

Estimating the Value of TV Broadcast Licenses for the Upcoming FCC Incentive Auction

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Abstract

The Federal Communications Commission was granted the power to organize a spectrum auction—the Incentive Auction—in order to repurpose a portion of the 600 MHz spectrum, currently being used by television broadcasters.

Television broadcasters can participate in the Incentive Auction and potentially share a portion of the proceeds of the Incentive Auction. Television broadcasters can also choose not to participate or drop out of the process as the Auction is being conducted and risk being repacked in a lower frequency spectrum. As a result, the Incentive Auction has created certain opportunities and uncertainties for television broadcasters. The structure of the Incentive Auction does not offer a clear decision to television broadcasters and speculation about the outcome of the Incentive Auction could prove to be a useless exercise. Therefore, television broadcasters are left with two main tasks prior to the commencement of the Incentive Auction: (1) Educate themselves about the rules of the Incentive Auction, (2) Estimate a clearing price—the lowest price they are willing to accept in exchange for relinquishing their FCC license—before participating in the Incentive Auction.

This white paper discusses certain important aspects of the Incentive Auction and delves into different factors impacting the value of a typical television station and its primary asset, an FCC license, in the current state of the broadcasting industry. The paper also provides guidance for television broadcasters concerning various methodologies used to value a television station and an FCC license. Ultimately, television broadcasters must be prepared to make an informed decision prior to the upcoming Incentive Auction process.

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Valuation Implications of the FCC Incentive Auction¹

The Importance of Estimating a Clearing Price from the Perspective of Television Broadcasters

Introduction

The Federal Communications Commission (“FCC”) plans to repurpose all or a portion of the nation’s 600 MHz spectrum for the use of mobile wireless carriers.¹ To accomplish this goal, the FCC is organizing a spectrum auction to incentivize (the “Incentive Auction” or the “Auction”) television broadcasters (the “Broadcasters”) to give up their portion of the 600 MHz spectrum. In exchange for their participation in the Incentive Auction, the FCC plans to compensate Broadcasters with a portion of the proceeds from the sale of the repurposed 600 MHz spectrum.

Currently, the FCC is in process of finalizing the rules of the Incentive Auction. In addition, the FCC has been educating Broadcasters about the dynamics of the Incentive Auction to ensure the smooth execution of the Auction.

As part of the Incentive Auction, Broadcasters have the opportunity to either:

1. Relinquish their FCC license (FCC License);
2. Share a Channel with another market participant;
3. Relocate from Ultra High Frequency (“UHF”) band to Very High Frequency (“VHF”) band

or relocate from High VHF band to a Low VHF Band; and

4. Do not participate in the Incentive Auction.

The various options that the Incentive Auction provides have created both uncertainties and opportunities for Broadcasters.

To minimize the uncertainties and to take advantage of the opportunities provided by the Incentive Auction, Broadcasters must first estimate the price they are willing to accept for their stations and/or FCC Licenses (the “Clearing Price”) if choosing to participate in the Auction. This Clearing Price is heavily influenced by the value that an FCC License could generate when used to support the operation of a television station.

Therefore, careful consideration should be given to the value of a television station and its FCC License in the context of television broadcasting, since establishing a Clearing Price is imperative for Broadcasters who want to take advantage of the upcoming Auction.

In this paper we will first discuss the details of the Incentive Auction. We will then provide you with useful information on past spectrum auctions and the market prices implied from them. Next, we will discuss valuation of television stations and the FCC Licenses when they are used for television broadcasting. Finally, we will revisit the concept of the Clearing Price and address the questions that ought to be considered when making a decision regarding participating in the Incentive Auction.

We understand that this is a complicated process. However, we believe that understanding the valuation of television stations and their respective FCC Licenses will provide guidance for Broadcasters throughout the process.

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The Incentive Auction

The Incentive Auction was authorized by the United States Congress as part of the Middle Class Tax Relief and Job Creation Act of 2012. The Incentive Auction provided the FCC with the authority to incentivize Broadcasters to surrender their spectrum in exchange for a portion of the proceeds that the FCC plans to raise through selling the spectrum to the wireless telecommunication companies. The Incentive Auction is intended to meet wireless telecommunication companies' accelerating demand for spectrum given the rapid growth of wireless data usage.

Most importantly, the Incentive Auction has provided Broadcasters with a rare opportunity to be compensated in exchange for their spectrum.

The following is a timeline of key events in connection with the Incentive Auction:

June 2009	Digital Television Transition was Completed ⁱ
February 2012	Spectrum Act was Passed in the Congress ⁱⁱ
May-June 2014	FCC Adopted and Released <i>Incentive Auction Report & Order</i>
October 2014	Incentive Auction Opportunities for Broadcasters Prepared for the FCC by Greenhill (the "First Greenhill Report") was released
December 2014	FCC issues Public Notice Seeking Comments on the Incentive Auction Procedures
January 2015	The bidding in Auction 97 (AWS-3) concluded; The Wireless Telecommunications Bureau released the auction's results ^{iv}
February 2015	Incentive Auction Opportunities for Broadcasters Prepared for the FCC by Greenhill (the "Second Greenhill Report") was released. The recent report reflected the result of the Auction 97.
June 2015	The FCC announces Facilities Eligible to Participate in the Incentive Auction
Q1 2016	The Incentive Auction is expected to be held in early 2016.

