An Opinionated Analysis of the Radio Industry including a Primer on Valuation of Radio Spectrum

Terrance W. Moore

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I. INTRODUCTION

The cork from a champagne bottle. The ramp meter turning green. Kids running from school at the start of vacation. None of these releases can compare to the release Congress gave broadcasters in 1996. The closest comparison is the Oklahoma Land Rush. Everyone interested knew what was coming and was prepared for it, but nobody could move until the gun went off. The radio consolidation spectrum rush lasted four years. This consolidation had a major impact on radio station valuation and on valuation methodology.

This article analyzes the manner in which the broadcasting industry calculates the value of radio stations and discusses the im-
pact of consolidation on these values since implementation of the Telecommunications Act of 1996 (hereinafter "the 1996 Act").

The 1996 Act had a profound effect on the market for radio stations by releasing decades of pent-up demand for consolidation. The release of this pent-up demand resulted in a rush for radio spectrum not unlike a real estate boom. Suddenly, sellers were obtaining higher prices than they had dared to dream of. Buyers were racing to acquire as many properties as possible, as quickly as possible. This led to further escalation of prices as buyers engaged in bidding wars for attractive properties. As in a real estate boom, many of the acquisitions were made without regard to their former value.

II. HOW TO EVALUATE RADIO SPECTRUM

Radio spectrum is like real estate. If you own a parcel of real estate, you have a group of exclusive rights regarding that land. Nobody can visit it without your permission. Nobody can pass through without an easement or an invitation. Nobody can do anything with the property unless they first secure the rights from you. Ownership of real estate also carries certain obligations. The owner must keep the property in a reasonably safe condition. The owner is responsible for any pollution on the property. The owner may build as he likes, but not without restriction.

Like a real estate owner, the broadcast license holder has certain rights and obligations regarding the spectrum he controls. The broadcaster is protected in a geographic area from other signals. Because radio waves are a tangible, physical phenomenon, they can interfere with each other. To prevent this interference, radio spectrum is allocated in a plat-like system. Each station is assigned a channel and a signal strength.\(^1\) This system prevents sta-

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1. The allocation system is a complex one, worthy of its own article. For this article, it is enough to observe that stations are protected from other stations by minimum distance separations. The separation requirement is determined as a function of the classes of the involved stations and the proximity of their frequencies. A station's class determines its Effective Radiated Power (ERP), which is a combination of broadcast power and height. Higher ERP means more protection. Stations closer in frequency to each other must be separated by greater distances. Thus, two high ERP (Class C) stations on the same channel must be 180 miles apart, while two low ERP stations (Class A) on the third adjacent channel need only nineteen miles of separation. 47 C.F.R. § 73.207 (2000). After the third adjacent channel there is no real protection, so two Class C stations can be built in the same city, as long as their channels are not in proximity.
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tion signals from interfering with each other. It also creates in the licensee an exclusive right to broadcast, just as the real estate owner has an exclusive right to build on his property. No one may encroach on the signal, no one may broadcast in the protected area and no one may use the station without the licensee’s permission.

Owning a radio station also carries with it certain obligations. You may not broadcast at a higher power than your license authorizes. This is called “overmodulation.” Overmodulation leads to interference with your neighbors on the spectrum. Like zoning setbacks, this system protects neighbors from each other. You may not broadcast indecent material. Like the owner of contaminated real estate, the broadcaster is generally responsible for indecent material on his station regardless of whether he put it there.

With these similarities in mind, it is not surprising to find that radio stations have traditionally been appraised much like real estate. For example, vacant land has value, as does a radio station license. Improved land, functioning at its highest and best use and generating cash flow, is appraised for its business value more than for the value of the land and improvements.

A. Stick Value—The Vacant Lot Of Spectrum

The broadcast license gives the holder an exclusive right to broadcast in a particular part of the dial in that market. This is similar to owning a vacant lot. Like an unimproved lot in a desirable location, a radio station license that is not profitable still has significant value. In broadcasting, this is known as “Stick Value.” The value of a license will never go below the Stick Value, no matter how badly the station performs.

