%	7.4%	8.0%	9.4%	10.8%	12.2%	13.6%	12.7%	13.7%	15.2%	13.8%	15.2%	14.4%	15.6%	17.6%	15.7%	17.2%	19.2%	21.2%	23.2%
TOTAL LOCAL  Annual Growth / Decline  Mof Mass Advertising	\$65,428.8	\$64,704.3	\$64,473.1	\$64,183.1	\$62,104.4	\$60,574.0	\$59,030.9	\$13,202.3	\$14,643.4	\$14,358.8	\$14,688.0	\$56,892.6	\$12,713.0	\$13,920.4	\$13,632.9	\$13,766.1	\$54,032.5	\$52,086.8	\$50,415.4	\$49,038.2	\$47,578.6
	1.4%	-1.1%	-0.4%	-0.4%	-3.2%	-2.5%	-2.5%	-4.5%	-3.4%	-4.5%	-2.1%	-3.6%	-3.7%	-4.9%	-5.1%	-6.3%	-5.0%	-3.6%	-3.2%	-2.7%	-3.0%
	51.5%	49.8%	49.4%	47.8%	46.9%	45.2%	42.5%	38.9%	40.8%	42.1%	37.4%	39.7%	36.3%	37.7%	38.8%	34.3%	36.7%	34.7%	33.0%	31.5%	30.0%
TOTAL NATIONAL AND LOCAL  Annual Growth / Decline  No f Normalized Advertising	\$127,051.7	\$129,879.4	\$130,507.2	\$134,303.1	\$132,429.9	\$133,987.9	\$139,018.1	\$33,901.5	\$35,885.5	\$34,146.7	\$39,280.0	\$143,213.8	\$35,009.4	\$36,890.3	\$35,164.6	\$40,119.4	\$147,183.7	\$150,059.0	\$152,955.3	\$155,870.5	\$158,802.3
	4.2%	2.2%	0.5%	2.9%	-1.4%	1.2%	3.8%	2.2%	4.9%	1.2%	3.7%	3.0%	3.3%	2.8%	3.0%	2.1%	2.8%	2.0%	1.9%	1.9%	1.9%
	75.7%	75.0%	74.5%	74.0%	71.8%	70.2%	69.2%	68.3%	69.2%	68.0%	67.6%	68.2%	66.8%	67.8%	66.9%	66.2%	66.9%	65.9%	64.9%	63.9%	62.9%

