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A New Look at the Basics

Dear Readers:

Welcome to the latest issue of The Appraisal Journal. In this issue, you will find three feature articles that take a new look at some basic elements in the valuation process.

The first article, “Highest and Best Use and Property Rights—Does It Make a Difference?” by Stephen F. Fanning, MAI, AI-GRS, Larry T. Wright, MAI, SRA, AI-GRS, and Rick J. Muenks, JD, MAI, suggests that a supported and reasoned highest and best use analysis should dictate the methods and approaches applied in the valuation analysis, and this does not change, regardless of whether there is a vacant or occupied assumption for the subject property.

The second article, “Land Value Differentials Resulting from Variability between the Sales Comparison and Income Approaches in Timberland Valuation,” by Austin B. Harris, Christopher N. Singleton, MAI, and Thomas J. Straka, PhD, looks at the difference between bare land value, from the income approach, and allocated land value, extracted from the sales comparison approach, in valuation of timberland. The authors examine factors that lead to this differential and potential adjustments in the valuation process to mitigate the land value differential.

The third article, “Market Value: What Does It Really Mean?” by Michael V. Sanders, MAI, SRA, reviews the market value concept and how it has evolved into differing definitions. The discussion illustrates how highest price and most probable price differ and how assumptions about the market may affect the valuation.

In this issue you will also find the Journal's ever-popular “Resource Center” column by Dan Swango, PhD, MAI, SRA. In the current column, he reports on self-storage resources that offer data and industry information to assist valuers in appraisal of these commercial properties. In addition, “Resource Center” reviews eminent domain texts newly available to Appraisal Institute professionals through the Appraisal Institute’s Lum Library.

As always, we welcome your comments regarding any aspect of The Appraisal Journal.

Stephen T. Crosson, MAI, SRA
Editorial Board Chair and Editor-in-Chief
The Appraisal Journal
Recent Court Decisions on Real Estate and Valuation

Exterior inspection alone does not vitiate new assessment

The Petitioners sought to reduce the assessments of a multifamily home (Home) situated on an 0.08-acre site. The Home included approximately 3,626-square-feet of above-grade living area and a stone block basement. The Petitioner’s appraiser described the Home as being 2.5 stories, while the appraiser for the City of Buffalo (City) considered the Home to be a 3-story residence. The Petitioner’s and the City’s appraisers also disputed the number of rooms (12 versus 14). Neither appraiser had inspected the interior of the Home, and the court noted its dissatisfaction with the lack of basic understanding of the interior as a recurring theme of its decision. In the valuations, the Petitioner’s appraiser used the sales comparison and income capitalization approaches, while the City’s appraiser relied on the sales comparison approach. Neither appraiser used the cost approach.

The court noted, it is well settled that a challenged assessment is presumed correct, and a Petitioner bears the burden of overcoming such presumption by coming forward with “substantial evidence” to the contrary, which is “evidence grounded in objective data and sound theory.” In the context of a property tax matter, substantial evidence “will most often consist of a detailed, competent appraisal based on standard, accepted appraisal techniques and prepared by a qualified appraiser.”

The court recognized that in preparing appraisals of real property, appraisers traditionally have relied on one of three methods of valuation: comparable sales, capitalization of income, and/or reproduction cost less depreciation. The court indicated that the comparable sales method of valuation is “generally the preferred measure of a property’s value for assessment...where an appraiser selects one or more properties that he or she deems similar to the subject property and adjusts them to address the differences between them and the subject property.”

Quoting The Appraisal of Real Estate, fourteenth edition, the court noted that in comparing and adjusting comparable sales to the subject property, appraisers typically evaluate the following elements of comparison: property rights conveyed; financing terms; conditions of sale; expenditures made after purchase; market conditions; location; the use(s) of the subject and comparable properties; non-realty components of value; economic characteristics; and physical characteristics” (p. 390) and physical characteristics that may require adjustment, typically differences in size, access, quality of construction, architectural style, building materials, age, condition, functional utility, attractiveness, and amenities (p. 420).

At trial, the Petitioner’s appraiser’s testimony and appraisal included many assumptions, including the “extraordinary assumption” that “no interior inspection was completed at the request of the client” and, the appraisal report noted, “therefore THIS IS AN EXTERIOR INSPECTION ONLY. INTERIOR FEATURES AND AMENITIES ARE NOT KNOWN.”

The court found that while it was unlikely for Petitioner’s appraiser to have inspected the interiors of comparable sales, it is likely that the appraiser had access to photographs from the multiple listing service (MLS) that he used in developing his appraisal, and the photographs for comparable sales properties on the MLS tend to be reliable, and fairly and accurately depict and represent the underlying properties because...
Cases in Brief

prospective buyers typically inspect properties—inside and out—before considering whether to purchase them. The Petitioner’s appraisal, however, includes no photographs of the Home’s interior. The court considered the Petitioner’s appraisal to be a drive-by appraisal of the Property with the limitations inherent therein as they “relate to basic and fundamental elements of the Property.” The court found the number and extent of the assumptions and limiting conditions rendered the [Petitioner’s] appraisal unreliable and legally insufficient to estimate of the Property’s value. The court rejected the Petitioner’s valuation, stating “such speculative assumptions by expert witnesses are routinely rejected in New York.”

In re Diana Sachs Aylward v. Assessor, City of Buffalo
Supreme Court, Erie County, New York
March 28, 2018
59 Misc.3d 1210(A), 2018 N.Y. Slip Op. 50458(U)

Reliance on sheriff sale appraisal value improper in tax assessment contest

The owner of a shopping center disputed the county auditor’s 2012 valuation, and the Franklin County [Ohio] Board of Revision (BOR) partially reduced the value based on a sheriff’s-sale appraisal. The Board of Tax Appeals (BTA), however, found this evidence unreliable and vacated the BOR’s decision, remanded the case, and directed the BOR to determine a value based on “competent and probative evidence.” The Board of Education (BOE) argued to reinstate the County’s original assessment.

The property at issue is a 1.492-acre parcel, improved with a single-story 19,700-square-foot shopping center divided into seven storefronts (the Property); it was assessed at $1.3 million. The owner sought a reduction in value to $700,000, claiming that the Property “[n]eeds [w]ork.” As proof of the reduced value, the owner referenced a 2013 sheriff’s sale of the Property for $520,100. At the BOR hearing, a certified appraiser for the owner testified as to a “rounded” value of $700,000, noting two ongoing vacancies in the shopping center.

The owner’s appraiser used the sales comparison and income approaches to value the Property. He could not find comparable sales of improved leased-fee sites within the market but found four sales of fee-simple sites and used those in his analysis. On cross-examination, the owner’s appraiser admitted that he did not view the interiors of the comparable properties nor did he contact the parties to verify arm’s-length sales. For the income approach, the appraiser explained that he used actual income (as opposed to market rent) and actual taxes.

The owner’s appraiser included a copy of a sheriff’s-sale appraisal with his report, which summarily assigned a value of $780,000. The three individuals who performed that appraisal did not appear to testify. At trial, the owner’s appraiser explained that these three individuals would not have inspected the interior of the Property. The Property eventually sold at a sheriff’s sale for $520,100.

The BOR ultimately responded and reduced the Property’s value to $780,000. It noted that the sheriff’s-sale appraisal had valued the Property at $780,000. The BOR disregarded the actual sale price from the sheriff’s sale because, in its view, the sale was not an arm’s-length transaction.

The BTA heard the case on the record developed before the BOR and considered additional argument from the BOE, which urged the BTA to disregard both the owner’s appraisal and the sheriff’s-sale appraisal. In its decision, the BTA criticized the owner’s appraisal because the appraiser did not verify that the comparable sales were arm’s-length transactions and did not view the interiors of the comparable properties. The BTA was also critical of the owner’s appraisal.
because it “contains no market information relating to income, expenses, and vacancy and credit loss, nor does it provide an analysis of the derivation of the capitalization rate.”

The BTA found the BOR’s reliance on the sheriff’s-sale appraisal clearly improper. The BTA noted that the sheriff’s-sale appraisal did not contain supporting documentation or analysis, that the appraisers did not appear to testify before the BOR or the BTA, and that the valuation date was about six months after the 2012 tax lien date.

The BTA went on to find that the BOR “properly concluded that the property owner sufficiently demonstrated that the initial assessment of the subject property overstated its value.” But that the evidence the BOR relied on was “neither competent nor probative” and there was no other evidence that could be relied on to independently determine value.” Therefore, the BTA vacated the BOR’s determination of value and remanded the case to find value based on competent and probative evidence. The BOE appealed, asserting that the BTA erred by remanding the case after determining that there was no evidence in the record to perform an independent valuation.

On appeal, the state supreme court found that instead of remanding for further valuation, the BTA should have reinstated the original county assessor’s assessment as a matter of law. The state supreme court stated, “[e]ven if some evidence tends to negate the auditor’s original valuation, it is proper to revert to that valuation when the BTA finds that the owner has not proved a lower value and there is otherwise no evidence from which the BTA can independently determine value.” The state supreme court reversed the BTA’s decision and reinstated the county auditor’s original valuation of $1.3 million.

South-Western City Schools Board of Education v. Franklin County Board of Revision
Supreme Court of Ohio
March 13, 2018
2018 WL 1325586

**Credit agreement disclaimer does not relieve lender of liability for fraudulent property appraisal**

This case concerns whether disclaimers in a contract between Credit Suisse and Claymore relieved Credit Suisse of liability for an allegedly fraudulent real property appraisal.

In 2007, Claymore invested $250 million in refinancing a property in Las Vegas. Credit Suisse, as the administrative agent, procured an appraisal of the property. After the eventual total loss of the investment, Claymore sued Credit Suisse for fraud and breach of contract alleging it manipulated the appraisal to inflate the value of the property.

The contract required Claymore to receive “a qualified appraisal of the property in a form reasonably acceptable” to Credit Suisse. The contract defined *qualified appraisal* as “any real estate appraisal conducted in accordance with the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA), the Uniform Standards of Professional Appraisal Practice [USPAP] … and all requirements of Applicable Law applicable to Administrative Agent undertaken by an Appraiser, and providing an assessment of the Appraised Value (Land Only) and the Appraised Value (All Collateral), the form and substance of such appraisal to be reviewed and approved by the Administrative Agent in its reasonable judgment.”

At trial, Claymore offered evidence that it agreed to participate only if Credit Suisse obtained an as-is market value appraisal of the property that complied with FIRREA; Credit Suisse did not acquire such an appraisal; and Credit Suisse knew the appraisal was deficient but failed to warn Claymore, which then lost its large investment.

Specifically, Claymore alleged that Credit Suisse manipulated the appraisal to reflect a “FIRREA value” of $891 million; but a FIRREA appraisal would have revealed the as-is market value of the property as less than $540 million, the total amount of the loan. In its counter argu-
The trial court concluded, however, that the credit agreement’s disclaimers did not relieve Credit Suisse of liability for breach of contract or fraud and highlighted the contract’s express requirement that Credit Suisse review and approve a qualified appraisal. Both parties appealed the trial court’s judgment.

The appeals court found that the credit agreement’s disclaimer did not preclude the breach of contract claims. The court stated that “contractual disclaimers are enforceable when sophisticated parties agree to them. ...But an express disclaimer will not be given effect where the facts are peculiarly within the knowledge of the party invoking it.” The appeals court also found that the alleged misrepresentation concerned facts peculiarly within Credit Suisse’s knowledge. The court distinguished the concepts of “superior knowledge of relevant facts” and “facts peculiarly within the defendant’s knowledge.” It said that although these are similar concepts, they support different elements of a fraud claim under New York law. “‘Superior knowledge of relevant facts’ is a factor in answering a ‘duty’ question; that is, whether a party had a duty to disclose information during a business transaction....the inquiry whether there are ‘facts peculiarly within the defendant’s knowledge’ is a question of justifiable reliance. The two questions overlap, however. Proof of ‘superior knowledge’—the duty question—requires proof that a ‘material fact was information peculiarly within the knowledge of the defendant,’ as the trial court had instructed the jury” in the lower court hearing.

The appeals court noted that the jury had found that since Credit Suisse knew the appraiser’s conclusions lacked support, it stood in a position to prevent the losses from the appraisal’s poor appraisal quality, veracity, and the subsequent reliance by Claymore upon same. The appeals court affirmed the trial court’s judgment that awarded Claymore $211,863,998 in damages.

Credit Suisse v. Claymore Holdings
Court of Appeals of Texas, Dallas
No. 05–15–01463–CV
February 20, 2018
2018 WL 947902

Conservation easement’s value is zero where it does not affect highest and best use or value of property

Between 2004 and 2007, Wendell Falls Development (Wendell Falls) bought 27 contiguous parcels totaling 1,280 acres in Wake County, North Carolina. Wendell Falls planned to subdivide the 1,280 acres into a master-planned community with residential areas, commercial spaces, an elementary school, and a park. Wendell Falls identified 125 acres of area to accommodate a park, and Wake County (County) expressed an interest in purchasing the 125 acres for a county park. Wendell Falls proposed placing a conservation easement on the 125 acres before the sale to the County. Wendell Falls wanted the easement, which would be held by a conservation organization, in order to restrict the 125 acres to park use.
On November 27, 2006, an appraiser for the County appraised the 125 acres at $3,219,000. Wake County subsequently agreed to buy the land for $3,186,000. After the purchase agreement was executed, Wendell Falls and the County discovered that the planned unit development document erroneously indicated that the park was 160 acres and that the appraised value had been based on 160 acres instead of the intended 125 acres. To correct the mistake a new appraisal was ordered, for the 125 acres. The new appraisal valued the land as a fee simple interest, unrestricted by any conservation easement at $3,020,000.

On June 7, 2007, Wendell Falls granted a conservation easement on the 125 acres to Smokey Mountain National Land Trust and transferred ownership of the 125 acres to Wake County. The conservation easement permitted only the following structures to be built on the 125 acres: (1) an environmental education center, (2) an overnight lodge, (3) one or more recreational day-use facilities, (4) sports fields, (5) an elevated wooden walkway, and (6) related maintenance facilities. The location and size of each type of structure was also restricted under the terms of the easement.

On October 3, 2008, Wendell Falls claimed a $1,798,000 charitable contribution tax deduction for its contribution of the conservation easement. Attached to the tax return was an appraisal of the conservation easement for $4,818,000. The return reported the resulting deduction as if Wake County paid $3,020,000 to Wendell Falls for a $4,818,000 easement to arrive at the deduction of $1,798,000 ($4,818,000 – $3,020,000 = $1,798,000). However, in actuality, Wake County paid the $3,020,000 to Wendell Falls for the land, not the easement. On April 23, 2009, Wendell Falls filed an amended return reporting that the deduction for the easement was $4,818,000.

The Internal Revenue Service disallowed Wendell Falls's charitable deduction. It argued that (1) Wendell Falls's contribution of the conservation easement on the 125 acres to Smokey Mountain National Land Trust ensured that Wake County, as the owner of the underlying land, could practically use the 125 acres only for a county park and (2) Wendell Falls expected a substantial benefit from the easement because the prospect of a public park on the 125 acres would increase the value of the adjoining land owned by Wendell Falls.

The tax court found that Wendell Falls donated the easement with the expectation of receiving a substantial benefit and thus disallowed the charitable contribution deduction. The court explained that the amount of the allowable charitable contribution deduction is the value of the contributed property. This is also the case when the contributed property is a conservation easement. The land itself is valued at its highest and best use. The court noted that, as evidenced by the plan developed by Wendell Falls, the best use of the 125 acres was as parkland in the master-planned community. The conservation easement, therefore, did not diminish the value of the 125 acres because it did not prevent it from being put to its best use. The court found, therefore, that the value of the easement was zero.

The court also noted that using the 125 acres as a park rendered the master-planned community more desirable and therefore increased the value of the residential and commercial lots that Wendell Falls intended to sell. Taking this enhancement into account, the total value of the 1,280 acres would be undiminished by the easement, and this undiminished value also leads to the conclusion that the value of the easement is zero. Because Wendell Falls received a substantial benefit from the donation of the easement, and because the easement was worth nothing anyway, the tax court wholly denied the deduction.

Wendell Falls Development v. Commissioner of Internal Revenue
United States Tax Court
T.C. Memo 2018-45
April 4, 2018
Docket No. 3494-14
**Treatment of expenses most important consideration in valuing nursing home as a going concern**

Elm Hill Realty, LLC, (Elm Hill) owned a 3.17-acre parcel of land, and Apple Health Care, a related entity, operated a skilled nursing facility on the property. The Town of Rocky Hill (Town) determined that the fair market value of the property was $4,563,000; Elm Hill appealed.

At trial, Elm Hill's appraiser offered an opinion of the property's fair market value of $3,100,000. The Town's appraiser opined that the property's fair market value was $6,850,000. Both appraisers relied primarily on the income capitalization method, valuing the property as a going concern, as likely purchasers of a nursing home would evaluate it. After determining the value of the going concern, each appraiser apportioned that value to three components of value: the real estate, the business enterprise value, and the furniture, fixtures, and equipment. Both appraisers also performed a sales comparison analysis but not a cost approach. Both appraisers testified that the market sales approach is difficult to apply to appraisals of nursing homes because such facilities are sold infrequently. In this case, the appraisers concluded that the current use as a nursing home was the highest and best use of the property.

The primary structure of the facility is a building built in 1974, with 31,277 square feet of area on the first floor, which contains three wings of resident rooms, and 16,746 square feet on a lower level, which includes a kitchen for the facility and one wing of resident rooms. The building was described as “dated and institutional in character.” It was noted that the building's features “lacked the appeal of newer facilities and the accommodations did not provide for a high degree of privacy or modern amenities.”

The court cited *The Appraisal of Real Estate*, fourteenth edition, as guidance and authority for the valuation of the type of property involved here, stating “For some property types like hotels, car washes, and assisted-living facilities, the real property rarely sells independently of personal property and intangible property.” (p. 704) The court also cited a prior decision that had noted, “According to the Appraisal Institute, the value of a going concern is comprised of (1) real property, (2) tangible personal property (furniture, fixtures, equipment and inventory), and (3) intangible personal property, which includes residual intangibles. Included in the residual intangible category is capitalized economic profit, or business enterprise value, which is defined as the present worth of an entrepreneur's economic (pure) profit expectation.”

The going concern method requires an allocation among the component parts of real property and tangible and intangible personal property. “[W]hen a going concern is valued under the income approach, that value pertains to the market value of the total assets of the business, of which real property is but one component. To determine the value of the real estate associated with that going concern, the values of the other components of the total assets of the business must be subtracted from the overall value.”

The court noted that nursing homes generally derive income from three categories of payors: Medicaid, Medicare, and private pay/other. Medicaid rates are generally the lowest of the three rates, and Medicare generally provides the highest per diem rates for nursing home services. The subject nursing home had significant rating and inspection issues, with an overall state quality rating from the federal Center of Medicare and Social Services of one star on a one to five scale. The appraisers disagreed as to the significance of the nursing home’s one-star rating. The Elm Hill's appraiser testified that the rating as of the date of value likely reflected problems with the quality of the staffing, which would be difficult to address in a unionized facility. The Town's appraiser testified that a prospective purchaser could recognize the opportunity to improve performance but could not identify specific areas...
Cases in Brief

where improvements could be made without increasing costs. The court concluded that a prospective buyer of the subject nursing home as a going concern would want to improve its quality rating and would have concerns about the costs of steps necessary to do so.

Both appraisal reports had similar conclusions about the nursing home's projected occupancy rates, payor mixes, and forecasted total income. Where the court noted issues with both appraisers' estimates, the court found Elm Hill's appraiser's treatment of expenses to be more realistic. The court determined that the fair market value of the property as of the relevant date was $3,700,000.

Elm Hill Realty v. Town of Rocky Hill Superior Court of Connecticut, Judicial District of New Britain at New Britain Docket Number: HHBCV146024900S March 15, 2018 2018 WL 1785689

Court has duty to step in and determine value of property where there are divergent appraisals in “dirt for debt” bankruptcy agreement

Joseph and Gloria Wiggins (Debtors) filed a petition under Chapter 11 of the Bankruptcy Code on October 27, 2016. Branch Banking & Trust Company (BB&T) was initially the primary and largely secured creditor, but it assigned all its rights against the Debtors to CFS. CFS filed a proof of claim in the amount of its assigned debt, $1,674,916.41.

Two notes were secured by real property (the Property) owned by the Debtors. The Property consisted of three contiguous tracts of land totaling 101.26 acres (16.70 acres wooded and approximately 84.56 acres in agricultural crop production). A portion of the property with road frontage previously had been subdivided into eight lots. Six of those lots subsequently were sold, and single-family homes were built on those lots. At the time of these proceedings, the Debtors claimed that they had preliminary approval from the county for an expanded subdivision plat, which would have added an additional 29 perimeter lots, and that they had obtained a preliminary lot sketch for development of the entire Property into 139 single-family lots.

The proposed plan in this case, among other things, provided for the surrender of the Property to CFS as part of a “dirt-for-debt” exchange. The parties asked the court to determine the value of the Property and if it constituted the “indubitable equivalent” of the CFS claim. The court noted that to achieve confirmation, a proposed plan must be fair and equitable. The court's analysis noted that an “indubitable equivalent” evaluation “is a particularly challenging component of dirt-for-debt cases...[as the court] must take the amount of the creditor's secured claim at its starting point, then set it against the present value of the property to be surrendered,...based on a conservative approach to valuation and the circumstances of the case.”

