Valuation of Media Properties

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VALUATION OF MEDIA PROPERTIES

One standard definition states that economics is about the way in which resources are allocated among alternative uses in order to satisfy human wants. Such a definition provides an introduction to economics and defines what economics does, what economics examines. It does not, however, describe what economics really is all about; that is value: the creation of value, the exchange of things of value, the maximization of accumulated value (Ferguson, 1972, p. 391). The concept of value, the idea that certain things are desired, is the foundation upon which economics is built. Economics is the study of processes which are based on value, and the things which influence those processes.

This is particularly true for media economics. In fact, the evidence of the last few years would indicate that media properties are very highly valued. Broadcast stations, newspapers, and cable systems regularly are bought and sold for millions of dollars. Broadcasting magazine (1990, 5 February) reported more than $3.2 billion in station sales in 1989, and over $10 billion of cable transactions, in what was considered an off years. 1990 was even a slower year, with only a few big cable deals and less than $2 billion in station sales, the lowest total since 1982 (Broadcasting, 1991, 11 February). The regular demand for both media outlets and for access to those outlets, demonstrates that value is placed in media ownership. However, while it is clear that media are valued, determining and measuring that value is much more problematic.

This chapter will be devoted to exploring the factors that make media valuable and to considering the ways in which the value of media properties is measured. We will explore the roots of the concept of value, and why value is often difficult to deal with in concrete terms. We will also identify those factors influencing the valuation of media properties. Finally, we will demonstrate some of the methods and procedures used to place a value on media properties.

Value as a Concept

"Economic value is not a material thing, any more than light and heat and sound are material things; and, like light and heat and sound, it cannot be represented or measured by a material thing. Economic value is sustenance, comfort, security, beauty and joy, whether contributed to by commodities, services, or order. The artist in us creates value; the technician in us amplifies values; and the critic in us determines value; for man, the maker, is also the measurer." (Atkins, 1925, p.25)

In the purest sense, the value of any thing is whatever someone is willing to give, or forego, in order to have it. It is a measure of desirability, of want. The problem with this definition of value is that it is uncertain, and, in an absolute sense, perhaps even unknowable. How can you determine what some individual, under some circumstances, might be willing to exchange for an item? Is it even possible for any one person to place a firm value on some good or service under all possible conditions? Even if one can answer these questions, then consider whether it is possible to determine a set value out of every individual's set of values.

And even if we could determine everyone's valuation of an item at some point, two other problems arise which make it difficult to ascertain a precise, firm, value. First, situations change, and how much a person values something can change with the situation. Second, this conceptualization of value is abstract; it considers what one might give for the item. It raises the problem that while someone may value something highly, that person may not be in a position to actually acquire the item. And does value, in a concrete sense, exist when exchange is not possible?

These points illustrate the fact that, to the economists' chagrin, value is not some fixed absolute measure, discoverable with relative ease by all who seek to determine it. Value is variable, it differs from individual to individual, from situation to situation. Value is influenced by an infinity of conditions...
and factors. At the very least, the concept of value is uncertain, and in the extreme, value is arguably unknowable. It is not an easy concept for economists to deal with; it is not nice, clean, or well-behaved.

That raises problems for economists, who hate uncertainty. Most economic models presume that the participants know everything, or at least almost everything, about the market and the goods in that market. They also presume that things are relatively constant and fixed, at least over the short term. Economic behavior is predicated on what is known. So, if value is the basis for economics, and value is uncertain and perhaps even unknowable, then the basic assumptions and laws of economics are broken and the economists are out of business. How can you measure demand, or the effect of market structure on demand, if you don't know how things are value.

Thus, the economist tends to abandon the pure, abstract, concept of value, and replace it with more concrete, certain, and measurable concepts. They redefine value in ways which make it knowable and certain, at least in theory. Thus, in demand considerations value is replaced by the concept of utility, which is defined as a known set of preferences among a given set of goods and services. On the supply side value is replaced by price, which in theory is determined in large part by costs; again, value is replaced by something a bit more certain, a bit more knowable. In both cases, the pure, simple, concept of value is replaced by measures which reflect more relative, more general, and more specific reflections of value. They are replaced by concepts which are, by definition, knowable and observable, giving the economist a handle on value. There are still some limits to these approaches, though, which sometimes creates problems in the application of economic theory to the real world.

The real world, however, is in not quite so desperate a shape. While the pure, true, precise, value of a thing may not be knowable, quite a lot can be determined about the level of value. That is, while one can not nail down a precise, firm, value for any specific thing under all possible sets of conditions for all possible people, one can certainly get a fairly good idea of the general level of value under a general set of likely conditions. In fact, the business world has utilized such a notion for years, referring to it as "Fair Market Value." Specifically, fair market value is defined as the expected value under a set of normal, or typical conditions. The notion of expected value is a statistical device which provides an averaging of individual values over a range of conditions, and thereby provides a means of generating a fixed value from a set of uncertain, but possible values. The definition of fair market value as the expected value of a good under "normal" conditions further restricts the consideration of certain extreme conditions, in a sense standardizing the process of valuation.

