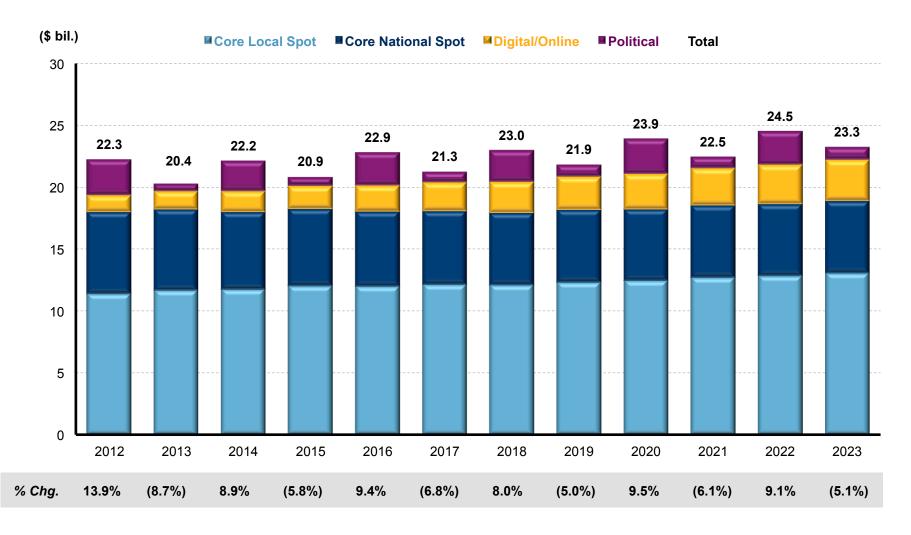
The Future of Broadcasting and TV/Radio Station M&A

Justin Nielson Senior Research Analyst Kagan, A Media Research Group Within S&P Global Market Intelligence

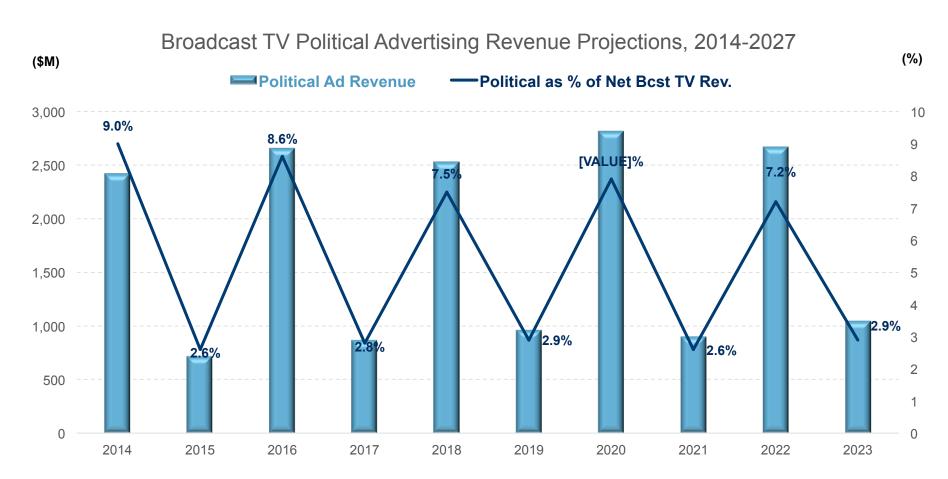
August 29, 2018

TV Station Advertising Revenue Projections



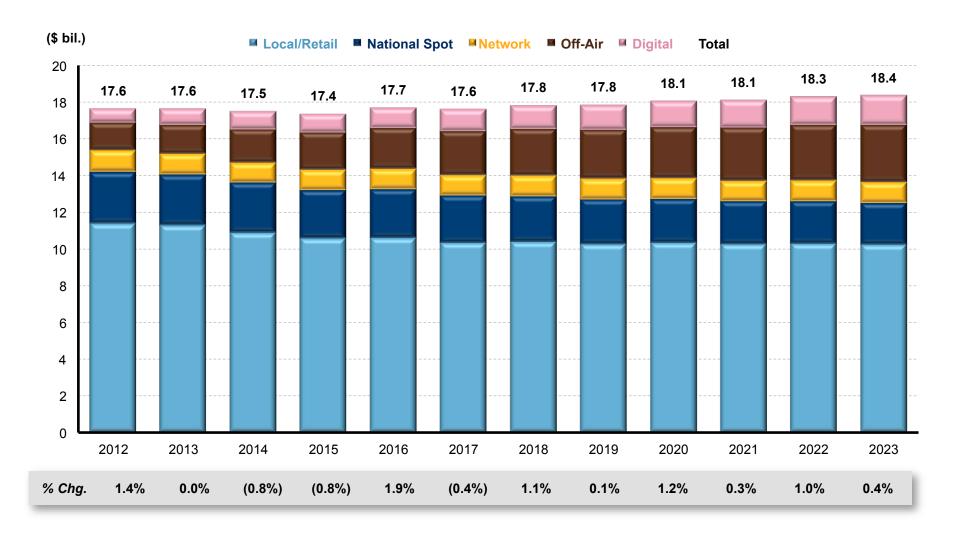
Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of May 2018.

2018 Midterm Political Ad Spending on TV Stations Expected to Exceed \$2.5B



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, as of February 2018.

Radio Station Revenue Projections



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of May 2018.