At the hearing, the parties submitted appraisals that reached markedly different values for the Property. The Debtor's appraiser testified to a value of $1,135,000, and CFS's appraiser testified to a value of $390,000. The court stated that an extreme valuation difference may preclude effective valuation and constitutes a red flag, "signifying uncertainty with respect to some component of valuation." Here the parties agreed to the exchange of real estate for claim credit, and only the amount remains at issue. In such situations, “the court has a duty to value property," and “The fact that two appraisers have arrived at vastly different values cannot relieve the court of its obligation.”

The court noted that the mere existence of widely varying appraisals is of less importance than the reasons for those variations. Here, the
valuations deviated based on the potential highest and best use of the Property. The appraisers agreed on how highest and best use is to be determined, but disagreed on the result of the application of the relevant formula. The court employed a three-step highest and best use analysis: physical possibility, legal permissibility and financial feasibility. The appraisers had agreed that a variety of uses were supported by the two prongs of physical possibility and legal permissibility, but diverged in their analysis of financial feasibility.

Ultimately, the court took it upon itself to rectify and reconcile the differing and competing appraisals to determine the appropriate credit set off, instead of invalidating the dirt for debt settlement or declining to find an indubitable equivalent since the parties agreed via settlement on such an approach. In that situation, per the court’s opinion, the court had a duty to step in and determine a proper valuation. The court found that the property had a value of $445,000.


Negligence claim against lender’s appraiser not available to borrower

Randy and Linda Tindell (the Tindells) bought a single-family home for $320,000 in 2005. The listing described the construction as “manufactured.” A subsequent appraisal identified the construction as “modular.” In 2009, the Tindells were unable to refinance the mortgage because the home was a manufactured home, not a modular home, as they had believed. They then brought causes of actions against several parties, including the appraiser, under claims for negligence per se, negligent misrepresentation, and other theories.

The trial court found that the count for negligence failed because, as a matter of law, borrowers cannot sue an appraiser hired by the lender for negligence where the appraisal was prepared for a lender, and there was no privity of contract between the appraiser and the buyers. The court also found the cause of action for negligent misrepresentation was deficient "because the representation was made to the lender, not the [Tindells]. Additionally, there is no reliance by [the Tindells] because the representation was made after they signed a binding purchase agreement and was known to [them] prior to completing the purchase." The trial court granted the appraiser’s motion for summary judgment, and the Tindells appealed.

The appeals court noted that negligent misrepresentation requires: “(1) the misrepresentation of a past or existing material fact, (2) without reasonable ground for believing it to be true, (3) with intent to induce another’s reliance on the fact misrepresented, (4) justifiable reliance on the misrepresentation, and (5) resulting damage.” Unlike fraud, negligent misrepresentation does not require knowledge of falsity.

The Tindells argued that an appraiser has a duty of care to all people that “the appraiser knows with substantial certainty will rely on the representations made in the appraisal in the course of the transaction.” The Tindells cited Soderberg v. McKinney [(1996) 44 Cal. App. 4th 1760] to support these claims. In Soderberg, a mortgage broker obtained an appraisal to market a loan to prospective investors. The appraiser knew that his appraisal was for testing the equity for a potential loan, but there was no evidence the appraiser knew the identity of any investor. The Soderberg court found: “[the appraiser] knew that a particular group or class of persons . . . would rely on his report in the course of a specific type of transaction he contemplated—investing in a deed of trust secured by the appraised property.”

But in the current Tindell case, the appeals court found the Tindells’ argument and position
more akin to that of the plaintiff in Willemsen v. Mitrosilis [(2014) 230 Cal. App. 4th 622]. In Willemsen, a property buyer filed suit against his broker and appraisers alleging negligence, breach of fiduciary duty, and negligent misrepresentation. An appraisal was prepared for the lender and stated it was intended to be used by the lender. The buyer argued, under Soderberg, the appraiser could be liable for negligence and negligent misrepresentation. The Willemsen court disagreed, distinguishing Soderberg, by saying in that case the appraiser issued an appraisal to a mortgage broker with the knowledge and intent that the mortgage broker would distribute it to a class of potential investors who would rely thereon in making their decision to invest or not to invest. Whereas in Willemsen there was no indication that the [appraisers] issued their report with the knowledge or intent that Willemsen would rely upon it in deciding whether to buy or not to buy the property, rather, they knew and intended that the bank would use the appraisal report in determining whether the property had sufficient value to serve as its collateral.

The plaintiff in Willemsen also had argued the appraiser knew or must have known there was a loan transaction involving him. But the Willemsen court held that “the appraisal report demonstrated on its face that the ... Defendants were aware of the contemplated loan transaction and that the appraisal report was intended to influence that transaction. There is no indication, however that the ... Defendants were aware that Willemsen hoped to use the appraisal report as an investigational tool upon which to base his decision to approve or reject the property.”

In the current case, the Tindells argued “the evidence shows that [the appraiser] knew of [the Tindells’] specific transaction and also that the [Tindells] were waiting to see if the home was the type of home that was able to obtain financing.” Therefore, unlike in Willemsen, the Tindells were suing for the same harm caused by the failure to provide an accurate appraisal to the lender (i.e., the failure to indicate in the appraisal report that the property was not sufficient collateral). The appeals court ultimately disagreed with the Tindells and found as a matter of fact and law that the appraisal was prepared for the lender, not the Tindells. The trial court’s decision was upheld.

Tindell v. Murphy
Court of Appeal
Third District, California
April 6, 2018
Super. Ct. No. 50512

In eminent domain proceeding, owner must follow procedural requirements to qualify as witness

In 2013, the San Bernardino County Transportation Authority (San Bernardino) filed an eminent domain complaint against property owner Jong Uk Byun (Byun) as well as several easement holders and lien holders. There was no dispute as to the taking of the property, and a trial date on valuation issues was set for August 2014.

In July 2014, the parties exchanged expert witness lists and valuation statements under terms outlined in the Code of Civil Procedure. San Bernardino had difficulty taking depositions of Byun’s experts and filed a motion to compel the depositions. However, before the motion could be heard Byun’s counsel filed a motion to withdraw. The court granted the motion to withdraw, set a new trial date for October 2015, and ordered Byun to produce his valuation experts by August 2015 or risk having the experts excluded at trial. As of September 2015, however, new counsel for Byun still had not produced experts for deposition, and the court excluded their testimony from trial.

After the court granted a motion to continue the trial and reopen discovery, Byun met a supplemental designation deadline with a statement that two of the newly identified witnesses would adopt
the statements of valuation data provided by the previously excluded experts. Byun also sought to present himself and the business manager as witnesses testifying as to the property’s value.

After much procedural court involvement, delay and issues with Byun’s discovery performance, and failure to comply with various deadlines and requirements, the court made a series of rulings that resulted in Byun’s inability to present any valuation evidence because all valuation witnesses had been excluded. Byun appealed.

The court of appeal noted that “[t]rial judges have a substantial gatekeeping responsibility when it comes to expert testimony.” It stated that the goal of the court as a gatekeeper is to ensure an expert employs the same intellectual rigor in the courtroom as he or she does in practice in the field. This means the court must determine if the matter relied upon by the expert provides a reasonable basis for the expert’s opinion or if it is based on conjecture or a leap of logic. The court of appeal found that the trial court’s decision to exclude valuation witnesses who had adopted an excluded expert’s opinions without the ability to justify or explain such opinions was reasonable.

The appeals court noted that California has a unique set of statutes that govern valuation in eminent domain matters, including specific procedures for parties to follow for discovery. Thus, while general rules of civil procedure are relevant, in condemnation cases the more specific eminent domain statutory scheme applies. The eminent domain statutes expressly state the measure of compensation for property taken via eminent domain is “fair market value,” which is “the highest price on the date of valuation that would be agreed to by a willing buyer and seller under no necessity and with full knowledge of how the property could reasonably be adapted and available.”

The California procedures also provide that “[n]o party required to serve statements of valuation data on the objecting party may call a witness to testify on direct examination during his case in chief to his opinion on any matter listed in Section 1258.250 unless a statement of valuation data for such witness was served.” The statute applies to all witnesses who testify regarding valuation, including property owners. The appeals court concluded, therefore, that as an owner Byun had the right to testify as to his property’s value and goodwill, but because he failed to meet his obligations as to the disclosure exchange requirements he was properly excluded from providing valuation testimony at trial.

**San Bernardino County Transportation Authority v. Byun**
Court of Appeal, Fourth Appellate District
Division One, State of California
D073458 (Not Officially Published)
May 25, 2018
2018 WL 2382230

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Highest and Best Use and Property Rights—Does It Make a Difference?

by Stephen F. Fanning, MAI, Al-GRS, Larry T. Wright, MAI, SRA, Al-GRS, and Rick J. Muenks, JD, MAI

Abstract
Fee simple property rights application in tax appraisal is a continuing debate in the courts and taxing jurisdictions and among appraisers. The debate centers on the valuation assumption of fee simple interest in the appraisal of single-tenant properties like big-box retail. One side of this debate is that the property should be appraised considering its current use, while the other viewpoint is that the property should be appraised with the assumption that it is vacant and available for a secondary use. This article addresses the question of how highest and best use fits in this definitional debate and suggests that a supported and reasoned highest and best use analysis should dictate the methods and approaches applied in the valuation analysis—and not just definitional interpretation that assumes the property is vacant and available for a use. Big-box retail property is used as the example for this article, but other property types, such as drug stores, manufacturing facilities, or any property type that was built for use by the owner-operator, will have similar issues in tax court disputes.

Introduction
The application of fee simple property rights in tax appraisal is a continuing debate among courts, taxing jurisdictions, and appraisers. The debate centers on the valuation assumption of fee simple interest in the appraisal of single-tenant properties like big-box retail. A big-box retail property will be used as the example for this article, but other property types, such as drug stores, manufacturing facilities, or nearly any property type that was built for use by the owner-operator, have similar arguments in tax court disputes. One side of this debate is that such properties should be appraised considering their current use, while the other viewpoint is that such properties should be assumed vacant and available for a secondary use. This article addresses the question of how highest and best use fits in this definitional debate. Whether in tax appraisals or in any market value assignment, this article proposes that a supported and reasoned highest and best use analysis should dictate the methods and approaches applied in the valuation analysis, and not just definitional interpretation that assumes the property is vacant and available for a use, “because in any appraisal, it is the use that is being valued.” This is not an estimate of the value of a going concern, but the going concern use, and like any commercial use appraisal, it is analyzed to see if the market is supporting its type of operation in order to determine if the cost of creating the real estate component is justified and supported by the market.

1. Tax appraisals seem to be the main context where the divergent views play out as lenders and lending regulators, banks, and condemnation courts seem to be less concerned about this issue.
2. There is similar debate regarding how to assess built-to-suit leased facilities.
3. Two case opinions, one regarding a big-box store in Michigan and one regarding a GM auto plant in New Jersey, show the courts’ concern about how highest and best use is applied in market value appraisals. See Menards Inc. v. City of Escanaba 315 Mich. App. 512 (May 26, 2016) and General Motors Corp. v. Linden City, 22 N.J. Tax 95 (February 2, 2005).
There are two general schools of thought on the application of fee simple market value. One school of thought, the traditional way of handling an assignment of fee simple market value of a leased or owner-operated property, adjusts any below- or above-market leases to market-based rents for the valuation. For “owner-occupied properties, market rent estimates are used in the income capitalization approach.” For the traditional method, sales of leased properties can be included with adjustments to market rent and market rent capitalization rates. The cost approach indicates the value of the fee simple interest of the property based on land values from current land sales and costs for similar type buildings adjusted for physical deterioration and functional and external obsolescence, if any.

The second school of thought is sometimes called the "dark store theory." Under this method, to estimate the fee simple market value of a property, such as a big-box retail property, the property is appraised assuming it is vacant and available for a secondary use. This “assumed vacant and available” fee simple theory involves a series of appraisal definitional interpretations. Examples of the definitional interpretations under the dark store theory include:

- The definition of market value precludes using sales of leased properties since they are not fee simple sales.
- Fee simple precludes using any sale lease-back transactions because they are considered a form of 100% financing and not speculative sales meaning they are not market value-in-exchange sales.

The definitional interpretations under the dark store theory disregard the existence of the current property use and its user or similar users; the market demand to support the current use, and the market activity of acquisition of land and construction of improvements for the use. These market realities are disregarded on the basis that no fee simple sale transaction for that use is found in the marketplace.

The results of these definitional interpretations by some leads to the determination that an appraisal for fee simple market value assumed vacant must be based on three principles:

1. The only comparable sales will be those representing vacant buildings that are similar physically to the subject and sold for second-generation use.
2. The income approach is based on the market rent of buildings for a secondary use.
3. The cost approach is not applicable because the building suffers from functional obsolescence that is difficult to estimate since it was built for an owner-user.

5. A discussion of the pros and cons of each school of thought is not the purpose of this article, but both schools of thought, as we understand them, are included to contrast how each viewpoint might impact the context of highest and best use.


8. Within this school of thought, most consider “current use” to mean the brand store like The Home Depot, whereas in this article the term “current use” means the retail category—in this case home improvement retail—and does not consider the store brand.

9. Note the term “use” means the use of property, like the retail home improvement center in this case, and the term “user” in market analysis refers to the user of the space, i.e., the retail customers, which in this case study are residents, home builders, and contractors within about 3 to 5 miles of the subject property.

10. It is our view that highest and best use does not depend on whether the property is built to suit for one user or many users. It can be a custom-built property if the improvement needs to be designed for a specific user. An owner-occupied, custom-built improvement can be the highest and best use and will be the highest and best use if that owner-occupant uses it. All real estate improvements are build-to-suit improvements to some degree.
The purpose of this article is not to resolve the debate of the two competing interpretations of fee simple but to show how the interpretations may not matter that much, if at all, in highest and best use analysis. Highest and best use is used to define the standard for the real property, disregarding any personal intangible property that may affect the value of the property but not the highest and best use of the property. The premise of this article is definitions do not determine highest and best use; instead, economic principles—such as the principles of anticipation, substitution, supply and demand, and contribution—are the basis of highest and best use.

Accordingly, the key question is, in any assignment, including property tax valuation assignments, is highest and best use the basis of a market value or is the basis the assumption of property rights being appraised? Do the interpretations of the assumption applied to property rights and related definitions set the criteria for valuation methods, such as the selection criteria of comparable sales—or does highest and best use set the criteria for the valuation methods?

**Application of Highest and Best Use Principles**

The Appraisal of Real Estate, fourteenth edition, states, “The analysis of highest and best use is at the heart of appraisals of the market value of real property.” It seems logical, therefore, that highest and best use must be the first step in a market value appraisal regardless of how property rights are interpreted. Almost every state’s definition of market value for property tax and eminent domain purposes includes a reference that highest and best use is to be considered in valuing real property. Highest and best use and market value are tied to “use” since value is created through the use of the property.

The conclusion of a highest and best use study could very well be that the highest and best use of the property is to change the property’s current use to a new use, but this article suggests this conclusion should be determined by the highest and best use study and not definitions. To demonstrate this view, the following discussion will present a case study of the highest and best use process for a big-box retail property to see what changes to highest and best use, if any, result from different interpretations of fee simple estate.

The Appraisal of Real Estate, fourteenth edition, suggests that “the analysis of highest and best use can be thought of as the logical end of a spectrum of market analysis procedures, running from the macroeconomic overview of a general market study, through the more detailed marketability studies and analyses of financial feasibility, to the formal analysis of highest and best use.”

Market value of a property rests on the foundation of determining “the present value of all of the future benefits it brings to the owner.” The analyst, in measuring the market support for a property use, examines the current and future demand and competitive supply in the subject market. Therefore, the purpose of a highest and best use study is to forecast what is the most probable alternative use of the property that will produce the highest present value of future benefits that can be realized by the owner of the property.

No matter which property rights are appraised, the future benefits are forecast from the results of the six-step market and marketability study. The market and marketability study is based on economic (fundamental) demand over time by users of the real estate space under study.

The market and marketability six-step study is the process that highest and best use analysis uses. It is applied to each reasonably probable alternative market segment that the property is most likely to serve. The highest and best use study of a currently operating big-box retail
would include the “assumed vacant alternative” for a second-generation use as well as the continuation of the current use of the property, and any other reasonably probable alternatives.

Each alternative use from the market and marketability six-step process then goes into a seventh step—the financial analysis of the alternatives—to determine which alternative provides the highest present value. The eighth and final step in highest and best use analysis is the study conclusion, sometimes called the maximally productive analysis. This step could also be called reconciliation. In appraisal, highest and best use reconciliation is the final analytical step in determining which alternative produces the highest value at the least risk. Risk determination is based on the reliability and confidence in all the data points used in the analysis. The results of the eighth step are then reported in the three-part highest and best use(s) conclusion on:

- Use
- Timing (economic demand/timing)
- Market Participants:
  - Most probable users of real estate space
  - Most probable buyer type (owner-operator, investor, developer, etc.)

Although appraisers traditionally have emphasized the physical use in the conclusion of highest and best use, all three of the above considerations are necessary to identify the highest and best use. Highest and best use determines who would be the most probable users of the space and over what time period. The second part of a market value appraisal measures the most probable market value of the subject’s highest and best use. The different interpretations of the property rights’ market value being sought might change some of the valuation techniques used, but it will not change the property’s highest and best use.

### Case Study: Highest and Best Use in Market Value Appraisals

To demonstrate the highest and best use analysis process, a simplified case study is presented next. The case study looks at a big-box home improvement center and will go through each step in the highest and best use analysis process to see if any differences result when the property is appraised as fee simple or leased fee. The case study will parallel the same six-step market and marketability study process shown in The Appraisal of Real Estate, fourteenth edition. This same six-step process is used for an existing multitenant shopping center case study model found in the Appraisal Institute’s Advanced Highest and Best Use and Market Analysis course and detailed in the book Market Analysis for Real Estate, second edition.

Exhibit 1 outlines the major steps that will be described in the case study. A glossary of terms and definitions is located in the Appendix at the end of this article to aid the reader.

### Case Study Property Description

The case study examines an actual property and uses data based on its location. Some data is modified for brevity, confidentiality, and to simplify the case study for article purposes.

- **Type:** Home improvement center (retail sales include, building material, appliances, hardware, paint, etc.)
- **Age:** Seven years; built specifically for current owner
- **Building size:** 130,000 sq. ft., enclosed, plus partially covered lawn and garden center
- **Garden center:** 27,000 sq. ft., canopy area
- **Ceiling height:** 22 feet
- **Building condition:** Good
- **Parking:** One space per 200 square feet of building

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17. Space constraints prevent an in-depth discussion of all the details of the highest and best use analysis process. The term risk in maximally productive is described in the Market Analysis for Real Estate, 2nd ed., which states, “The test of maximum productivity could also be called reconciliation, another word for the final analytical step to assess the data to determine the risk or reliability and confidence in all the data points used in the analysis. If all the data and analysis techniques are considered equally reliable, then the highest and best use that is maximally productive is the alternative that yields the highest value to the land.” Stephen F. Fanning, Market Analysis for Real Estate: Concepts and Applications in Valuation and Highest and Best Use, 2nd ed. (Chicago: Appraisal Institute, 2014), 496.


19. Fanning, Market Analysis for Real Estate, 2nd ed. See especially, the retail shopping center example in chapter 13 and the eight-step outline of concepts on page 483.

20. This size is the actual gross area of the building, but it is recognized this is above the average store size reported for most home improvement centers in their annual reports. The annual reports typically state only what is considered the average of the gross sales area of the buildings and do not include auxiliary space such as offices, storage, etc. Most do not include outside sales areas, such as their garden centers.
Owner-occupied
Subject site is a separately owned super pad as part of a larger retail cluster of adjacent discount department stores, fast food pads, and small strip centers.
Legal encumbrances: The subject property has numerous cross access easements, joint curb cut permits, joint and site-specific utility and drainage easements. There also are numerous joint operating agreements with adjacent retail, such as common area maintenance (CAM).
Site size: 17 acres
Zoning: Heavy commercial, which allows some outside storage. This zoning also allows multiple retail, service, and office uses. Alternative rezoning to apartment is also highly probable.
Location: Suburban location in a major metropolitan area near a freeway with significant community retail and regional retail in close proximity

Case Study Highest and Best Use—Alternative Use Scoping
The foundation of an appraisal is the documented evidence that there is an appropriate level of market support for the existing use of the site or for alternative uses. This case study presents methods to establish the basis of market support for a highest and best use of the real property and whether the differing interpretations of the property rights theories change the highest and best use process or conclusions for an improved property.