Why the 600 MHz band?

The focus of the Incentive Auction is to repurpose all or a portion of the 600 MHz range (UHF Channels between 35 and 51) of the radio frequency spectrum. This spectrum is important because it is low-frequency or low-band and can travel long distances. The 600 MHz spectrum is also ideal for Broadcasters because it can penetrate through most objects including walls.

However, following the transition of Broadcasters from the analog to digital technology, Broadcasters required much less spectrum to transmit the same amount of signals because digital signals can carry more information than analog signals. Initially, the digital technology was intended to improve the image quality and increase programming capacity. Television Broadcasters were being challenged by alternative delivery systems (ADS), such as cable and satellite, and they needed to fend off the increasing competition by improving their image continuity and quality. An added bonus of the shift from analog to digital is the large amount of spectrum that has been freed up due to the efficiency of the digital technology as stated above. As a result, the excess capacity of the spectrum, has become available for other uses such as wireless communication.

Due to the technical superiority of the 600 MHz spectrum, and its adjacency to the 700 MHz and 800 MHz spectrum that are currently in use for wireless communications purposes, the 600 MHz spectrum is ideal for transferring wireless data. The FCC has indicated it is targeting the release of between 70 MHz and 120 MHz of spectrum as part of the Incentive Auction. Each television station occupies 6 MHz of spectrum.

The spectrum is a scarce resource and the revolution in the smartphone industry (i.e. introduction of iPhone and Android devices) has prompted the wireless companies (Verizon Wireless, AT&T, Sprint, and T-Mobile) to spend

billions of dollars in acquiring available spectrum to build their national mobile networks. Therefore, it is expected that the Incentive Auction will set a record in auction proceeds compared to the previous spectrum auctions.

Auction Structure

The Auction will be divided into two parts: Reverse Auction and Forward Auction. In the Reverse Auction, the FCC will start the auction process by offering Broadcasters in each Partial Economic Area (“PEA”) an opening bid price. In every round of the Reverse Auction, the FCC will lower the opening bid price until the market clears and the FCC achieves its goal of clearing enough spectrum in that market.



In the Forward Auction, the wireless companies and other market participants may bid for the available spectrum that has been cleared in the Reverse Auction.

As mentioned previously, Broadcasters have four main options as part of the Incentive Auction:

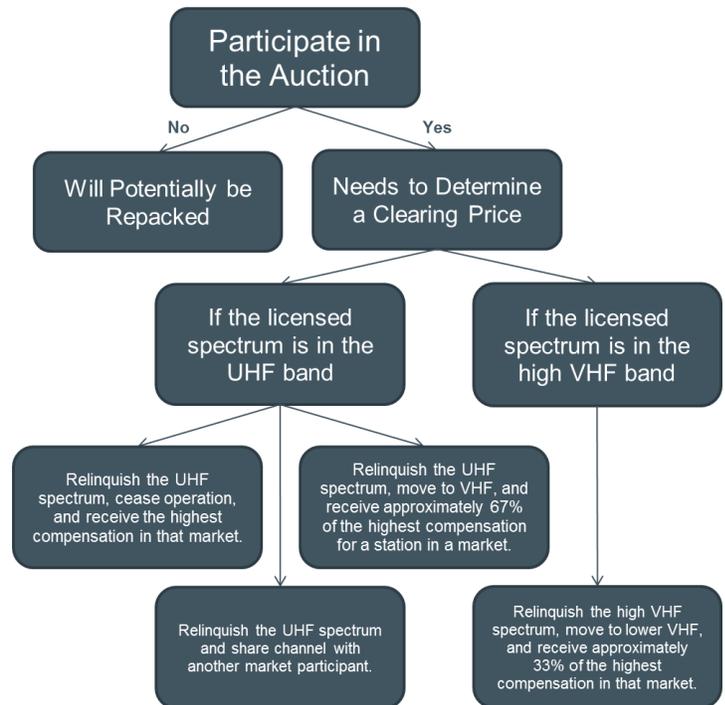
1. Relinquish License;
2. Share a Channel with another market participant;
3. Relocate from UHF band to High VHF band or relocate from High VHF band to a Low VHF Band; and
4. Do not participate in the Incentive Auction.

By choosing to relinquish its license, a Broadcaster will cease operation. If a Broadcaster ceases operation, the Broadcaster may arrange to share a channel with another participant in the market. The option to relocate from the UHF band to the high VHF band or relocate from a high VHF band to a low VHF band will also be compensated by the FCC. However, a Broadcaster will receive

a lower compensation for relinquishing spectrum in the VHF band, from the proceeds of the Incentive Auction, compared to fully relinquishing spectrum in the target UHF band.

