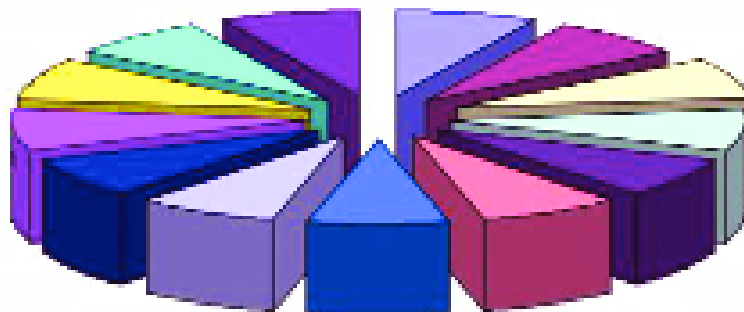


THE CAKE CUTTING ALGORITHM PROBLEM IN CORRIDOR VALUATIONS

Rebutting the ATF Corridor Valuation Methodology



BY WAYNE C. LUSVARDI AND CHARLES B. WARREN, ASA

A Cake Cutting Corridor Valuation Fable

“You can’t have your cake and eat it too!”¹

Once upon a time in the distant kingdom of “East Cupcake”² after eating the main course of a meal, there was a cake for dessert to be divided fairly between two persons. How should each person get his or her just desserts? What does fairly mean? How can the required allocation be accomplished? Who shall cut the cake and who shall eat it? What if someone just wants to eat one of the plain layers of cake, leaving creamy filling and icing for others? What if all someone has are the ingredients of a cake (e.g., flour, sugar, baking powder, eggs, milk, flavoring)? Would it be fair for that someone to want to charge the marked up price (i.e., enhancement factor) for a fully baked (i.e., assembled) cake for just one of the raw ingredients, e.g., the flour? Should the cake be valued by the cost of its raw ingredients (reproduction cost), by the price a baked cake sells for in the market (corridor value), by the price day old bake goods sell for (liquidation

value). Or possibly by a pro rata share of the aggregate value of the whole course of the meal across-the-dining-table (Across-the-Fence Value?). Who gets the added value of a baked cake, the price maker or the price taker? Or is a baker justified in selling only single slices of cake for a premium price to keep people from wanting a free lunch? What if the price of a cake is free, i.e., nominal? How will the baker prevent a feeding frenzy? Cake valuation can often be obfuscating.³

By use of cake baking and cake cutting analogies, herein lies some of the major controversies between railroad corridor appraisers and lawyers and non-railroad corridor appraisers valuing partial interests in transportation corridors. Valuation of utility corridors is no cake walk and can often take the cake.⁴

¹ Cake - “money, lots of it.” www.Pseudodictionary.com

² East Cupcake – A very distant location out in the sticks, with the implication that it’s not terribly civilized. www.pseudodictionary.com

³ Obfuscate, intransitive verb. To talk unintelligibly or incoherently because one’s mouth is full of food. www.pseudodictionary.com

⁴ Take the cake. To be even worse than all the other bad or annoying things that went before; to be outstandingly good or successful. Encarta English Dictionary

The thesis of this article is that one-sided property transactions, such as easements, often generate a windfall or a wipeout depending on which party has the most bargaining power. A corollary to the above proposition is that easement transactions often produce a by-product value transfer that one side or the other tries to capture by use of appraisal methods that try to capture the entirety of this surplus value for their sole gain. Conventional eminent domain appraisal methods recognize only negative values (e.g., diminution, damage), or at best offsetting benefits, and thus fail to consider invisible, but real value transfers as a consequence of the transaction.

Both the Diminution Theory espoused by lawyers, and the Across-The-Fence Theory (ATF) espoused by corridors owners and appraisers, are self-interested, polarizing, and do not solve the valuation problem posed by granting partial interests in monopoly transportation and utility corridor properties.