This section will focus on the concepts of value and fair market value in the consideration of media. In doing so, we will consider first the nature of value and valuation, and the factors which affect the value of any given thing. For although we will deal primarily with a fair market value, it must be kept in mind that the standard conditions that such a valuation implies are almost never met in the real world, and thus the calculated fair market value may need to be adjusted for the peculiar situation and conditions of any media property and/or market.

Economic theories of value

How things are valued has been one of the central questions of economic theory. Early economic theories tended to fluctuate between three basic foundations for economic value: cost, exchange, and utility. The cost approach argued that the value of any one thing was the sum of the value of the inputs that went into its production. For many, that meant an emphasis on the amount of raw materials, including labor, that were involved in the production of the good or service. It was a nice, clean, definition of value in that costs were known and measurable, thus ensuring that value would itself be known and measurable.
A second approach emerged with the recognition that some things, like paper money, had value far in excess of the cost of their component parts. Their value lay, instead, in their ability to be exchanged or traded for other things which did have innate value. Adam Smith (1776: 1937), for example, argued for the valuation of products in terms of the labor that could be exchanged for the good. To Adam Smith, only labor could create value where none existed before, and thus labor was the true source of value, whether it be through exchange or the creation of goods and services.

While exchange value was a useful development and extension of value concept, it was limited in that it defined value as existing only in exchange. What about things which were not exchanged? Did they not have value? It was not long until some early economists argued that exchange value referred to the good's usefulness through exchange, and thus extended the concept of value in terms of usefulness, or utility. Etiennne de Condillac succinctly expressed the early utility perspective when he wrote in 1776:

"Value is not an attribute of matter, but represents our sense of its usefulness, and this utility is relative to our need. It grows or diminishes according as our need expands or contracts." (cited in Rima, 1972, p.60)

In contrast to cost-based theories, which put the determination of value in the hands of producers, the utility-based theories of value felt that it was the consumer who was important, and it was the consumer's concept and measure of value which was important. For, it was argued, no matter what the cost of a good, no exchange will occur unless that good has a value, to the consumer/purchaser, of at least as much as the cost. Utility-based theories also subsumed exchange perspectives, by recognizing that the utility of some items were based precisely in their usefulness as media of exchange.

Pure utility theories are hampered by the fact that the true usefulness of any item can not be known until after it has been used. There are ways around this predicament, such as defining value as the expected utility of its future use. Still, this makes the utility approach to value somewhat speculative, and thus subject to the related problems of uncertainty.

From the modern perspective, all of these early theories are somewhat on the mark, and have contributed to the current conceptualization of value. Value, to an individual, is based on usefulness, whether that usefulness comes from the actual consumption of an item, its possession, or from its exchange for other valued things. But the cost of a thing is a valid consideration in the determination of value, for cost is a constraint on availability and a thing cannot be valued if it does not exist. Finally, but most importantly for our purposes, value can be objectively measured only in terms of its exchange. When two parties exchange a good, they have reached an understanding about the value of that good, and have left a record of that negotiated value.

We need to remember, however, that this negotiated value, or exchange price, does not necessarily reflect the precise value placed on the exchange good by the parties involved. What an exchange price reflects is that sellers believe that their valuation of the good is no more than the exchange price. If the value to the seller was greater than the exchange price, the seller would not sell (unless forced to by other circumstances). Similarly, the exchange price reflects a minimum to the buyer; the buyer will not purchase the product unless she feels that its value is at least as large as the exchange price. Thus, what the exchange price actually measures is not true value, but some point in a range determined by the buyer's and seller's opinions about their own individual valuations of the good under the particular conditions of the exchange.

**The variability of value**

There are many factors which can influence value. Some are related to attributes of the item being valued. Some are related to the particular situation and needs of the potential purchaser. Some may be similarly related to the particular situation in which potential sellers find themselves. Others
may be related to conditions of the exchange and the context in
which it occurs.

In order to consider some of the sources of variability and
their relation to value, let us consider water as an example.
Water, unlike media properties, is a nice, simple product, one
that is both familiar and dealt with virtually every day. It is
also one of the first, and most widely used examples of
products used in the study of value. Adam Smith (1937), for
example, had argued in 1776 that while water was very useful,
it had scarcely any value because water could not be exchanged
for much (Adam Smith, it should be remembered, was in a
country where water was very plentiful). We know what water
is, what its uses are. At first thought, we might also feel that
we certainly know what the value of water is. But do we?
The concept of water might seem common and uniform
enough that we don't often think of it in terms of actually being
distinctive things. But certainly polluted water is distinctive
from what comes out of your faucet at home (hopefully). Sea
water is different from river water, which may be different
from rain water or the water from melting snow. Purified
water is different from distilled water. Water may have
different mineral contents, may be fluoridated or not, may have
different tastes and smells. What this indicates is that there can
be significant differences in the attributes, or properties, of the
basic good "water."

It also shows that we place different values on the different
types of water. Polluted water is valued less than clean water;
that is why we seek to limit and control pollution. It is valued
less because its particular attributes are generally seen as being
less useful and/or desirable than those of "clean" water. But
even "clean" water may not be enough; if it tastes bad or smells
funny it may be fine for watering the lawn, but not preferred
for drinking. So often we are willing to pay more for "better"
water.