Repacking

The FCC will reorganize Broadcasters that do not participate in the auction and remain on the air following the Incentive Auction. As a result of the repacking, the remaining Broadcasters on the air will occupy a smaller portion of the UHF band compared to the amount of spectrum Broadcasters were using prior to the Incentive Auction.



Source: www.fcc.gov

The FCC has expressed that “the implementation of the repacking process is driven by the Spectrum Act’s express requirement that the FCC must ‘make all reasonable efforts to preserve, as of [February 22, 2012], the coverage area and population served of each broadcast television

licensee, as determined using the methodology described in OET Bulletin 69 of the Commission's Office of Engineering and Technology." The FCC's objective is to preserve services provided by the full power and Class A stations in each existing market. However, the FCC has chosen to preserve "the same specific viewers" a station served as of February 2012 instead of "merely attempting to preserve the same total population served by each station."^v That is, the FCC aims to limit the disruption of the station's coverage and the experience of its viewers as much as possible.

Past Auctions

The FCC abandoned the process of allocating the Nation's spectrum through comparative hearings and lotteries in 1994. Since July 1994, the FCC has conducted 97 auctions, among which the largest auctions have been in connection with the sale of spectrum for the purpose of wireless communication.^{vi}

With the advancement of wireless technology and consumers' rapid adoption of mobile technology, the demand for spectrum (by wireless providers) has increased substantially. As a result, the prices paid for the available spectrum have escalated over the past decade.

The table to the right represents the proceeds raised and the average per unit prices that were paid during some of the largest wireless spectrum auctions in the past decade.

These auctions have enabled the wireless telecommunication companies in the United States—mainly the big 4: Verizon, AT&T, T-Mobile, and Sprint—to better service the increased demand for wireless data by expanding their wireless networks. Furthermore, the interest from the telecommunication companies has increased the proceeds from the spectrum auctions.

For example, the FCC auctioned the 700 MHz spectrum, which is similar to the 600 MHz spectrum, in the 2008 700 MHz auction ("Auction 73") generating approximately \$19.0 billion. Since 2008, the prices paid for spectrum in FCC auctions have increased substantially. When the AWS-3 Auction ("Auction 97") was concluded, the net winning bids raised during Auction 97 exceeded \$41.0 billion, dwarfing the proceeds from Auction 73. The difference in the net winning bids and the average \$/MHz population was despite the superiority of the 700 MHz spectrum that was auctioned in Auction 73. The success of Auction 97 even resulted in the revision of the opening bids that were published by the FCC for the Incentive Auction.^{iv}

If the past auctions are any guide, the major telecommunication companies will spend tremendous amounts of money in the Forward Auction to strengthen their position in the wireless market, because the demand for wireless data continues to increase and servicing the increased demand requires additional spectrum.

Auctions	Net Winning Bids (mil.)	Spectrum (MHz)	Bandwidth	Avg. \$/MHz-pop.
Broadband PCS (10/26/1994-11/8/1994)	\$7,019.40	1850-1965	60.0 MHz	
Broadband PCS (12/18/1995-5/6/1996)	\$10,071.80	1895-1975	30.0 MHz	
Broadband PCS (8/26/1996-11/14/1997)	\$2,517.40	1865-1975	30.0 MHz	
Broadband PCS (12/12/2000-1/26/2001)	\$16,857.00	1890-1990	70.0 MHz	
Broadband PCS (1/26/2005-2/15/2005)	\$2,043.20	1850-1990	120.0 MHz	
AWS-1 (8/9/2006-9/18/2006)	\$13,700.30	1710-1755; 2110-2155	90.0 MHz	\$0.54
700 MHz Band (1/24/2008-3/18/2008)	\$18,957.60	698-806	62.0 MHz	\$153
AWS-3 (11/13/2014-1/29/2015)	\$41,329.70	1695-1710, 1755-1780, 2155-2180	65.0 MHz	\$2.53
Incentive Auction (2016)	???	598-698	70.0 MHz to 120 MHz	???

Source: The Greenhill Report dated February 2015 and FCC.gov.

Since the FCC plans to compensate Broadcasters from the proceeds of the Forward Auction, the potential winning bids from the Forward Auction should provide some guidance for the FCC in regards to establishing an opening bid in the Reverse Auction. However, this is not possible, because the Reverse Auction must take place first. As a result, the FCC has indicated that they will

rely on the implied prices from the previous wireless auctions to set the opening bid for the Reverse Auction.

Most recently, the FCC published bid prices that it plans to offer Broadcasters in the opening round of the Reverse Auction. These opening bids are calculated based off the metric, price per MHz-population, as indicated from the most recent wireless spectrum auction, AWS-3.