Alternatively, a severance damage option premium model and an appraised-bargaining model that mimics “fair market value” are both offered here for consideration as solutions to the problem of valuation of partial interests in transportation corridors. A number of bargaining algorithms (i.e., recipes) are suggested for fair division of the surplus productivity created by joint use of a property by an easement. Because nominal valuations for partial easements in corridor properties may result in the tragic overuse of corridors for negligible compensation (the tragedy of the commons), the next-best system of compensation may be for corridor owners to continue to erect economic barriers to entry by charging ATF value premiums. But this will not meet professional appraisal standards unless one discloses that ATF reflects Monopoly Value.

Nominal Value Theory: “Let Them Eat Cake!” – Marie Antoinette

Real estate attorney Todd Amspoker has apparently lit a match on the stove burner topic of corridor valuation in his article “The Legality of the Across the Fence Appraisal Approach in Eminent Domain Proceedings” (Right of Way magazine, September/October, 2000). The gist of Mr. Amspoker’s article is that when appraising transportation corridors, the ATF value of the real estate from the right of way is often legally immaterial unless the corridor owner can prove economic loss. Amspoker’s objections to the use of ATF values for rights within corridors are:

- No loss is sustained when there is no profitable use for the corridor
- No loss is sustained when the easement does not affect railway operations

- No loss is sustained unless there is actual demand by a third party
- No ATF value exists unless there is a demand by an abutting property owner
- No loss is sustained if the corridor was already burdened with an easement
- Use of ATF sales data is inappropriate when there is no possibility of assemblage
- ATF sales are inadmissible as public agency sales
- ATF values do not reflect the same legal use as the corridor
- ATF values reflect entitled and finished land values, corridors do not

Amspoker even goes so far as to point out recent court decisions where nominal corridor valuations were extended to fee simple estate acquisitions not just easements. In sum, according to attorney Amspoker, the legal relevance of the ATF corridor valuation theory, and its cousin the Reproduction Cost Method, is confined to only those situations where there is adequate proof of loss of some profitable use of the area of the corridor taken or encumbered. Amspoker’s review of case law may have the effect of pushing ATF valuation theory from the centerline to the fringe of accepted corridor valuation methods.

Defense of ATF Theory

Rexford M. Shaffer, Jr. and Arthur G. Rahn in “ATF Appraisal in Eminent Domain Cases: A Rebuttal” (Right of Way magazine, January/February 2001) agree with Amspoker that use of the ATF valuation method for minor “transverse” easements across corridors is inappropriate and requires only a nominal valuation. But they take issue with any notion that longitudinal easements also reflect a nominal valuation rather than an (ATF) value, value for corridor use, or a reproduction cost. Simply put, their position is based on the “premise that the corridor land should be worth as least as much as the land through which it passes.”

Shaffer and Rahn’s article states that the ATF Method “has been extensively tested, peer-reviewed, and is widely accepted by the appraisal profession.” They indicate that there is legal and professional recognition that corridor property often commands a premium or enhancement factor in the market. Shaffer and Rahn state that even where the property owner no longer uses a transportation corridor for its original use, or there is no market demand for alternative uses, that it is unjust to appropriate an easement for practically nothing.

Critique of ATF Theory - ATF "Takes the Cake"

Although Shaffer and Rahn correctly believe that the "highest and best use" concept is central to the valuation issue, they fail to resolve the crux of the issue of whose highest use is to be considered; the buyer's gain or the seller's loss. Law only recognizes a loss of a property owner's rights as a basis of compensation; not the transfer value gained from avoiding payment for enormously higher cost real estate across the fence from a corridor. However, as legal scholar Richard A. Epstein has stated: "it is impossible to maintain...the distinction between 'causing a harm' on the one hand and 'not conferring a benefit on the other.'" Who is assigned the property rights is the central valuation issue of what economists call "externalities." Externalities are defined as "a cost or benefit that is not included in the market price of a good."¹

Shaffer and Rahn's contention that the ATF Method has been peer reviewed, tested, and accepted in the appraisal profession is however perhaps overstated. There is no critical or disinterested peer review of one valuation theory over another in the real estate appraisal profession as there is in science. It is not unusual for professional publications on specialized topics like corridor valuation to be reviewed only by like-minded appraisers who have often worked nearly exclusively on the same side of issue for their entire career. Up until the above-referenced article by Amspoker that challenges for the first time the legality of the use of the ATF Method, nearly all the professional literature on corridor valuation was from those who have predominantly worked for corridor owners. As Amspoker points out, case law is the final arbiter of acceptable corridor valuation methods—not professional acceptability.