5-YR CAGR

-0.5%

-31.2%

-4.2% 2.7%

### **Pivotal Advertising Forecast May 2018: Direct and SMB Media**

PIVOTAL																						
Pivotal Research Group																						
Contact: Brian Wieser																						
(e) Brian@Pvtl.com (t) 212 514 4682 (m) 917 734	1980																					
	2010A	2011A	2012A	2013A	2014A	2015A	2016A	1Q17A	2Q17A	3Q17A	4Q17A	2017A	1Q18E	2Q18E	3Q18E	4Q18E	2018E	2019E	2020E	2021E	2022E	5-YR CAGE
DIRECT / SM B M EDIA ADVERTISING REVENUES																						
Direct Online																						
Total Paid Search (Incl. Mobile)	\$12,004.9	\$15,825.7	\$18,963.8	\$21,316.8	\$24,944.3	\$29,387.6	\$34,575.0	\$9,434.0	\$9,700.0	\$9,651.3	\$11,844.7	\$40,630.0	\$11,037.8	\$11,252.0	\$11,099.0	\$13,502.9	\$46,891.7	\$52,367.6	\$58,046.2	\$63,783.9	\$69,986.2	15.1%
Annual Growth / Decline	12.2%	318%	19.8%	12.4%	17.0%	17.8%	17.7%	18.3%	16.1%	17.0%	18.4%	17.5%	17.0%	16.0%	15.0%	14.0%	15.4%	11.7%	10.8%	9.9%	9.7%	
• % of Direct Online	89.9%	90.9% 1.588.9	90.2%	87.5%	85.8%	84.6%	85.2%	86.5%	86.2% 1.547.9	85.7%	87.2%	86.4%	87.7% <b>1.550.2</b>	87.4% 1.625.2	86.8%	88.1% 1.823.5		88.0%	88.5%	89.0%	89.5%	0.50/
Other Direct Online <sup>(e)</sup> • Annual Growth / Decline	1,342.3	1,588.9	2,062.8	3,041.8 47.5%	4,141.3 36.1%	5,338.4 28.9%	5,994.7 12.3%	1,476.4	-11.5%	1,610.4 23.2%	1,736.7 23.9%	6,371.3 6.3%	1,550.2 5.0%	1,625.2	1,690.9 5.0%	1,823.5 5.0%	6,689.9 5.0%	7,131.1 6.6%	7,531.9 5.6%	7,871.6 4.5%	8,197.9 4.1%	6.5%
*Milital Growth / Decline     *% of Direct Online	10.1%	9.1%	9.8%	12.5%	14.2%		14.8%	13.5%	13.8%	14.3%	12.8%	13.6%	12.3%	12.6%	13.2%	11.9%	12.5%	12.0%	11.5%	11.0%	10.5%	
Total Direct + SMB Online	\$13,347,2	\$17,414.6	\$21.026.5	\$24,358.6	\$29,085,6	\$34,726.0	\$40,569,7	\$10.910.4	\$11,247,9	\$11,261,7	\$13,581,4	\$47,001.3	\$12.588.0	\$12.877.2	\$12,789,9	\$15.326.5	\$53,581,6	\$59,498,7	\$65,578.0		\$78,184,1	14.0%
Annual Growth / Decline	9.4%	30.5%	20.7%	15.8%	19.4%	19.4%	16.8%	14.7%	11.3%	17.8%	19.1%	15.9%	15.4%	14.5%	13.6%	12.8%	14.0%	11.0%	10.2%		9.1%	
% of Total Direct Advertising	32.7%	40.2%	47.0%	51.6%	55.8%	61.0%	65.7%	69.3%	70.3%	70.2%	72.0%	70.5%	72.4%	73.6%	73.5%	74.9%	73.7%	76.7%	79.4%	81.5%	83.6%	
Total Direct Mail	\$20,615.8	\$20,424.9	\$19,509.6	\$19,654.4	\$20,594.3	\$20,364.5	\$20,025.7	\$4,652.7	\$4,513.5	\$4,545.5	\$5,087.2	\$18,798.9	\$4,652.7	\$4,423.2	\$4,454.6	\$4,985.5	\$18,516.0	\$17,610.8	\$16,696.5	\$16,014.5	\$15,163.4	-5.4%
Annual Growth / Decline	3.9%	-0.9%	-4.5%	0.7%	4.8%	-1.1%	-1.7%	-7.7%	-4.2%	-7.1%	-5.5%	-6.1%	0.0%	-2.0%	-2.0%	-2.0%	-15%	-4.9%	-5.2%	-4.1%	-5.3%	
% of Total Direct Advertising	50.5%	47.1%	43.6%	41.6%	39.5%	35.8%	32.4%	29.5%	28.2%	28.4%	27.0%	28.2%	26.8%	25.3%	25.6%	24.4%	25.5%	22.7%	20.2%	18.2%	16.2%	
Total Directories <sup>(b)</sup>	\$6,852.2	\$5,503.7	\$4,234.3	\$3,223.4	\$2,457.1	\$1,863.7	\$1,176.4	\$189.3	\$245.9	\$225.5	\$190.3	\$850.9	\$143.9	\$184.4	\$166.8	\$138.9	\$634.0	\$443.8	\$310.7	\$217.5	\$152.2	-33.6%