DMA ¹	FCC's Proposed Opening Bid Prices Per Broadcaster (\$mm) ²		
	Rank	Maximum	Median
New York, NY	1	\$870	\$660
Los Angeles, CA	2	630	560
Chicago, IL	3	610	520
Philadelphia, PA	4	680	490
Dallas-Ft. Worth, TX	5	350	290
San Francisco-Oakland-San Jose, CA	6	540	410
Boston, MA	7	540	420
Washington, DC	8	490	410
Atlanta, Ga	9	470	380
Houston, TX	10	290	270

1. DMA ranking based on 1st edition of BIA Kelsey, 2015.

2. Source: Greenhill Report, February 2015.

Depending on the participation of Broadcasters, the proposed opening bids from the FCC will decrease until the market clears and the FCC is able to claw back their target spectrum in each market. As stated above, the Clearing Price for Broadcasters determines whether an Auction participant should remain in the Auction as the opening bid prices drop. As a result, Broadcasters should carefully analyze the value of their FCC Licenses under the assumption of continued use in the operation as a television station.

Establishing a Clearing Price

The opportunities presented to Broadcasters and the uncertainties associated with the Auction process put forward a difficult decision for

Broadcasters: at what price a Broadcaster should consider relinquishing its FCC License (or choose any other options available) versus deciding not to participate in the Incentive Auction? The FCC has stated that at any step during the Auction Process, a Broadcaster has the option to drop out, and the FCC will ensure that a Broadcaster that chooses to drop out will remain in the same band as their pre-Auction channel position. The ability to drop out of the Auction at any time is an advantage to Broadcasters. Broadcasters must be prepared to participate in the Auction and explore their options as the Auction unfolds and prices are determined. Once a Broadcaster chooses to participate, it is imperative that the Broadcaster knows the lowest value it will accept to either relinquish the FCC License and cease operation completely or choose to cease operation in the 600 MHz band and get repacked in the lower frequency bands.

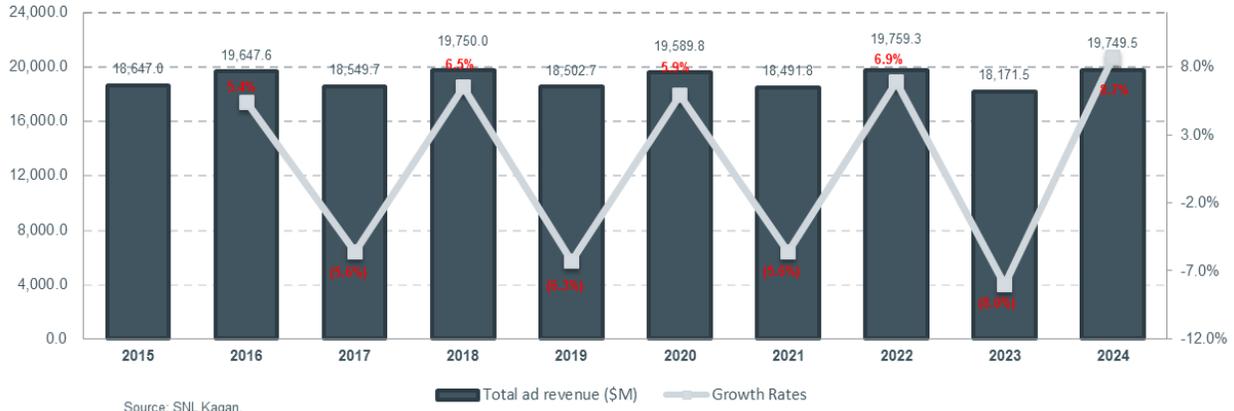
This decision is dependent on understanding the value of the television station as a going concern and the value of the FCC License in use for the television station. The following is a discussion of a television station and an FCC License valuation in this context.

Television Station and FCC License Valuation

An FCC License is the primary asset of a television broadcast station. The License enables a market participant to broadcast programming content over the airwaves using the spectrum allocated and the channel position assigned to that station by the FCC. Therefore, valuation of a television station is highly dependent on the underlying value of the FCC License.

Historically, the amount that an investor would be willing to pay for an FCC License to operate a television broadcast station is calculated by estimating the cash flows that typical market participants would assume could be available from the operation of a similar station or operation in a similar market. This idea stems from the fact

Projected Broadcast Network Ad Revenue, 2015-2024



that the “highest and best use” of an FCC License is to operate a television station. The value of the license correlates to the size of the market and potential advertising reach available in the market.

The value of a station, on the other hand, is generally reflective of its historical operating revenue and cash flows results and its expected future growth and profitability. Furthermore, the operation of a television station usually involves the production and transmission of local programming, mainly local news. Stations also partner or affiliate with a national network, such as CBS, NBC, etc., to carry the network’s programming. Due to FCC ownership rules, networks are restricted in the amount of stations that they can own and operate as well as the number of stations they can own in each market.²

What are the main sources of revenues for a television station?

A television station has two main sources of revenues: advertising dollars and retransmission fees from the multiple-system operators (MSOs).^{viii}

A station in any given market has the opportunity to capture a portion of the total available advertising dollars spent in that market. Typically, the total advertising dollars generated in a market (Designated Market Area or DMA) is dependent on the size of the market, the demographic

composition of that market, and the number of full power stations (or license holders) that service that market. On a station level, advertising revenue is also influenced by the station’s programming and network affiliation.