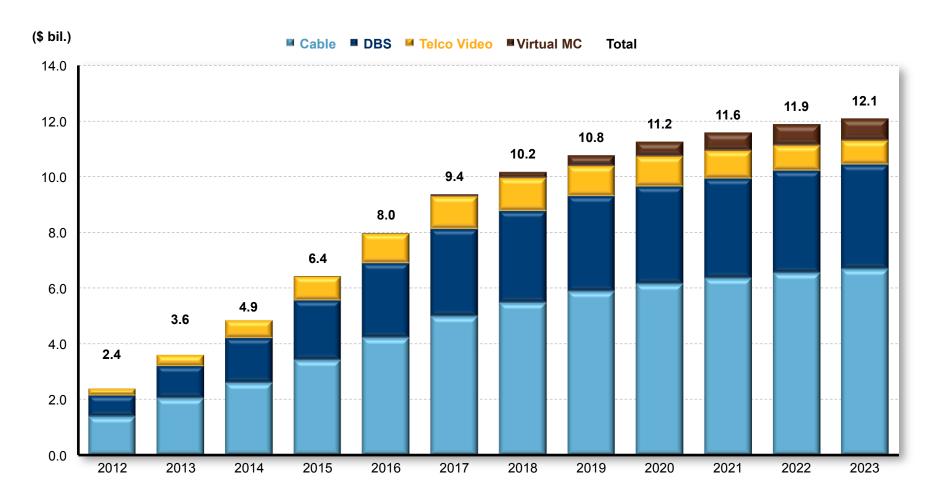
TV and Radio Station Ad Share of Total U.S. Ad Market



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of May 2018.



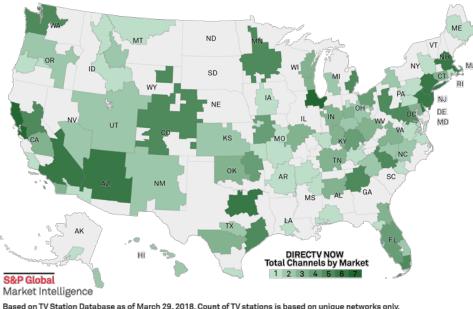
Broadcast Retransmission and Virtual Multichannel Carriage Fee Projections



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of June 2018.

Station Live Streaming on OTT and Virtual Multichannel Platforms

Concentration of live TV Channels offered by streaming providers by market



Based on TV Station Database as of March 29, 2018. Count of TV stations is based on unique networks only. Kagan, a media research group within the TMT offering of S&P Global Market Intelligence. @ 2018 S&P Global Market Intelligence. All rights reserved.
Map credit: VA Odevilas

Live local channels by streaming service							
	Sling TV	CBS All Access	Fubo TV	Sony Vue	DIRECTV NOW	YouTube TV	Hulu with Live TV
ABC	8	-	-	33	65	90	122
₹ CBS	-	196	65	115	40	97	142
FOX	17	-	78	30	67	91	165
NBC	11	-	74	38	44	79	114
Big four stations	36	196	217	216	216	357	543
Univision	39	-	-	-	-	-	-
The CW	-	-	1	-	9	32	9
MyNetworkTV	-	-	2	13	14	12	12
Telemundo	-	-	17	15	14	31	15
UniMas	7	-	-	-	-	-	-
All stations	82	196	237	244	253	432	579
Market presence							
Top 25 markets	23	25	25	25	25	25	25
26 to 75	10	50	48	39	45	47	50
76 to 125	7	48	23	27	6	21	46
126+	7	71	4	32	17	1	79
Total Markets	47	194	100	123	93	94	200
Total HHs (M)	69.5	121.3	104.3	102.0	97.5	102.5	121.4
As % of total US HHs (%)	56.5	98.6	84.7	82.9	79.3	83.3	98.7

US households based on Q4 2017 Media Census figures and TV Station Database as of March 29, 2018.

All counts as of March 29, 2018.

Count of markets based on ABC, CBS, FOX, NBC, The CW, MyNetworkTV, Telemundo, Univision and UniMas affiliated and O&O TV stations.

Source: Industry data and Kagan estimates.

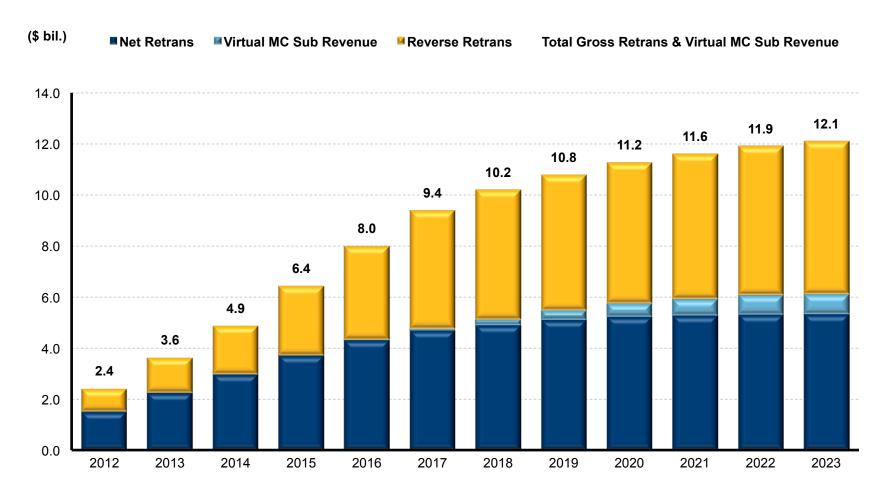
Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

© 2018 S&P Global Market Intelligence. All rights reserved.