Exhibit 1 Highest and Best Use Analysis Process

Alternative Use Scoping—Determine reasonably probable alternative uses for study

Market and Marketability Analysis—Analysis of most probable alternative uses

Property Analysis
Step 1: Property Productivity Analysis—Define the product
  1.1 Legal determinants of use
  1.2 Site and improvements determinants of use
  1.3 Location determinants of use and timing

Market Analysis
Step 2: Delineate the Market—Identify demand sources of property users
Step 3: Demand Analysis—Current and forecasted user demand
Step 4: Supply Analysis—Measure current and forecasted competition for demand
Step 5: Market Condition Analysis—Market cycle analysis

Marketability Analysis
Step 6: Subject Marketability Analysis—Determine market capture

Testing Highest and Best Use Alternatives
Step 7: Financial Analysis of Alternative Uses—Present value of future benefits

Reconciliation and Conclusions
Step 8: Highest and Best Use Conclusions—Most profitable alternative at least risk; conclusion specific as to
  • Use
  • Timing (occupancy, etc.)
  • Market participants
**Highest and Best Use as if Vacant.** For article brevity, the site-as-if-vacant is not covered in detail here. However, this does not suggest it is of less importance, as a site-as-if-vacant highest and best use can be a critical input into the highest and best use of the site-as-improved. For example, the site-as-if-vacant highest and best use includes the analysis of the site's ideal improvement. The ideal improvement specifies things like size of building and use. As *The Appraisal of Real Estate*, fourteenth edition, notes, “an appraiser’s conclusion of the ideal improvement should be as specific as the market suggests.” The ideal improvement is a gauge to help determine an improved property’s obsolescence, if any, and comparable properties that might be analyzed in the sales comparison approach.

The case study concluded the site use was community retail as evidenced by the site’s physical features and the adjacent uses, which are all community retail uses like the subject as part of a community retail node at a major intersection. The site-as-if-vacant three-part conclusion is:

- **Use:** Big-box community retail
- **Timing for Use:** Current to three years in the future
- **Market Participants:** Users (customers) are moderate-income residents and businesses within 3 to 5 miles of the subject site. The most probable buyer of the land assumed vacant is a developer or owner-operator.

**Highest and Best Use as Improved and Alternatives to Consider.** *The Appraisal of Real Estate*, fourteenth edition, states that “highest and best use of property as improved pertains to the use that should be made of an improved property in light of the existing improvements and the ideal improvements described.” In appraisal of the market value of improved properties, appraisers consider alternative uses of the existing improvements. The alternatives considered may include:

- Demolish the existing improvements and redevelop the site.
- Convert, renovate, or alter the existing improvements to enhance or change the current use to a more productive use.
- Retain the existing improvements and continue the current use.

While many alternatives might be considered, when the property being appraised is improved an appraiser could first complete a market and marketability study of the property at its current use and then a preliminary general analysis of the most optimistic value of the subject property at reasonable alternative uses. If the property at its current use is forecast to continue to be occupied in a manner that ensures an indicated value at or above the values of the other optimistic alternatives, then the current use could comfortably be selected as the highest and best use and other alternatives would likely not need to be analyzed further.

**Market and Marketability Study of Current Use of Property**

The market and marketability study of the current use of the property is part of the highest and best use analysis that determines the fundamental economic demand for the current use, which will be used as the base alternative to compare to other uses of the property.

**Step 1: Property Productivity Analysis**

Property productivity analysis is the “analysis of the capacity of a property to house economic activities, supply services, and provide amenities to meet human needs.” The property productivity analysis consists of looking at the subject building and site improvements, the subject’s legal constraints and opportunities, and the location in order to determine what use the property is designed to serve. Part of this analysis is to determine if the property is the latest design for that use or if the latest market trends have made the improvements obsolete. In other words, is the building designed to best serve and attract customers for the property’s intended use.

**Property Analysis—Case Study Example.** Exhibit 2 shows the case study’s property rating as a home improvement center, which is the current use of the property. The market standard is based on the newest home improvement store designs in the property’s metro area and outside its metro area or anticipated new property criteria in the industry. In other words, it is the analysis to

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determine what is the market segment the property is designed to serve (site, improvements, legal, and location). The property productivity analysis is a comparison to the ideal improvement for this industry and what are the current industry trends in this market. The details of the criteria are beyond the scope of this article, but the illustration shows that if the store is designed to house the economic activity it was intended to serve, then the building does not have any functional obsolescence for this use; therefore, the building is experiencing only the normal physical depreciation for a seven-year-old building. Changing the building’s design is always a functional problem to deal with for any type of retail improvement and that is what property productivity is all about.

It should be noted that property productivity analysis in a market value appraisal is not a study of a specific brand but of a retail type. Different brands will often have different building designs to some extent, as that is a function of the cost generally applicable to any retail improvement. The property productivity analysis determines what is typical for this economic use in this market setting compared to the ideal improvement and the market demand for that use. (Demand is covered later, in Step 3 of the analysis process.) The property productivity analysis in Step 1 is used to assess whether the existing property and location can meet the economic expectations of the market segment that the property was designed to serve.  The results of Step 1 analysis of property, analysis of site, and analysis of location provide the basis for physical depreciation and potential functional obsolescence.

The property productivity analysis does not change whether the subject is a home improvement center, like the subject case study, or a multitenant community shopping center or some other type of big-box discount center. The specific features of each building type or location that serves the retail market segment might change but not the analysis method of property productivity impact on property use. The property productivity analysis in most cases would recognize if the subject has any obsolescence whether it is caused by building design, site, legal, or location issues.

The potential economic obsolescence, if any, is covered in the demand section of the next steps. The highest and best use process determines the economic demand for the use not the brand. The example case here is a big-box home improvement center, but the same principle would be used for a market value appraisal of a grocery-anchored shopping center. Part of that highest and best use analysis would be to determine the current and forecasted demand for grocery-anchored shopping centers and not the grocery brand that is currently in the center.

**Legal Analysis Impact on Use.** Another aspect of property productivity analysis involves looking at all legal implications that impact (positively or negatively) any use, including the impact on current use. The impact of zoning, easements, and deed restrictions on the property are studied. Legal constraints can alter uses of the property. In the subject case, the property is owner-operated so its use can continue or the owner can change the use as long as it is consistent with the site’s zoning, deed restrictions, easements, etc. The property has curb cut permits, many cross access and utility easements, drainage easements, and a common area maintenance agreement so any alternative use would have to accommodate those restrictions. A big-box retail property, as part of a planned shopping center, also many times will have deed restrictions on alternative uses. In this case study, there are no restrictions that would prohibit continuing current use as a home improvement center or a change to an alternative use except for a department store use. Legal use also has to be compared to market demand. For example, if current leases are considered and the subject has a lease with twenty-three years remaining but the economic demand for the subject use is deteriorating over time, then the lease would

24. This does not mean there would not be some functional obsolescence issues to address in the valuation. Nearly any commercial property will have some functional issues when a new owner occupies or leases out a property. Almost every new owner or occupant wants to make changes to meet its specific needs.


26. If the fee simple assumption assumes no lease, then this analysis would not be required.
have to be analyzed in more detail to give a probability opinion as to whether it would be honored for twenty-three more years.

The table in Exhibit 2 shows the conclusions of the subject property rating for continued use as a home improvement center.

**Location Determinants of Use.** Real estate location attributes determine the type and location of land uses most expected in an area. In the next step of this study, the economic demand analysis will tell how much growth might be expected over time.

### Exhibit 2  Community Retail Home Improvement Center Property Rating

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<th>Inferior</th>
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</tr>
<tr>
<td>Site Improvements</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Topography impact on access</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drainage</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exterior access (curb cuts, cross access easements)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Improvements</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of building</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction quality</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Layout (design, customer appeal)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Layout (storage ability, ceiling heights, etc.)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building (delivery configuration and access)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing Features</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signage appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street visibility</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjacent retail (cumulative attraction)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building exterior and interior appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoning/easements/CAM/deed, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rating Conclusions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of items rated</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Times category score</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Category score</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>85</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>Total subject score</td>
<td>97</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Percentage above or below standard</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Note, the industry standard score would be 95 and the bottom line is percentage above or below this standard.
Location determinants of growth consist of static and dynamic features. Static features include linkages and land use associations. Linkages refer to the movement of people, goods, services, or communication to and from the property site. Common linkages include roads and utilities. Land use association refers to the current types of development in the area and how they relate or support each other. Current land uses in an area set a pattern that is typically expected in the future.

Because location characteristics change over time, the dynamic aspects of location also need to be addressed. Dynamic location features are the land use growth patterns and the direction and rate of this growth.

Exhibit 3 shows the conclusion of the location analysis of the case study subject property by comparing other northeast metro area’s community retail nodes to the subject retail node. The subject property’s “Area A” is rated as one of the best locations in the city (city in northeast part of metro area). Of note for this article’s purposes is that the rating factors and method do not change because of the property rights appraised. The rating is of an overall area cluster (node) of land use and not the subject itself.

**Conclusion of Property Productivity Analysis.** The property productivity analysis shows no property rights impact. The property productivity analysis does not change, whether the subject is a home improvement center, like the case study subject, or a multitenent community shopping center or some other type of big-box discount center. The specific features of each building type or location that serves the retail market segment might change but not the analysis method of property productivity impact on

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rating Criteria</th>
<th>Area A (Subj)</th>
<th>Area B</th>
<th>Area C</th>
<th>Area D</th>
<th>Area E</th>
<th>Rank by Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Proximity to households in 3 miles</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2 Proximity to new retail</td>
<td></td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>3 Location in path of new residential growth</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>4 Median household income in 3 miles</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>5 Proximity to existing or approved major roads—access and visibility</td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6 Traffic count through node</td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>7 Proximity to demand generators, such as hotels, offices, hospitals, etc.</td>
<td></td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8 Size and drawing appeal of anchors in the node</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>9 Tenant mix and compatibility in area</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>10 Effective age of centers</td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total (Individual score times weighting)</strong></td>
<td></td>
<td>126</td>
<td>78</td>
<td>57</td>
<td>46</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td><strong>Percentage of Total Scores</strong></td>
<td></td>
<td>31%</td>
<td>19%</td>
<td>14%</td>
<td>11%</td>
<td>24%</td>
<td></td>
</tr>
</tbody>
</table>

For a more detailed explanation of location rating, see Market Analysis for Real Estate, 2nd. ed., 263–267 or Appraisal Institute course Advanced Market Analysis and Highest and Best Use, Exhibit 11.11.

27. A node is “a cluster of properties with the same or complementary uses.” Appraisal Institute, The Dictionary of Real Estate Appraisal, 6th ed. (Chicago: Appraisal Institute, 2015). Here the node is retail and service land use that is community oriented. In this study, most nodes served a 3- to 5-mile submarket area.
property use. The property productivity analysis in most cases would recognize if the subject has any obsolescence caused by building design, site, legal, or location considerations.

Step 2: Delineate the Market
Several factors are involved in identifying the market area. In brief, this part of the study determines the area where most of the customers originate and where most of the competition is located.\(^{28}\) In general for community retail in a metro area, the market area is defined as the average halfway point between the subject community retail shopping node and the next major competitive retail node. In this case this was determined to be about 3 to 5 miles in an irregular shape.

Step 3: Demand Analysis
The Appraisal of Real Estate, fourteenth edition, explains that “for each particular type of property, demand analysis focuses on the end product or service that the real estate provides.” For retail space, the appraiser would “attempt to determine the demand for retail services generated by potential customers in the market area.”\(^{29}\) Consequently, this part of the highest and best use analysis regarding the continuation of the current use alternative is a demand study for home improvement retail.

Inferred Demand Studies. Various methods can be used to infer future fundamental demand\(^ {30}\) for the subject home improvement retail property's future needs. The following are some inferred demand data found for the subject retail market type in the subject's delineated market area.\(^ {31}\)

- **Subject Historical Performance**—The Appraisal of Real Estate observes that “the performance of the subject property is likely to be the most reliable indicator of current demand for existing properties in the market.”\(^ {32}\) In this case study, the subject has been 100% occupied for the last seven years as a home improvement center. Based on general observations of operations and review of historical aerials of subject parking lot, the subject seems to have an ample flow of customers for its current use.
  - **Location Historical Trends**—Comparing the subject location to the location of new community retail found the subject is located in one of the better new retail development areas.
  - **Population Growth Trends**—The property’s submarket area is one of the fastest-growing sectors in the city, with an ample stock of existing homes and new residential development.
  - **Rent and Occupancy Trends**—The property’s submarket is compared to other community-type retail submarkets, and the results show the property’s submarket has rents and occupancy that are some of the best in the city.
  - **Home Improvement Retail Sales Trends**—Retail sales in the property's submarket area are stronger than the sales for the metro area as a whole. The table in Exhibit 4 shows the market area has net in-migration of sales to the subject market area since the subject market area sales are higher than metro area sales.

### Exhibit 4 Per Capita Retail Sales for Subject-Type Retail

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>NAICS*</th>
<th>Metro Area ($)</th>
<th>Subject Market Area ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Material and Supplies Dealers</td>
<td>4441</td>
<td>657</td>
<td>725</td>
</tr>
</tbody>
</table>

*North American Industry Classification System

\(^{28}\) For more detail see “General Procedures for Defining the Trade Area” in Fanning, Market Analysis for Real Estate, 2nd ed., 270.

\(^{29}\) The Appraisal of Real Estate, 14th ed., 303.

\(^{30}\) Term inferred is sometimes confused with fundamental demand, which is calculated demand. However, both are focused on demand for future users of the space. See Fanning, Market Analysis for Real Estate, 2nd ed., 17–20 for more discussion on this terminology issue.

\(^{31}\) For article brevity, the full inferred data is not shown in this article.

\(^{32}\) The Appraisal of Real Estate, 14th ed., 310.
Demand Analysis Measured by Market Fundamentals Methods—Population. Market fundamentals demand analysis derives specific demand calculations for the market area by analysis of drivers of retail demand—customers. Consequently, population forecasts are important considerations. In the case study of a home improvement center, the major demand generator is the population and growth forecast within 3 to 5 miles from the property. For this case, a ten-year forecast was developed using five years’ data from the CCIM Institute’s Site to Do Business (STDB) and the local council of governments’ thirty-year Small Area Forecast and then reconciling these numbers. The market area was forecast to grow for the next ten years, similar to the STDB trend forecast, and then level off with slower growth for the next twenty years according to the council of governments’ forecast.

Demand Analysis Estimated by Per Capita Buying Power Method. The per capita method of demand analysis is a widely used and reliable method, and it adapts well for simplicity presentations like this article. The per capita method is based on actual current home improvement sales in the subject market area compared to the population. The per capita sales are then used to calculate current demand and forecast future demand for home improvement sales for the property’s market area (also called the primary trade area). The following shows an estimate of the case study property’s capture of demand for subject-type retail.

In the case study, the demand estimate is for the current alternative use of the subject property, i.e., continued operation as a home improvement retail store. The subject retail property characteristics are based on the previous property productivity analysis of physical, legal, and location attributes. The determination of the typical sales for the subject property establishes the retail market segment that is the focus of this market analysis. Note that the subject-type retail part of the market and marketability analysis is not a study of a particular home improvement brand, such as The Home Depot or Lowes, but of the retail segment that is typically accommodated by a property that has certain building, site, and location characteristics described in the property productivity analysis (discussed in Step 1). This is the same as the market and marketability study for a neighborhood shopping center that has a grocery anchor. It is not a study of that grocery store brand but of the grocery store market segment as part of the shopping center the grocery store is associated with.

The procedure to determine the typical retail purchases is the same whether for a multi-occupied retail shopping center or a single-occupant property. The focus is on the type of retail that is being sold, or could be sold, at the property; the brand and whether the occupant rents or owns the space is not important. A big-box home improvement center has many product lines arranged in separate departments, including lumber, home appliances, electrical supplies, plumbing supplies, hardware, lighting, etc. This retail format employs the retailing concept of cumulative attraction by combining multiple, complementary retail items in one location for the convenience of different types of customers, from homeowners to professional contractors. This creates the magnetic appeal of a complementary retail collection all in one location, as the subject functions as a single-building shopping center concept.

The table in Exhibit 5 shows the sales per square foot, comparing data for the metro area to the subject’s primary market area (also called primary trade area). The previous property productivity analysis found the subject was well suited for a home improvement center use as it is currently operating. This market analysis measures the demand for the retail category utilizing data of actual sales of the Building Material and Supplies Dealers segment in the North American Industry Classification System (NAICS). Other retail categories are shown in the table to demonstrate the process and to show that it is the same process for all types of retail including multi-

33. The market area (primary trade area) for the subject is an irregular area that varies from 3 to 5 miles from the property.
34. Forecasts range from low to high. Only the mid-point is shown in this article.
35. Detail of per capita method can be found in Fanning, Market Analysis for Real Estate, 2nd ed., 320–322.
36. For more detail description of the procedure referenced, see Fanning, Market Analysis for Real Estate, 2nd ed., 393–396
37. The data utilized is North American Industry Classification System (NAICS) 4441, which is retail primarily engaged in retailing new building material and supplies. This includes Retail Trade Home Centers (NAICS 444110) like the subject as well as stand-alone stores like hardware stores, paint stores, etc.
**Exhibit 5** Selected Per Capita Retail Sales for Subject-Type Retail

<table>
<thead>
<tr>
<th>Industry Group</th>
<th>NAICS</th>
<th>Metro Area ($)</th>
<th>Subject Market Area ($)</th>
<th>Amount Utilized for Study (Subject-Type Retail) ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile Dealers</td>
<td>4411</td>
<td>2,047</td>
<td>1,805</td>
<td></td>
</tr>
<tr>
<td>Other Motor Vehicle Dealers</td>
<td>4412</td>
<td>347</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Automotive Parts, Accessories &amp; Tire Stores</td>
<td>4413</td>
<td>241</td>
<td>285</td>
<td></td>
</tr>
<tr>
<td><strong>Totals 441 - Motor Vehicle and Parts Dealers</strong></td>
<td></td>
<td>2,635</td>
<td>2,257</td>
<td>0</td>
</tr>
<tr>
<td>Furniture Stores</td>
<td>4421</td>
<td>295</td>
<td>394</td>
<td></td>
</tr>
<tr>
<td>Home Furnishing Stores</td>
<td>4422</td>
<td>168</td>
<td>213</td>
<td></td>
</tr>
<tr>
<td><strong>Totals 442 - Furniture and Home Furnishing Stores</strong></td>
<td></td>
<td>463</td>
<td>607</td>
<td>0</td>
</tr>
<tr>
<td>Electronics and Appliance Stores</td>
<td>4431</td>
<td>923</td>
<td>1,246</td>
<td></td>
</tr>
<tr>
<td><strong>Totals 443 - Electronics and Appliance Stores</strong></td>
<td></td>
<td>923</td>
<td>1,246</td>
<td>0</td>
</tr>
<tr>
<td>Building Material and Supplies Dealers</td>
<td>4441</td>
<td>657</td>
<td>725</td>
<td>725</td>
</tr>
<tr>
<td>Lawn &amp; Garden Equipment &amp; Supplies Stores</td>
<td>4442</td>
<td>54</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td><strong>Totals 444 - Bldg Equip &amp; Garden Equip &amp; Supplies Dealers</strong></td>
<td></td>
<td>751</td>
<td>845</td>
<td>0</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>4451</td>
<td>2,211</td>
<td>3,110</td>
<td></td>
</tr>
<tr>
<td>Specialty Food Stores</td>
<td>4452</td>
<td>115</td>
<td>171</td>
<td></td>
</tr>
<tr>
<td>Beer, Wine and Liquor Stores</td>
<td>4453</td>
<td>179</td>
<td>232</td>
<td></td>
</tr>
<tr>
<td><strong>Totals 445 - Food &amp; Beverage Stores</strong></td>
<td></td>
<td>2,505</td>
<td>3,514</td>
<td>0</td>
</tr>
</tbody>
</table>

Data Source: US Census of Retail, which occurs every five years. ESRI updates data and it is distributed in this case through STDB Retail MarketPlace Profile Report. Numbers rounded.

**Exhibit 6** Home Improvement Center Sales Potential for Subject

<table>
<thead>
<tr>
<th>Line</th>
<th>Factor</th>
<th>2016</th>
<th>2021*</th>
<th>2026*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Population in primary trade area</td>
<td>162,000</td>
<td>172,500</td>
<td>178,000</td>
</tr>
<tr>
<td>2.</td>
<td>Home improvement retail sales per capita ($)</td>
<td>725</td>
<td>725</td>
<td>725</td>
</tr>
<tr>
<td>3.</td>
<td>Home improvement retail sales potential in primary trade area ($)</td>
<td>117,450,000</td>
<td>125,062,500</td>
<td>129,050,000</td>
</tr>
</tbody>
</table>

*Forecast is in constant dollars.
tenant shopping centers. The only difference is the retail segment chosen for the property's market and marketability study.

In Exhibit 6, the retail market segment data is applied to the market area population forecast to determine the fundamental demand for the next ten years, which is increasing.

**Step 4 and Step 5: Supply Analysis (Competition for Demand) and Market Condition Analysis**

In the highest and best use analysis, Step 4 measures the current and forecasted competition for demand. In the case study, the subject property is one of two owner-occupied big-box (100,000+ square feet), multi-product home improvement stores in the market area. The market area also has numerous (40+) smaller stores with mostly single or narrow product-line stores like electric and plumbing supplies, paint and wallpaper, hardware, fencing, floor covering, glass, lumber retailing, etc.

Step 5, the next step in the highest and best use analysis, is analysis of the current market cycle. For the subject property, according to the STDB Retail MarketPlace Profile estimate, the subject market area is currently slightly undersupplied.

**Conclusion of Market Analysis.** Steps 2–5 summarized above are part of the market analysis phase of the highest and best use analysis process. The analysis of Steps 2–5 procedures and the case study conclusion do not change whether the subject of the study is a home improvement center or another retail property, such as multitenant shopping center, discount department store, or even if the subject is vacant. The market delineation, demand methods, supply and market condition analysis procedures remain the same for all retail property types and the analysis is not concerned with the property rights of the properties. There may be different demand factors for each type of retail, but the market analysis procedure does not change.