Therefore, to estimate the value of an FCC License and/or a television station, the projected advertising dollars in a market must be considered.

An example of a television station market is shown below:

Television Market Example				
Market Information		Stations	Affiliation	Mtk. Shares
Market:	Columbia, SC	WOLO-TV	ABC	15.1%
DMA:	77	WIS	NBC	40.1%
Population:	1,091,700	WLTX	CBS	25.4%
# of Stations	8	WKTC	CW/MY	0.4%
Est. Ad '14 Revenue:	\$58,500,000	WZRB	ION	3.3%
Est. Ad '15 Revenue:	\$59,100,000	WACH	FOX	15.6%
		WRJA-TV	PBS	-
		WRLK-TV	PBS	-

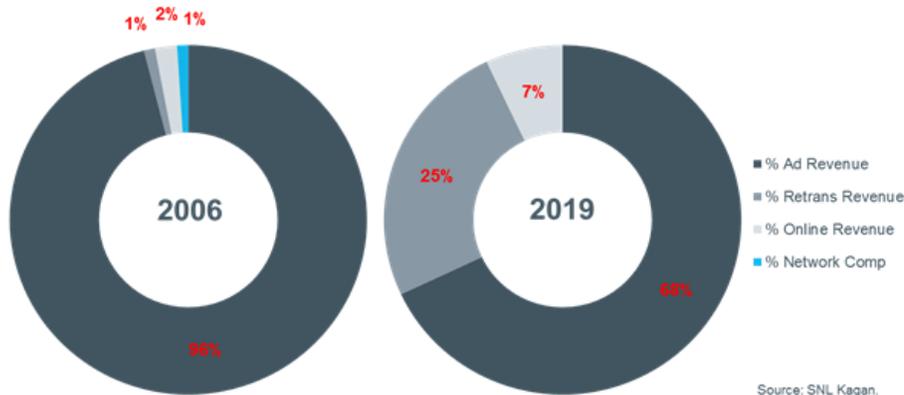
1. Represents the estimated total advertising revenue available in the market.
2. Represents the estimated share of the total advertising revenue in each market for each individual station.

Source: BIA Kelsey.

In addition to the total advertising dollars available in a market, consideration should be given to the composition of the market, quality of the station, and the population coverage of the station, when

² FCC rules.

Television Station Revenues Breakdown



Source: SNL Kagan.

estimating the potential advertising revenue of a particular television station.

The second major source of revenue for a television station is retransmission consent fees ("Retrans Fees"). Television stations receive Retrans Fees from MSOs in exchange for granting MSOs the right to carry their signals. Retrans Fees have grown rapidly (see chart below) in the past five years and now represent a significant source of station revenue, thereby lessening a station reliance on advertising revenue. The importance of Retrans Fees to broadcasters has triggered a wave of mergers in the television broadcast industry.^{ix}

These mergers have been driven by station groups need to gain leverage against major networks and MSOs. To draw viewers, a television station is dependent on the programming that it is receiving through its network affiliation. Therefore, networks argue that a larger portion of Retrans

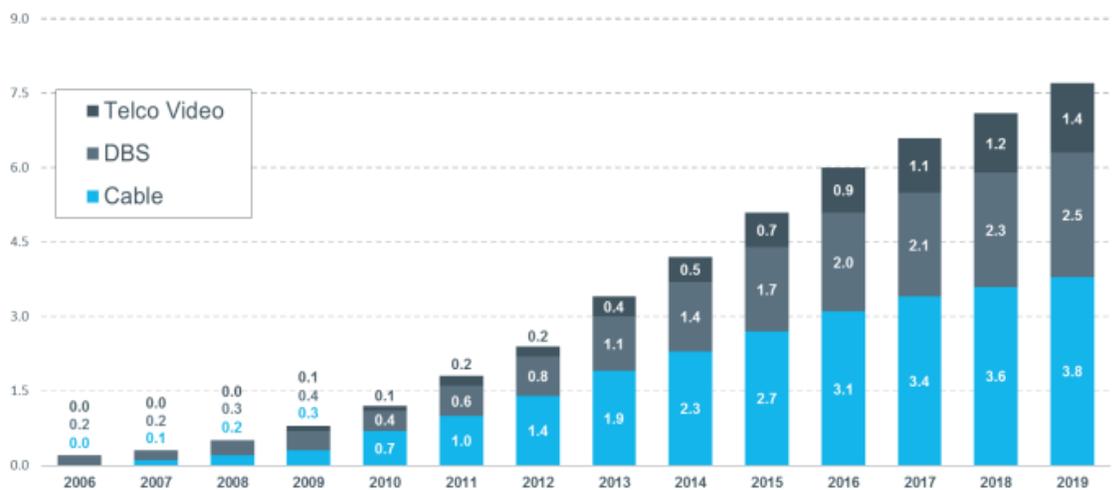
Fees should go to them since they provide the main programming to their affiliated television stations. Furthermore, the station's network

affiliation is subject to expiration. Upon expiration a network could enter into a new contract with another television station in the same market. Therefore, an individual television station may be vulnerable to losing its affiliation if it does not agree to share a significant portion of Retrans Fees with its current network partner.