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, as of April 2018. OTT=Over-the-top.



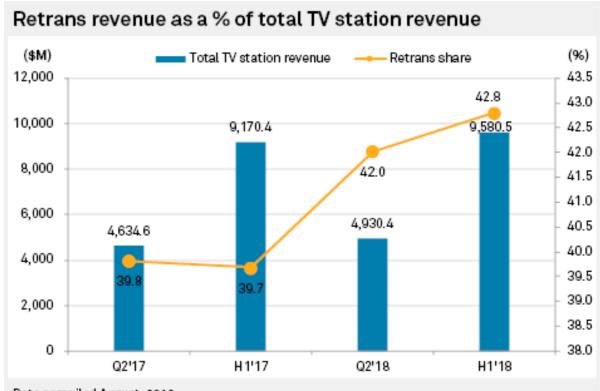
TV Station Net Retrans, Reverse Retrans, and Virtual MC Sub Revenue



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of June 2018.



TV station retrans continues to outpace ad revenue growth in Q2 '18



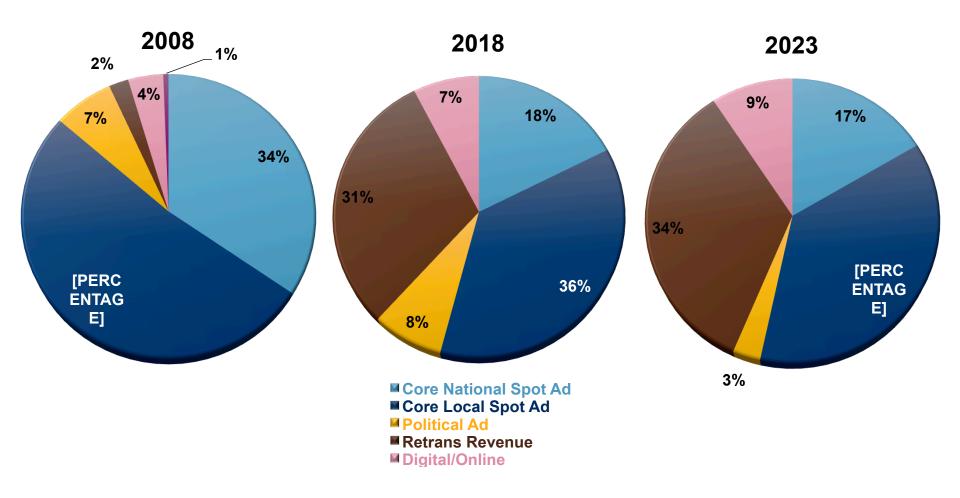
Data compiled August, 2018.

Sources: Industry data; Kagan estimates

Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

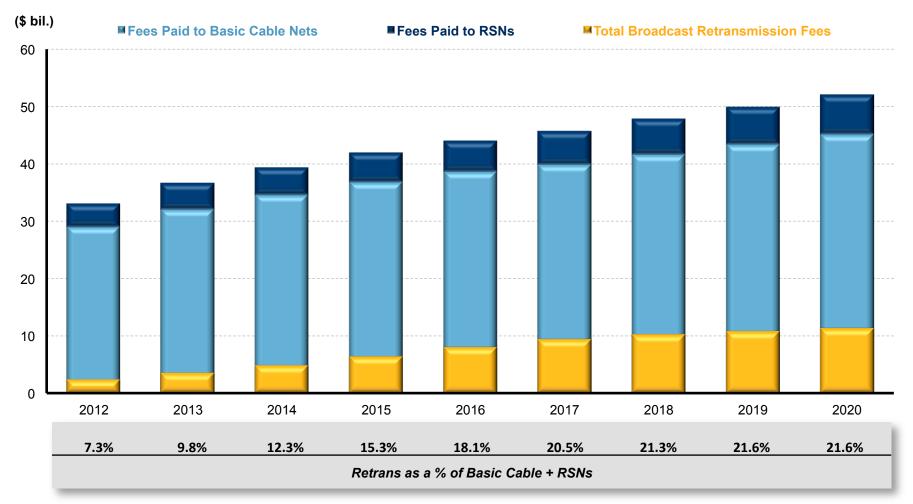
© 2018 S&P Global Market Intelligence, All rights reserved.

Total TV Station Revenue Share



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of June 2018.

Broadcast Retransmission Fees vs. Basic Cable and RSN Programming Fees



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of June 2018. RSN=Regional Sports Network.

Definitions Of Video Delivery Methods

Multichannel Service

Virtual Multichannel

OTT Substitution

OTA

Definition: Managed delivery of aggregated live, linear networks and on-demand content for a monthly subscription. Does not exclude OTT video consumption.

Definition: Unmanaged (online/internet) delivery of aggregated live, linear networks and on-demand content mimicking a traditional multichannel video offering for a monthly subscription. Does not exclude OTT video consumption.

Definition: Unmanaged (online/internet) delivery of subscription on-demand services and direct-to-consumer live linear networks, including monthly subscription and ad supported content. OTA households excluded.