Annual Growth / Decline     % of Total Direct Advertising	-23.5% 16.8%	-19.7% 12.7%	-23.1% 9.5%	-23.9% 6.8%	-23.8% 4.7%	-24.2% 3.3%	-36.9% 1.9%	-33.1% 12%	-25.5% 15%	-27.6% 1.4%	-24.5% 1.0%	-27.7% 1.3%	-24.0% 0.8%	-25.0% 1.1%	-26.0% 1.0%	-27.0% 0.7%	-25.5% 0.9%	-30.0% 0.6%	-30.0% 0.4%		-30.0% 0.2%	
• % of 1 otal birect Advertising	10.0%	12.7%	9.5%	0.0%	4./76	3.3%	1.976	12%	13%	L476	1.0%	L3%	0.6%	L176	1,0%	0.7%	0.9%	0.6%	0.4%	0.3%	0.2%	
TOTAL DIRECT + SMB ADVERTISING	\$40,815.2	\$43,343.2	\$44,770.4	\$47,236.4	\$52,137.0	\$56,954.2	\$61,771.8	\$15,752.4	\$16,007.2	\$16,032.7	\$18,858.8	\$66,651.1	\$17,384.5	\$17,484.9	\$17,411.3	\$20,450.8	\$72,731.5	\$77,553.3	\$82,623.4	\$87,953.5	\$93,555.4	8.7%
Annual Growth / Decline	-0.5%	6.2%	3.3%	5.5%	10.4%	9.2%	8.5%	6.2%	5.7%	8.6%	10.7%	7.9%	10.4%	9.2%	8.6%	8.4%	9.1%	6.6%	6.5%	6.5%	6.4%	
% of Normalized Advertising	24.3%	25.0%	25.5%	26.0%	28.2%	29.8%	30.8%	31.7%	30.8%	32.0%	32.4%	318%	33.2%	32.2%	33.1%	33.8%	33.1%	34.1%	35.1%	36.1%	37.1%	
NORMALIZED DIRECT AND MASS	\$167.866.9	\$173,222.6	\$175,277,6	\$181,539,5	\$184.566.9	\$190.942.1	\$200,789,9	\$49.653.9	\$51.892.7	\$50,179,4	\$58,138,8	\$209.864.8	\$52.393.9	\$54.375.2	\$52,575,9	\$60.570.2	\$219.915.2	\$227.612.3	\$235,578,7	\$243.823.9	\$252,357.8	4.7%
Annual Growth / Decline	3.1%	3.2%	12%	3.6%	1.7%		5.2%	3.4%	5.1%	3.5%	5.9%	4.5%	5.5%	4.8%	4.8%	4.2%	4.8%	3.5%	3.5%		3.5%	,.
Political <sup>(f)</sup>	\$2,086.5	\$445.1	\$2,864.6	\$304.9	\$2,437.0	\$433.7	\$2,950.9	\$28.4	\$55.2	\$72.8	\$192.4	\$348.8	\$150.0	\$213.1	\$640.8	\$1,208.5	\$2,360.7	\$418.6	\$3,305.0	\$502.3	\$2,644.0	
Bi-Annual Growth / Decline		30.7%	37.3%					4.9%	-7.4%	-26.1%	-22.6%	-19.6%	-59.8%	-20.0%	-20.0%	-20.0%	-20.0%	20.0%	40.0%	20.0%	-20.0%	
Olympics <sup>(g)</sup>	\$605.0	\$0.0	\$619.6	\$0.0	\$628.9	\$0.0	\$605.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$600.0	\$0.0	\$0.0	\$0.0	\$600.0	\$0.0	\$700.0	\$0.0	\$650.0	
Quadri-Annual Growth / Decline	-6.9%		3.3%	0.0%	3.9%												-4.6%		15.7%		8.3%	
TOTAL ADVERTISING REVENUES  Annual Growth / Decline	\$170,558.5 4.5%	\$173,667.7 18%	\$178,761.8 2.9%	\$181,844.4 17%	\$187,632.8 3.2%	\$191,375.8 2.0%	\$204,345.9 6.8%	\$49,682.3 2.7%	\$51,948.0 4.7%	\$50,252.2 0.7%	\$58,331.2 3.4%	\$210,213.7 2.9%	\$53,143.9 7.0%	\$54,588.2 5.1%	\$53,216.7 5.9%	\$61,778.7 5.9%	\$222,876.0 6.0%	\$228,030.9 2.3%	\$239,583.7 5.1%		\$255,651.8 4.6%	4.6%
Source: Pivotal Research Group, Cinema Ad Council, IAB, Ma	gna Global, OAA	A, RAB																				1 1
(a) Excludes Incremental Olympic Revenues (b) Excludes Digital Revenues (c) Includes IAB-Defined Revenues Associated With Internet C (d) Excludes Local Political Advertising Revenues (e) Lead Generation, App testal sand SMB-Focused Digital Ad (f) Total Political Advertising Revenue on Local Broadcast and (g) Incremental Advertising Revenue from Olympics on Networ	lassifieds, Email a vertising I Local Cable TV		But Does Not In	clude Internet Ye	llow Pages and L	ead Generation o	r Local Digital or	TV-Related Digit	al Video Ad Reve	enue												