However, by merging and increasing their size, network-affiliated station groups have partially increased their leverage against the major networks, since network programming is broadcast across a larger group of markets through a group of stations. Through mergers, station groups have also increased their leverage in negotiating for Retrans Fees against MSOs by increasing the number of stations they operate in various markets.

Retrans Fees for U.S. Broadcasters are expected to grow to approximately \$7.6 billion by 2019,

Broadcast Retransmission Fee Projections Through 2019 (\$ Bil.)



Source: SNL Kagan.

which represents a CAGR of 12.0% (2014–2019).^{x3}

Operating profit margin, seasonality, strategic concerns (i.e. growth), are other characteristics that must be examined.

Operating profit or broadcast cash flow (BCF) generally ranges from 30% to 40% for diversified station groups.⁴ BCF is defined as operating income before corporate expenses and depreciation and amortization.

	Dec '14 BCF Margin	June '15 BCF Margin
Entravision Communications	31.2%	28.9%
Gray Television	40.0%	40.5%
Media General	34.8%	29.7%
Sinclair Broadcasting	35.2%	34.2%
TEGNA	n/a	n/a
Nexstar Broadcasting	37.2%	36.0%

Source: S&P Capital IQ; As of October 30, 2015;

Political spending drives materially higher revenues and profits for stations during campaign seasons, resulting in better operating results in even years. Major sporting events such as Olympics, World Cup, etc., also create disproportional revenues for stations when these events are broadcast.

Another factor that impacts the valuation of a television station and an FCC License is the composition of the market.^{xi} A duopoly established in a smaller market can claim a large portion of

³ The Spectrum Act explicitly protects Retrans Fees arrangements of those Broadcasters that choose to relinquish their FCC Licenses and share a channel with another market participant in a DMA. The Spectrum Act states “A broadcast television station that voluntarily relinquishes spectrum usage rights ... in order to share a television channel and that possessed carriage rights ... on November 30, 2010, shall have, at its shared location, the carriage rights ... that would apply to such station at such location if it were not sharing a channel.” Spectrum Act (47 U.S.C. § 1452(a)(4))

⁴ Single stations profit margins can have a wider range.

the advertising dollars spent in a market, while reducing operating costs. Therefore, strategic options, such as the opportunity for consolidation within a given market can provide significant cost efficiencies.

Valuation Methodologies

In general, valuation of a television station and an FCC License is performed using a variation of the following widely accepted valuation approaches: the Income Approach and the Market Approach.

Valuation of a Television Station

The discounted cash flow method, a variation of the Income Approach, is used to estimate the value of television stations based on the expected future cash flows of the station. In this approach special attention must be given to all sources of revenue for a television station, including advertising revenue—both over-the-air and digital—and Retrans Fees.

A key factor that impacts the revenue that a station is able to generate is network affiliation. Independent stations that operate without a network affiliation generate significantly less revenue compared to stations with network affiliation. Therefore, the expected future cash flows of a station should account for the impact of the network affiliation.

The use of the Income Approach also necessitates the determination of an appropriate cost of capital for a station. Cost of capital for a station is a function of the market cost of debt and cost of equity of the station.

The Precedent Transaction Method, a variation of the Market Approach, relies on market transactions for similar television stations for indications about the value of a television station. However, this approach may be difficult to apply to television stations given the differences between stations’ network-affiliation, their DMAs, and their population coverage.

Typically a transaction multiple is expressed as a multiple of a station's BCF.

	Precedent Transaction Multiples			
	Low	Median	Average	High
Broadcasting Cash Flow (BCF) Multiple	6.0x	7.0x	7.3x	9.4x

Number of Transactions: 93

Source: SNL Kagan; For the period July 1, 2014 through June 30, 2015.

The Market Comparable Method, a variation of the Market Approach, relies on publicly traded comparable companies in the television broadcasting industry for indications about the value of a television station.

	Market Comparable Method			
	LTM Multiples		2015E Multiples	
	Revenue	EBITDA	Revenue	EBITDA
Entravision Communications	4.3x	14.9x	4.3x	14.3x
Gray Television	3.7x	9.1x	3.7x	11.5x
Media General	4.2x	14.1x	3.2x	11.1x
Sinclair Broadcasting	3.1x	9.0x	3.1x	9.4x
TEGNA	n/a	n/a	3.2x	9.4x
Nexstar Broadcasting	4.1x	11.3x	3.5x	10.6x

Source: S&P Capital IQ; As of October 30, 2015.

When applying this method, careful consideration should be given to the selected publicly traded comparable companies' financial profiles and relative similarity. Considerations for factors such as size, growth, profitability, risk, and return on investment, etc. are also analyzed and compared to the comparable companies.