Some people will even pay a premium for water that may
not be chemically better or different, but has a prestigious
label. Such "designer water" can be found today in many bars,
restaurants, and supermarkets. In that case, the value is
affected not only by the water itself, but by the manner in
which it is packaged. Still, packaging is an attribute of the
product.

Not only may differences in product characteristics
influence value, but so might certain aspects of the situation
under which the exchange takes place. Those aspects include
buyer characteristics, market (location) characteristics, and
seller characteristics.

The classic example of buyer characteristics involves water.
It is based on the idea that a person dying of thirst might value
a gallon of water differently from a person who is not only not
thirsty, but who has a reservoir tucked away in their back yard.
Certainly, that additional gallon of water is needed and desired
more by the thirsty person, and through the utility notion of
value, that greater need and/or desire leads to a greater
valuation of the water.

The example also extends to market/location characteristics,
with the concept that water tends to have a greater value in the
desert than in a region of lakes and rivers. The available
supply and the ease of obtaining a product tends to influence its
perceived value. As noted earlier, Adam Smith, with water in
abundant supply, saw it to have very little value, even though
suggesting that it was quite useful.

Specific market characteristics, like the degree of
concentration, or the amount of information available about the
product and its availability, can also have an impact on the
perceived value of the product. Monopolists are said to be able
to manipulate the price, if not necessarily the value, of their
goods. Advertising is claimed to be able to increase the
perceived need and/or desirability of a product, and hence its
perceived value. On the other hand, the lack of information
about a product, by increasing the uncertainty about its
usefulness and value, is said to deflate perceived value.

The value of water may also be affected by seller
characteristics. The point to remember is that the seller has
acquired his or her stock for some reason, and thus assigns
some value to that stock. Like the buyer, any number of things may affect that value. The amount of the product held, the perceived future needs for the product, the perceived future supply (or availability) of the product; all may easily influence the perceived value of the product to the supplier.

Thus, as the example of water amply illustrates, there are a number of aspects of economic goods, and the conditions of exchange, which can influence the perception of value. Economists take into consideration some of these differences by narrowing specifying the market and the exchange conditions. Differences in buyer and seller characteristics are incorporated through the use of supply and demand curves, which reflect the fact that different people place different values on the same thing.

*The value of businesses*

An ongoing business operation is different from what is normally considered as economic goods. Businesses are not consumed, per se, nor are they typically held only for their exchange value. In that way, they are something like land. Land is not used up, and is not easily transportable, like most trade goods. Land, however, certainly has value. A question raised by many early economists was how was land valued.

The English philosopher John Locke provided the central concept for the value of continuing goods such as land (or businesses) when he argued that the value of land depended on the income that could be derived from it (Rima, 1972). Sir William Petty extended the notion when he suggested that the purchase price paid for land depends on the number of years a prospective purchaser is likely to enjoy its yield (Rima, 1972). In other words, the value of an continuing good is based on the expected yield of that good over a period of time.

Following this notion, the value of any business lies primarily in its ability to generate a return over some period of time. There are three basic ways in which any business can generate a return to its owners, and thus create value.

First, all businesses have assets, the things which they own. Assets have value, both on their own and as part of an ongoing operation. One potential future for a business is to actually cease operations and to sell off the assets. This strategy has enjoyed some popularity among the so-called corporate raiders of the 1980s, who bought conglomerates, and were able to recoup their investments by selling off component parts. Thus, one possible determinant of the value of a business is its assets.

A second source of value for any business comes from its operation as a business, from its profits. An ongoing operation provides the owner with, hopefully, a flow of profits from its operation. These future profits certainly constitute a yield, and a value to ownership. That profit stream has a current value, which can be a possible determinant of the value of a business.

The third source of value for a business is as an investment. Like any other non-consumed good, businesses may increase in value over time. If one expects the value of a thing to increase over time, one may purchase it in order to realize a future profit through resale, even if it provides little or no profit stream over that period. The investment potential of a property can also be a possible determinant of the value of a business.

*The value of media as a business.*

Thus, there would seem to be three possible sources of value for businesses in general. But, as has been pointed out in earlier chapters, the media are not typical. There are aspects of media, and media properties, which suggest that the primary source of the value of media properties lies in terms of their potential for generating profits over time.

For one thing, the physical assets of any media business tend to be only a fraction of that business's value, and are not of significant value to any non-media operation. Those assets which may be of significant value to a non-media operation, such as a downtown office building, are usually not vital to the operation of the business, and thus may be sold off without ceasing operations. Furthermore, most media operations are self-contained, and the demand for used equipment is slight.
This suggests that while certain valuable assets may affect the value of a particular property, this aspect of value is not central to the determination of the value of media properties as media. Where media properties have been bought on the basis of their component values, it has been more based upon the value of the component businesses rather than upon the value of the physical assets. The purchase of media groups, or media conglomerates, have sometimes resulted in the subsequent sale of some of the media operations. Those operations, however, have usually been sold off intact. Of course, separable physical assets can contribute to the value of the overall property.

In addition, considerations of value as an investment are speculative. They are based on the notion that the basic value of the investment will increase significantly over time, that someone at a future period will place a higher value on the media property. There are basically two reasons for this to happen. First, speculation for even higher values in the future might drive higher valuation for investment purposes. Secondly, the investor may feel that conditions affecting the future profit stream might change, leading to higher future profits, and thus higher value for the media property.