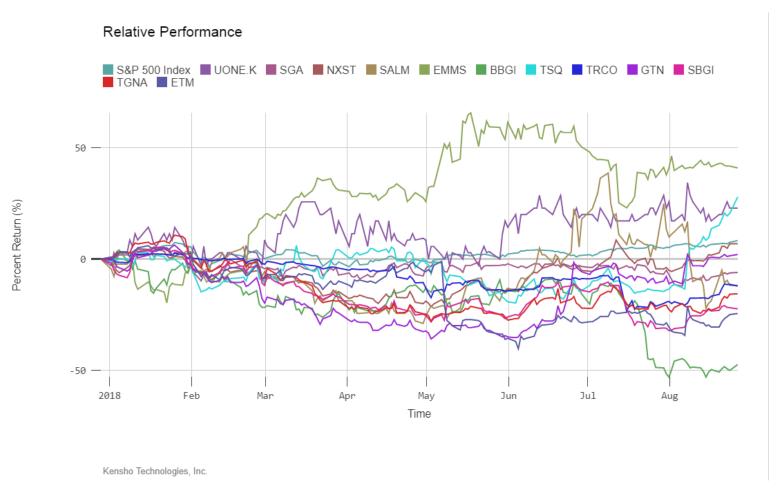
Definition: Over-theair delivery of live linear broadcast stations. Does not exclude OTT video consumption.

Cable (Ex. Comcast Xfinity, and Xfinity Stream managed, not Internet delivery), DBS (DIRECTV and Dish Network but not the unmanaged SlingTV or DIRECTV Now) Telco (U-verse and FiOS) DirecTV Now, FuboTV, Hulu Plus Live TV, SlingTV, Sony Vue, Youtube TV

(Excludes direct-toconsumer such as HBO Now or CBS All Access. Also excludes managed IP service such as Xfinity Stream) Online SVOD (Netflix, Amazon, Hulu) Direct-to-Consumer (HBO Now, CBS All Access) Online On-demand (YouTube etc.)

NBC, CBS, ABC, Fox PBS

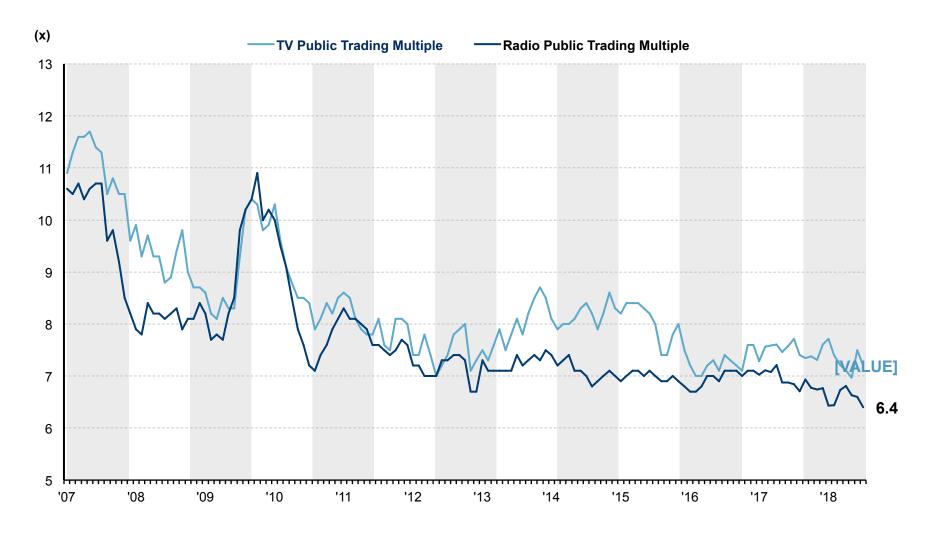
TV and Radio Station Stocks Have Mostly Underperformed the S&P 500 in 2018



As of August 27, 2018. Kensho Technologies LLC, is a division of S&P Global Inc., owner of S&P Global Market Intelligence.

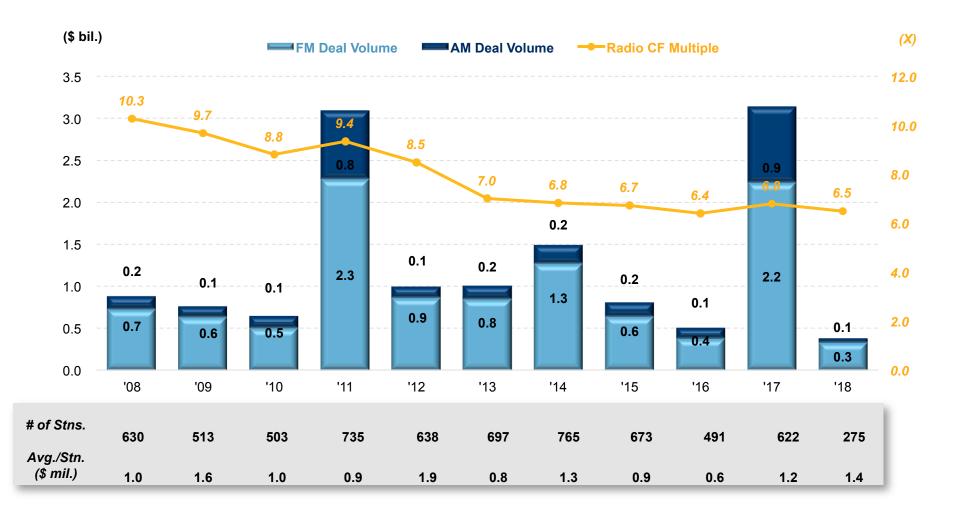


TV and Radio Station Public Trading Multiples



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, as of July 31, 2018. Kagan analysis and estimates for TV and radio station pure-play groups including Beasley, Cumulus, Emmis, Entercom, Gray TV, Media General, Nexstar, Salem, Saga, Sinclair, Tribune Media, Townsquare Media and Urban One.