The valuation indications of the Precedent Transaction and the Market Comparable Methods are derived from two distinct sources of information. The Precedent Transaction Method is based on completed transactions involving some private individual stations, while the Market Comparable Method relies on the market data related to a group of television stations that operate under one corporate structure. As a result,

reliable publicly available data may not be readily available from market transactions for the purpose of the Precedent Transaction Method. On the other hand, station-specific pricing information does not exist for the purpose of the Market Comparable Method since the publicly traded television broadcasting companies are comprised of several television stations that operate under a shared corporate structure. The valuation implications of the differences between the Precedent Transaction and Market Comparable Methods should be considered when using these methodologies to value a television station.

Finally, due to the seasonality of stations' revenues and profitability (i.e. political year spending, Olympics, and other large events), BCF multiples are typically applied to the average BCF of even and odd years.

Valuation of an FCC License

A form of the Income Approach used to value FCC Licenses, often referred to as the "Greenfield Method," is a buildup approach where the value of the FCC license is estimated assuming a startup scenario (that is, apart from tangible and identified intangible assets and goodwill). Essentially, the Greenfield Method assumes that the buyer would hypothetically obtain an FCC license (at nominal cost) and build a new station or operation with similar attributes from scratch. Thus, the buyer/builder is considered to incur the start-up costs and losses typically associated with going concern value and to pay for all other tangible and intangible assets. A discounted cash flow model is used to represent this hypothetical construct. Because start-up costs and losses are deducted during the build-up period in the discount cash flow model, the going concern value will not be part of the value derived for the license.

The key assumptions in building the model are estimated market revenues, market penetration leading to revenue potential, profit margin, duration and profile of the build-up period, and

estimated start-up costs and losses incurred during the build-up period. Furthermore, consideration may be given to Retrans Fees as a viable source of income once the station develops a proven program strategy.

Greenfield Method Example					
Projected 2015 Market Revenue: Number of Revenue Generating Stations: Average Market Share: Ramp-up period for a start-up station: <i>(\$ in millions, rounded)</i>				\$100,000,000 8 12.5% 5 years	
	Year 1	Year 2	Year 3	Year 4	Year 5
Total Market Revenue	\$100.0	\$113.2	\$108.6	\$111.8	\$114.0
Est. Station Market Share	2.5%	5.0%	7.5%	10.0%	12.5%
Est. Hypothetical Start-up Station Revenue	\$2.5	\$5.7	\$8.1	\$11.2	\$14.3
Operating Expenses	\$2.8	\$5.7	\$7.4	\$9.0	\$10.0
EBITDA	(\$0.3)	(\$0.1)	\$0.75	\$2.2	\$4.3
<i>Margin</i>	<i>n/a</i>	<i>n/a</i>	9.3%	19.6%	30.0%
Depreciation	\$2.4	\$1.9	\$1.6	\$1.5	\$1.7
EBIT	(\$2.7)	(\$2.0)	(\$0.9)	\$0.7	\$2.6
Income Taxes at 40%	\$1.1	\$0.8	\$0.3	(\$0.3)	(\$1.0)
Depreciation addback	\$2.4	\$1.9	\$1.6	\$1.5	\$1.7
Capital Expenditures	(\$0.5)	(\$0.5)	(\$0.5)	(\$0.5)	(\$0.6)
Working Capital Adj.	(\$0.3)	(\$0.6)	(\$0.8)	(\$1.1)	(\$1.4)
Free Cash Flow (FCF)	(\$0.1)	(\$0.3)	(\$0.3)	\$0.3	\$1.3
Sum of Present Value of FCFs Discounted at 10%				\$0.5	
Present Value of Residual at 2.5% LTG				\$11.0	
Less: Station Fixed Assets				(\$5.0)	
Equals: Value of FCC License				\$6.5	

Greenfield Method Example

The table above presents a simplified example of the Greenfield Method to better describe the method's application in estimating the value of an FCC License. In this example, the subject FCC License belongs to a hypothetical station that operates in a hypothetical DMA with eight revenue generating television stations and approximately \$100 million of projected market revenue.

Stick Value Method

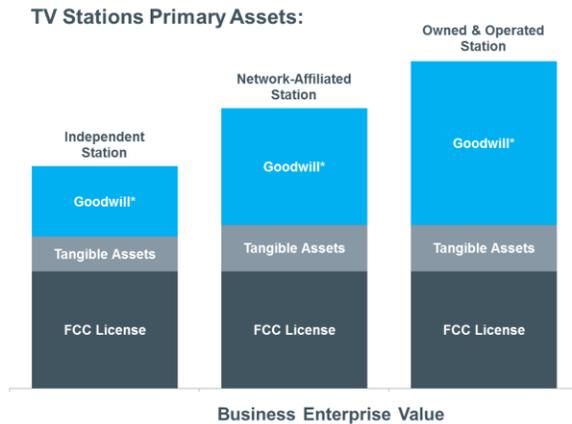
A variation of the Market Approach specific to the valuation of FCC licenses, often referred to as the "Stick Value Method" in the broadcasting business, relies on comparisons to purchase prices for observed transactions in identifiable markets where it is clear that the only assets that the buyer intends to use are the fixed assets and the FCC license(s). In such transactions, all other potential intangible assets, including goodwill and going concern value, are virtually abandoned upon acquisition. Thus, the total purchase price reflects the combined value of the fixed assets and the license or franchise. The value of the fixed assets is deducted, and the remainder indicates the value of the license (often translated as price per population metric) or franchise.