**Step 6: Subject Marketability Analysis (Capture Potential)**

Step 6 in the highest and best use analysis process is marketability analysis, which will indicate the market capture. *The Appraisal of Real Estate*, fourteenth edition, states,

> An appraiser should also consider the competition among various uses for a specific site…. Market demand is not infinite. Even though the subject may be physically and locationally suited for a use, better-located sites may satisfy the market demand for that use completely before the subject can realize its development potential.38

Fundamental analysis in a marketability study looks at the specific property's economic well-being. Fundamental methods can include forecasting subject capture by pro rata share and forecasting subject capture using a competitive rating comparison. On the other hand, “inferred analysis is a starting point for the forecast of subject capture, using methods such as

- historical capture of the subject property
- capture of comparable properties
- secondary data surveys and forecast
- effect of marginal demand on the subject property
- local economic analysis”39

The results of the inferred analysis and fundamental analysis are then reconciled to determine the future occupancy and expected rent levels for the specific property.40

In the case study, the market area has two major big-box home improvement stores, the subject being one. As stated previously, there are a large number of other stand-alone single-product and narrow-product home improvement stores. The two major big-box stores dominate the market as of the date of the analysis.

In this study, business locator data for the market area estimated that these two big-box stores' sales account for nearly 90% of the home improve-

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39. *The Appraisal of Real Estate*, 14th ed., 329. Note, the term marginal demand has been changed to residual demand in current Appraisal Institute courses and books.
Exhibit 7 Home Improvement Center Sales Potential for Subject, Mid-Range Forecast

<table>
<thead>
<tr>
<th>Line</th>
<th>Factor</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Population in primary trade area</td>
<td>162,000</td>
<td>172,500</td>
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<tr>
<td>2.</td>
<td>Home improvement retail sales per capita ($)</td>
<td>725</td>
<td>725</td>
<td>725</td>
</tr>
<tr>
<td>3.</td>
<td>Home improvement retail sales potential ($)</td>
<td>117,450,000</td>
<td>125,062,500</td>
<td>129,050,000</td>
</tr>
<tr>
<td>4.</td>
<td>Subject capture rate (%)</td>
<td>40.0</td>
<td>40.0</td>
<td>40.0</td>
</tr>
<tr>
<td>5.</td>
<td>Indicated subject capture</td>
<td>46,980,000</td>
<td>50,025,000</td>
<td>51,620,000</td>
</tr>
<tr>
<td>6.</td>
<td>Size of subject enclosed space</td>
<td>130,000</td>
<td>130,000</td>
<td>130,000</td>
</tr>
<tr>
<td>7.</td>
<td>Sales per square foot ($)</td>
<td>361</td>
<td>385</td>
<td>397</td>
</tr>
</tbody>
</table>

Case Study Analysis: Alternative Use of the Property—Second Generation Use (Go Dark)

An alternative use of the subject property would be a use other than as a home improvement center. This is sometimes called a second-generation use. In the highest and best use study, a second-generation use is a different alternative than the alternative of continuation of current use. Any number of vacant assumption does not change the demand in the market, it does not change the competition in the market, and it does not change the capture analysis method. On the effective date of the appraisal there is the same amount of demand in the subject market area, and that must go somewhere.

Step 1 in the market analysis determined the subject building is rated above typical industry standards for a home improvement center. The location analysis determined the subject's location is the best retail location in the city. The subject is rated for capture against the competition based primarily on building design and location factors. There are limited alternatives for where the demand could go on the effective date of the valuation. The demand is determined by the capture rating analysis for the subject property on the effective date, no matter what fee simple interpretation is applied.

Conclusion of Subject Marketability Analysis and Market Capture. Even with an interpretation that fee simple means the subject is assumed vacant and available on the effective date there is no impact on market capture in the appraisal process. There is no impact because the as-if-vacant assumption does not change the demand in the market, it does not change the competition in the market, and it does not change the capture analysis method. On the effective date of the appraisal there is the same amount of demand in the subject market area, and that must go somewhere.

Exhibit 7 applies the capture conclusion for the subject to estimate its sales potential over time.

42. This is an economic estimate, as economically it may be the previous occupant or a new business taking advantage of the opportunity to fill a large market void.
reasonably probable alternative uses of the property can be studied and if determined to produce a higher value than the current use after considering cost and time to generate new use of the property, then the secondary use would be the highest and best use. Second-generation uses could be co-highest and best uses if the second-generation use value is virtually the same as the first-generation use.

As shown throughout the previous six-step process, the property rights that are being appraised (fee simple, leased fee, etc.) or alternative use of property is not a factor in reaching the highest and best use conclusion for the subject property. Whether an appraisal assignment is of the fee simple interest or of the leased fee interest does not dictate or influence the highest and best use conclusion. Application of the six-step process can, however, provide conclusions that suggest an alternative use to the original building-designed use or even its current use.

Alternative Conclusions. Consider the result if alternative conclusions were reached in the various steps. For example, suppose there had been the following conclusions:

**Step 1:** Building is in below-average condition and located in a less desirable retail node due to construction of a new bypass.

**Step 3:** Subject market area sales are below the levels found in the region.

**Step 4:** Subject is one of four stores in the market area.

**Step 5:** Market area is oversupplied with home improvement stores.

**Step 6:** Subject capture is 15% of the market area.

With these changed findings, the subject’s sales would be forecasted at $136 per square foot. Research indicates that the average sales per square foot should be $300 for a home improvement center. If this situation is found, the subject would not be performing well as a home improvement center. The estimated sales potential as improved is higher than most big-box home improvement centers and is above the national average. The occupancy cost ratio (rental) analysis (Exhibit 8) indicates the subject occupancy affordable rent is above most other rent for comparable stores in the submarket area, and commands economic rent similar to feasibility rent for new construction.

Feasibility rent is the threshold rent needed for a developer to realize its minimum incentive (profit) for purchasing the location and developing a new building on the site for the use considered. This rent reflects the costs of acquiring the land, building the improvements, and finding a tenant that would use the property to its optimum potential. Feasibility rent can be equal to market rent but is usually less than market rent as it reflects the minimum a developer would accept for the use of the property by a tenant.

Owner-occupants also consider feasibility rent in determining whether they should build their property or rent. Owner-occupants save the rent expense and therefore their occupancy costs are lower, and their business profits can be higher. Feasibility rent would also represent the minimum rent an owner-occupant would save by developing the property for its own use. Owner-occupancy removes control of the property by a landlord, and the owner-occupant has more options in managing the property.
All successful retailers consider the options they have as to whether to rent or build. Publicly traded retailers publish the methods they use in selecting their locations and research the market to identify their customers’ characteristics. The method used in this article is very similar to what successful retailers do to determine whether a location will be successful or not, and they periodically evaluate each of their locations as to what current market conditions are and how well those locations are performing to meet their operating standards.\(^43\)

When a retailer’s location is not performing to its standards, the retailer makes a decision to close the store or relocate. In the case of a rental property, the retailer may not have the choice to immediately close or move depending on the terms of the lease. If the location is owner-occupied, then the retailer-owner can move whenever it decides that is to its advantage.

### Exhibit 8 Occupancy Affordability Rent

<table>
<thead>
<tr>
<th>Subject estimated sales per square foot ($)</th>
<th>361</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupancy cost ratio NNN (%)</td>
<td>3.0</td>
</tr>
<tr>
<td>Indicated NNN rent per square foot ($)</td>
<td>10.84</td>
</tr>
</tbody>
</table>

National data averages indicate home improvement centers pay about 6.48% gross sales on occupancy cost, which includes CAM, insurance, and taxes but not utilities. Note the deduction from 6.48% occupancy cost to 3.0% accounts for the CAM + insurance + RET to get to a NNN lease estimate. The 3% is making the data net of taxes, CAM, etc. The source is an industry association like the International Council of Shopping Centers and older publications like the Urban Land Institute’s Dollars and Cents of Shopping Centers 2008. It has been shown by many that this ratio stays constant over time.

For more discussion on this topic, see Fanning, Market Analysis for Real Estate, 2nd ed., 302–304.

### Alternative 3: Remodeling for Alternative Use of Property

Other alternative uses, sometimes called “second-generation uses” of the property as improved, require remodeling the store to varying degrees depending on specific use, and more importantly, remarketing the property for a different use, which requires additional cost and time. As The Appraisal of Real Estate notes, “a crucial element in highest and best use analysis is the timing for a specific use.”\(^44\)

When the cost and time is factored into the financial analysis, no other use was found in the case study that could generate the sales volume of the current operation and location. However, if in another case the conclusion were that the store sales would be about $136 per square foot as discussed previously, the rent that could be paid would be reduced significantly. This would then lead to consideration of the alternative use, and whether higher rents would be paid by an alternative user instead of the current use of the building.

As reflected in this alternative use example, a secondary use of the property could be found if there was a property deficiency found in the Step 1 analysis, an indication that the location features were forecast to deteriorate over time. A secondary use also would be considered if some downward market demand was found for home improvement retail sales in the market in Steps 2–5 or if Step 6 showed the subject capture was low.\(^45\)

### Step 8: Highest and Best Use Conclusion of Maximally Productive Use

The Appraisal of Real Estate notes that “if all the alternative uses are eliminated and the current use remains financially feasible without modification of the improvements or redevelopment of the site and retains the highest value of the alternative uses, then the current use will remain the highest and best use of the property as improved.”\(^46\)

The conclusion of the case study in this article was that demand data for both inferred and fundamental calculations found the current use had strong demand at this location. The time, cost, and risk of changing uses to a second-generation use was judged to have more risk without producing a higher return. Consequently, no other use, consistent with the rate of return warranted by the market for the subject property, performs as well as the current use. The highest and best use conclusion for the subject is therefore:

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44. The Appraisal of Real Estate, 14th ed., 341.
45. For an example of Level C analysis of a shopping center for second generation use see chapter 19, “Highest and Best Use of a Vacant Shopping Center” in Fanning, Market Analysis for Real Estate, 2nd ed.
46. The Appraisal of Real Estate, 14th ed., 347.
• Use: Big-box home improvement store
• Timing: Current with remaining economic life of twenty to thirty years
• Market Participants:
  • Users: Moderate to higher income home owners and home builders
  • Most probable buyers: Owner-occupant or investor

Property Rights Impact on Highest and Best Use

Conclusion. Regardless of the interpretation of the meaning of fee simple or market value, the highest and best use process is the same and the definitional interpretation does not change the final conclusion of highest and best use. The market data in this case study all supported the conclusion that the use that would produce the highest present value of future benefits to the owner of this property is the continued use of the property as a home improvement retail center. No matter which interpretation of property rights and market value are applied to the appraisal, demand in the market is still demand and competition in the market is still competition, and the alternative use of the subject property that would produce the highest present value of future benefits is as a home improvement center.

Valuation of the Highest and Best Use

Appraisal Institute materials emphasize the importance of highest and best use analysis. It is axiomatic that “whenever a market value opinion is developed, highest and best use analysis is necessary.”\(^47\) Highest and best use analysis establishes what is being valued and is the foundation of all market value appraisals.\(^48\) The highest and best use of the property considered in this article was demonstrated to be continued use as a home improvement center with a remaining economic life of twenty to thirty years. In other property assignments, the highest and best use might be different, such as a second-generation use. Whatever the highest and best use conclusion is determined to be, “the conclusions reported in the highest and best use section of a report should be consistent with conclusions and applications in the other parts of the report. ...and the market analysis and other report sections must support the highest and best use conclusions as well as the sections discussing the application of the approaches to value.”\(^49\)

Consequently, the highest and best use three-part conclusion establishes the basis for the market value opinion, setting the stage for the selection of appropriate comparable sales.\(^50\) The three-part conclusion of highest and best use also is the basis of the cost approach, since “the cost approach reflects market thinking because market participants relate value to cost.”\(^51\) The three-part highest and best use conclusion is also the basis of the income approach, because “all income capitalization methods, techniques, and procedures forecast anticipated future benefits and estimate their present value.”\(^52\) Retailers constantly reevaluate their assets in terms of the market. For example, The Home Depot in its annual report, states, “We evaluate our long-lived assets each quarter for indicators of potential impairment. Indicators of impairment include current period losses combined with a history of losses, management’s decision to relocate or close a store or other location before the end of its previously estimated useful life or when changes in other circumstances indicate the carrying amount of an asset may not be recoverable. ...The assets of a store with indicators of impairment are evaluated by comparing its undiscounted cash flows with its carrying value.... If the carrying value is greater than the undiscounted cash flows, an impairment loss is recognized for the difference between the carrying value and the estimated fair market value.”\(^53\)

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47. The Appraisal of Real Estate, 14th ed., 42. Also see USPAP Standards Rule 1-3.
49. The Appraisal of Real Estate, 14th ed., 358.
50. The Appraisal of Real Estate, 14th ed., 381.
52. The Appraisal of Real Estate, 14th ed., 440.
Market Value Methodology Interpretation and Highest and Best Use. The central point of this article is that highest and best use sets the basis of market value, no matter what the interpretation of property rights, it does not change the highest and best use analysis procedures or conclusions. The highest and best use study does not assume a transaction, it is only concerned with which one of the alternative uses of a property creates the highest present value of future benefits to the owner. The valuation section then is to measure the market value of that use.

Conclusion

This article’s conclusion is that the highest and best use process is the same no matter which property rights school of thought is utilized in an appraisal. The process is the same regardless of whether there is a vacant or occupied assumption. The highest and best use analysis starts with one of the alternatives analyzed being the use to which the property is currently or was formerly used and/or the use(s) that the property was designed to serve. “The performance of the subject property is likely to be the most reliable indicator of current demand for existing properties in the market.” The highest and best use analysis discussed herein is very similar to what an owner or tenant of a big-box retail operation does in assessing whether a store should remain open, be closed, or be relocated.

The case study example for this article demonstrates that an appraisal of a big-box retail property needs a highest and best use analysis just like any other property type. All properties' highest and best use analyses consider alternative uses, including the current (or former use) or second-generation use, to establish the basis of highest and best use to be valued.

The differing opinions of the meaning of fee simple and its application is a debate of different interpretations of words and not a debate of the study process needed to determine which alternative use of a property is most likely to provide the highest present value of future benefits to the owner of the property. The dark store theory view is to disregard the current use because it is the result of a lease, or specific business enterprise (property use unique to the business), which in essence disregards the highest and best use conclusion and the existence of a market that supports the use.

The premise of this article is that the interpretation of what the definition of fee simple means does not change a property’s highest and best use from its current use to a secondary use, only the fundamental user market can do that.

The case study in this article demonstrated the use that would produce the highest return to the real estate, which is its highest and best use. This confirms the maxim that: “The market determines the use; the use determines the value.”

54. There are exceptions like in a bubble market; the speculative sale to a market of hyper-exuberant buyers may produce a higher present value than the fundamental use of the property and in that case the speculative sale maybe the highest and best use. Also, financial analysis of alternative fundamental use of property can sometimes be analyzed by user end sale prices. But sales are not the exclusive method to analyze alternative highest and best use.

55. The Appraisal of Real Estate, 14th ed., 310.

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SEE NEXT PAGE FOR APPENDIX >
Appendix  Glossary of Terms and Definitions

**Big-box store**—A single-use store, typically between 10,000 and 100,000 square feet or more, such as a large bookstore, office-supply store, pet store, electronics store, or toy store. Source: International Council of Shopping Centers, *Dictionary of Shopping Center Terms*, 4th ed. (New York: International Council of Shopping Centers, 2012).

**Fee simple estate**—
- Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat. Source: Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed. (Chicago: Appraisal Institute, 2015).

**Fundamental demand**—The quantity of a particular type of real estate product that is desired by and affordable to the space users in a given market at a particular point in time. Source: *The Dictionary of Real Estate Appraisal*, 6th ed.

**Go dark**—To vacate retail space prior to a lease expiration. The space may remain vacant or “dark” for an extended period of time. Source: *The Dictionary of Real Estate Appraisal*, 6th ed.

**Highest and best use**—Many definitions of highest and best use can be found in *The Dictionary of Real Estate Appraisal*, 6th ed., *The Appraisal of Real Estate*, 14th ed. (see especially page 333), and other literature. All definitions center around determining the alternative use of a property that will create the highest present value to the owner. In *The Appraisal of Real Estate*, 14th ed., the two definitions that best describe the term as used in this article are as follows:

1. “The probable use of land or improved property—specific with respect to the user and timing of the use—that is adequately supported and results in the highest present value.”
2. “The reasonably probable use that produces the most benefits and highest land value at any given time.”

**Intangible property**—Nonphysical assets, including but not limited to franchises, trademarks, patents, copyrights, goodwill, equities, securities, and contracts as distinguished from physical assets such as facilities and equipment. Source: The Appraisal Foundation, “Definitions,” in *Uniform Standards of Professional Appraisal Practice*, 2018–2019 ed. (Washington, DC: The Appraisal Foundation, 2018).

**Risk**—There are numerous types of risk, but for this article the primary risk, but not the only one considered, is market risk, i.e., risk that the forecasted user market conditions of demand or supply and the subject market capture potential will shift outside the forecasted range.

**Second-generation space**—A building or space used by a tenant other than the original tenant; often functionally obsolete before refurbishment but sometimes containing tenant improvements that can be reused by a new tenant. Also called relet space. Source: *The Dictionary of Real Estate Appraisal*, 6th ed. Second-generation use is sometimes called secondary use. In this article, any secondary use or second-generation use is considered a different alternative in the highest and best use study.

**Space user market**—The fundamental market of the users of the real estate’s physical space; the market for the right to use real estate over time. Source: *The Dictionary of Real Estate Appraisal*, 6th ed.
Additional Resources
Suggested by the Y. T. and Louise Lee Lum Library

Appraisal Institute
- Education
  http://www.appraisalinstitute.org/assets/1/7/aiedcat.pdf
- Lum Library External Information Sources [Login required]
  Information Files—Taxation and assessment
- Property Rights Symposium Discussion Paper

CCIM Institute Site to Do Business
https://www.stdb.com/

Federal Reserve of St. Louis, FRED Economic Data
https://fred.stlouisfed.org/

US Census Bureau Data
https://www.census.gov/data.html
Land Value Differentials Resulting from Variability between the Sales Comparison and Income Approaches in Timberland Valuation

by Austin B. Harris, Christopher N. Singleton, MAI, and Thomas J. Straka, PhD

Abstract

Timberland appraisal can be complex as it involves intricate knowledge of timber as a commercial product and the value of the underlying land as the “factory” that produces a timber crop. In a timberland transaction, the timber crop adds contributory value, and a disaggregation technique is used to determine timber and land values. Once the timber value is established, an allocated land value is often calculated by subtracting the timber value from the overall tract value of comparable sales. When this comparable sales land value is compared to land value determined by an income approach, the two often disagree by an amount called a land value differential. A common way that foresters value land is the bare land value calculation. Bare land value is a specialized income approach model in forestry adapted to perpetual timber production and is primarily dependent upon the parameters of discount rate, site index (a determinant of forest yield), and stumpage price appreciation. This study uses actual data to evaluate each of the parameters and determine the adjustment factors and the magnitude of adjustments that result in the lowest land value differential. The results show that bare land value is most responsive to site index and discount rate adjustments, and less responsive to stumpage price appreciation. Timberland appraisers can use these findings to evaluate the results of their income approach model when comparing the two valuation approaches, and also when identifying adjustment factors for inherent differences among timberland properties in their adjustment process.

Introduction

Timberland appraisal often involves the services of a forester to estimate timber value for distinct commercial products and the value of the underlying land, which can be viewed as a “factory” that produces a perpetual timber crop. This article discusses some of the fundamental complexities in valuing timberland to increase appraisers’ understanding of issues that arise in obtaining timberland component values.

In a timberland transaction, a timber crop provides contributory value and the disaggregation technique is commonly used to separate the total tract value into timber and land components. Estimation of timber volume and the corresponding value on a timberland property often requires technical expertise from a forester in terms of converting standing timber into projected products (cash flows) that are measured in different units (like tons, cords, or board feet), with market prices heavily dependent on multiple quality factors.

Land Value Differentials in Timberland Valuation

(like knots and straightness), and even timber harvesting constraints due to factors like streamside management zones. Those timber complexities pose potential liabilities from misestimation of timber value and are the common reason an appraiser usually leaves this task to the forester.

Once the value of the timber is established, an allocated land value (AL V) is often calculated by subtracting the timber value from the overall sales comparison tract market value, a calculation resulting in a residual that is more complex than it seems. This study examines and reports on factors that are important in explaining the land value differential (LVD); that is, the amount in which the allocated land value commonly differs from a typical bare land value (BL V) calculated using the income approach.

Timberland Valuation Methods

The two most common valuation methods used in timberland valuation are the sales comparison and income approaches. The sales comparison approach poses two major problems in application: a limited number of directly comparable sales and the problematic conundrum of adjusting between sales due to inherent differences in tree species and sizes, and the resulting commercial timber products derived from those trees.

Timberland appraisal of large-acreage tracts usually involves land with a highest and best use of timber production, which is often valued using the discounted cash flow method. This approach involves making reliable estimates of critical variables that are property specific, like current and future stumpage prices, the length of optimal timber rotations, forest yield, site index, reforestation cost, and the costs related to management and silvicultural applications. Certainly both the sales comparison and discounted cash flow approaches are commonly used in timberland valuation, often one as a subsidiary approach in support of values obtained using the other method.