Like real estate, Stick Value is about location and size. A vacant commercial lot in a small town will have value, but not nearly the value of the same lot in Manhattan or even Minneapolis. Likewise, a radio station that is losing money or not even operating will have value wherever it is located, but it will have much more value in a rated market than a small town. Location and power are critical. Wherever located, a large (high power) station will have considerably more value than a small one.

Stick Value can be a potent concept. In 2000, Blue Chip Broadcasting found a way to move a radio station from Glencoe, MN (in McLeod County; population 34,522) 2 closer to Minneapolis.

Blue Chip purchased that station for $20 million. Everybody involved in the move made money. As a Glencoe station, its value would not have approached $10 million, so the seller did better than he could have hoped. As a Minneapolis station, Blue Chip entered a market where the Stick Value for a full power station is about $50 million. The Blue Chip property is licensed in the extreme west of the Minneapolis metropolitan area, so its Stick Value is somewhat less than if it was in the center of the market. Nevertheless, before it generated a dime of revenue, Blue Chip had created a $30 million property.

Like real estate, Stick Values are influenced by comparable sales. In 1983, Stick Values in Minneapolis reached $3.8 million dollars with the sale of KTWN-FM to Transtar. Transtar never made money with the station, but sold it several years later for $8 million. In 1991, Minnesota Public Radio paid $12 million dollars for a station to broadcast non-commercially. By 1998, CBS purchased the stations owned by Nationwide Insurance and allocated a rumored $40 million for the purchase of KMJZ, a high ERP station that had never generated significant cash flow. Comparable sales, however, are not the only factor that affects Stick Value.

Stick Value is the minimum value of the potential of a market. Important market considerations include the amount of retail sales in a market, the total revenue of radio stations in the market and the number of stations in the market.

Retail sales define the potential of a market because of the direct correlation between retail revenue and advertising budgets and the direct correlation between advertising budgets and radio revenue. Radio revenue varies widely, but are usually between .003 and .005 times a market’s retail sales. More retail sales in a market creates a bigger revenue pie for the stations to divide, thus adding to the market’s Stick Value.

While retail sales have a direct effect on the size of the radio pie, total radio revenues are a direct measure of the market’s performance. Advertisers are more likely to change their stations than to switch from newspaper to radio. Although performance can change, total radio revenue in a market gives a buyer a good idea of the market he is actually working with.

While retail sales and revenues deal with the size of the feast, the number of stations in a market defines the number of guests at the table. If there are more stations, there is less revenue for each one, so Stick Value decreases. On the other hand, if a market has
few radio stations, they can all do well and Stick Value increases.

With all these variables, Stick Value may seem a nebulous concept. It is. But it is important. The failure of the publicly-held broadcasters to understand the impact of their operation on Stick Value is a factor that creates problems for radio stations.

Many of the acquisitions in the spectrum rush following the 1996 Act were made based on Stick Value, with little regard for the past performance of the acquired stations. However, publicly-traded companies effectively deprive themselves of the Stick Value of their properties because they do not have the opportunity to divest of the properties. In a manufacturing company, the stock is valued based on the financial performance of the company, not the value of the factories or the break-up value of the companies. Because publicly-held companies are not expected to divest of their radio properties, the Stick Value of these properties does not affect their on-going shareholder value. Thus, some broadcasting companies suffered because their new properties did not have great cash flow.

B. Improved Property—Cash Flow Is King

The value of real estate increases as the property is improved. The same is true for radio stations. Once a radio station becomes a mature and profitable operating entity, its value increases above the Stick Value. Most radio stations are appraised this way. Their value increases as their cash flow increases.