There is a problem with the speculative nature of investment valuation. If it is based on reasonable expectations of even higher profit potential, then it is not so much based on investment as it is on future profit valuation basis. If not, then it is truly speculative, and has no reliable, rational, basis. Rather, it is fueled by the expectation that other speculators will drive prices even higher. The problem with this is that eventually, you run out of speculators, and have to value a property on its innate value, and the speculative basis collapses, much like many of the speculative development schemes that contributed to the recent Saving and Loan crisis (where S&Ls bought into the speculative fever, rather than basing loans on the asset or profit stream value of properties).

What this leaves, for media properties, is the general definition of value as being based on the expected future profits of the media property. And, in fact, that is what determinations of fair market value for media are largely based upon. Directly or indirectly, judgments are made about the expectations of future profits, and calculations are made as to the present value of those future profits. And that is what the value of a media property is primarily based on. However, the presence of significant non-media assets can add to that valuation.

**Other sources of media value.**

It should be noted, however, that the utility theory of value suggests another source of potential value. Media properties can be useful in ways other than in their capacity to generate economic returns. Many media owners perceive a value in their properties related more to the prestige of being a publisher or broadcaster, and in the potential to exert political or social influence through their media. This source of value, while certainly real, and in some cases quite substantial, is not considered to be part of the conditions under which fair market value is determined. Therefore, we will not address this source of value beyond noting that sometimes premiums are paid, above fair market value, that represent such perceived value.

**Calculating the value of media properties**

So far, we have discussed where the value of media properties comes from; the factors that play a part in the determination of value. The important part, though, is the actual determination of the fair market value of any specific media property. The discussion above suggests that the determination of fair market value should be based primarily on considerations of yield over time, defined in terms of future profits. The question then becomes how does one determine the value of future profits.

Any value is uncertain, and to at least some extent speculative. Future values are even more speculative. There are, however, various guidelines that exist that can provide means of estimating future returns and the "fair market value" of a media property. There are simple procedures, sometimes using multiples of current returns, and there are the more
complex and sophisticated analyses of the future profit stream. Generally, the more complex the procedure, the more accurate it should be, at least if it is done well. There are a number of firms which will be glad to value media properties, for a price.

All of these guidelines and procedures are based on the general notion that the value of a media property is related to its future profit potential, the money it will generate over some future period. Where the approaches differ is in the means used to estimate that potential, and the assumptions made about the future profitability of the particular property. For greatest precision, it is best to perform an individual market/property analysis, with specific revenue growth projections and individualized profitability estimates which take into consideration the particular characteristics of the property being evaluated and the market in which it operates. Substituting certain simplifying assumptions and very general estimates of revenue growth and property profitability (usually industry averages) for more precise and individual consideration yields the multiples approach. The use of "comparable sales" offers a middle ground which gives some consideration to market and media characteristics without requiring a full individual treatment.

More exact calculations: forecasting profits

The above discussion of business value basically argued that the value of media should be based primarily upon the future profitability of the station. The difficulty comes in determining future outcomes, in this case, future profits. Predictions can be made fairly simply, but they carry the potential for being quite inaccurate, as they fail to take into consideration the specifics of both present and future circumstances. The simpler the basis for the prediction, the less faith can generally be had in the accuracy of that prediction.

More elaborate forecasts of market conditions and media profitability, while they may not necessarily be any more accurate than predictions, are at least more precise in their statement and consideration of current and future conditions. And in making specific and explicit their assumptions about present and future conditions, forecasts provide the information necessary to judge their accuracy and validity. They can also often serve as goals for the media operator after the purchase.

In this section, we will consider what goes into forecasting future profit streams for the media, and how those forecasts are used to determine the value of media properties. There are several steps to this process.

**Forecasting revenues**

The first step involves the consideration and forecasting of revenues for the media property. This should involve more than just expecting current revenues to grow at a fixed rate. A media property's revenues are the product of two factors: market revenue levels and the media property's share of those revenues. Market revenue levels can be forecast on the basis of historical growth patterns, but should also take into consideration any unique characteristics of the market; anything which might enhance, or diminish, the market's revenue potential. Is the market booming, or in a recession? Are there major competitors for advertising revenues? Is the market growing? These and similar market factors should be considered?

Similarly, full consideration should be given to the development of a station's share of the market. Can things be done to improve market share? Is better competition from existing competitors likely to decrease market share? What would be the impact of additional competition from new competitors, or from alternative media sources? Is new competition expected? All of these questions need to be considered when predicting market share, and thus station revenues.

If data on current market revenues are available, they can be used to project a basic market trend for those revenues. If not, one can often find other economic data for the market. Often, one can also find projections of this data. As research has indicated that media revenues tend to reflect current economic...
conditions in the market, these other indicators can be used to obtain an estimate of the probable growth of market revenues. Whether calculated directly or indirectly, this basic growth rate can be used to provide a foundation for forecasting future market revenues.