There are no endorsed methods, approved standard textbooks, or course materials that definitively prescribe acceptable corridor valuation methods in all situations. Professional education materials typically contain disclaimers "that the opinions and statements set forth therein do not necessarily reflect the viewpoint of the appraisal profession." In other words, there are no accepted or endorsed methods for corridor valuation, only well discussed methods. Even if the appraisal profession adopted a statement of acceptable corridor valuation methods, it would be legally toothless because we live under the "rule of law", not under the rule of professional acceptance.

The ATF Method is highly accepted by railroad and other transportation corridor property owners and appraisers. But the embrace of the ATF Method by corridor owners and appraisers is probably no coincidence, because it often results in the highest compensation for use of corridor property. The ATF Method is not highly regarded by appraisers who work for public utility companies such as water and sewer districts and municipalities that often must pay what appears to be "holdout prices" for easements through

transportation, electric transmission line, and flood corridor properties. So it would be more accurate to say that the appraisal profession is divided on this issue.

Shaffer and Rahn cite a national study conducted by appraiser David Lane, MAI, which reported that ATF was the most commonly accepted method used for valuation of corridor real estate by railroads, electric transmission line corridor owners, flood control agencies, and other corridor owners. But neither Lane, nor Shaffer and Rahn, mention that all of the owners polled in the survey were government, public utility, or semi-public utility entities that represent what economists call natural monopolies. No mention is made that monopolies can charge monopolistic prices. Thus, the Lane study is prone to the criticism that it is one-sided, is predictable in its results, and proves nothing because it is analogous to a survey conducted of sellers, not buyers. The obvious one-sidedness of such a study certainly would not meet the legal criteria of fair market value (e.g., a willing buyer and seller acting without compulsion, force, or monopolistic advantage).

However, the contention that it is difficult to predict the multiplicity of uses that new technologies and industries will make of transportation corridors in the future has merit. But the legal standard in courts is reasonable probability, not speculative possibility. As Shaffer and Rahn point out, use, or anticipation of a higher and better use, drives value. However, if there is no foreseeable use for a corridor the market often won't reflect a higher value until such a use materializes. This writer's translation of what Shaffer and Rahn are saying is that corridor owners hold on to such properties for their reserve price—even though a corridor is currently underutilized (for the concept of reserve price see Richard A. Epstein, *Bargaining with the State*, Princeton University Press, 1993:88). A reserve price is a market motivation, (i.e. buy and hold strategy), but is not compensable under eminent domain law.

Appraisers working for railroad and electric transmission line owners often make the case that the unique connectivity that corridors provide between two points results in a market "enhancement factor" or "synergistic premium" over and above ATF values. However, no mention is ever made that such a premium may reflect a monopolistic price or hold out premium. And sometimes there is no imminent market demand, profitability, or market premium for a corridor. This was recently demonstrated in the proposed, but aborted, attempt to dump the unprofitable privately owned 91-Freeway Tollway Express Lanes in Orange County, California to a non-profit entity for a \$274 million price without an appraisal.²

The ATF Method certainly has been tested in the legal system. But as Amspoker aptly points out, it oftentimes fails the legal acceptability tests when it can't prove an economic loss, a third party market demand for the corridor, or interference with corridor use.