History of Proposed Radio Station Sales



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of July 31, 2018. Full-power stations only. 1998-2017 data is for full year.



Radio Deals of \$25M or More (since Jan. '17)

Buyer	Seller	Announce Date	Deal Volume (\$M)	Total Stations	Seller CF Mult. (x)*
Entercom Communications Corp.	CBS Corporation	02/02/17	2500.00	117	7.0
Meruelo Group	Emmis Communications Corporation	05/09/17	82.75	1	
Sinclair Broadcast Group, Inc.	Tribune Media Company	05/08/17	58.43	1	6.0 R
Educational Media Foundation	Entercom Communications Corp.	09/26/17	57.75	3	
Entercom Communications Corp.	Jerry Lee Radio, LLC	07/19/18	57.50	1	8.0
Hubbard Broadcasting, Inc.	Emmis Communications Corporation	01/30/18	45.00	2	8.0
SummitMedia LLC	E.W. Scripps Co.	08/15/18	47.00	19	7.1
Beasley Broadcast Group, Inc./ iHeartMedia, Inc.	Entercom Communications Corp. / CBS Radio Inc.	11/01/17	40.00	18	SW
Beasley Broadcast Group, Inc.	Entercom Communications Corp.	07/19/18	38.00	1	8.0
Starboard Media Foundation, Inc.	IHR Educational Broadcasting	01/25/17	30.00	22	E
Entercom Communications Corp.	Beasley Broadcast Group, Inc.	11/01/17	28.00	1	SW

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, as of August 15, 2018. R = Radio Station Value only, E = Estimate, SW = Swap. Note: Deals over \$25 mil. since Jan. 1, 2017. * Average year forward cash flow multiple, excluding synergies.

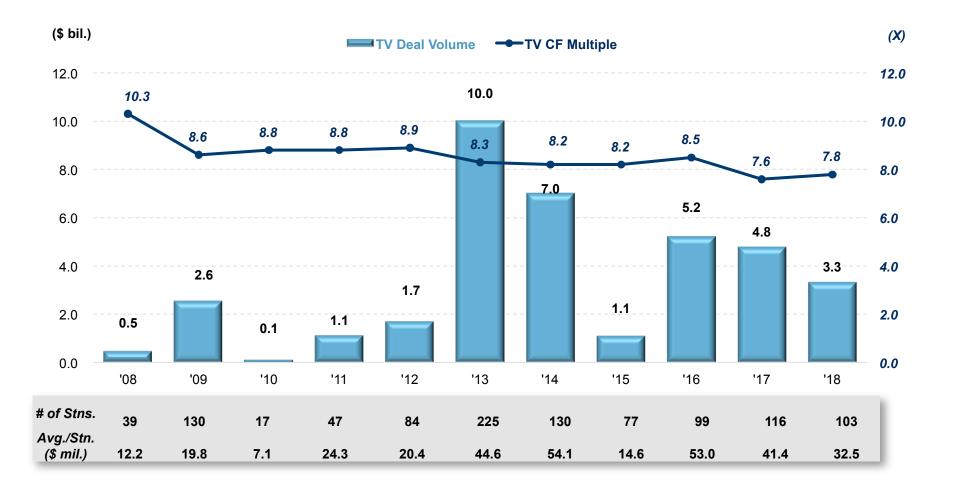
Broadcast Loan Defaults Since 2008

Issuer	Industry	Deal Date	Default Date	Bankruptcy Date	Total Initial Amount (\$M)	Initial Institutional Amount (\$M)	Sponsor
Clear Channel Communications	Television	Jun-08	Mar-18	Mar-18	12,115	8,000	Thomas H. Lee
Tribune Co.	TV, Printing & Publishing	May-07	Dec-08	Dec-08	8,028	7,278	Zell/Chilmark
Citadel Broadcasting	Radio	Jun-07	Dec-09		2,335	1,535	Not sponsored
Cumulus Media Inc.	Radio	Dec-13	Nov-17	Nov-17	2,025	2,025	Crestview Partners
NextMedia Operating	Radio	Nov-05	Dec-09	Dec-09	390	340	Thomas Wiesel Capital
New Vision Television	Television	Nov-07	Jul-09	Jul-09	360	335	HBK Capital Management LLC
Paxson Communications	Television	Dec-05	May-09		325	325	Not sponsored
Young Broadcasting	Television	May-05	Feb-09	Feb-09	320	300	Not sponsored
Regent Communications	Radio	Nov-06	Jan-10		115	115	Blue Chip Venture
CMP KC	Radio	Apr-06	Jan-10		98	72	Bain Capital

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, using LCD data as of March 2018.



History Of Proposed TV Station Sales



Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence, as of July 31, 2018. Full-power stations only. 1998-2017 data is for full year.

FCC's Broadcast Deregulatory Moves

- April 2017: 50% UHF discount rule was reinstated, paving the way for Sinclair-Tribune, although the 39% national ownership cap was kept.
- November 2017: The eight-voices test restriction was lifted on in-market duopolies for TV station owners (including waivers for two top-four-rated stations); local market cross-ownership limits for radio, TV and newspapers were removed.
- November 2017: ATSC 3.0 was approved to move forward in coordination with the ongoing TV spectrum repack process.