Occasionally, other factors can create a shift in growth patterns. Industries may enter or leave a market. Shifts in policies may promote or hamper economic development. If there appear to be any such factors at work, or on the horizon, their potential impact should be considered and incorporated into the forecasts. It is often difficult, however, to determine precisely such effects. Thus, their impact is often included only as a minor increase (or decrease) in the projected market growth rate.

Once market revenues have been forecast, it is time to consider the particular media property's share of those revenues. As with market revenues, one can often base the estimate of market share on the property's historical share of the market. However, one also needs to consider whether it is likely that that share will increase or decrease. Most media buyers believe that they can increase market share, usually even beyond what would be considered to be normal or typical levels. Fair market value, however, is based on normal or typical behavior, and thus requires that the projection of future market shares be at those levels. If current levels fall below "normal shares," then one can presume that market share will increase over some period to those levels. Conversely, if the media property is currently performing above normal levels, market shares need to be reduced to those levels.

This does leave us, however, with the basic question of what is considered to be normal shares. This can be based on a combination of historical market patterns, industry averages, and a consideration of the competitive stature of the media property. Since those shares are forecast over time, consideration must also be given to potential changes in competition, whether it be from new properties entering the market, or from shifts in the relationship with alternative media. For example, future shares of TV stations are influenced not only by the introduction of new broadcast television stations, but also by the rise of cable, satellites, and low-power TV stations, all of which compete for audience and advertising.

Now, one could bypass market revenues and shares forecasts and try to forecast the media property's revenues directly. However, this would tend to bypass consideration of shifting market patterns, and in a period when media competition, for one thing, is undergoing significant changes, to do so is to ignore important factors, and to most likely overestimate the value of the media property. Some critics have argued that such a process had indeed occurred in broadcasting, where the failure to consider the changing competitive environment has led to unrealistically high prices being paid for stations in recent years, and the consequent failure of stations and a decline in prices when the new competitive situation was recognized.

There is one final note to be made on the consideration of revenues. Many media firms have additional revenue sources beyond their primary media business. Newspapers with their own presses often seek out additional commercial printing revenues. Broadcast media can earn additional revenues through the provision of production services to others. As these outside sources add to the revenue (and profit) stream, they should be considered in the forecasting of future profits. However, as they are often secondary, and more competitive, activities, they can not be relied on as regular contributors to the revenue stream. As such, their contribution is normally discounted heavily.

**Forecasting costs**

The second step involves the consideration of the media property's operations and costs. What costs are involved in the operation? What is the opportunity to reduce costs? What additional costs might have to be incurred in the future? All
this points to the question of how much profit can be expected from a given level of revenues.

The best way to forecast profits is to obtain detailed information on the media property's costs and operations. The consideration only of apparent profits can be quite misleading. For example, owners may choose to take profits in the form of higher salaries and benefits, inflating costs and reducing apparent profits. If details on the operation can be obtained, they can indicate opportunities for reducing costs, or areas where costs might be expected to rise, and those factors can be taken into consideration in the determination of future profit levels.

Another reason to try to obtain detailed information about the property's costs and operations is that there are actually several different measures of profitability, all of which provide useful information to a potential purchaser, and contribute to the calculation of media value. These measures differ largely in terms of what items of cost are included, or not included, in the calculation of profit. Having a detailed breakdown of costs permits the determination of all of these various measures.

The general definition of profits is whatever is left from revenues after all of the costs involved in doing business are subtracted (including taxes). As noted above, the differences in the accountant's definition of profits, the economist's definition of profits, operating profits, taxable profits, and cash flow all reflect differences in just what are considered to be the applicable costs. To the economist, profits are the difference between revenues and the full opportunity costs of doing business, which include the owner's "normal profits" (their return for risk-taking) and the return on capital. The accountant's version of profits does not consider either of these items to be costs; rather, they are considered to be an aspect of profits. Taxable profits are based on the accountant's definition of revenues less actual costs (before taxes), but include as costs depreciation, reinvestment, and certain other deductible payments. Operating profits remove reinvestment as a cost, and cash flow removes depreciation as a cost (in effect, adding those back into "profits"). What cash flow represents, then, is the amount of internally generated funds that are available to the business, the actual cash yield of the firm. For the most part, it is cash flow which is considered to be the best indicator of the yield of the business, and is thus used to calculate the value of the firm.

Often, however, such detailed information is not available. In such cases, one can substitute other estimates of "normal" profit margins, and apply those to the revenue estimates to obtain profit forecasts.

**From future profits to present value**

A final step in this process involves the calculation of present value. The concept of present value reflects the fact that future profits occur in the future. They are not available at the present, and are thus not as valuable as they would be if they were actually here now. For example, inflation means that future dollars are worth less than today's dollar. In addition, you have to wait for the future dollars. Thus, future profits need to be discounted by a factor that takes into consideration the expected decline in value, and the opportunity costs lost from not having the profits immediately. This discount is often based on a mix of the expected level of inflation and the cost of money (that is, interest rates).