Timberland valuation may take into consideration the relevant site index. Site index is a standard forestry term that may be confusing to appraisers. The site index has nothing to do with location, except it does tend to vary by region (between the Lower Coastal Plain and the Piedmont in South Carolina, for example). Site index is an indicator of soil productivity and a key component in the estimation of timber product yield. It is a measure of how tall a tree will grow in 25 or 50 years (the base age in the current study was 25 years, typically used for pine plantations in the South). Tree height is strongly related to tree yield, so the site index is also strongly related to tree yield.

Timberland has its own specialized valuation method using the income approach, called land expectation value. It is more commonly known as bare land value, which is simply a discounted cash flow method with a strict assumption of growing timber in perpetuity. Bare land value (BL V) is widely accepted by timberland appraisers and is exactly what it sounds like, “the value of bare land in permanent timber production that is in need of immediate regeneration, or simply the value of the ‘dirt’.” It is important to realize that a BL V resulting from an income approach is completely different from an AL V extracted from a comparable sale.

This discussion centers on the difference between a typical BL V, calculated under the standard assumptions, and an AL V extracted from sales comparisons; therefore, references to

the income approach should be considered within this context. Bare land value (BLV) is the net present value (NPV) of all revenues and costs associated with growing timber on the land in perpetuity at a specified discount rate. It can be interpreted as the maximum price that can be paid for a bare tract of land in order to earn a rate of return (ROR) equal to the discount rate used to calculate the BLV.\(^\text{10}\)

An allocated land value (ALV) from comparable sales is derived from a disaggregation of timberland into its components: premerchantable timber, merchantable timber, and the land. The sum of the two timber values, deducted from the total sale price, equals allocated land value.

\[
\text{ALV} = \text{Sale Price} - (\text{Premerchantable Timber Value} + \text{Merchantable Timber Value})
\]

In a perfect world, both BLV and ALV would be the same, but often this has not been the case in valuing large timberland tracts for timberland investment management organizations (TIMOs) and real estate investment trusts (REITs). The current study examines this land value differential (LVD) to determine what factors may account for the difference between the BLV and ALV.

For this analysis, a representative appraiser chose comparable sales from his consulting firm’s database that illustrated the key difference between BLV and ALV. The comparable sales are large timberland properties with 5,000+ acres of intensively managed pine plantations in the southeastern United States, all with a highest and best use of perpetual timber production. A sensitivity analysis was then performed on the key factors (discount rate, site index, and stumpage price appreciation) affecting BLV to illustrate how each factor influences the magnitude of the land value differential. From the sensitivity analysis, a BLV was simulated that reaches the ALV level for each sale, providing insight on the individual influence of each factor that contributes to the land value differential. This method extracts the implied importance of the adjustment factors from market data, so that the implied market behavior can then be replicated in the adjustment process.

The analysis focuses on the three key variables that drive the income approach in timberland valuation; these are most likely to explain differences with market values obtained from comparable sales driven by buyers and sellers with perceptions about the same variables. Site index, in particular, drives the value obtained in the discounted cash flow process, as it is highly correlated with the inherent forest productivity of the property in terms of growing commercial timber products. Forest yield (timber product output) contributes the vast majority of value using the discounted cash flow method, and this is assumed to be a direct function of site index by foresters. Site index can even impact optimal rotation length, thus determining the timing of cash flows. It was expected that variables like site index would significantly contribute to value in both valuation approaches.

**Literature Review**

The income approach is commonly used in timberland valuation and offers a strong conceptual foundation for valuing land focused on timber production.\(^\text{11}\) This approach is essential to valuing the underlying land component in the valuation of timberland, as valuing timberland exclusive of trees often poses difficulties.\(^\text{12}\) Keep in mind BLV is the value of bare land in permanent timber production in need of immediate regeneration.\(^\text{13}\)

Of course, the sales comparison approach is also used to appraise timberland, but it presents difficulty in locating directly comparable sales and adjusting for inherent differences in timber stands.\(^\text{14}\) Timberland appraisers use a method that allocates values corresponding to the different

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components of the property. These allocated values are estimated from the comparable sales data. This technique produces an ALV that is highly dependent upon current timber pricing and buyer motivations for that particular sale, which may or may not be in line with the assumptions used to develop a purely timber-focused BLV.\(^15\)

Young, precommercial timber presents a situation where discounted cash flow techniques are often a preferred valuation method.\(^16\) BLV is the standard discounted cash flow method in forestry for timberland valuation. The techniques can be traced to Martin Faustmann, a German appraiser, who developed the technique in 1849 to value bare forestland for tax purposes.\(^17\) Appraisers who are not timber experts are somewhat reluctant to use BLV calculations, as they require professional forestry judgments regarding stumpage prices, reforestation costs, and forest yield.\(^18\) BLV involves standard discounted cash flow calculations and uses standard income capitalization formulas.\(^19\)

Factors that impact forestland values have been identified in the literature. Studies have found road access, topography, land productivity, and population density were positively correlated with forestland prices.\(^20\) While physical factors, like tract size, site productivity, and timber volume, clearly impact bare forestland value, buyers’ and sellers’ perceptions of markets and value also play a major role.\(^21\)

Another study found that not only does timber volume on a tract influence timberland price, but the interaction with regional timber volumes also plays a role.\(^22\) The complexity of valuing forest tracts and separating the timber from the bare land involves many external factors far removed from the tract for small family forest owners (e.g., financing and future intentions for the property).\(^23\) The results of these studies should not surprise appraisers; they are derived from individual and family forest owners. Many large timberland transactions involve properties previously owned by forest industry, but are now managed or owned by TIMOs and REITs.

While some of these factors would be relevant to TIMOs and REITs, their focus has been on investment return and forest productivity.\(^24\) There has been little research on the factors that might account for differences in timberland valuation results from the sales comparison and income approaches for these types of timberland investors. Timberland investors concentrate on productive forests and, where possible, tend to harvest hardwood stands and convert them to pine stands (much like the forest industry that used to own the same land). Investment parameters often stress economies of scale, liquidity, risk diversifi-

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cation, and financial return. Discount rate obviously plays a role in BLV calculations, but other variables known to impact timberland-investor transactions are location, highest and best use potential, and timber price expectations.

Data and Methods of Analysis

The impetus for this study was the observation that typical BLV and sales comparison (ALV) approaches often produce inconsistent results when estimating the underlying land values in timberland transactions for TIMO and REIT clients. This difference in land value—the land value differential, or LVD—is an interesting phenomenon that has not been addressed in the literature. To examine this phenomenon and its possible underlying causes, appraisal data from representative timberland transactions were used to determine the adjustment factors and the magnitude of those factors that would result in a minimal LVD. The analysis focused on the two most common timberland valuation approaches, income capitalization and sales comparison, with the income approach being defined by the traditional forestry investment criterion of BLV.

By selecting seven comparable sales of large (5,000+ acres) timberland properties in the southeastern United States from a large consulting forestry company’s database, it was possible to eliminate most of the highest and best use potential factors that are typically inherent to smaller-sized tracts. From the comparable sales an allocated convertible land value was extracted, derived from the appraiser’s allocation process. The convertible land value for each comparable sale was categorized as “allocated land value,” or ALV. As discussed above, appraisers disaggregate values to different components of a property. This commonly includes different land components (convertible, non-convertible, non-forest) in addition to the timber component. Also, inside of these comparable sales were data referring to current stumpage prices, site index, and reforestation cost inputs. These same inputs were used in the study’s BLV calculations so they would align with the comparable sales data.

When deriving a typical BLV, a standard discount rate of 5.25% was used. This discount rate correlated to the rate level reflected in conversations with market participants and third-party surveys. Though it is common to build up a discount rate or to extract it from sales on other property types, it would be very difficult to do either of these due to the nature and complexity of timberland discounted cash flows and the unwillingness of most market participants to directly share their discounted cash flow input assumptions. Instead, it is most common to derive the discount rate from direct conversations with market participants and from third-party surveys of market participants.

Next, a series of discounted cash flow models were run, including the forest inputs carried over from the comparable sales data. These produced a “typical” BLV that became the baseline in the comparison. This baseline was predicated on a forest management regime (timeline of management activities, with costs and revenues) that included a commercial thinning at age 15, a second commercial thinning at age 22, and a final clear-cut harvest at age 34. Using the standard discount rate and the typical BLV forest management regime allowed for a consistent comparison between the comparable sales.

From this computation, the value differential between the ALV and typical BLV was then determined for each of the seven comparable sales (this differential is referred to here as the LVD ). Exhibits 1 and 3A illustrate the comparison between a typical BLV (income approach) and ALV (sales comparison approach).

Sensitivity analysis was then used to identify the adjustment factors for each comparable sale that would create a BLV equal or near-equal to ALV, resulting in a minimal LVD. To do this, a range of BLVs was simulated for each comparable sale by adjusting the three driving variables of the BLV computation: discount rate, site index at base age 25, and stumpage price expectation or appreciation. Ranges of 2%–10%, 50–110, and 1%–4% were created for each variable, respectively. It is important to note that the study’s BLV calculation is slightly different from the classical BLV, as a price appreciation factor was included.


in the model, which created a stumpage price expectation. Although BLV normally assumes constant stumpage prices, the study's modeling approach still retains the essence of the classical BLV calculation.

By adjusting each of these variables independently through their ranges, while holding the other two variables constant at their baseline or typical levels, it was possible to determine how sensitive the BLV was to each adjustment as it approached ALV. Furthermore, the percentage change (elasticity) of BLV to ALV was also calculated and the corresponding levels of each variable to identify how much of an adjustment was necessary. For this analysis, elasticity is defined as the percentage change in BLV divided by the percentage change in the parameter being adjusted.

**Results and Discussion**

Most timberland appraisers realize there are inconsistencies in the values derived for the underlying land component between the sales comparison and income approaches, but the appraisal literature provides little discussion on why these differences arise and the factors that may lead to these differences. In the current study, the difference from the two approaches was captured by plotting LVD, as shown in Exhibits 2 and 3A. In a perfect world, one would expect LVD to be near zero, as in Comparable Sale 6, where the two approaches essentially agree on value. However, real-world results are often more like those found in Comparable Sales 4 and 5, with LVDs of $821.53/acre and $608.98/acre, respectively. Consistently seeing differences in the land value, as with these sales, is what led to the current investigation of this issue. Of course, variables like road access, size/shape, or proximity to city centers affect comparable sale values, but it is important to recognize this analysis focuses solely on the input variables that drive BLV.

In the analysis, independently calculating BLV at each level within the adjusted range of each driving variable permitted simulation of a BLV that was near the ALV level. Exhibits 3B, 3C, and 3D summarize the differences between each driving variable for a typical BLV and a simulated BLV corresponding to ALV, while also indicating the resulting LVD after the adjustments were made. The ALV represents the base value, as it is the allocated land value that has already been derived by the appraiser. The BLV is the value that was derived using discounted cash flow analysis. The simulated BLV is independently calculated through the range of constants and is the value used to illustrate this comparison. To simplify and condense the results, the key findings from Comparable Sale 4 were examined. The
results in Exhibits 3A to 3D illustrate the relationships between the three adjustment parameters, and show that both BLV and LVD are fairly consistent between the seven comparable sales. Comparable Sale 4, with the largest LVD, will simply produce results that are easier to discern due to the larger difference.

In Comparable Sale 4, the discount rate levels for both a typical BLV and the simulated BLV corresponding to ALV were 5.25% and 3.35%, respectively. This difference in a discount rate of 1.9% is shown in Exhibit 4. To increase BLV by $823.63/acre—resulting in a BLV comparable to ALV—the discount rate needed to be adjusted by approximately 36%. The percentage change in BLV necessary to reduce LVD to near zero was approximately 201%. Thus, elasticity for Comparable Sale 4 in terms of discount rate was -5.6.

The site index (at base age 25) for the typical BLV and simulated BLV modeled at the ALV level were 67 and 96, respectively, leaving a difference of 29, as illustrated in Exhibit 5. An adjustment of approximately 43% was needed to reduce LVD to $4.57/acre, as shown in Exhibit 3C. As might be expected, the level of productivity from a timberland tract with a site index of 96 compared to one of 67 is extremely significant; the difference in the amount of wood they might produce, and the inherent value differences, would be revealed using the income approach. To put this in perspective, a tract with a site index of 96 would produce 4.35 tons/acre more annually than a tract with a site index of 67 and be worth $816.96/acre more. Thus, elasticity for Comparable Sale 4 in terms of site index was 4.6 (percent change of $409.47 and $1,226.43 and percent change of 67 and 96).

The level of stumpage price appreciation, for both the typical BLV and a simulated BLV corresponding to ALV, were 1.00% and 3.20%, respectively, leaving a difference of 2.20%, which is illustrated in Exhibit 6. To achieve a minimal LVD at or near zero, the appropriate adjustment of 220% was made. Thus, elasticity for Comparable Sale 4 in terms of stumpage price appreciation was 0.9. This implies that stumpage prices would need to increase $39.02/ton for pine saw timber (PST), $10.39/ton for pine chip-n-saw (CNS) and $3.65/ton for pine pulpwood (PPW) in 34 years, 22 years, and 15 years, respectively, compared to the typical BLV. This was derived by capitalizing the original price for each product by its price appreciation adjustment level in Comparable Sale 4, by the allotted years of the cutting regime used in the discounted cash flow model. The original prices in Comparable Sale 4 were $25.75 (PST), $13.75 (CNS), and $8.25 (PPW). To simplify the cash flow analysis, the future stumpage prices for PST, CNS, and PPW were calculated as if the only wood being harvested in each of the cutting cycles was a constant timber product mix. In reality, it is likely there would be a variety of different sizes of wood cut during a second thinning and clear-cut. Both a second thinning and a clear-cut may produce PST, CNS, and PPW, but the final harvest clear-cut will produce much larger products. A representation of this calculation is shown in Exhibit 7.
### Exhibit 3A Allocated Land Values, Bare Land Values, and Resulting Land Value Differentials for Seven Comparable Sales

<table>
<thead>
<tr>
<th>Comparable Sale</th>
<th>Allocated Land Value ($)</th>
<th>Bare Land Value* ($)</th>
<th>Land Value Differential ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>849.00</td>
<td>700.38</td>
<td>148.62</td>
</tr>
<tr>
<td>2</td>
<td>1,034.00</td>
<td>482.94</td>
<td>551.06</td>
</tr>
<tr>
<td>3</td>
<td>989.00</td>
<td>720.47</td>
<td>268.53</td>
</tr>
<tr>
<td>4</td>
<td>1,231.00</td>
<td>409.47</td>
<td>821.53</td>
</tr>
<tr>
<td>5</td>
<td>1,235.00</td>
<td>626.02</td>
<td>608.98</td>
</tr>
<tr>
<td>6</td>
<td>1,173.00</td>
<td>1,170.90</td>
<td>2.10</td>
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<tr>
<td>7</td>
<td>664.00</td>
<td>486.96</td>
<td>177.04</td>
</tr>
</tbody>
</table>

*Bare land value (BLV) calculated using 5.25% discount rate.

### Exhibit 3B Sensitivity Analysis of Land Value Differential to Changes in Discount Rate

<table>
<thead>
<tr>
<th>Comparable Sale</th>
<th>Allocated Land Value ($)</th>
<th>Bare Land Value* ($)</th>
<th>Simulated BLV ($)</th>
<th>Corresponding Discount Rate (%)</th>
<th>Land Value Differential ($)</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>849.00</td>
<td>700.38</td>
<td>843.73</td>
<td>4.94</td>
<td>5.27</td>
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<td>482.94</td>
<td>1,032.22</td>
<td>3.92</td>
<td>1.78</td>
</tr>
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<td>3</td>
<td>989.00</td>
<td>720.47</td>
<td>995.05</td>
<td>4.50</td>
<td>(6.05)</td>
</tr>
<tr>
<td>4</td>
<td>1,231.00</td>
<td>409.47</td>
<td>1,233.10</td>
<td>3.35</td>
<td>(2.10)</td>
</tr>
<tr>
<td>5</td>
<td>1,235.00</td>
<td>626.02</td>
<td>1,232.85</td>
<td>3.88</td>
<td>2.15</td>
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<td>1,173.00</td>
<td>1,170.90</td>
<td>1,170.90</td>
<td>5.25</td>
<td>2.10</td>
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<td>7</td>
<td>664.00</td>
<td>486.96</td>
<td>666.09</td>
<td>4.70</td>
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*Bare land value (BLV) calculated using 5.25% discount rate.

### Exhibit 3C Sensitivity Analysis of Land Value Differential to Changes in Site Index

<table>
<thead>
<tr>
<th>Comparable Sale</th>
<th>Allocated Land Value ($)</th>
<th>Bare Land Value ($)</th>
<th>Site Index Base Age 25</th>
<th>Simulated BLV ($)</th>
<th>Corresponding Site Index</th>
<th>Land Value Differential ($)</th>
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<td>832.58</td>
<td>73</td>
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<td>482.94</td>
<td>67</td>
<td>1,056.71</td>
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<td>(22.71)</td>
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<td>989.00</td>
<td>720.47</td>
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<td>997.63</td>
<td>73</td>
<td>(8.63)</td>
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<td>1,226.43</td>
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<td>1,231.91</td>
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<td>1,173.00</td>
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<td>1,170.90</td>
<td>70</td>
<td>2.10</td>
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<td>664.00</td>
<td>486.96</td>
<td>65</td>
<td>683.36</td>
<td>71</td>
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**Exhibit 3D** Sensitivity Analysis of Land Value Differential to Changes in Stumpage Price Appreciation

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<tr>
<th>Comparable Sale</th>
<th>Allocated Land Value ($)</th>
<th>Bare Land Value ($)</th>
<th>Product*</th>
<th>Market Price ($/Ton)</th>
<th>Price Appreciation Per Year (%)</th>
<th>Simulated BLV ($)</th>
<th>Corresponding Annual Appreciation Rate (%)</th>
<th>Land Value Differential ($)</th>
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<tr>
<td></td>
<td></td>
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<td>PPW</td>
<td>18.00</td>
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<td>482.94</td>
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<td>16.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PPW</td>
<td>9.50</td>
<td></td>
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<td></td>
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<tr>
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<td>989.00</td>
<td>720.47</td>
<td>PST</td>
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<td>10.65</td>
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<td></td>
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<td>PPW</td>
<td>8.25</td>
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<td>(9.35)</td>
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<td>1.00</td>
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<td></td>
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<td></td>
<td></td>
<td>PPW</td>
<td>9.75</td>
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<td>6</td>
<td>1,173.00</td>
<td>1,170.90</td>
<td>PST</td>
<td>30.00</td>
<td></td>
<td>1,170.91</td>
<td>1.00</td>
<td>2.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>CNS</td>
<td>26.00</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PPW</td>
<td>21.00</td>
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<td>486.96</td>
<td>PST</td>
<td>30.25</td>
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<td>672.82</td>
<td>1.60</td>
<td>(8.82)</td>
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<td>CNS</td>
<td>15.75</td>
<td>1.00</td>
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<td></td>
<td></td>
<td></td>
<td>PPW</td>
<td>9.50</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*PST—Pine saw timber; CNS—Pine chip-n-saw; PPW—Pine pulpwood.

**Exhibit 4** Differences in Discount Rates Necessary to Reduce LVD to Zero, for Seven Representative Sales

[Bar chart showing discount rates and dollars per acre for each comparable sale]
### Exhibit 5  Differences in Site Index Necessary to Reduce LVD to Zero for Seven Representative Sales

<table>
<thead>
<tr>
<th>Site Index (Difference)</th>
<th>Typical BLV</th>
<th>Simulated BLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>95</td>
<td>90</td>
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<tr>
<td>95</td>
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<td>85</td>
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<tr>
<td>90</td>
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<td>80</td>
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<td>85</td>
<td>80</td>
<td>75</td>
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<td>80</td>
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<td>15</td>
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<tr>
<td>30</td>
<td>15</td>
<td>0</td>
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</tbody>
</table>

### Exhibit 6  Differences in Stumpage Price Appreciation Necessary to Reduce LVD to Zero for Seven Representative Sales

<table>
<thead>
<tr>
<th>Stumpage Price Appreciation (%)</th>
<th>Dollars/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.50</td>
<td>1,350.00</td>
</tr>
<tr>
<td>3.00</td>
<td>1,250.00</td>
</tr>
<tr>
<td>2.50</td>
<td>1,150.00</td>
</tr>
<tr>
<td>2.00</td>
<td>1,050.00</td>
</tr>
<tr>
<td>1.50</td>
<td>950.00</td>
</tr>
<tr>
<td>1.00</td>
<td>850.00</td>
</tr>
<tr>
<td>0.50</td>
<td>750.00</td>
</tr>
<tr>
<td>0.00</td>
<td>650.00</td>
</tr>
</tbody>
</table>

### Exhibit 5 Diagram
- Site Index (Difference)
- Typical BLV
- Simulated BLV

### Exhibit 6 Diagram
- Residual Price Appreciation
- Typical BLV
- Simulated BLV
Conclusion

Comparable Sale 4, using the income approach, suggests that buyers would set the discount rate to 3.35%, model the productivity of the tract at site index 96, or expect stumpage prices to appreciate by 3.20% annually (or some combination of the three) in the BLV computation in order to break even on the property based on the ALV in the sales comparison approach. The other comparable sales produced different parameter values, but the magnitude of differences between the resulting elasticities tended to be very close between the seven comparable sales. The analysis indicates that a 36% adjustment in discount rate, a 43% adjustment in site index, and a 220% adjustment to account for the approximately 200% increase in BLV would be necessary to obtain minimal LVDs. These correspond to elasticities of -5.6, 4.6, and 0.9, respectively.