Shaffer and Rahn note that ATF is a viable valuation theory even if it is like opening a bottle with a sledgehammer instead of a bottle opener. But ATF is so overused and the rationale for its use is so unconvincing that it evokes the response that “if all you have is a hammer, everything becomes a nail.” The deficiencies of ATF theory noted above become even more apparent with the recent emergence of relocatable easements for fiber optic cable or pipelines within corridors that do not substantially affect the permanent market value of the underlying real estate at all (see John Wright, MAI, Todd Amspoker, and Wayne Lusvardi, “Appraising Subordinate Linear Easements in Transportation Corridors,” *Appraisal Journal*, July 2000, 250-259). Novel, complex, and murky valuation issues are causing the ATF theory to unravel, such as fiber optic routes through railroad corridors, undersea fiber optic cables through marine sanctuaries, longitudinal and lateral pipeline easements underneath unbuildable flood control channels, and relocatable pipeline easements in electric transmission line corridors. A new paradigm is needed not only for corridor valuation, but also for just compensation law that may confiscate property for next to nothing.

Severance Damage-Option Theory

One issue that is missing in the dialogue over corridor valuation methods is to what degree does an easement within a corridor encumber the property? Not all easements are equal. Some easements are what we may call “dominant” easements that permanently encumber the corridor for an exclusive use. Other easements are “subordinate” easements that are non-exclusive and sometimes even are relocatable inside or outside of the corridor at the sole cost of the holder of the easement.

Market value presumes not only property rights, but also freedom from unwanted liabilities (e.g., liability rights and property rights).³ If an easement is exclusive, or the property owner has the burden of relocating the holder of the easement, the future associated costs to eliminate the easement would likely be unpredictable and disproportionately large in comparison to the diminution in value of the corridor real estate. What corridor appraisers often fail to mention is that corridor owners often demand higher ATF values as a proxy for inestimable relocation costs, associated higher construction costs of their adjacent rail and utility facilities, higher ongoing maintenance costs, and future delays associated with working around other utilities co-located within a corridor. It is the future uncertainty of consequential damages associated with the encumbrance of an easement within a corridor that is often part of the real nub of the liability side of the valuation issue, not necessarily the value of the real estate for its corridor use, its ATF value, or its reproduction cost. It might be said the charge for the easement is only a proxy for future uncertainty. Compensation for rights to coexist within a corridor may be considered a sinking fund payment against inestimable future damages.

Thus, corridor valuation theories predicated on current value diminution, rather than future liabilities, are unlikely to resolve all the real compensation issues. It is true as Amspoker points out that many easements within corridors may be nominal in their effect on the value of the real estate asset. But this may omit the issue of future damages, no matter how speculative. The preponderance of the compensation for easements often is for severance damages, not the value of the taking. A corridor owner is not going to grant an easement willingly without either reducing the associated future downside risks or receiving compensation for such risks. The granting of easements in corridors can be like a delayed taking by eminent domain; the damages may not appear until far in the future, or not at all. Because the costs of any damages are speculative and inestimable, ATF values serve as surrogate insurance against future losses. From the liability side of the valuation equation, the proper recipe for corridor valuation is thus unknowable. The inescapable condition of markets, and life in general, is uncertainty. However, markets often require more return for more uncertainty (i.e., the risk/return principle).

Shaffer and Rahn’s advocacy for ATF values and ATF premiums may be better understood by way of a stock market commodity options and hedging perspective than a real estate corridor valuation framework. The essence of an option is the right to buy something in the future at a set strike price but without the obligation to buy. Options are often used in the investment world to reduce risks and to obtain a fair value. By entering into an option contract, an optionor may lose much more than they possibly can gain. In commodities trading if the optionor wins at all, it will take until the option expires to realize the reward. If the optionor loses they may have to deliver the goods suddenly for the pre-set price even if the market price is higher. What would induce an optionor (or corridor owner) to enter into a deal with such apparently downside risks? The answer is: a premium. The premiums extracted by corridor owners for full or partial interests therein may be similarly understood as a mechanism for recovery for the risk of future upset. As economists Thomas E. Copeland and Phillip T. Keenan state: “Real Option Value (ROV) is superior to Net Present Value (NPV) when an investment involves a high level of uncertainty and occurs in several phases. Optionality is of greatest value for the toughest decisions – the close calls where the NPV is zero.”⁴