#### **Appendix: Important Disclosures**

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I, Brian W. Wieser, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company and their securities. I further certify that I have not received and will not receive direct or indirect compensation related to specific recommendations or views contained in this research report.

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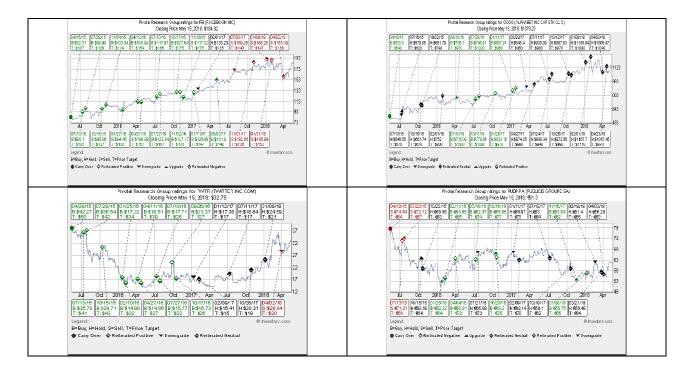
HOLD: The security is expected to have an absolute return of between plus and minus 15%.

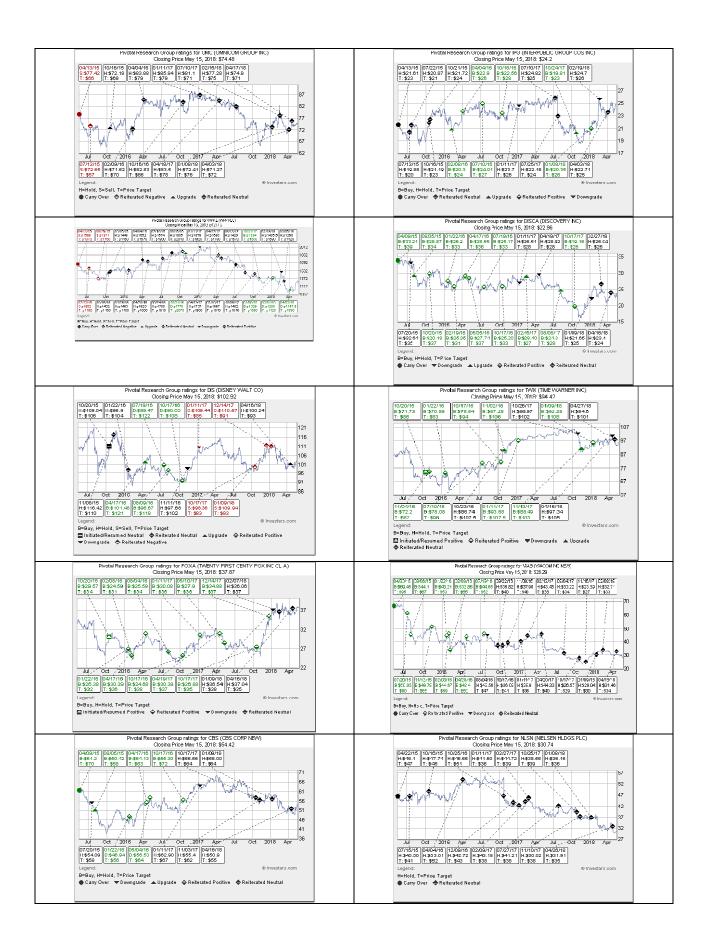
SELL: The security is expected to have an absolute return less than minus 15%.

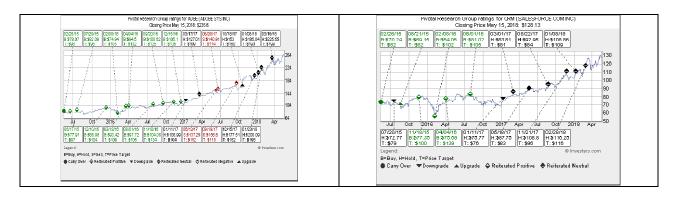
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