The study results show that relatively small adjustments made to key variables in the income approach could influence BLV. The analysis found that BLV is most sensitive to adjustments in site index and discount rate, and less sensitive to assumptions on stumpage price appreciation. Since the site index is the basic productivity of the soil to produce timber, one would expect it to drive BLV as the “engine” that produces the timber revenue stream. Timberland appraisers would likely expect the discount rate to influence BLV in the income approach. However, the study found that site index was not only a driver of forest productivity, but also a main driver of BLV in the income approach. Stumpage price appreciation is probably the hardest assumption to make in modelling BLV and, fortunately, it has the least impact on LVD. Additional research on after-tax BLV could be applied to examine if the tax benefits that are consumed under a TIMO and REIT structure would assist in mitigating the LVD issue. Research around the impact of investment horizons and property holding periods for TIMOs and REITs on timberland values also could be investigated.

This discussion has focused on the different land values that often result when using the sales comparison and income approaches in timberland valuation. It should be emphasized that the recognized income approach in this situation is

<table>
<thead>
<tr>
<th>Product*</th>
<th>Stumpage Prices</th>
<th>Typical BLV – (1% appreciation)</th>
<th>Simulated BLV at ALV Level – (3.2% appreciation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PST</td>
<td>$25.75/ton</td>
<td>$25.75 (1+0.01)²⁴ = $26.12/ton</td>
<td>$25.75 (1+0.032)²⁴ = $25.14/ton</td>
</tr>
<tr>
<td>CNS</td>
<td>$13.75/ton</td>
<td>$13.75 (1+0.01)²² = $17.11/ton</td>
<td>$13.75 (1+0.032)²² = $27.50/ton</td>
</tr>
<tr>
<td>PPW</td>
<td>$8.25/ton</td>
<td>$8.25 (1+0.01)¹⁵ = $9.58/ton</td>
<td>$8.25 (1+0.032)¹⁵ = $13.23/ton</td>
</tr>
</tbody>
</table>

BLV

Simulated BLV

PPW = $9.58/ton
CNS = $17.11/ton
PST = $36.17/ton

PPW = $13.23/ton
CNS = $27.50/ton
PST = $75.14/ton

0 15 22 34 Years

1st Thinning 2nd Thinning Clear-cut

*PST—Pine saw timber; CNS—Pine chip-n-saw; PPW—Pine pulpwood.
BLV, or the value of bare timberland used for perpetual timber production. This does nothing more than assign value to the dirt supporting a typical timber operation into perpetuity. The analysis essentially compared the allocated land value from sales to a typical bare land value. This involved a comparison of the two approaches, recognizing that the income approach was a BLV—an important assumption and the regular one typical in forestry valuation. The analysis allowed for determination of the factors that typically impact the income approach and cause differences between the results in the two approaches. These findings will allow the appraiser to better understand what creates LVD and the importance of various factors in the adjustment process when valuing large timberland properties with the inherent differences described in this study.

About the Authors

Austin B. Harris, MFR, was a graduate student at Clemson University when he worked on the research reported in this article. He currently is a South Carolina apprentice appraiser at American Forest Management, Inc. Harris’s experience prior to his graduate research was with SCANA Corporation as a forest technician. He has two publications, both dealing with forestry and appraisal issues. He has an MFR in forest resources and a BS in applied economics and statistics from Clemson University. Contact: austin.harris@afmforest.com

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**Additional Resources**
Suggested by the Y. T. and Louise Lee Lum Library

**American Society of Farm Managers and Rural Appraisers, Resources**
http://asfmra.org/resources

**American Tree Farm System, State Tree Farm Programs and Information**
https://www.treefarmsystem.org/state-tree-farm-programs

**Forest History Society, Library and Archives**
https://foresthistory.org/research-explore/

**Forest Landowners Association, Markets and Forecasts**
https://www.forestlandowners.com/markets

**Nareit, Timberland REITS**

**Purdue University, Forestry and Natural Resources**
https://ag.purdue.edu/stories/category/forestry-natural-resources/

**Realtors Land Institute, Basics of Timberland Investing**
https://www.rliland.com/the-basics-of-timberland-investing

**Sewell Company, Timberland Report**
http://www.sewall.com/about/newsinfo/digital-library/newsletters.php

**Southern Regional Extension Forestry, Resource Publications**
https://sref.info/resources/publications/

**Texas A&M Forest Service**
- Texas Forest Information Portal
  http://texasforestinfo.tamu.edu/
- Selected Service Providers

CONTINUED >
Additional Resources (continued)

University Extension Services (representative listing)

- Colorado State University
  https://extension.colostate.edu/
- Clemson University
  https://www.clemson.edu/extension/
- Mississippi State University
  https://extension.msstate.edu/natural-resources/forestry
- North Carolina State University
  https://forestry.ces.ncsu.edu/
- Oregon State University
  http://extensionweb.forestry.oregonstate.edu/
- University of Idaho
  https://www.uidaho.edu/extension/forestry
- University of Illinois
  https://m.extension.illinois.edu/forestry/timber_harvest/timber_marketing_and_sales.cfm
- University of Kentucky
  https://forestry.ca.uky.edu/extension-home
- University of Minnesota
  https://extension.umn.edu/forestry/agroforestry
- University of Tennessee-Knoxville
  https://trace.tennessee.edu/utk_agexfores/

US Department of Agriculture, US Forest Service

- Landowner Resources
  https://www.fs.fed.us/managing-land/private-land
- North Central Region, Web-Based Forest Management Guides
  https://www.nrs.fs.fed.us/fmg/nfmg/fm101/silv/p2_treatment.html
- Southern Research Station, Timber Price Information
Market Value: What Does It Really Mean?

by Michael V. Sanders, MAI, SRA

Abstract

Appraisers are routinely confronted with multiple definitions of the terms market value and fair market value, depending on the purpose of the assignment. Many value definitions in common use are needlessly subjective and in clear conflict with other definitions. Particular problems revolve around the value standard (highest versus most probable) and varied conditions imposed on the hypothetical market, which in many cases do not comport with the realities of the marketplace. This article seeks to explore how we got here, and what we might do to bring some clarity and consistency to the term market value.

Introduction

Definition of value is integral to real estate valuation and is one of several assignment elements identified in the Uniform Standards of Professional Appraisal Practice (USPAP). While there are many types of value (assessed value, business value, disposition value, insurable value, investment value, liquidation value, public interest value, use value, etc.), market value is the subject of most appraisal assignments.

Whether the term is “market value” or “fair market value” is of little practical consequence, as noted in an eminent domain decision by the U.S. Supreme Court where the Court observed “the term ‘fair’ hardly adds anything to the phrase ‘market value.’”

The Dictionary of Real Estate Appraisal, sixth edition, indicates fair market value to be “equivalent” to market value in non-technical usage, and “similar in concept” with respect to technical usage in condemnation, litigation, and tax situations. But, definitions of market value and fair market value vary widely in two major respects:

- Value standard (most probable versus highest price, or in some cases no specification at all)
- Conditions imposed on the hypothetical market under which a sale is presumed to occur

The purpose of this article is to explore some of these definitional differences, the problems they cause, and their practical impact on appraisal practice.

Market Value Concept

Value is generally recognized to be extrinsic rather than intrinsic to the real estate, reflecting the relationship of property to the marketplace. The concept of market value used in modern valuation theory originated with neoclassical economics in the late nineteenth century. This school of economic thought was the first to propose a unified theory of value encompassing both the cost/supply side and the price/demand side. A seminal work was Principles of Economics by Alfred Marshall, introducing what are now
well-known concepts such as the supply/demand curve, equilibrium price and the perfect market. As used in neoclassical economics, a perfectly competitive market is comprised of rational participants, all acting for economic self-interest; characteristics of the perfect market include the following:

- Many buyers and sellers (no one can unduly influence the market)
- Homogenous product
- Perfect information (about product and pricing)
- No barriers to entry/no transaction costs
- Prices that tend towards equilibrium (at least in the long term)

Most markets in the real world do not meet these criteria. Real estate markets are particularly imperfect and inefficient, although some (conforming homes, for example) are more competitive than others (special-purpose or unique properties). As a result, appraisers deal with uncertainty and ranges of value, instead of the equilibrium market price envisioned by the neoclassical model. Along with the variability of the market itself, appraisers also have to contend with subjectivity introduced by commonly used value definitions and conflicts among various definitions that are used for different purposes.

### History of Market Value Definitions

One of the first articulated definitions of market value is found in an early 1900s eminent domain case decided by the California Supreme Court, Sacramento Southern Railroad v. Heilbron, less than twenty years after the first edition of Marshall’s economics text was published in 1890. In the Heilbron case, the court described market value as

The highest price estimated in terms of money which the land would bring if exposed for sale in the open market, with reasonable time allowed in which to find a purchaser, buying with knowledge of all of the uses and purposes to which it was adapted and for which it was capable.\(^5\)

The notable things about this definition are the value standard (highest price) and the conditions imposed on the market (money, open market, reasonable time, knowledge). This definition subsequently mutated and replicated many times over the years.

The Heilbron definition was incorporated virtually unchanged in the 1950 and 1962 editions of the Appraisal Terminology and Handbook published by the American Institute of Real Estate Appraisers (AIREA). However, the Handbook included alternative definitions as well:

- The price at which a willing-seller would sell and a willing-buyer would buy, neither being under abnormal pressure.
- The price expectable if a reasonable time is allowed to find a purchaser and if both seller and prospective buyer are fully informed.\(^6\)

The definition of market value changed significantly in the 1975 edition of Real Estate Appraisal Terminology (published jointly by AIREA and the Society of Real Estate Appraisers). The highest price standard was unchanged, but the conditions imposed on the market became more numerous and specific, resembling those currently included in standard value definitions for mortgage lending.\(^7\) Also of interest in this text is its succinct definition of most probable sales price, a term that was used in appraisal literature addressing this topic during the 1960s and 1970s. Most probable sales price is defined as “That price at which a property would most probably sell if exposed to the market for a reasonable time, under market conditions prevailing as of the date of the appraisal.”\(^8\)

The 1981 version of the same text contained almost the same definition of market value, except that the value standard changed from the “high-

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\(^7\) Byrl N. Boyce, comp. and ed., Real Estate Appraisal Terminology (Chicago: American Institute of Real Estate Appraisers and Society of Real Estate Appraisers, 1975), 137.

\(^8\) Boyce, Real Estate Appraisal Terminology, 145. Note the value standard (“most probably”) and the only condition imposed on the market (exposure for “a reasonable time”), which otherwise assumes prevailing conditions.
est price ... a property will bring” to “most probable price ... a property should bring.”

The ninth edition of *The Appraisal of Real Estate*, published six years later, contains relevant and significant commentary about this difference, noting that the concept of market value as the “highest price,” as opposed to market value as a modal or central tendency, is controversial. Of particular interest is the observation that “highest price” was originally rooted in the idea that market value should be the highest price represented by the central tendency, rather than the highest price within an entire data range, and that “a definition that includes the word highest is perhaps subject to misinterpretation.”

The debate over most probable versus highest price is perhaps best illustrated by a series of changes to eminent domain law in Nevada. Prior to 1993, value for eminent domain was defined as the “highest price,” similar to current law in California and some other states (California also uses the highest price standard for damage to real property and marital dissolution).

The fair market value of the property is the highest price on the date of valuation that would be agreed to by a seller who is willing to sell, but who is under no particular or urgent necessity for so doing, and who is not obligated to sell, and a buyer who is ready, willing, and able to buy, but who is under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available.

In 1993, however, the Nevada legislature changed the definition of value to the “most probable price,” adopted from the prevailing definition of market value for federally related lending transactions:

Value means the most probable price which a property would bring in a competitive and open market under the conditions of a fair sale, without the price being affected by undue stimulus, whereby the sale is consummated on a specified date and the title of the property is passed from the seller to the buyer under the following conditions:

a) the buyer and seller are acting prudently and knowledgeably;

b) the buyer and seller are typically motivated;

c) the buyer and seller are well informed or well advised and acting in what they consider are their own best interests;

d) a reasonable time is allowed to expose the property for sale on the open market;

e) payment is made with United States dollars in cash or pursuant to another financial arrangement comparable thereto; and

f) the sale price represents the normal consideration for the property and is unaffected by special or creative financing or sales concessions granted by any person associated with the sale.

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During a 1996 trial involving a taking by Clark County, Nevada, (County) the trial court nonetheless awarded the “highest price,” accepting the landowner’s argument that the 1993 change in the state’s value definition was unconstitutional. The County appealed, and the Nevada Supreme Court reversed, ruling that the definitional change to “most probable price” was indeed constitutional. In its opinion, the court indicated that the two terms were not synonymous, noting the legislature’s characterization of the “highest price” standard as speculative, and its “misuse and abuse” in the instant case. In a separate concurrence, one justice deviated from his colleagues, reasoning that the terms “highest


price” and “most probable price” were actually synonymous—“a distinction without a difference.” To complete the saga, the Nevada legislature changed the definition back to “highest price” in 2007, a likely reaction to the Kelo v. New London decision by the US Supreme Court in 2005.

There are a number of definitions of market value and fair market value in common use today, all with unique aspects that can differ with respect to the applicable value standard and hypothetical conditions imposed on the market. Appraisers may encounter these definitions in assignments related to

- Mortgage lending
- Eminent domain (state)
- Damage to real property
- Marital dissolution
- Property taxation
- Estate tax
- Casualty losses
- Federal land acquisitions
- Financial reporting
- Global valuation

The table in Exhibit 1 summarizes some of these definitions, illustrating their substantial variation, and the potential for value opinions to be influenced by which definition an appraiser uses.

**Literature Review**

The topic of market value has been addressed sporadically in appraisal literature over the years, typically during times of valuation difficulties—depressed values in the 1970s, creative financing during the 1980s, market decline following the Savings and Loan Crisis in the early 1990s, and most recently, the market collapse in the wake of the subprime mortgage crisis.

Richard U. Ratcliff was one of the pioneering thought leaders on the topic of market value in the 1960s and 1970s, advocating for “most probable price” years before it was finally adopted in some published definitions. Henry A. Babcock in his 1968 text also argued for “most probable buy-sell price” as central to the concept of market value. Ratcliff additionally proposed the idea of expressing value in probabilistic terms (a probability distribution or equivalent), something supported by many subsequent authors, most recently by Max Kummerow and Gale L. Pooley. Finally, Ratcliff was critical of attaching hypothetical or idealized perfect market conditions to standard value definitions, instead believing that market value should reflect real, if imperfect, markets without artificial constraints.

Following Ratcliff’s criticism of assuming perfect market conditions, Richard D. Marshall

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15. Kelo v. City of New London, 545 U.S. 469 (2005). This seminal 5-4 U.S. Supreme Court decision allowed the transfer of land using eminent domain from one private property owner to another for purposes of economic development, effectively characterizing a “public benefit” as a permissible public use under the Takings Clause of the Fifth Amendment. A significant political and judicial backlash followed, with most states enacting some type of eminent domain reform in the decade following the Kelo decision.
16. The table includes many that are in common use, though it should be understood that the table is not intended to include every definition, nor would it be feasible to do so. The very fact that there are a multiplicity of different value definitions strikes at the heart of the problem addressed in this article.
### Exhibit 1 Summary of Definitions of Value

<table>
<thead>
<tr>
<th>Source</th>
<th>Value Definition</th>
</tr>
</thead>
</table>
| Federal Mortgage Lending    | *Market value* means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:  
  1. buyer and seller are typically motivated;  
  2. both parties are well informed or well advised, and acting in what they consider their own best interests;  
  3. a reasonable time is allowed for exposure in the open market;  
  4. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and  
  5. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale. |
| (Comptroller of the Currency) |                                                                                                                                                                                                                                                                                                                                                                  |
| 12 C.F.R. § 34.42(g)        |                                                                                                                                                                                                                                                                                                                                                                  |
| Same definition for FDIC,   |                                                                                                                                                                                                                                                                                                                                                                  |
| NCUA, FNMA Selling Guide    |                                                                                                                                                                                                                                                                                                                                                                  |
| California Code of Civil Procedure, Eminent Domain | The fair market value of the property taken is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no particular or urgent necessity for so doing, not obliged to sell, and a buyer, being ready, willing, and able to buy but under no particular necessity for so doing, each dealing with the other with full knowledge of all the uses and purposes for which the property is reasonably adaptable and available. |
| C.C.P. § 1263.320(a)        |                                                                                                                                                                                                                                                                                                                                                                  |
| California Real Property Damage Civil Jury Instructions § 3903F | “Fair market value” is the highest price for the property that a willing buyer would have paid to a willing seller, assuming:  
  1. that there is no pressure on either one to buy or sell; and  
  2. that the buyer and seller know all the uses and purposes which the property is reasonably capable of being used.                                                                                                                      |
| California Marital Dissolution | The fair market value of a marketable asset in marital dissolution cases is the highest price on the date of valuation that would be agreed to by a seller, being willing to sell but under no obligation or urgent necessity to do so, and a buyer, being ready, willing and able to buy but under no particular necessity for so doing. |
| In re Marriage of Cream     |                                                                                                                                                                                                                                                                                                                                                                  |
| IAAO                        | Market value is the major focus of most real property appraisal assignments. Both economic and legal definitions of market value have been developed and refined. A current economic definition agreed upon by agencies that regulate federal financial institutions in the United States is: [see above] |
| Glossary for Property Appraisal and Assessment, 2nd ed. (2013) |                                                                                                                                                                                                                                                                                                                                                                  |
| California Property Taxation | “Full cash value” or “fair market value” means the amount of cash or its equivalent that property would bring if exposed for sale in the open market under conditions in which neither buyer nor seller could take advantage of the exigencies of the other, and both the buyer and the seller have knowledge of all of the uses and purposes to which the property is adapted and for which it is capable of being used, and of the enforceable restrictions upon those uses and purposes. |
| R.T.C. § 110(a)              |                                                                                                                                                                                                                                                                                                                                                                  |
| Federal Estate Tax          | The fair market value is the price at which the property would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.                                                                                                                 |
| 26 C.F.R. § 20.2031-1(b)     |                                                                                                                                                                                                                                                                                                                                                                  |
**Exhibit 1** Summary of Definitions of Value *(continued)*

<table>
<thead>
<tr>
<th>Source</th>
<th>Value Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Casualty Loss 26 C.F.R. § 1.165-7 Instructions for Form 4684</td>
<td>Fair market value (FMV) is the price at which the property would be sold between a willing buyer and willing seller, each having knowledge of the relevant facts. The difference between the FMV immediately before the casualty or theft and the FMV immediately after represents the decrease in FMV because of the casualty or theft.</td>
</tr>
<tr>
<td>Uniform Appraisal Standards for Federal Land Acquisitions (2016) § 1.2.4</td>
<td>Market value is the amount in cash, or on terms reasonably equivalent to cash, for which in all probability the property would have sold on the effective date of value, after a reasonable exposure time on the open competitive market, from a willing and reasonably knowledgeable seller to a willing and reasonably knowledgeable buyer, with neither acting under any compulsion to buy or sell, giving due consideration to all available economic uses of the property.</td>
</tr>
<tr>
<td>Legal (general) Black's Law Dictionary 2nd pocket edition (2016)</td>
<td>The price that a seller is willing to accept and a buyer is willing to pay on the open market and in an arm's length transaction; the point at which supply and demand intersect. (fair market value)</td>
</tr>
</tbody>
</table>
| Financial Reporting FASB 157 ¶ 5-14 [excerpts] | Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.  
The measurement should consider attributes specific to the asset or liability.  
A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date.  
A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability.  
Market participants are buyers and sellers in the principal (or most advantageous) market for the asset or liability that are:  
(a) Independent of the reporting entity; that is, they are not related parties  
(b) Knowledgeable, having a reasonable understanding about the asset or liability and the transaction based on all available information  
(c) Able to transact for the asset or liability  
(d) Willing to transact for the asset or liability; that is, they are motivated but not forced or otherwise compelled to do so.  
A fair value measurement assumes the highest and best use of the asset by market participants. |
| Global Valuation International Valuation Standards (2017) ¶ 30.1 | Market Value is the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion. |
notes that “what actually takes place in a transaction does not meet the criteria of the definitions that have been developed to guide the determination of market value,” while further stating that “participants in real estate transactions cannot avail themselves of the kind of efficient market … that serves investors in the stock market.”21 Kerry D. Vandell suggests that market value definitions based on formal economic theory “are of limited usefulness because they assume a perfectly competitive market and complete certainty about present and future conditions … [while] the real estate market is neither perfectly competitive nor certain.”22 Vandell argues that “market value and HBU should be associated with what actually is expected to happen to the subject property under current market conditions.”23 Peter N. Thomson is another who indicates “an appraiser faces an apparent dichotomy between assumptions that underpin market value and the current market realities,”24 arguing for use of alternative value definitions such as liquidation price to deal with speculative or troubled markets.