Like commercial buildings, radio station buildings come in all qualities. Some are lavish; some are dumpy; and most are in between. However, nobody visits radio stations. They do not need to be beautiful to attract listeners. Improvements to radio stations mean improved financial performance. As an investment, a mature radio station is like a mature office building. If the building is structurally sound and functioning properly, the typical buyer is more interested in the rent rolls than the color of the carpet. Likewise, a mature radio station is an investment. Return on Investment (ROI) and shareholder value are more important than plush surroundings.

Traditionally, radio stations have traded at a base of ten times cash flow with some fluctuation because of each station’s unique properties. While many factors affect the value of a particular station (i.e., cost of capital, number of buyers, and operation of the station), the benchmark remained at ten times cash flow for many
years. This changed with the 1996 Telecom Act.

Cash flow is still a benchmark because of the seller's interest in it. If a seller, for example, has cash flow of $120,000 annually from his radio station, he would be unlikely to sell for a sum that would not produce similar revenue when invested. The buyers, however, are looking at other matters. Station gross revenues (not cash flow) have become more important. In many cases, a buyer can incorporate the target station into its own operation with little increase in its own costs. Thus, stations' revenues are incorporated into the purchasers' revenue without the attendant on-going expense. As a result, some companies use a revenue analysis regarding acquisitions.

The revenue model generally puts a purchase price around three times annual revenue. This figure creates an interesting mathematical coincidence. Prior to consolidations, radio stations operated around a 20% margin. With the changes in technology and consolidations, stations now seek 30-40% margins. With a 20% margin, ten times cash flow is equal to approximately two times revenues. By increasing the purchase price to three times revenues, the buyer creates a higher return for the seller (at a 20% margin, three times revenues equals fifteen times cash flow), while at the same time incorporating the revenues into its own operation without being encumbered by the seller's expenses. Thus, the fifteen times trailing cash flow paid by the buyer actually becomes a price of ten times going-forward cash flow for the buyer who increases margins.³

In addition, it is important to remember that public buyers have different interests than private buyers. A publicly held company, especially a growing company, is very concerned about revenue growth. Thus, a growing public company will often be more interested in purchasing a group of stations with $30 million in revenue and no cash flow than in a station with $10 million in revenue and $2 million in cash flow. Further fueling this new model is a public company's ability to obtain capital at a lower cost than private companies. Whether obtained through public offerings, corporate bonds or their own lenders, the cost of capital for a

³. Take for example a station with revenues of $1,000,000, at 20% margins, and cash flows of $200,000. Ten times cash flow is $2 million. Fifteen times cash flow is $3 million. If the margin increases to 30%, ten times cash flow is $3 million. Thus, the buyer pays ten times forward cash flow, but the seller receives fifteen times trailing cash flow.
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multi-billion dollar public company is significantly less than the cost of capital for a small buyer. The result of all these changes is that public companies are willing and able to pay higher prices for radio stations than they could justify before the 1996 Act.

III. A HISTORY LESSON

A. Pre-1996 Act—Artificially Low Values

Until 1996, the Federal Communications Commission (hereinafter “the F.C.C.”) artificially suppressed the value of radio stations by suppressing demand through onerous ownership restrictions. Broadcasters were limited to twenty AM and twenty FM stations nationally. Now, after the 1996 Act, Clear Channel Communications owns more than 2200 stations, about 20% of the national total. Before 1996, a group could own only two stations of each service (AM and FM) in a single market. Now, a single owner may have an interest in up to eight radio stations in the largest markets (with up to five of a single service).

Prior to the 1996 Act, most stations sold for around ten times cash flow. Sale prices were chained to this benchmark largely because of (1) the cost of capital; (2) the lack of potential buyers; and (3) the inability to cut expensive operations.

1. Cost Of Capital

Traditionally, most radio transactions were seller-financed or bank-financed. A decision to buy a radio station became a simple equation: Buyers sought to obtain a rate of return high enough to recoup the cost of the capital plus make the investment worthwhile.