The Tragedy of the Corridor Commons

To frame the issues involved with corridor valuation, we must turn to economics, not real estate appraisal. Basing appraised compensation on monopolistic ATF sales prices of corridors is prone to the criticism that such appraisals reflect circular and self-validating reasoning and fail to disclose that the concluded value reflects monopoly value, not pure fair market value. Monopolistic ATF sales prices for corridors often reflect a house-of-cards market

whereby a prior sale is used to validate the price for a subsequent sale. The expertise of real estate appraisers is with open market properties, not limited market and monopolistic properties like transportation and utility corridors where the three conventional approaches to valuation may have little applicability. This is because transportation and utility corridors are special use properties for which there typically is only one buyer and one seller. This is called a “bilateral market” in economics. Corridors are not open market properties. They are monopoly properties. And they often reflect a monopoly price. We contend here that this monopoly price has been misconstrued for decades in the professional literature as reflecting “market value.” It has been disguised in the euphemism of ATF value, with the acronym ATF.⁵ As shown later however, this monopoly price may be justified given the tragic consequences that could result from overuse of corridors by “free riders.”

Transportation and utility corridors are private property but used by the public rather than exclusively for the beneficial use of a private person. Corridors are often not perceived by the public as private property but as a “common pool asset” available for public use and value capture. Adjacent property owners sometimes want to use corridors for expansion. Public utilities want to avoid higher right of way costs by putting their lines in available rail and electric transmission line corridors. Nearby neighborhoods believe a corridor is a nuisance and often want it walled off. And the public often wants corridors converted to green belts to enhance adjacent view amenities or trails (rails to trails). Some even want high toll prices on bridge and tunnel corridors maintained because otherwise their bucolic neighborhoods would be flooded with sprawl and traffic. For example, many who live on Virginia’s eastern shore are battling a proposal to reduce the \$10 one-way toll on the Chesapeake Bay Bridge-Tunnel that connects the eastern shore peninsula with residents on the mainland. By law, the bridge-tunnel will become a free road once its bonds are paid off.⁶ The attempt to capture value and overuse communal or corporate property is called the “tragedy of the commons” in economics. The tragedy of the commons is a “parable that illustrates why common resources get used more than is desirable from the standpoint of society as a whole” or from the standpoint of protecting property rights.⁷ The tragedy of the commons concept is like an all-you-can eat restaurant, only for free!

Using our cake-cutting analogy, if we let one person cut the cake and also eat it, they exhaust the value of the resource. Letting corridor owners charge monopolistic prices is a lesser evil than letting corridors be plundered by exploiters. Maybe there are sound economic reasons for corridor owners to derive premium prices for corridors to prevent exploitation of it as a common pool asset.⁸

But this still doesn’t solve our Willing-Buyer/Willing-Seller (WB/WS) valuation problem. What would two parties agree upon as the price

to pay for use of a corridor where neither had any way to exact a hold out price or conversely condemn for a nominal cost? An equitable answer cannot be found from real estate appraisals because an appraisal will merely cut the cake the way the client directs.

Appraisals No Substitute for Market Pricing for One-Sided Transactions

Thus far in our discussion, how are we to discern who is right? Where is the truth of the matter? Who is to be believed: railroad appraisers and attorneys on one side, or real estate attorneys and public utility appraisers on the other side? Is the truth of the matter entirely subjective? To cite a question from the sociology of knowledge: “is what you perceive dependent on where you sit? Do one’s opinions merely reflect one’s social location?” It is a truism in real estate appraisal that opinions of value typically gravitate to those of the client’s. There is nothing wrong with this. Appraiser’s need to be strong advocates for the value of the real estate of their clientele. However, in a commercial oriented and open society, open and competitive markets, not a cartel of corridor owners, not the dictates of government or occupational guilds, or even case law, ideally should determine the prices for economic goods.

But rights of ways are special use properties for which there is no open and competitive market. Thus, any transactions for use of rights of ways are dependent on appraisals. But appraisals are a poor substitute for market pricing, for the reasons stated above. As this paper contends, appraisals are of limited use in valuing corridor real estate because of the tendency of appraisals to reflect highly polarized values: nominal values desired by buyers and monopolistic ATF values demanded by corridor owners. To reflect WB/WS market value conditions, we show here that neither a nominal nor an ATF value may be appropriate.