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

Top 10 Commercial TV Station Groups

			Without UHF Discount		With UHF	Discount
Rank	Commercial TV Station Owner	# of FP TV Stns.	Coverage of U.S. TVHHs	% of U.S. TVHHs	Coverage of U.S. TVHHs	% of U.S. TVHHs
1	ION Media Networks, Inc.	65	75,800,040	67.6%	39,278,255	35.0%
2	TEGNA Inc.	46	37,143,430	33.1%	31,496,515	28.1%
3	Tribune Media Company	41	48,177,500	43.0%	29,498,165	26.3%
4	Nexstar Media Group, Inc.	134	43,584,740	38.9%	28,864,610	25.7%
5	CBS Corporation	29	42,738,340	38.1%	28,608,915	25.5%
6	Twenty-First Century Fox, Inc.	29	41,970,020	37.4%	27,694,815	24.7%
7	Sinclair Broadcast Group, Inc.	117	43,734,430	39.0%	27,567,435	24.6%
8	Univision Communications Inc.	40	50,648,510	45.2%	26,679,960	23.8%
9	Walt Disney Company	8	25,189,230	22.5%	23,252,065	20.7%
10	Comcast Corp.	27	41,519,060	37.0%	22,272,655	19.9%

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence. Data is as of July 31, 2018, and includes all pending station deals as of the same day. Includes Sinclair's pending acquisition of Tribune Media and announced spinoffs as well as Gray TV's deal for Raycom Media and announced station divestitures. Includes only commercial TV station groups that own at least two full-power stations and excludes LMA/SSA/JSAs. Coverage does not include U.S. territories Puerto Rico, Guam or U.S. Virgin Islands. From FCC data and Kagan analysis of Nielsen-rated TV markets (DMA®s). All rights reserved.



TV Deals of \$50M or More (since Jan. '17)

Buyer	Seller	Announce Date	Deal Volume (\$M)	Total Stations	Seller CF Mult. (x)*	Notes
Sinclair Broadcast Group Inc.	Tribune Media Co.	08-May-17	3,760.7	44	7.5	TV, PL2
Gray Television Inc.	Raycom Media Inc.	25-Jun-18	3,442.3	61	9.6	TV
Twenty-First Century Fox Inc.	Sinclair Broadcast Group Inc.	09-May-18	910.0	7	7.2	
Standard Media Group LLC	Sinclair Broadcast Group Inc.	24-Apr-18	441.7	9	8.6	P1
TEGNA Inc.	Midwest Television Inc.	18-Dec-17	303.0	1	9.0	TV
Sinclair Broadcast Group Inc.; Cunningham Broadcasting Corp.	Bonten Media Group Inc.; Esteem Broadcasting LLC	21-Apr-17	240.0	17	8.3	PL1
Gray Television Inc.	Diversified Broadcasting Inc./ Community Broadcasting Service	16-Feb-17	85.0	2	8.2	
NBCUniversal Media LLC	ZGS Communications Inc.	04-Dec-17	75.0	1	7.0	Z3
Edge Spectrum Inc.	EICB TV LLC; Grace Worship Center Inc.	02-Apr-17	72.0	-	-	
Meredith Corp.	Time Warner Inc.	23-Feb-17	70.0	1	7.4	L
Morgan Murphy Media; SagamoreHill Midwest LLC	Saga Communications Inc.; Surtsey Media LLC	10-May-17	66.6	4	7.5	L1
Meredith Corp.	Sinclair Broadcast Group Inc.	24-Apr-18	65.0	1	8.3	
WGN TV LLC	Sinclair Broadcast Group Inc.	01 Mar 18	60.0	4		F
Cunningham Broadcasting Corp.	Sinclair Broadcast Group Inc.	24-Apr-18	60.0	2		L
Raycom Media Inc.	Benson Football LLC	31-Mar-17	51.9	1	-	L

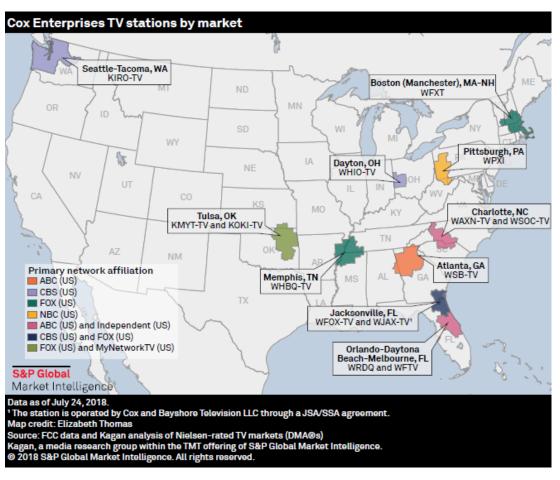
Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence as of July 31, 2018. L = License only. L1 = Licenses and programming for two stations are transferred separately. P = Programming only. P1 = Programming only for three stations. PL1 = Licenses and programming for three stations were transferred separately. PL2 = Programming only for three stations, license only for two stations. TV = TV portion of a combined TV/radio deal. Z = Sale of non spectrum assets. Z1 = Non spectrum assets only for one station.

Note: Deals over \$25 mil. since Jan. 1, 2017. *Average two-year forward multiple, excluding synergies.