Buyers were loathe to pay more than ten times the annual cash flow because paying more precluded obtaining a significant ROI. This can be demonstrated with a hypothetical example. Assume a buyer paid $200,000 cash and borrowed $1 million at 10% interest to finance the purchase of a $1.2 million radio station ($120,000 annual cash flow). If we assume the buyer maintains the $120,000 cash flow and that the buyer could have invested $200,000 at 10%, the cash flow just matches the investor’s capital cost, leaving no ROI. The buyer may be able to take a salary and likely gain some equity in the station. If the buyer is a broadcaster who wants to work at the station, and ultimately retire on the station’s increased equity, this may be a sound investment. Wall Street, investment
bankers and venture capitalists, however, have no interest in a break-even investment. Thus, for years there was little interest in radio stations as investments.

2. Suppressed Demand

Like any industry, broadcasting is affected by supply and demand. Before the 1996 Act, there were few buyers for radio stations. As discussed above, broadcasting was not attractive to the investment community. Investors and broadcasters could own only twenty AM and twenty FM stations nationwide. Thus, the largest groups had either reached their ownership cap or, knowing they were near their cap, were selective about which stations they purchased. Because a company that only owned broadcasting properties was limited in size, Wall Street was not particularly interested in the industry.

3. Operations

Consolidation has also allowed operators to cut costs. Back office costs have been reduced dramatically. Likewise, studios, sales offices and other bricks and mortar aspects of the business have been consolidated. Personnel are used for multiple radio stations. In short, an operator with eight stations in a market can operate those eight stations at less than twice the cost of operating a single station. Thus, with consolidation, prospective purchasers feel they can inherit the revenues of the target station without inheriting all of their expenses.

Prior to the 1996 Act, it was difficult to save station operating costs. It was difficult to cut back on personnel, especially announcers and back-office employees. The quality of the announcers reflects dearly on the quality of the station’s product. Each station needed the same back office facilities. While a traffic director or bookkeeper could handle eight stations on one market, the company could own only two stations per market and needed back office staff in each market. This redundancy was expensive but unavoidable.

B. The Spectrum Rush

The 1996 Act released all national ownership restrictions. The chart below sets out single market ownership limitations from the
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1996 Act.\(^4\)

<table>
<thead>
<tr>
<th>NO. OF COMMERCIAL STATIONS IN A MARKET</th>
<th>MAXIMUM NO. OF STATIONS</th>
<th>MAXIMUM NO. OF SAME-SERVICE STATIONS (AM OR FM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 or more</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>30-44</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>15-29</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>14 or fewer</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

In economics, demand is like gravity. It is relentless. It may be overcome temporarily, but it will win in the end. Once the ownership restrictions were released, demand outpaced supply and station values increased accordingly. Broadcasters could own hundreds of stations, with billions in revenues. Broadcasters began to attract serious interest from Wall Street. In the three years immediately pre-Act, approximately 12% of all radio stations traded in rated markets were publicly held. By 1999, 57.2% of traded stations were publicly held.\(^5\) From 1993 to 1995, sales of publicly held radio stations totaled an annual average of $1.72 billion, accounting for an average of 42.9% of the total sales volume.\(^6\) In 1999, this volume totaled $26.65 billion, exceeding 94% of total volume.\(^7\) In just four years, publicly held stations became the norm in the industry.

These numbers are pregnant with inference. The volume of transactions increased nearly seven-fold ($4.1 billion to $28.4 billion). This increase is entirely from transactions involving publicly-held stations. Annual transactions involving publicly-held station sales increased fifteen-fold (from $1.72 billion to $26.65 billion) while sales of privately-owned stations actually decreased ($2.3 billion to $1.7 billion).

As the new millennium begins, the initial wave of consolidation appears to be approaching completion. By the end of 1999, 56.1% of stations in the top fifty markets were consolidated, representing an average listening share of 78.2%. By 1999 the eight


\(^6\) Id.