An Appraised-Bargaining Model

What is necessary to develop a WB/WS paradigm for corridor valuations is a framework that mimics open and competitive market conditions. Ideally, the concept of market value presumes the availability of alternatives to all parties, lack of desperation, no force, somewhat equal bargaining power, and knowledgeable parties. However, for public utilities and cable companies there are few alternatives to use of a corridor for their facilities. Cognizant of the lack of alternatives of users, the posture of corridor owners is usually “take it or leave it.” So an appraiser must simulate conditions whereby the buyer has other alternatives and has equal bargaining power. If the buyer is a private entity they most often must cave in to such pressure to avoid delay for installation of their pipeline or fiber cable. However, should the buyer be a public entity, then they can consider condemnation as a method of canceling out the seller’s

monopoly advantage. But if both parties to a corridor transaction drive hard bargains, they face the uncertainty of litigation and the risk of being on the losing side of a winner-takes-all outcome. It is only by bargaining for an outcome between a nominal and an ATF value that uncertainty to both parties can be allayed, delay to the buyer can be overcome, and both parties can arrive at an agreed upon price for the use of the corridor. One of the ways to do this is to hypothetically assume viable alternate routes in public streets or other rights of ways for cable, pipeline, or other facilities to be located in the corridor.

The staked-out bargaining positions described above can be depicted in the layer cake diagram below (Figure 1).

Where the relative positions of the parties is reversed from that shown in the table above, and costs equal or exceed ATF, or there is no alternate route available, then the ATF price possibly reflects just compensation, but not pure fair market value. In such cases, the user of the easement avoids the transactions costs associated with buying and assembling a separate route, e.g., appraisals, title search, negotiations, escrows, etc. The incrementally higher transaction costs over the price of the land is called an "assemblage factor." It is a misnomer for corridor owners and appraisers to call this a corridor premium or enhancement factor.

Envy Free Algorithms

Now that the bargaining range has been staked out the question arises how do we arrive at a fair outcome when neither side agrees on what "fair" means? Both sides envision themselves in a life or death struggle with siblings to get a fair share of the leftover piece

of cake. Neither side wants to give up a crumb. Bargaining algorithms are needed because: (1) neither side can agree; (2) appraisals will merely reflect the polar positions of the parties; (3) bureaucracies and corporations typically do not allow discretion to bargain for an outcome; and (4) our winner-takes-all legal system serves as an incentive for a corridor owner to hold-out.

So what is an algorithm? An algorithm is defined here as an instructed method, formula, routine, or protocol for arriving at a fair division within the agreed upon bargaining range. As mathematicians Jack Robertson and William Webb state: "In a sense an algorithm is somewhat like a recipe." Mathematicians appropriately call methods for fair division Cake Cutting Algorithms. The purpose of fair division is to come up with what is called an Envy Free Algorithm. The opposite of an envy free algorithm is a Greedy Algorithm.

Envy Free Algorithm:

A cake division is envy-free if no player feels another has a strictly larger piece. (J. Robertson and W. Webb, *Cake Cutting Algorithms: Be Fair If You Can* (A.K. Peters Publishing, 1998): 12.

The most well-known cake cutting algorithm is the Cut and Choose method as shown below.

Cut and Choose Algorithm:

- Step 1: Either person cuts what he or she considers equal halves.
- Step 2: The other person chooses; the remaining piece goes to the cutter.

Layer Cake Bargaining Range between Two Monopolies

Figure 1

Value Layers	Example Magnitude of Order Values	Certainty of Outcome	Delay	Mode of Dispute Resolution
ATF Premium	\$1.25 M	Less certainty	More Advantageous	Litigate
ATF Value	\$1.0 M			
Bargaining Range	?	More certainty	Mutually Advantageous	Bargain
Alternate Route Cost	\$500K	Less certainty	Less Advantageous	Litigate
Nominal Value	\$0			

There is a host of cake cutting algorithms in mathematics, arbitration, law, and from markets for fair division of compensation, a partial list of which is shown below (Figure 2).

monopolistic corridor property are to bargain on the basis of hypothetically avoided costs. Another solution would be to avoid downside risks by negotiating for relocatable easements. Charging option premiums is another way to reduce future risks to corridor owners.