In advocating for a statistically oriented definition of market value, Peter F. Colwell observed that “different definitions yield different estimates of market value.”25 Harold D. Albritton, noting differing opinions regarding the meaning of highest price, suggested that it should not be interpreted literally, but rather as “the most probable price at the highest and best use.”26 In an earlier article, Robert N. Frissell commented on the then-prevailing definition of market value using “highest price,” indicating that the appraiser must therefore “look for the highest price that the market will justify, … not the price at which the transaction would ‘probably’ occur,” and further suggesting that “the average sale must be adjusted upward” to conform to the highest price definition.27 Richard Marchitelli and Peter F. Korpacz proposed a single concise definition that could be applied to all real estate activity, using the term “likely” instead of “most probable,” and with few explicit assumptions about the market:

“The price in cash and/or other identified terms for which the specified real property interest is likely to sell as of the effective date of appraisal in the real estate marketplace under all conditions requisite to a fair sale.”28

A number of articles in the mid-1980s discuss price as it relates to value. Writing about the debate between “most probable selling price” (a term likely first used by Ratcliff to distinguish a value unencumbered by idealized or unreal market conditions) and traditional market value, Kenneth M. Lusht proposes that these are really equal, where traditional value definitions assume market efficiency explicitly (via conditions attached to a hypothetical market), and most probable selling price does so implicitly based on the use of historical data. He argues that appraisers must use a working assumption of market efficiency to produce a credible value estimate. Lusht also distinguishes between a “prediction” (relative certainty quantified by a probability distribution) and a more judgmental “estimate,” a topic also addressed by Ratcliff in some of his writings.29

Jared Shlaes suggests that “highest price and typical price are clearly at odds with one another,” with “highest price” reflecting an atypical purchaser, and perhaps an atypical seller willing to wait for the best available offer,30 noting that “the fool in the market teaches us nothing about value, only about foolishness.”31 Joseph Williams posits that fair market value rarely represents an

optimal price, but rather a compromise price arrived at by buyers and sellers through negotiation, noting also that fair market value definitions presume ideal conditions and efficient markets that rarely exist.\(^\text{32}\)

Terry V. Grissom addressed the quest for more consistent and descriptive definitions of market value by using symbolic logic, first identifying two schools of appraisal thought, characterized as the traditional and the contemporary. The traditional perspective uses “fair market value” and is rooted in formal neoclassical economics at the intersection of supply and demand, incorporating the assumptions of a perfectly competitive market. He reasons that insights gained from this approach more than offset the loss in concrete reality based on representative conditions. The contemporary argument, on the other hand, emphasizes “most probable selling price,” rejecting the premise that actual real estate markets comply with the perfect competition model. In an attempt to reconcile the two schools of thought, Grissom describes a third perspective, identified as neotraditional. In his view, this is not so much a school of thought as a gray area where semantic differences between the concepts of market value and most probable selling price are debated, with some arguing for quantitative equivalence between the two, while others try to modify definitions to fit a strictly empirical perception of the real estate market.\(^\text{33}\)

In 1992, the Appraisal Institute Special Task Force on Value Definitions published a report addressing problems associated with distressed market conditions and limited sales activity, suggesting that transactions differing substantially from assumed conditions in a value definition fail as evidence of market value, which may imply a price that cannot occur until some future time.\(^\text{34}\) This is reminiscent of fictional intrinsic values assumed during the Great Depression in the 1930s, and clearly contrary to the position taken by Ratcliff and others, that “market value” should reflect the market as it is, however imperfect it might be.

In response to these difficulties, Shlaes offered what he called the concept of subjunctive value defined as “That value which the relevant parties, hope, wish, fear, or suspect might be equal to market value, but which all recognize is not necessarily so.”\(^\text{35}\) In the same article, Shlaes (tongue in cheek) suggests another definition to be used in the absence of a market, called “nu value,” certainly an antithesis to the equilibrium price of the perfect market. He describes this as “value as determined by a committee of experts sitting at a round table with all pertinent facts at hand in a locked room from which they will not be released until they have reached agreement.”\(^\text{36}\)

An Appraisal Institute white paper in 1999 lamented “a proliferation of Market Value definitions, dilution of the Market Value concept, and great confusion in the marketplace.”\(^\text{37}\) A suggestion that USPAP clarify market value for appraisers and users of appraisal services resulted in a quasi (but not citable) definition of market value added to USPAP in 2001, which does little more than note that market value “presumes the transfer of a property, as of a certain date, under specific conditions,” cautioning appraisers to identify the exact definition applicable in each appraisal assignment.

## Market Price

While value is commonly perceived to be an opinion of worth, price is what is actually paid. Prices are used as a proxy for value in the sales comparison approach, though it is recognized that price and value are not the same, and that prices are not infrequently different from estimated or perceived value. Because the term “market price” has been used and discussed occasionally in appraisal literature, often in different contexts, an examination of this term is warranted in connection with the larger discussion of market value.

Writing in the mid-1930s, George Schmutz and Loring McCormick argue against market price


\(^{34}\) Appraisal Institute, *Special Task Force on Value Definitions* (Chicago: Appraisal Institute, June 1992).


\(^{36}\) Shlaes, “Value,” 77.

measured in dollars, in favor of market value measured in commodity units, based on the present worth of future benefits. They observe that prices can change dramatically because of changes in the value of money, while the value of underlying commodities (including real estate) experience little change. This position is not necessarily surprising given the volatility of prices following the sharp market decline in 1929–1932, and the notion that real estate had intrinsic value not properly reflected in prevailing prices during the Great Depression. M. J. Slonim subsequently suggested that courts do not distinguish between market price and market value; i.e., that market value is established by the prices buyers actually pay. This might tend to support the notion that courts are inclined to favor sales comparison over alternative approaches to value.

Fred E. Case distinguishes among the terms normal value, market value, and market price, with normal value relating primarily to proposed prices during the bidding process, while the latter two are reflective of actual completed transactions. Ultimately, however, market price is what is actually paid, consistent with most subsequent definitions containing the word “price.” Importantly, Case points out that common market assumptions (voluntary participation, fully informed, etc.) often do not exist in the real world, noting further that some circumstances (no market, forced or speculative markets) can result in erroneous market indicators.

In more-recently published articles, Kevin Clarke uses market price as a solution to providing prospective (future) values, although his proposed definition of market price is quite similar in concept to prevailing definitions of market value. The premise of an article by Stephen F. Fanning, et al. is that there are really two real estate markets—the transaction (buy/sell) market, and the fundamental market (measured by economic potential). In a stable market, there may be little difference between the two, but during boom or bust conditions, market prices may deviate significantly from fundamentals. Thus, actual prices over time might fluctuate substantially, while underlying economic value exhibits more moderate and sustainable movement; this harkens back to the position of Schmutz during the 1930s, suggesting that value might be somewhat independent of prices actually paid in some circumstances. Fanning acknowledges the appraiser’s dilemma between these two schools of thought, indicating that reconciliation of valuation approaches becomes more important in unstable markets.

The term market price has been specifically defined occasionally by the Appraisal Institute and its predecessor organizations, with a pre-1945 version of Appraisal Terminology including a footnote to the definition of market value stating that “at any given moment in time, market value connotes what a property is actually worth, and market price what it may be sold for.” The term was not defined in the 1950 and 1962 editions of Appraisal Terminology and Handbook, but later appeared in the 1975 and 1981 editions of Real Estate Appraisal Terminology as “the amount actually paid, or to be paid, for a property in a particular transaction,” with the clarification that it “differs from market value in that it is an accomplished or historic fact, whereas market value is and remains an estimate until proved [and] involves no assumption of prudent conduct by the parties, or absence of undue stimulus or of any other conditions basic to the market value concept.”

Standards and guidelines for broker price opinions include the term fair market price defined as follows:

43. Slonim, “Market Value or Market Price,” 390; nearly identical verbiage was included following the definition of market value in the 1962 edition of AIREA’s Appraisal Terminology and Handbook, although the term market price was not specifically defined.
The most probable price, as of the date of inspection or other specifically defined date, in terms equivalent to cash, unaffected by special or creative financing or sales concessions, for which the property should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale with buyer and seller each acting prudently and for self-interest and assuming neither is under undue duress. Also known as Market Price.  

Market price has also been defined in the IAAO Glossary for Property Appraisal and Assessment as “the price a particular buyer and seller agree to in a particular transaction; the amount actually paid.  

Market price has not been defined in The Dictionary of Real Estate Appraisal, including only a definition of price, initially defined as “the amount a particular purchaser agrees to pay and a particular seller agrees to accept under the circumstances surrounding their transaction.” Price is currently defined in The Dictionary of Real Estate Appraisal, sixth edition, as “the amount paid in exchange for a good or commodity.” It notes that price is a fact when a transaction is consummated, while value is an estimate, further stating that “the price paid for a property may or may not have any relation to the value that might be ascribed to that property by others.”

In general, market price and price are more or less synonymous, although lack of a consistent definition for market price has allowed authors some flexibility in their interpretation of the term. Real estate brokers and sales agents preparing broker price opinions (BPO) use market price somewhat synonymously with our understanding of market value, although this is clearly an exception.

The distinction between price and value is perhaps best summarized by Warren Buffet, who sagely observed that “price is what you pay, value is what you get.”

### Value Standard

The market value definition for mortgage lending is the most widely used, and conspicuously defines value as the “most probable price,” closely resembling the definition of market value in the 1981 edition of Real Estate Appraisal Terminology. The market value definition in the Uniform Appraisal Standards for Federal Land Acquisitions is somewhat similar, defining market value as “the amount in cash … for which in all probability the property would have sold.” Many other standard definitions instead use the highest price standard, including California definitions for eminent domain, damage to real property and marital dissolution. Still other definitions do not specify any particular standard, simply an amount or price at which a property would be sold, including federal definitions for estate taxation and casualty losses.

The definition of fair market value from Black’s Law Dictionary similarly provides no definitive standard, while also paying homage to the neoclassical model by referencing the intersection of supply and demand: “The price that a seller is willing to accept and a buyer is willing to pay on the open market and in an arm’s length transaction; the point at which supply and demand intersect.”

After decades of debate, the practical difference between highest price and most probable price, if any, remains unclear. “Most probable price”—

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46. International Association of Assessing Officers, Glossary for Property Appraisal and Assessment, second ed. (Kansas City: International Association of Assessing Officers, 2013), 100.
53. 26 C.F.R. § 20.2031-1(b).
54. IRS Instructions for Form 4684; see also 26 C.F.R. § 1.165-7.
whether defined statistically as the mean, median, or mode, or an expected value or range of values—is a fairly objective standard, at least in comparison to highest price, which conceivably might encompass any number above the mid-point of a possible value distribution. It has even been argued that a literal interpretation of highest price ignores the impact of uncertainty in the market.

Thinking of value as a transaction zone where the low end of the seller’s expectation meets the high end of what a buyer is willing to pay is helpful, but still leaves room for considerable variation depending on the characteristics and efficiency of the market, negotiating position of the parties and/or random price variation. Nor does it necessarily account for high (or low) sales that seemingly defy the market, or situations where market imperfection results in a wide value range. Only in the perfectly competitive market does a true equilibrium price exist, where most probable and highest price are the same number.

The graphic in Exhibit 2 helps to visualize the potential difference between most probable and highest price (a normal distribution is used as an exemplar, although value distributions can exhibit different characteristics).

Whether expressed as a specific number or a range, most probable price represents the portion of a value distribution that is most likely to occur, based on analysis of market data. Highest price, on the other hand, is much more subjective, as evidenced by its varied interpretations in appraisal literature and court decisions over the years:

- Synonymous with most probable price
- Most probable price at highest and best use
- Highest price represented by the central tendency
- Highest price that the market will justify (average sale adjusted upward)
- Reflective of an atypical purchaser
- Highest price as speculative, subject to misuse and abuse

It is clear that a literal interpretation of highest price could result in a value limited only by the extreme upper limit of a data range (and perhaps the creativity of the appraiser). But values in this rarefied area are probably not likely and certainly not “fair.” In fact, one might argue in more general terms that highest price is not fair and equitable. The rationale for highest price is perhaps understandable in eminent domain, where a property owner is involuntarily forced to cede property to a condemning agency, but an award of compensation higher than prevailing values (most probable price) is certainly not fair to the taxpayers. And in other types of civil litigation or family law, basing market value on the highest price could easily favor one party over another, resulting in something less than a fair and equitable outcome. And what about definitions that have no value standard? There might be an implication that an expected or likely (most probable) value would be appropriate, but without some qualification, an appraiser is free to interpret the definition as he or she sees fit.

**Exhibit 2 Normal Distribution: Market Value**

Assumptions about the Market

Whether we call it market value or fair market value, virtually all definitions include assumptions about the hypothetical market where a transaction is to take place, with conditions that may or may not comport with actual transactions in the marketplace. A number of authors, including Case, Ratcliff, Marshall, Vandell, and Thompson, have noted the disconnect between hypothetical or idealized perfect market conditions and the real world. Douglas Lovell suggests that “sales which violate the basic terms and conditions of the type of value being estimated are excluded from consideration because they intro-
duce bias into the analytic process," an idea that was reinforced by the Appraisal Institute Special Task Force on Value Definitions in 1992.

While some definitions are more restrictive than others, USPAP identifies three categories of conditions included in market value definitions:

1. the relationship, knowledge and motivation of the parties (i.e., seller and buyer);
2. the terms of sale (e.g., cash, cash equivalent or other terms); and
3. the conditions of sale (e.g., exposure in a competitive market for a reasonable time prior to sale).

Consider the motivation of the parties. Under most value definitions, distress sales are generally not reflective of market value. In a 2012 article, William G. Steinke addressed this issue, noting the inherent conflict between distressed markets and conditions attributed to standard value definitions. Even if real estate owned and short-sale transactions in distressed markets reflect typical motivation, Steinke opines that they still reflect undue stimulus, and are therefore not reflective of market value. But if distressed sales comprise all or most market activity, isn’t it more realistic to accept the market as it is, rather than impose unrealistic conditions associated with a non-existent semi-perfect market? Ratcliff and others argue strongly that idealized conditions sometimes bear little resemblance to the real world, and appraisers generally ignore the literal implication of value definitions in actual practice.

What about legitimate sales that are not consistent with conditions and limitations in many value definitions? Some definitions, for example, assume reasonable exposure on the open market; would this disqualify an off-market but otherwise legitimate arm’s-length transaction? If typical buyers are not particularly knowledgeable or well-informed, are these sales somehow not indicative of market value? Do appraisers have an obligation to forecast normal market prices during a boom or bust? If prevailing terms are not cash or equivalent, is it appropriate to discount to cash equivalence and call the result market value?

In essence, should market value be positive (objective; what is) or normative (subjective; what should be)? Every normative condition imposed on a market value definition has the potential to make the definition less representative of the actual market, and in extreme cases, might result in a situation where market value simply cannot occur at the effective date.

Conclusion

“A proliferation of Market Value definitions … and great uncertainty in the marketplace” is as much of a problem today as when it was identified by the Appraisal Institute’s Market Value Initiative White Paper in 1999, debated in appraisal literature for decades prior and since.

The two primary differences among various definitions of market value and fair market value are the value standard (most probable versus highest price versus no standard) and conditions imposed on the hypothetical market. The use of “highest price” in many legal definitions is especially problematic, given its inherent subjectivity and potential for “misuse and abuse.” Confining opinions of market value to an expected or likely range would eliminate much uncertainty, and would arguably be more “fair” than a literal interpretation of highest price.

Assumptions about the market generally impose certain normative conditions that might disqualify legitimate sales, or in extreme circumstances might make it virtually impossible to estimate market value at the effective date. Ratcliff’s suggestion that literal implications of value definitions are often ignored in actual practice probably has some truth, but differences between an idealized semi-perfect market and the real world shouldn’t require appraisers to make this choice, even subconsciously.

58. As an example, consider a market where all transactions are distressed sales, a not uncommon occurrence during the years following the subprime mortgage crisis. Under conditions imposed by the standard lending definition of market value (e.g., lack of undue stimulus, typical motivation, reasonable exposure time), these transactions fail as evidence of market value, suggesting that some level of market stabilization would be necessary to provide sufficient transaction data matching the operative definition of market value.
Market value and fair market value definitions are embedded in a plethora of codes, regulations, and court decisions across the country. Thus, a real solution to the problem of multiple market value definitions used for varied purposes across different jurisdictions is elusive. The simplicity of a single market value definition based on expected or likely price, without artificial constraints, that could be used for all purposes, is definitely appealing. When it comes to something as basic and important as defining “market value,” it is unfortunate that the role of the appraisal profession has been usurped by the courts, regulators, and others.

While it is unrealistic to presume that myriad definitions in current use could actually be changed to conform to a single standard, the valuation profession should seek to clarify how the terms market value and fair market value can be consistently applied, particularly with respect to the value standard (highest versus most probable). This would also be an opportunity to carefully review what conditions (if any) should be imposed on the market; i.e., should we really seek to impose conditions of the semi-perfect market on what all would agree to be imperfect and inefficient real estate markets?

Quoting Richard Ratcliff yet again, “appraisal is largely the predicting of human behavior under given market conditions.” In an ideal world, appraisers would apply market value definitions using a relatively consistent and objective standard, and reflect conditions in the market as they exist, rather than how others might wish them to be.

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Additional Resources
Suggested by the Y. T. and Louise Lee Lum Library

Appraisal Institute
- Guide Notes to the Standards of Professional Appraisal Practice
- Lum Library External Resources [Login Required]
  Information Files—Value

Appraisal Standards Board—Uniform Standards of Professional Appraisal Practice
http://www.uspap.org/files/assets/basic-html/page-1.html#

Financial Accounting Standards Board—Fair Value Measurements

Self-Storage and Eminent Domain Resources for Appraisal Institute Professionals

About This Column
Self-storage is a core asset in the real estate industry, and investment in this asset class has increased over time. As the self-storage industry continues to grow, more market data is needed to support appraisers’ conclusions. This edition of Resource Center discusses the sources of information and data related to self-storage facilities, including publications available to AI professionals at a discounted rate. This edition also provides an update on eminent domain resources available in the Appraisal Institute’s Lum Library.

Recent Self-Storage Publications
“Self-Storage” is the most commonly used term for “self-service storage,” which is a commercial property use where units of storage space (such as rooms, lockers, containers, and/or outdoor space) are rented to tenants, normally individuals or businesses and usually on a short-term basis (month-to-month). Some facilities offer longer terms and agreements with options. According to Alexander Harris, writing in SpareFoot.com, there are 44,000 to 52,000 such storage facilities in the United States, with total annual industry revenue of about $38 billion and a total of about 2.3 billion square feet (about 7 square feet per person). Almost one in ten households rents a self-storage unit; average monthly cost is $91.14. Self-storage is a big industry attractive to investors.

Modern self-storage facilities were first available in the United States in the early 1960s. The number of facilities has grown in popularity, with an increase in services and products offered as well as design improvements. Locations vary from small towns to suburban and even central urban areas. Self-storage in many cases has been an alternative reuse of buildings, including suburban big-box properties and multistory urban facilities. Since the Great Recession, the industry has seen considerable growth and investor popularity.

The following is a look at some resources for market analysts and appraisers involved in the analysis and valuation of self-storage facilities. First, an in-depth look at a recent extensive information book, the 2018 Self-Storage Almanac. Second, a look at another resource book, the 2018 Self-Storage Expense Guidebook.

For easy, direct access to the URL addresses noted throughout this article, read this column online. Go to http://bit.ly/TAJ_articles and click on “View Current Issue.” (Login required.) If using the print copy, the longer URLs have been shortened for easier entry.

The 2018 Self-Storage Almanac, twenty-sixth edition, is a joint effort of MiniCo Publishing, NKF Capital Markets, data partner Union Realtime, and the Self Storage Association. Data on the rental rate, occupancy, pipeline/supply, and such are supplied by Union Realtime, with input from others in the combined effort. This color publication contains narrative discussion and tabular information; it also has advertisements.

In 2018 Self-Storage Almanac, the self-storage industry is analyzed nationally and in each of four regions of the United States, with two to four subregions in each:

- Northeast Region (Middle Atlantic and New England subregions)
- South Region (West South Central, East South Central, and South Atlantic subregions)
- Midwest Region (West North Central and East North Central subregions)
- West Region (Pacific and Mountain subregions)

The text begins with a discussion about the methods used in the study by contributors. This is followed by the Industry Profile in Section 1. The profile section includes narrative and tables on trends (2015–2017) as well as state-by-state data on facility count, square footage of facilities, and square footage of self-storage per person.

The almanac contributors used public and private data sources including surveys. The Industry Profile discussion divides facilities into three classes according to rated quality: Class A, Class B, and Class C. Class A facilities have the highest operational value coming “from being in a prime location with good drive-by traffic and great visibility” with management by professionals. Class A facilities are the focus of investment by major operators and institutional investors. Class B facilities have “good to average locations, often modest visibility” with less curb appeal than Class A and lack the “bells and whistles” of newer facilities. Class C facilities are often first-generation improvements in need of rehab usually in secondary locations. The Industry Profile section concludes with a discussion of the industry’s outlook.