Considering the discussion above, there are certain valuation tools and methodologies available to Broadcasters that are contemplating participating in the Incentive Auction. These valuation tools should help Broadcasters estimate their Clearing Price in order to make an informed decision as part of the Incentive Auction.

Conclusion

A station's business enterprise value is comprised of the value its FCC License and other tangible and intangible assets (see the chart below). Expected future cash flow or BCF is the primary indicator for estimating the value of a station. Valuation methods, such as the Income and Market Approaches, described above, can be used to reliably estimate the value of a station. As shown in the chart below, the value of an FCC license is generally similar for all licenses found in a particular market. For example, all licenses in the Los Angeles metro area will be reasonably similar in value, assuming each license has the same market reach. Since few FCC licenses change hands directly, valuation techniques such as the Greenfield Method are commonly employed to estimate the value of these licenses.

Ultimately, the decision to participate in the Incentive Auction depends on a careful examination of the economics of the broadcast industry and estimating the value of a television station and its associated FCC License on a going-concern basis.



* A key component of Goodwill is the Network Affiliation of the station. Independent stations do not operate under a Network Affiliation agreement.

In certain cases the potential payout in exchange for the spectrum associated with the FCC License could exceed the value of the station as an on-going business. In those cases, Broadcasters should consider taking advantage of the Incentive Auction. In other situations, the decision is much more difficult.

In particular, the difficulty lies in understanding and quantifying the implications of adopting an alternative course of action to surrendering the FCC Licenses. As stated above, television stations have the opportunity to partner with each other in a given DMA (channel sharing) or get repacked by FCC (moving from UHF to VHF). In either scenario, the potential payout from the Incentive Auction would diminish. Meanwhile, the station can continue serving its DMA. However, channel sharing and getting repacked pose their own unique opportunities and/or challenges for the stations. Although important, the potential impacts of these alternatives are beyond the scope of this paper and should be studied very carefully leading up to the Incentive Auction.

The FCC has engaged in an active campaign (i.e. the Greenhill Reports) to provide value indications that would incentivize Broadcasters to participate in the Incentive Auction. If enough Broadcasters do not participate in the Incentive Auction, too little spectrum would be freed up to satisfy FCC's goal of repurposing additional spectrum for wireless communications.

However, there is not a lot of merit to speculating on how much the FCC will be able to raise in the Forward Auction and what portion of the proceeds from the Forward Auction will go to Broadcasters.

Instead, Broadcasters should have a clear understating of:

- What their FCC License is worth;
- What their television station is worth;
- How the opening bids in the Reverse Auction compare to the estimated value of their FCC License and television station; and
- What strategic options they have available to them if they decide to participate in the Incentive Auction.

The points mentioned above drive home the importance of knowing a Clearing Price prior to the Incentive Auction, given the uncertainties facing Broadcasters.

ⁱ Spectrum Act (47 U.S.C. § 1452(a)(4))

ⁱⁱ The transition from analogue television technology to digital television technology resulted in a more efficient use of the spectrum by Broadcasters.

ⁱⁱⁱ Spectrum Act (47 U.S.C. § 1452(a)(4))

^{iv} Auction 97 spectrum auction raised \$44.9 billion for the 65MHz of mostly Advanced Wireless Services 3 (AWS-3) range. Known as paired spectrum, The AWS-3 spectrum is located between 1755MHz and 1780MHz for the uplink portion and 2155MHz and 2180MHz for the downlink.

^v <http://wireless.fcc.gov/incentiveauctions/learn-program/repacking.html>

^{vi} http://wireless.fcc.gov/auctions/default.htm?job=auctions_all#completed

^{vii} Source: the Greenhill Presentation and FCC Filings.

^{viii} The Retransmission fee is divided between the affiliated network and the station owner if the station is not operating as an owned and operated station.

^{ix} "Retransmission fee race poses questions for TV viewers." USA Today.

^x The Spectrum Act explicitly protects Retrans Fees arrangements of those Broadcasters that choose to relinquish their FCC Licenses and share a channel with another market participant in a DMA. The Spectrum Act states "A broadcast television station that voluntarily relinquishes spectrum usage rights ... in order to share a television channel and that possessed carriage rights ... on November 30, 2010, shall have, at its shared location, the carriage rights ... that would apply to such station at such location if it were not sharing a channel." Spectrum Act (47 U.S.C. § 1452(a)(4))

^{xi} Refer to FCC Rules.

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