Cox Enterprises' 14 TV stations could yield up to \$2.8B in deal

Potential deal valuation of Cox Enterprises TV stations			
Cox TV stations*		14	
ABC affiliates		3	
CBS affiliates		3	
NBC affiliates		1	
FOX affiliates		4	
MyNetworkTV affiliates		1	
Independents		2	
Cox TV markets (2017-2018 ranks)		10	
Top 10		2	
10-25		4	
25+		4	
Cox TV station TV household reach			
UHF discounted TV households	(M)	6.77	
% of total U.S. TV households	(%)	6.04	
Non-UHF discounted TV households	(M)	12.89	
% of total U.S. TV households	(%)	11.50	
Cox TV station potential deal value			
Station avg. net ad rev. 2018-2019	(\$M)	529.7	
Station avg. gross retrans rev 2018-2019	(\$M)	263.3	
Station avg. total rev (ad + retrans) 2018-2019	(\$M)	792.9	
Station avg. cash flow margin 2018-2019	(%)	35.0	
Station avg. cash flow 2018-2019	(\$M)	277.5	
Potential deal value at 8x cash flow	(\$M)	2,220.3	
Potential deal value at 9x cash flow	(\$M)	2,497.8	
Potential deal value at 10x cash flow	(\$M)	2,775.3	
As of July 24, 2018. Source: FCC data; Kagan analysis of Nielsen-rated TV markets (DMA@s) *The station is operated by Cox and Bayshore Television LLC through a JSA/SSA agreement. JSA/SSA based on 50% of potential TV station deal value. Kagan, a media research group within the TMT offering of S&P Global Market Intelligence. @ 2018 S&P Global Market Intelligence. All rights reserved.			



EPI Group's (Cordillera Comm.) 15 TV stations could fetch \$480M in a deal

Potential deal valuation of EPI Group					
(Cordillera Communications) T	V sta	tions			
EPI Group TV stations*		15			
ABC affiliates		1			
CBS affiliates		7			
NBC affiliates		7			
No. of ranked EPI Group TV markets (2017-2018 ranks)		11			
Top 25 to 75		2			
76-125		3			
125+		6			
EPI Group TV station TV household reach					
UHF discounted TV households	(M)	1.41			
% of total U.S. TV households	(96)	1.26			
Non-UHF discounted TV households	(M)	2.26			
% of total U.S. TV households	(%)	2.01			
EPI Group TV station potential deal value					
Station avg. net ad rev. 2018-2019	(\$M)	93.3			
Station avg. gross retrans rev 2018-2019	(\$M)	48.1			
Station avg. total rev (ad + retrans) 2018-2019	(\$M)	141.4			
Station avg. cash flow margin 2018-2019	(96)	35.0			
Station avg. cash flow 2018-2019	(\$M)	49.5			
Potential deal value at 8x cash flow	(\$M)	384.1			
Potential deal value at 9x cash flow	(\$M)	432.1			
Potential deal value at 10x cash flow	(\$M)	480.1			
Data as of August 2, 2018.					

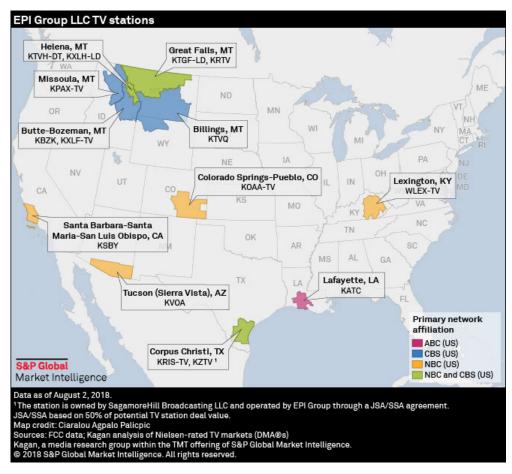
Data as of August 2, 2018.

* Number of TV stations include KZTV, operated by EPI Group through a JSA/SSA agreement. JSA/SSA based on 50% of potential TV station deal value.

Sources: FCC data; Kagan analysis of Nielsen-rated TV markets (DMA®s)

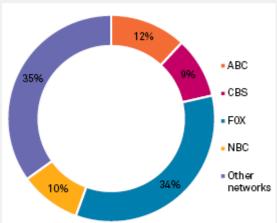
Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

© 2018 S&P Global Market Intelligence, All rights reserved.



Analysis of JSA/SSAs: Large affiliate groups targeting smaller markets





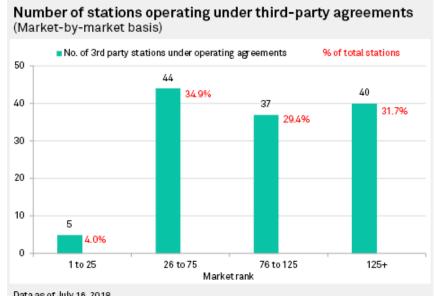
Data as of July 16, 2018.

Third-party operating agreements include JSA = Joint Sales Agreement; SSA = Shared Services Agreement; LMA = Local Marketing Agreement; TBA = Time Brokerage Agreement

Source: FCC public files and company filings (10-Ks, 10-Qs, press releases and investor presentation) Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.

© 2018 S&P Global Market Intelligence.

All rights reserved.



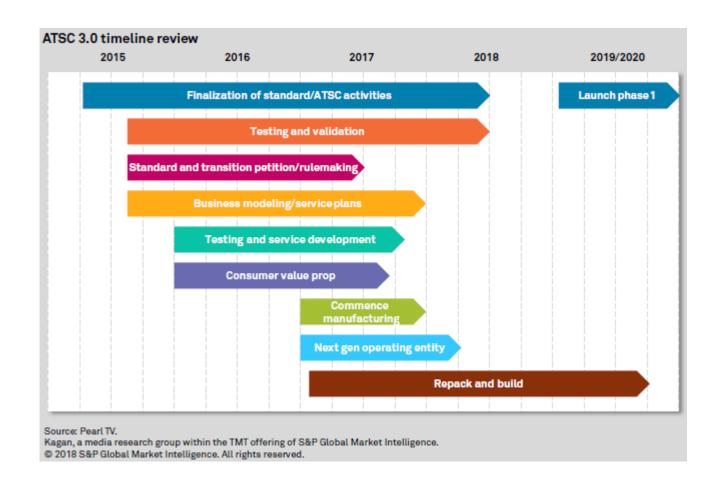
Data as of July 16, 2018.