Summary: Corridor Valuation Not a Piece of Cake

In summary, valuation of transportation and utility corridor properties is not a piece of cake. Neither the Diminution Theory (i.e., nominal valuation) espoused by lawyers nor the ATF Theory (i.e., avoided land cost) advocated by appraisers is likely to resolve the complicated issues involved with valuation of corridor real estate. Corridors are not market properties, but monopoly properties. The prices paid for corridors for corridor use, or for partial rights to co-exist within a corridor, often reflect monopoly or holdout prices. Solutions to the problem of pricing

However, corridor owners may be justified in erecting economic barriers to entry by way of charging higher ATF prices for the granting of co-location rights within such properties to avoid the tragedy of the commons whereby free-riders exploit the resource for next to nothing. But corridor appraisers who continue to play a game of “let’s pretend that ATF prices reflect fair market value” may find it increasingly difficult to defend their value opinions from the prescriptions of case law. ATF advocates will have to justify the crux of their own argument that corridor valuation must conform to the highest and best use of the corridor.

A Partial Taxonomy of Fair Division Algorithms

Figure 2

Market Algorithms	
1. 50/50 Rule	Buyer and seller decide to split any surplus productivity generated from the combination of their properties and coordination efforts.
2. Risk/Return Rule	Landlord will accept 10% per annum as fair land rent for a high risk property right (exclusive easement with burdens); 7.5% for a moderate risk right (license, some burden); and 5% for a low risk right (license with burden of relocation assumed by user). A one percent (1%) annual return is often used to cover property taxes for an interim marginal economic use.
Legal Algorithms	
3. Lesser-Of Rule	In computing damages in eminent domain cases, damages shall be measured by the cost to cure or market diminution whichever is the lesser.
4. Offset Rule	In computing damages in eminent domain, any damages shall be offset by benefits.
Jury Algorithms	
5. Split Award Rule	A jury often employs a veil of ignorance in adjudicating compensation awards. If a jury can not discern which party to a valuation dispute has a preponderance of the evidence, then they will split the monetary award down the middle. Split jury awards are frequently found in cases where the compensation dispute is based on two polar opposite values, neither of which reflects market value.
Arbitration Rules	
6. Baseball Arbitration	In professional baseball salary arbitration, the baseball player’s salary request or the baseball team’s salary request is selected, with no averaging or adjusting in between (all-or-nothing).
7. Boxing Arbitration	In real estate lease renewals, three appraisals are procured to value a property. If all three appraised values are within a range of 20% of each other, the three values are averaged. If not, the two nearest appraised values are averaged. This makes for a disincentive for an appraiser to try and skew the average by either a high-ball or low-ball valuation. This is called “boxing arbitration” because it knocks out extreme valuations.

To wit, how do ATF values inhere to corridors when the corridor can not be put to the same legal use as properties across-the-fence? Even where a case can be made for ATF values, how does raw and unentitled corridor land accrue the same unit value as fully improved and legally entitled land adjoining it? How does ATF value have any bearing on subordinate, relocatable easements within corridors that may have no effect on the permanent market value of the underlying fee-simple estate? Does ATF reflect market value or just compensation, or perhaps does it reflect the value of a positive externality? If so, where is the legal basis for just compensation for a positive externality accruing to a corridor user? If buyers must pay for positive externalities resulting from buying rights within a corridor, why is it that case law specifically forbids consideration of such indirect benefits when a public user acquires such rights; except as possibly an offset against damages? The professional literature on corridor valuation seems to have bypassed these critical questions.