Finally, the process assembles these steps into a coherent statement of expected revenues, profits, and discounts which provides a prediction of the present value of future profits. The only thing left to be considered is how long a period is to be considered. For the most part, it seems that a period of seven to ten years tends to be used for calculations of value. There is a bit more than just "normal judgment" behind the specification of that period, though. For one thing, the reliability of revenue (and cost) projections decreases significantly the further one attempts to project. Second, present value discounts build up so that there is often little contribution to be made to present value from profits in the far future.
While some very stable industries might utilize longer profits streams in their present value calculations, media operate in very volatile markets. New technologies bring new media competition. Market demographics and economics can vary significantly over time. All of this reinforces the problem of predicting future media profits, and leads to the consideration of a fairly limited profit stream in value calculations.

[Table 1 about here]

An example of this process is given in Table 1. As a general outline, the process is fairly simple.
1. Project market revenues some 10 years into the future.
2. Determine the expected normal market share for the media property.
3. Calculate projected revenues and costs.
4. Calculate projected cash flow.
5. Discount the projected cash flow to determine its present value.
6. Sum the discounted cash flow over a period of seven to ten years to determine the net present value of that cash flow, that is, the fair market value of the media firm.

The concept of the process is fairly simple. Getting good numbers which reflect individual market and media property characteristics, and which reflect future trends, is the difficult part.

**Using similar properties**

Often, a rough estimate of the value of a property can be estimated from the consideration of what prices have been paid for similar properties under similar conditions. This can be done by trying to match the prospective media property with others that have been recently sold, or it can involve the development of a statistical procedure which uses a wide range of sales to estimate the contributions made by various factors (market and/or media attributes) to the final price of the property. That formula is then applied to the prospective property in order to calculate its fair market value.

There are two potential hitches in the use of comparative sales in the determination of the value of media. The first of these is the need to identify the price of other media sales. In broadcasting and cable, this is relatively easy, as the FCC requires such data as part of its license transferal process. The information, being considered to be public information, is collected and published by several industry sources such as Broadcasting magazine. There is a certain lack of detail to this information, however, and so the price given may not precisely reflect the actual price or value of the property. The price given, however, does reflect at least the level of value. The problem with knowing the price of media firms, however, lies more with the print media. There is no regulatory agency requiring the collection of sales information for other media, and the final sales price is often not disclosed.

The second problem lies in the identification of "similar" properties. Media markets are notorious for their distinctiveness. There are considerable differences in levels of competition, in market/audiences served, and in the desirability of the market/audience to potential advertisers. While these distinctions do not preclude comparisons, they do force most comparisons to be with only roughly similar properties, and thus can provide only rough estimates of value.

The derivation of formulas from existing sales data avoids some of these potential problems. By basing the formula on a wide range of reported sales, this method avoids the problem of finding truly compatible stations. This also reduces the problem of missing data somewhat, by expanding the range of sales considered. The method is still hampered by measurement difficulties, however. Most formulae include only a few factors, and thus ignore station differences along other dimensions. Thus, this method also only provides a rough estimate of station value.

[Insert Table 2 about here]
Some recent examples of price formulae for broadcast stations is given in Table 2. For example, the formula for FM stations in Table 2 suggests that the fair market value for any FM station depends primarily on the population of the county where the station operates, but is also influenced by the station's frequency (higher frequency stations are worth somewhat more), and the station's licensed power (Class A stations, with operating power of 3 kilowatts or less, are worth considerably less).

**Using multiples**

The concept of multiples is based on the idea that all well-run media properties are likely to be at least somewhat profitable, and that the future profit stream is more or less directly related to some set of current revenues or profits. The use of multiples assumes that profits are directly linked to revenue levels, and are likely to be consistent over time. While that is not necessarily a bad assumption, in that profits are usually positively correlated with revenues, the use of a single multiple also assumes that profit margins are constant for all levels of revenue.

The thinking behind multiples goes something like this:

1. Assume that revenues will grow at roughly the same rate as the discount rate.
2. Assume a constant profit margin (for example, 20%).
3. Assume a standard payback period of 7-10 years.
4. Then if growth & discount rates are roughly equal, then the expected value of future profits over the payback period is roughly profit margin times revenue times years.
5. Which becomes revenues times multiple, or profits times multiple, or cash flow times multiple, where there are different multiples to use, depending on how much information you have about the media property.

With a presumed profit margin of 20%, the multiple becomes 1.5-2, which falls within the current range for radio properties and weekly newspapers.

The problem with multiples is that they make some very broad assumptions about general values which may not be completely accurate. Thus, they provide only very rough indicators of value, and often incorporate a fairly wide range of values.

Media owners, broadcasters in particular, have been somewhat reticent about accepting the idea of constant profit margins, particularly since years of FCC and NAB data show that profit margins increase as revenues increase. There is too much range in the size of markets and levels of competition for a single estimate of profit margins to be accurate across all conditions. Thus a second form of multiples, based on operating profits and/or cash flow, has come into widespread use, at least when information on profits and cash flow can be reliably determined. Another variation on multiples has arisen in the cable industry, where some people use "per subscriber" multiples, assuming that per subscriber revenues and profits are fairly consistent.

Some examples of recent multiples are given in Table 3. As with the comparable sales figures, multiples are generally more widely reported for broadcast than non-broadcast firms.

**Special concerns for leveraged or financed sales**

Very few media sales are made for cash up front. For the most part, a considerable portion of the purchase price is obtained from loans or notes. Media sales often include as part of the total cost (or value) of the sale consulting agreements, or agreements with the previous owners not to compete.