Third-party operating agreements include JSA = Joint Sales Agreement; SSA = Shared Services Agreement; LMA = Local Marketing Agreement; TBA = Time Brokerage Agreement Source: FCC public files and company filings (10-Ks, 10-Qs, press releases and investor presentation)

Kagan, a media research group within the TMT offering of S&P Global Market Intelligence. © 2018 S&P Global Market Intelligence. All rights reserved.



TV Station Repack Coincides with Next Gen TV Launch





Next Gen TV SWOT Analysis

Stre	nq	th	S
			•

The new transmission system will increase the size of the spectrum pipeline fivefold

Mobile-friendly

4K, high-dynamic range and advanced audio

Conditional access and on-demand services

Opportunities:

ATSC 3.0 will allow broadcasters to track and compile data from every connected device

Advanced advertising allows station owners to hold the line and be defensive against the larger players in the local markets

Spectrum partnerships and datacasting opportunities (i.e., IoT)

Weaknesses:

Not backward compatible

TV station repack staggered timeline puts ATSC 3.0 full rollout 2-3 years away

Consumers have to upgrade to access

Fragmentation of TV station industry could lead to multiple content and delivery options

Threats:

Wireless 5G

Virtual MVPDs and over-the-top services

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence.



Next Gen TV Trials Focused on SFN, Content and Targeted Advertising Opportunities

Dallas market single frequency network (SFN) (Includes Spectrum Co. member stations)

Station	Primary affiliation	Parent company
KDAF	The CW	Tribune Co.
KSTR-DT	UniMas	Univision Communications Inc.
KTXD-TV	Independent	Cunningham Broadcasting Corp.
KUVN-DT	Univision	Univision Communications Inc.

Phoenix model market (Includes Pearl TV member stations)

•		,
Station	Primary affiliation	Parent company
KASW	The CW	Nexstar Media Group Inc.
KNXV-TV	ABC	E.W. Scripps Co.
KPHO-TV	CBS	Meredith Corp.
KTVK	Independent	Meredith Corp.
KPNX	NBC	TEGNA Inc.
KAET	PBS	Arizona Board of Regents for Arizona State University
KUTP	MyNetworkTV	Twenty-First Century Fox Inc.
KTVW-DT	Univision	Univision Communications Inc.
KTAZ	Telemundo	Comcast Corp.
KSAZ-TV	FOX	Twenty-First Century Fox Inc.
KFPH-DT	UniMas	Univision Communications Inc.

Source: Kagan, a media research group within the TMT offering of S&P Global Market Intelligence. From industry data and Kagan estimates.

Copyright © 2018 by S&P Global Market Intelligence, a division of S&P Global Inc. All rights reserved.

These materials have been prepared solely for information purposes based upon information generally available to the public and from sources believed to be reliable. No content (including index data, ratings, credit-related analyses and data, research, model, software or other application or output therefrom) or any part thereof (Content) may be modified, reverse engineered, reproduced or distributed in any form by any means, or stored in a database or retrieval system, without the prior written permission of S&P Global Market Intelligence or its affiliates (collectively, S&P Global). The Content shall not be used for any unlawful or unauthorized purposes. S&P Global and any third-party providers, (collectively S&P Global Parties) do not guarantee the accuracy, completeness, timeliness or availability of the Content. S&P Global Parties are not responsible for any errors or omissions, regardless of the cause, for the results obtained from the use of the Content. THE CONTENT IS PROVIDED ON "AS IS" BASIS. S&P GLOBAL PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, FREEDOM FROM BUGS, SOFTWARE ERRORS OR DEFECTS, THAT THE CONTENT'S FUNCTIONING WILL BE UNINTERRUPTED OR THAT THE CONTENT WILL OPERATE WITH ANY SOFTWARE OR HARDWARE CONFIGURATION. In no event shall S&P Global Parties be liable to any party for any direct, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs or losses caused by negligence) in connection with any use of the Content even if advised of the possibility of such damages.

S&P Global Market Intelligence's opinions, quotes and credit-related and other analyses are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions, and do not address the suitability of any security. S&P Global Market Intelligence assumes no obligation to update the Content following publication in any form or format. The Content should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. S&P Global Market Intelligence does not act as a fiduciary or an investment advisor except where registered as such. S&P Global keeps certain activities of its divisions separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain divisions of S&P Global may have information that is not available to other S&P Global divisions. S&P Global has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process.

S&P Global Ratings does not contribute to or participate in the creation of credit scores generated by S&P Global Market Intelligence. Lowercase nomenclature is used to differentiate S&P Global Market Intelligence PD credit model scores from the credit ratings issued by S&P Global Ratings.

S&P Global may receive compensation for its ratings and certain analyses, normally from issuers or underwriters of securities or from obligors. S&P Global reserves the right to disseminate its opinions and analyses. S&P Global's public ratings and analyses are made available on its Web sites, www.standardandpoors.com (free of charge), and www.ratingsdirect.com and www.globalcreditportal.com (subscription), and may be distributed through other means, including via S&P Global publications and third-party redistributors. Additional information about our ratings fees is available at www.standardandpoors.com/usratingsfees.