The argument in this article has come full circle. Both the Nominal Theory and the ATF Theory for corridor valuation have been

deconstructed as not reflective of pure fair market value. An appraised-bargaining model has been offered as a possible solution, albeit an unlikely solution given that corridors are monopoly properties. A new and possibly more supportable justification for ATF Theory has been reconstructed based on severance damage option valuation theory and externality valuation theory. Notwithstanding the above, the next best solution may be for corridor owners to continue to charge seemingly monopolistic ATF prices to prevent the tragedy of the corridor commons. But there is no known precedent in case law or truly accepted valuation methodologies for doing so.

Moreover, the Uniform Standards for Professional Practice (USPAP) would require full disclosure that what one is reporting as Market Value by using ATF and Corridor Value Premium approaches to value often actually reflects Monopoly Value. In the absence of supporting case law or accepted appraisal methodology which fully meets USPAP disclosure requirements, it may be better to cut the cake and use appraisals as bargaining tools rather than trying to take the cake in a winner-takes-all game of Monopoly®. ●

References

Primary Sources:

Lusvardi, Wayne, 1998. "The Death of Rights of Ways," *Right of Way Magazine*, July/August, pp. 16-24.

Lusvardi, Wayne C., Wright, John, and Amspoker, Todd, 2000. "Appraising Linear Subordinate Easements in Utility Corridors," *Appraisal Journal*, July, pp. 250-259.

Lusvardi, Wayne C. and Warren, Charles, B., 2001. "Bandwidth Blackmail? What Price an Easement? Setting Market Value in Fiber Optic Corridors," *Public Utilities Fortnightly*, July 1, pp. 1-10.

Other Sources Consulted:

David Berlinski, *The Algorithm: The Idea that Rules the World* (Harcourt, 2000).

Steven J. Brams and Alan D. Taylor, *The Win-Win Solution: Guaranteeing Fair Shares to Everybody* (W.W. Norton Co., 1999).

Steven J. Brams and Alan D. Taylor, *Fair Division: From Cake Cutting to Dispute Resolution* (Cambridge University Press, 1996).

Robert D. Cooter, *The Strategic Constitution* (Princeton University Press, 2000).

Richard A. Epstein, *Bargaining with the State* (Princeton University Press, 1993).

Richard A. Epstein, *Takings: Property Rights and the Power of Eminent Domain* (Harvard University Press, 1985).

David Friedman, *The Economics of Everyday Life* (Harper, 1996).

Jack Robertson and William Webb, *Cake-Cutting Algorithms: Be Fair If You Can* (A.K. Peters, 1998).

¹ AmosWeb Economic Glossarama, amosweb.com

² Jennifer B. McKim, "91-Express Sales Probe 'Moot,'" *Orange County Register*, January 24, 2001: Local News, p. 1.

³ David D. Friedman, *Law's Order: What Economics Has To Do With Law and Why It Matters* (Princeton University Press, 2000):47.

⁴ Thomas E. Copeland and Phillip T. Keenan, "The Value of Flexibility," cited in *Economic Intuition* (www. Economic Intuition.com, 1998-1999)

⁵ Joke: Any similarity between the acronym ATF ("across-the-fence") and ATF (U.S. Bureau of Alcohol, Tobacco, and Firearms) is purely coincidental.

⁶ Peter Grant, "Taking a Toll," *Plots and Ploys Column-The Property Report*, *The Wall Street Journal*, January 25, 2001:B14.

⁷ N. Gregory Mankiw, *Principles of Economics* (Dryden Press, 1998): 781.

⁸ Henning Bohn and Robert T. Deacon, "Ownership Risk, Investment, and the Use of Natural Resources," *American Economic Review*, June 2000.

⁹ Example of unfair division from fictional television situation comedy characters Ralph Kramden and Ed Norton in an episode of the *Honeymooners* (1955):

Ralph: When she put two potatoes on the table, the big one and the small one, you immediately took the big one without asking me what I wanted.

Norton: What would you have done?

Ralph: I would have taken the small one, of course.

Norton: You would? (in disbelief)

Ralph: Yes, I would!

Norton: So, what are you complaining about? You GOT the little one!

(from S.J. Brams and A.D. Taylor, *The Win-Win Solution*, W.W. Norton Co., 1999).