The concern with such agreements, or with the use of notes and loans, is that the media operation must be able to pay those costs out of their cash flow, or the media property will have to require additional influx of money in order to remain in operation. Such additional funds constitute a negative cash flow, a negative yield, which raises the total cost of the property.
Externalities and expectations

As might be gathered from this chapter, determining the value of any good or service can be quite difficult, as many factors can influence that value. Some of these factors are directly related to the item being valued and/or the context of the exchange. Others may not be quite so directly related; such factors are called externalities. Externalities do influence value; they are not, however, normally considered as part of the typical valuation process (they are, after all, external). But since they can influence values and prices, they should be considered in the valuation process, at least to the point of considering whether or not any externalities exist.

There are often externalities associated with media properties. Among them can be the prestige of certain media operations and the perceived ability to exert political, moral, and/or economic power through the media. The Washington Times was started at considerable expense, and continues to operate at a loss, allegedly in part because its owner, the Reverend Moon, wanted access to Washington media and the power it implied. Al Neuharth (1989) wrote of bidding high for newspapers to help acquire a publishing and distribution system for USA Today, or because they were prestigious properties.

Access to certain markets can also bring about higher than normal prices for media properties. Stories are told about Northern broadcasters paying a premium for stations in Hawaii and other vacation locations, so that they could write off vacations as business trips. The Home Shopping Club grossly overpaid for a series of UHF television stations, in part to guarantee their access to large markets and their cable systems. Fox has also been said to have paid a premium to acquire stations in certain television markets. Broadcast properties in the largest markets are generally thought to bring a premium (Levin, 1975).

Externalities can arise when non-media property or operations are sold in conjunction with the media firm. External economic factors, like interest rates, can influence the perceived value of media properties, as interest rates determine how much can be financed from a given cash flow. General economic conditions can also influence the degree to which potential investors are interested in risk-taking, or speculative investing, both of which can drive up prices for goods with a limited supply, like media.

There is one further issue to be considered. Valuation is based on perceptions and expectations: perceptions about the sources of value and the factors influencing it, and expectations about the future of those sources and factors. Calculations of fair market value are particularly dependent on expectations, as fair market value is defined in terms of expected future cash flow. Media valuation, thus, is heavily influenced by expectations as to the future of the medium and the marketplace.

In stable times, this is not a great problem. Stability helps make people feel more certain, more comfortable, with their expectations. Predictions seem more reliable. In periods of decline, however, or when the future is more unpredictable, uncertainty about expectations increase, and prices generally decline in the presence of uncertainty. Much of the decline in cable and broadcast sales and prices in the last year was attributed to uncertainties regarding the future of those industries and their competition for audience. Much of that uncertainty comes from the contemplation of major regulatory changes which could affect media profitability.

In addition, we do seem to be entering a general period of media instability. The older media firms are still around, but new media and markets are emerging. Markets which were once considered stable are undergoing change as new forms and sources of media competition emerge. The old boundaries between media are beginning to break down (Compaine, 1981). Cable has reshaped television markets (Bates, 1990), direct mail and shoppers have attracted advertisers away from newspapers, videotape rentals have impacted on both movie theatres and on cable movie channels. The coming of what has
been called the Information Age, or the Age of Convergence, threatens to transform most media and markets.

This raises certain questions about what can be expected in the future. Will market shares be cut as new competition emerges? Will new technology and new delivery systems change cost structures? Will world markets help to control the costs of media product, or will the need to create for that market increase production costs? Will Congress, or other regulatory agencies, impose new costs on media operations?

No one can predict the future with absolute certainty. Neither can we say that the future is absolutely unknown. Media expectations, at least for the purpose of valuation, are relatively short term; a matter of a few years. In the short term, things tend to be more stable, and thus more predictable. When valuing media properties, however, it does pay to consider whether expectations are realistic, just as it pays to consider the presence of any externalities.

**Conclusions**

Value, as long as it remains abstract, seems to be a nice, simple, concept. It only becomes problematic when we attempt to precisely determine the value of any thing, when we try to make value something that it is not by inferring that value is some constant that everyone agrees on. Too many factors influence value for it to be treated as a constant. Individual, market, and contextual factors, externalities, expectations about the future; all can affect the value of media properties.

There are solutions to this problem, however. There is general agreement that the value of media is based on its value as a business, and thus its future profitability. Concepts such as "fair market value" can stabilize value, by artificially fixing many of the variables and by ignoring certain influences. This consensual foundation can provide us with a procedure for determining a basic value for media properties. Several of these procedures have been outlined in this chapter.

But when media properties are valued, one must also be aware that these procedures will only provide a foundation. It must be remembered that there are many factors which can impact on value, particularly on the perceived value of any media property. And these factors do need to be considered when attempting to ascertain the precise value of any media outlet. Those who would value media need to be aware of these factors and their roles in shaping and determining value.