\(^7\) Id.
largest groups controlled 1,805 stations. This concentration grew more dramatically in 2000 with the merger of the two public companies holding the most stations when Clear Channel Communications (520 stations) merged with AM/FM, Inc. (410 stations). With another 2000 acquisitions, Clear Channel now operates 2200 stations.

IV. VALUATION ANALYSIS OF PUBLICLY-TRADED BROADCASTING COMPANIES

Currently, there are about twenty publicly-traded companies heavily involved in broadcasting. The largest of these is Clear Channel Broadcasting (again, operating 2200 radio stations nationwide). The second largest operator in terms of number of stations is Cumulus Media, which operates about 500 stations. In 1998, Clear Channel earned $1.35 billion in revenues, and in 2000 earned $4.2 billion. Cumulus earned $98 million in 1998 and $223 million in 2000. These are rapid growth companies.

These are also companies with weak stock performance. At year end 2000 Cumulus traded at around $4 per share, down from $55 in March of 2000. Clear Channel now hovers around $50 per share, down from $91 in January, 2000.

Clear Channel has a break up value of $21 per share at three times revenues. The break up value of Cumulus is around $19 per share. But Clear Channel trades at $50 and Cumulus at $4.

Why are these companies trading so differently? Simply put, the fundamentals have caught up with them. Clear Channel is profitable and Cumulus Media is not. There are no buyers interested in liquidating the companies, so break-up value is irrelevant. Only the earnings (and potential earnings) matter. Investors do not consider the liquidation value of these companies. This leaves few potential suitors for the companies. Although the corporate raiders might find these numbers interesting, they have not yet taken to pillaging broadcast companies.

Broadcasting still has some regulatory barriers, which make it a less then attractive industry for buyers who only want to buy the

8. Id. at 52.
10. Id.
11. Id.
12. Id.
13. Id.
company in order to divest it. Any transaction that transfers control (changes majority ownership) needs the approval of the F.C.C. and, in some cases, the Department of Justice. In large transactions, these analyses can take many months to conduct. Some take more than a year. If the F.C.C. believed that the new owner did not intend to use the spectrum "in the public interest," they could deny the transfer, which would lead to a long legal battle.

If a raider approached Cumulus Media, for instance, he might buy the company for $8 per share. To liquidate the company quickly, he would have to place 500 stations on the market at once. This would depress prices. The $19 per share break up value, less transactional expenses, might be $14 or less. Time is also an element. The F.C.C. and the Department of Justice might take as long as twelve months to approve the purchase. It could take another year or more to sell all the stations. Thus, after two years and tremendous risk, the raider takes home a return of 75% on his investment. Not bad for the public, but the time, risk and cost have kept raiders away to this point.

V. THE FUTURE

The broadcasting industry has spent five years consolidating only to end up in the same place as before. Demand for radio stations is suppressed. The suppressing agent is now the market, not the F.C.C. Investors are not interested in broadcasting companies because there are no more buyers for the large companies. Here are three simple predictions for the future of the radio industry:

The pent-up demand released by the 1996 Telecommunications Act has been spent. Consolidation will slow to a trickle. Radio stocks will stabilize over the next twelve to eighteen months. They will be priced at P/E ratios around twenty. The stock prices will be based on a broadcaster’s earnings more than revenues.

The large radio companies will occasionally be swallowed up by companies like AT&T, SBC or Microsoft. As in other industries, values will skyrocket when a company is put in play.

Smaller publicly traded broadcasters, whose cash flow cannot sustain shareholder value, will maintain revenues by selling their stations, a few at a time, until they are small enough to sustain themselves or sell as a group.

As an investment, broadcasting will hit a lull in the short term. However, as when real estate markets are depressed, those who can buy while prices are low will ultimately reap the greatest rewards.
The supply of radio stations is far more limited than the supply of commercial real estate. The value of radio spectrum will again rise and those that can acquire stations during the hard times will be the winners.