Only then can one confidently assert the value of any particular media property.
Table 4.1. A Simple Model of Future Profits Valuation Calculation for a High-Power AM Station

<table>
<thead>
<tr>
<th>Year (Current 1 2 3 4 5 6 7 8 9 10)</th>
<th>Market revenues ($million)</th>
<th>AM share of market</th>
<th>AM revenues ($000)</th>
<th>Station fair market share</th>
<th>Projected fair market station revenues ($)</th>
<th>Estimated operating expenses ($)</th>
<th>Operating profit ($)</th>
<th>Operating profit margin</th>
<th>Estimated profits</th>
<th>Present value calculations of future profits to estimate value for station</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>23.54</td>
<td>25.19</td>
<td>26.95</td>
<td>28.84</td>
<td>30.86</td>
<td>33.02</td>
<td>35.33</td>
<td>37.81</td>
<td>40.45</td>
</tr>
<tr>
<td>AM share of market</td>
<td>0.13636</td>
<td>0.136</td>
<td>0.136</td>
<td>0.136</td>
<td>0.1363</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
<td>0.14</td>
</tr>
<tr>
<td>AM revenues ($000)</td>
<td>3000</td>
<td>3210</td>
<td>3434.7</td>
<td>3675.13</td>
<td>3932.39</td>
<td>4319.86</td>
<td>4622.25</td>
<td>4945.81</td>
<td>5292.01</td>
<td>5662.45</td>
</tr>
<tr>
<td>Station fair market share</td>
<td>0.13274</td>
<td>0.15</td>
<td>0.19</td>
<td>0.23</td>
<td>0.27</td>
<td>0.3</td>
<td>0.3</td>
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<tr>
<td>Projected fair market station</td>
<td>398230</td>
<td>481500</td>
<td>652593</td>
<td>845280</td>
<td>106174</td>
<td>129595</td>
<td>138667</td>
<td>148374</td>
<td>158760</td>
<td>169873</td>
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<tr>
<td>estimated operating expenses</td>
<td>350493</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating profit ($)</td>
<td>47737</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Operating profit margin</td>
<td>0.11987</td>
<td>0.12</td>
<td>0.14</td>
<td>0.16</td>
<td>0.18</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
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<tr>
<td>Estimated profits</td>
<td>57780</td>
<td>91363</td>
<td>135245</td>
<td>191114</td>
<td>259192</td>
<td>277335</td>
<td>296748</td>
<td>317525</td>
<td>339747</td>
<td>363530</td>
</tr>
</tbody>
</table>

Using present value calculations of future profits to estimate value for station:
- Present value of profit stream: $639790.75, $733366.82, $898249.19
- Present value rate: 16.5%

Thus, estimated value for this station would run from roughly $640,000 to $900,000.

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1. Start with current market revenues, then project growth slightly above projected national average (5 to 6%) at 7.5%.
2. Based on existing share of audience, should grow somewhat as AM underachieving in market, and as new technology improves AM signal quality.
3. Share of AM based on current audience share for station, projected to fair share based on comparable reach.
4. Projected from NAB average for that type of station in that revenue range.
5. Calculated from current estimate, to industry average of 20%.
Table 2. Broadcast Station Valuation formulae

TV Stations (From Bates, 1988)

\[
\ln(\text{Price}) = 0.926 + 0.675(\ln(\text{ADC})) + 0.398(\ln(\text{TVHH})) + 0.011(\text{Cable}\%) - 0.726(\text{If station on UHF}) + 0.970(\text{If station SIN affiliate}) + 0.236(\text{If buyer owns other TV})
\]

where \(\ln\) = natural logarithm of value
Price = Station sales price, in thousands of dollars
ADC = Average Daily Circulation, in thousands
TVHH = Television households in market, in thousands
Cable\% = Basic cable penetration in market

Radio Stations (calculated from sample of 1989 sales)

AM:
\[
\ln(\text{Price}) = 0.478\ln(\text{County Population}) - 0.00128(\text{Frequency}) + 0.517(\text{If seller owns other AM stations}) - 0.465(\text{If station daytime only})
\]

FM:
\[
\ln(\text{Price}) = 0.835\ln(\text{County Population}) + 0.0787(\text{Frequency}) - 0.916(\text{If station power 3 kw or less})
\]

where Price = Price for station, in dollars
County Population = Population of county of license, in thousands

Table 3. Some current multiples

Newspapers

Dailies
3-5 times revenues (Fink, 1988; Garneau, 1989)
10-12 times cash flow (Garneau, 1989)

Weeklies
1.1-1.5 times revenues (Fink, 1988)
1-2.5 times revenues (Garneau, 1989; Fitzgerald, 1990)
6-8 times cash flow (Garneau, 1989)

Shoppers
1-1.5 times cash flow (Garneau, 1989)

Radio

AM only
6-8 times cash flow
1.5-2 times revenues

FM only
8.5-10 times cash flow
2-3 times revenues

AM/FM combinations
7-10 times cash flow
1.5-2.5 times revenues

Television

Network Affiliates
10-15 times cash flow

Independent Stations
8-10 times cash flow ("Independent TV", 1990)

Cable
$2000-2500 per subscriber (Broadcasting, 1990)
$1500-3000 per subscriber (Broadcasting, 1991)
10-11 times cash flow (Broadcasting, 1991)
References


Garneau, G. (1989, 9 December). It's a seller's market. *Editor & Publisher*, pp. 11, 47.