Section 2 of the Almanac offers information on self-storage Industry Ownership, which is divided among public companies, key top operators, and the rest of the industry. The main public companies include Public Storage, Extra Space Storage, CubeSmart, U-Haul International, Life Storage Inc., and National Storage Affiliates Trust; these six public companies hold about 18% of the total ownership, based on number of facilities. The Industry Ownership section shows a breakdown of the number of facilities and number of units for each of the public companies along with data on dividends paid per share, relative

4. The Newmark Knight Frank Self-Storage Group.
5. Some of the advertising provides additional data resources for appraisers and analysts involved in the self-storage industry.
6. States with the most self-storage per capita include AL, AK, ID, MT, NM, OK, SD, and WY; states with the least square footage per capita include CA, CT, DE, MA, MD, NJ, NY, and RI. States with the most facilities are Texas and California.
market share, occupancy information, same store rental revenue per store, and stock prices (valuation). This section also offers data compiled from a survey of the top operators. This information is presented in tables showing for each ownership entity 2016 and 2017 rankings, total number of facilities, net rentable square footage, number of units, and a breakdown of the total between “owned” and “managed” facilities. The narrative discussion provides more insight, material, and tables covering market share, management, and the top third-party management companies.

Section 3 of the Almanac addresses Economics and Demographics. The discussion covers forecasts, influence of various economic factors, trends for rents, supply of units in the market, and unit turnover. Self-storage supply (number of facilities and square footage) is shown for Chicago, Houston, Kansas City, Miami, Philadelphia, Phoenix, Portland [OR], and San Diego. Projections of the population and components of change are presented for the years 2015 to 2060, with appropriate sources cited.

Section 4, Knowing Your Customer, provides helpful material about who uses self-storage facilities and about customers’ characteristics. Tables show data on tenant mix (residential/business/student/military) as well as customer information by gender and generation; marital status; home ownership and dwelling type; and employment status and household income. Also shown in this section is data on customers’ reasons for using self-storage facilities and the types of items stored.
Businesses represent about 19% of self-storage tenants, and Section 5 of the Almanac, Renting to Business Customers, is about this market segment. Information is discussed concerning types of business customers, market penetration, customers by type of business, and breakdown of share of the business market by unit size and type of unit. Material is also shown covering business customer length of rental term, monthly rental rate paid, and reason for storing.

Section 6, Site Information, includes more information about customers and preferences. This section includes data on customer length of rental overall, by generation, and business size customers; unit size preference proportion breakdown; driving time to facility for business and non-business renters or customers; number of visits by customers and business renters to their units; extra (non-unit rental) products or services (such as boxes, tape, supplies, dollies, carts, or moving trucks); itemized important features for customers and survey information about features customers were willing to pay more for, listed by customer type.

Marketing is the topic of Section 7 of the Almanac. It focuses on an important part of the management and operation of the property. Here, the Almanac reports data on how many facilities customers contact or investigate before rental; how potential customers first learn about the facility; items most influential in selecting a facility for business and non-business customers; and the most frequent types of information sought by potential customers making inquiry.

The narrative portion of the section addresses some interesting points about marketing, explaining the graphs and tables.

Rental Rates make up the subject matter of Section 8. In this section, the discussion and data address national and regional rental rates by unit size, trends, a unit-size breakdown for climate-controlled and non-climate-controlled unit trends (2011 Q4–2017 Q2). The rate analysis in this section is not down to a state-by-state level, but it does provide some good regional rate information by unit size (square footage/dimensions) and climate control level. The narrative notes that rents may fluctuate “with a focus on maximizing income rather than maximizing rental rates.” (page 89)

Section 9, Occupancy Rates, includes an informative discussion of “physical vs. economic occupancy”—both of which are used in the self-storage industry as measures of occupancy. For example, if a 100-unit facility has 90 rented units, its physical occupancy would be 90 percent. On the other hand, economic occupancy tallies the total number of rented units while allowing for any concessions offered, fees collected, and rents realized for every storage unit at the facility. Example: If the 100-unit facility has 90 units rented and 10 of those units were offered with a one-month free concession, then the site’s occupancy rate would need to account for this. While the physical occupancy would be 90 percent, the economic occupancy would be 80 percent since 10 of those units were “free” due to the concession offered for the first month. (page 103)

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7. Healthcare, professional services, and personal services are the three highest ranking at 10%–11% each.
8. Storing business records for legal requirements, 32%; storing business records for other reasons, 24.5%; and storing inventory, 30%. Other reasons are also part of the picture, including temporary storage while moving, remodeling, or due to natural disaster, and storing overflow of office supplies or FF&E.
9. These include features such as twenty-four-hour access, close to place of residence, drive-up parking, pest control, climate control, discount rates for long-term leases, fire sprinklers, climate control, security, proximity to work/school, availability of truck rentals, accessories, and specialized containers.
National occupancy rates are shown so trends can be identified for 1987 through 2017, and quarterly for 2011 Q4 through 2011 Q2, with historical rates by region and 2017 occupancy rates shown by region and subregions. The narrative for the corresponding tables provides analysis of the situation in each region. The section concludes by noting, “despite the generous amount of new self-storage supply added …in 2017, occupancies remained strong. …none of the data shows any area’s occupancy rate dropping below the high 80s.” (page 108)

**Self-Storage Supply and Demand** are the topics of Section 10. Several key matters are discussed, including the drivers of self-storage demand, population growth versus REIT revenue growth, and the importance of analyzing migration. Narrative includes discussions on “How to Track Migration” and “Understanding Market Data”; tables and exhibits on self-storage construction spending, and some detail pertaining to the top 10 core-based statistical areas (CBSAs). Using Union Realtime data (page 113), the Almanac reports the top-10 CBSAs are

1. Los Angeles-Long Beach-Anaheim, CA;
2. Dallas-Fort Worth-Arlington, TX;
3. Houston-The Woodlands-Sugar Land, TX;
4. New York-Newark-Jersey City, NY-NJ-PA;
5. Chicago-Naperville-Elgin, IL-IN-WI;
6. Atlanta-Sandy Springs-Roswell, GA;
7. Miami-Fort Lauderdale-West Palm Beach, FL;
8. Riverside-San Bernardino-Ontario, CA;
9. Phoenix-Mesa-Scottsdale, AZ; and
10. Washington-Arlington-Alexandria, DC-VA-MD-WV.

For each of these CBSAs, the Almanac reports

- street rates and rate growth;
- top-10 self-storage operators (number of facilities and market share);
- promotion activity;
- public REIT occupancy; and
- employment growth—a prime driver of self-storage demand.

**Self-Storage Market Conditions**, covered in Section 11, includes a good discussion of items such as state-by-state supply levels, supply levels by metropolitan statistical area (MSA), location importance (macro and micro), and demographics. This section includes tables with data on total self-storage facilities by state, (page 136) and market equilibrium by CBSA numbers (pages 137–138).

**Self-Storage Security** is covered in the next section, with discussion about security in general and specifics including surveillance systems, automated gates and fencing, access control devices, trends in mobile technology, door alarms and electronic locks, and a Self-Storage Access Control Checklist (page 141). This is a good section for better understand the state of the art for security to help valuers identify possible points of functional obsolescence in self-storage properties regarding security.

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10. 2018 Self-Storage Almanac, page 111. “A survey issued by SpareFoot indicated that migration is the key to self-storage demand. The study showed 68% of demand revolves around ‘life events’ such as a change in residence. The study noted the importance of knowing just what migration means. The major driver of migration is labor force flows which can be tracked by non-farm payrolls (job growth).” See Section 10, for more complete discussion.

11. Metropolitan and micropolitan statistical areas are collectively referred to as core-based statistical areas, see http://bit.ly/census_CBSA.

**Management** is the focus of Section 13. This material affords analysts and valuers crucial insight into operation expense items beyond the obvious—taxes, insurance, utilities, maintenance, management and administration, legal and accounting, marketing. A management checklist is provided, addressing items such as accounting, budget, and forecasts; ADA compliance; supply and demand studies, pricing decisions, and survey of competition; advertising and promotions; cleaning and maintenance; collateral items to be sold or rented; facility and retail area design; employee policies and handbooks, operations manual, and facility policies and rules; business plan; payment delinquency and auction process; staffing and salaries; expected cash flows and working capital needs; ancillary services (pick-up, delivery, container units, truck rental, retail supply sales); access and traffic flows; logo, identity establishment, and website design and maintenance; provisions of rental agreement, concessions, and fee structures; furniture/fixtures/equipment; hookups and maintenance for telephones, computers, flat screens, security; climate control design and maintenance; insurance; legal expenses; lighting; memberships in associations; publications; on-site manager residence; paving, roof, doors, and structure maintenance; emergency preparedness manual; survey of competition for pricing and competitive features; and uniforms.

The management considerations are extensive, and remind valuers that functioning, operating self-storage properties have not only a real estate, land and improvements, component, but business components as well.

**Valuation** is the theme of Section 14. An overview of the three conventional approaches is discussed, with basic appraisal steps indicated. Table 14.1 (page 150) lists “Typical Expense Conclusions,” and shows operating expense ranges likely for property insurance, repairs and maintenance, general and administrative, on-site management, off-site management, utilities, and advertising. The ranges are relatively wide, and naturally vary by location, type of facility, management operation, service and feature levels, type of management (on-site versus off-site), and many other factors. Real estate tax varies especially widely by location, jurisdiction, assessing methods, and tax rates. This section of the Almanac also includes a discussion of market analysis and investigation of the underlying fundamentals.

Session 15 addresses **Capitalization Rates**, with a discussion of the concept and use of capitalization rates. The commentary observes,

> ‘‘While in the recent past, capitalization rates declined due to the demand for product in the sector; however, in the past year capitalization rates have stabilized. Through the most recent recession, self-storage proved to be more recession-resistant than other property types. … This is logical as self-storage is in demand during good times and in bad times. During downturns, storage is primarily needed due to downsizing in both residential and commercial sectors. During an economic expansion, self-storage maybe used for a variety of reasons: moving, additional space for business goods, file storage, etc. (page 155)"

The discussion is supplemented by a chart comparing cap rates, rentable square footage per per-

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13. The source of this information is Cushman & Wakefield.
son, and physician occupancy. This section also
describes differentiation of self-storage invest-
ment classes (Class A, Class B, Class C) by char-
acteristics (page 157).

Finance is the topic of discussion in Section
16. The discussion is current through 2017 and
includes both concepts and specifics in commer-
cial real estate financing with the outlook for
rate changes in 2018. This section describes the
most likely sources of financing and types of debt.

Recommendation. This book is good for fact
finding, statistics, and better understanding of
the self-storage industry, with helpful informa-
tion for regions, states, and many metropolitan
areas. The 2018 Self-Storage Almanac material
(tables, graphs, and narrative) has sources clearly
provided, many of which you may want to pursue
further. Even some of the advertising provides
commercial data sources for the self-storage real
estate industry and market analysis.

If you are involved in market analysis or val-
uation of self-storage facilities, the 2018 Self-
Storage Almanac is a worthwhile resource as part
of your due diligence in market knowledge and
fact-finding. The book does not address the total
value of the self-storage operation with real estate
and non-real estate components; such is not within
the scope of the research and findings in the pub-
llication. Information in abundant detail about oper-
ating expenses is not a key topic explored in depth
in this publication; however, general operating
expense ranges are indicated in Section 14, “Valu-
ation.” Many expenses, including taxes insurance
and utilities, vary from one state and metro area to
another and also vary depending on the age, type
or configuration of storage facility improvements,
construction materials, maintenance required, and
services and products offered. Thus, it should come
as no surprise that there is a wide range for expense
information in the Almanac. More expense informa-
tion is found in the 2018 Self-Storage Expense
Guidebook from the same publisher. This publica-
tion is discussed below.

2018 Self-Storage Expense Guidebook
Poppy Behrens, Publisher (Phoenix, AZ: MiniCo Publish-
ing, 2018), 14 pages, digital download. Available to
AI professionals at discounted AI prices and appraisers’
bundle rates at https://www.appraisalinstitute.org/
designatedcandidateaffiliate/ai-affiliation/self-storage
-expense-guidebook/ [login required]

There is extensive expense information for
self-storage property in the 2018 Self-Storage
since 2004, is the result of survey and partner
data. Contributing part-
ners include Newmark
Knight Frank, Cushman
& Wakefield, and MiniCo. The operating
expense data presented in the GuideBook is based
on survey responses from owners and operators of
self-storage properties nationwide. As the text
points out, however, “The statistical base does
not include data from large operators—including
any of the publicly traded companies. Therefore,
it is important to note that the context of this
data is more consistent with owners and opera-
tors of small portfolios of properties, or even just
one property, and does not reflect significant
economies of scale.” (page 5)

The GuideBook presents national survey data
and regional data (West/Southwest, South, Mid-
west, Southeast, and East). Both economic and
physical occupancy data are included. Import-
antly, non-rent income information is also
included, including tenant insurance income,
products and services. Survey respondents pro-
vided rental revenue for the first and last month
of a twelve-month period to help identify rental
rate growth rates.

The data tables cover administrative expenses,
include on-site management, administrative
expenses, insurance (property, liability, and casu-
ality), real estate taxes, and management fees. The tables covering other expenses include data on expenses related to advertising/technology, telephone, utilities, office (including postage and handling), maintenance and repairs, and credit card/bank charges. Various expense definitions are included to help in understanding the survey results. The averages used in the data presentation are weighted averages, and expenses are also shown on a per-square-foot basis.

**Recommendation.** The information in the 2018 Self-Storage Expense GuideBook is part of the due diligence for researchers, analysts, and valuers. This is an important check on your own locally researched expense information.

In addition to the 2018 Self-Storage Almanac and 2018 Self-Storage Expense GuideBook publications reviewed above, more information can be found by exploring the Mini-Storage Messenger website (http://bit.ly/2QljjGc) with its publications, educational materials, webinars, and more. For expanded coverage of the self-storage industry, check out the website’s magazines, blogs, industry events, state associations, and information links. The site also describes Radius, a comprehensive self-storage development tracker with rental rate analytics providing unit-specific information, mapping, and pricing data.\(^{14}\)

**Additional Self-Storage Resources**

Here are more self-storage data and information resources.\(^ {15}\)

**Websites**


The SSA’s website includes sections for events and education, products and services (books, webinars), Globe magazine, “Self-Storage Industry Report,” and a blog. Under a “Products and Services” you’ll find a research and data section with for-sale publications including the “2017 Self-Storage

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\(^{15}\) Resources cited in this column are not all-inclusive; there are likely others worthy of your consideration.

Publications, Articles, and Data Summaries
• “Self Storage Statistics for 2018” (https://bit.ly/2qFVt9w) summarizes industry data from SSA, Statistic Brain, and others on the website of Simply Self Storage, a national franchise of self-storage facilities. Links to the original data providers are included.
• *Self-Storage Performance Quarterly* (https://bit.ly/2HFdVXJ) is an online interactive publication by Cushman and Wakefield Valuation and Advisory. Start by checking out the introduction, summary, and table of contents (pages 1–5) to help guide you through this 59-page publication.
• Bloomberg.com offers sector analyses in “The Hottest Industry Right Now Is Storing All Your Stuff” (https://bloom.bg/2rqJQBr) and in “Somebody’s Making Money Off of All Our Junk” (https://bloom.bg/2JpMvu5).
• National Real Estate Investor Online offers a number of articles highlighting institutional interest in the sector, including “Investor Interest in Self Storage Remains High” (https://bit.ly/2EhHJq1) and “Self-Storage Properties Deal with Competition—Even in Cities with the Most New Construction Developers Still Find Opportunities” (https://bit.ly/2Bv5If3).
• National Association of Real Estate Investment Trusts (NAREIT) offers industry data as well as data related to specific self-storage REITs (https://bit.ly/2Jqs8Sr). Scroll down the page for articles and videos.
• Business websites, such as *The Wall Street Journal* (www.wsj.com) and *Forbes* (www.forbes.com) carry articles with the latest information on the self-storage sector. Search these sites for the most recent news.
New Resources in the Lum Library: Eminent Domain

In the Fall 2015 edition of “Resource Center” (pages 336–340), I pointed out several good sources of eminent domain information. These resources include the widely used text *Principles of Right of Way*, fourth edition, published by the International Right of Way Association. Links were also provided to online materials summarizing legal issues related to eminent domain, including the following:

- American Bar Association—Enter “eminent domain” in the search box in the ABA home page (http://bit.ly/ABAHome) to see links to over 2,000 resources.
- USLegal.com—Eminent domain summaries and links to state eminent domain laws (https://eminentdomain.uslegal.com/sitemap/)

In addition to these materials, the Appraisal Institute’s Lum Library has recently acquired three texts, published by the American Bar Association, which have authoritative eminent domain information—*Eminent Domain: A Handbook of Condemnation Law*; *Fifty State Survey: The Law of Eminent Domain*; and *Current Condemnation Law: Takings, Compensation & Benefits*, second edition.

*Eminent Domain: A Handbook of Condemnation Law*

The Lum Library’s new acquisition, *Eminent Domain: A Handbook of Condemnation Law*, is an outstanding compilation by legal experts. With multiple author-experts, this text has the benefit of offering more than just the observations, research, and comments of one or a few writers. This is a real benefit to the reader, providing both breadth and depth of topic coverage.

After an introduction with a brief history of eminent domain, the text’s discussion addresses the US Constitution’s Fifth Amendment’s Takings Clause and similar provisions in state constitutions. The subject matter in the various sections are described below.

**Chapter 1 Public Use and Public Purpose.** Chapter 1 contains information on how public use evolves to public purpose, state law variations on public use and purpose, and public use versus

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17. The widely discussed and referenced 2005 US Supreme Court decision in *Kelo v. City of New London* upheld eminent domain taking for economic development as a “public use.” For a copy of the court opinion see http://bit.ly/2OsBgON. Also, a search of the Lum Library will provide much more on the topic.
18. The Fifth Amendment is the federal basis of eminent domain and just compensation, which flows through to the states and other governmental and quasi-governmental entities. The eminent domain portion of the Fifth Amendment is short, stating, “No person shall be... deprived of life, liberty, or property without due process of law; nor shall private property be taken for public use, without just compensation.”
public necessity. To illustrate the evolution of public use to public purpose, the discussion summarizes the debate in key court decisions over the past 100 years, culminating with *Kelo v. New London*. In *Kelo*, private property owners challenged the city’s exercise of eminent domain as takings that were not “for public use.” The city of New London intended to take real property, then transfer the property to a private, for-profit developer. The US Supreme Court held that the city’s taking to further its economic development plan satisfied the constitutional requirement, reiterating a broader interpretation of public use as public purpose. This was a controversial decision, which continues to reverberate in the eminent domain world.

**Chapter 2 Compensation.** Chapter 2 includes definitions and discussion of highest and best use, fair cash market value, easements and partial property interests, scope-of-the-project rule, evidence of value, and offsets to value. This chapter provides a guide for the amount of just compensation a landowner should receive as the fair market value of the property at the time it is taken. It is pointed out that envisioned in compensation is a cash sale to a willing buyer if offered by a prudent and willing seller, considering the highest and best use of the land (not necessarily current use). The highest and best use concept as described is in harmony with the Model Eminent Domain Code.

**Chapter 3 Damages Resulting from a Taking: An Overview; Chapter 4 Severance Damages and Loss of Access.** Chapter 3 incorporates discussion of partial physical takings, loss of access, zoning, loss of business, cost of moving, improvements, lost mineral deposits, inclusion of fixtures, trees, and crops, trespass, proximity damages: nuisance, noise, and lack of access, temporary takings, consequential and constitutional damages. Chapter 4 takes in severance damages related to land use and zoning and loss of access. Chapters 3 and 4 address damages of various types, partial takings, and the before and after rule; concepts and measures to find appropriate compensation beyond the value of the land and improvements actually taken. The before and after rule holds, in many states, that “the measure of compensation is the greater of (1) the value of the property taken … or (2) the amount by which the fair market value of the entire property exceeds the remainder immediately after the taking. The value of the land to the owner and taker generally has no relevance.” (page xix)

**Chapter 5 Prelitigation Process and Chapter 6 Trial.** Chapters 5 and 6 address the litigation-related matters. For expert witnesses, such as appraisers, this discussion provides important insight into the whole process of which expert witnesses are a part. Chapter 5 looks at issues that are pertinent in the prelitigation stage, including initial client contact, resolution of public necessity, condemnor’s power to take, uniform relocation act, letter of offer, and proper parties to suit. Chapter 6 involves a discussion of the trial process itself including pretrial, motions in limine voir dire, jury view, opening statements, witnesses, exhibits, other easements of the case, common evidentiary issues, closing arguments, verdict, judgment and abandonment, and post-trial costs, apportionments, and appeal.

**Chapter 7 Flooding and Erosion, and Chapter 8 Inverse Condemnation.** The final chapters deal with inverse condemnation circumstances, where there “is a cause of action against a governmental defendant to recover the value of property which has been taken in fact by the governmental defendant, even though no formal exercise of the power of eminent domain has been attempted by the taking agency.” Chapter 7 discusses theories of recovery, inverse condemnation, water intrusion, federal navigational servitude, and regulatory navigability and other servitudes. Chapter 8 covers police power in inverse condemnation,
definition of inverse condemnation, moratoria, zoning, navigable water, property interest, ripeness, date of taking, statute of limitations, burden of proof, and judicial taking.

**Appendix.** The Appendix includes a helpful and comprehensive 27-page “State-by-State Survey of Public Use Standards,” with over 250 end notes. All states have constitutional or statutory provisions that limit the states’ power of eminent domain. These provisions are identical or similar to the federal Takings Clause, but states vary in interpretation and definitions. As the text explains, there is no uniform definition of “public use” applicable in all states, and “public use” at the state level usually is not synonymous with “public welfare” or “public benefit.” (page 155)

**Table of Cases and Index.** The book with 19-page table of cases, and a comprehensive index.

**Fifty State Survey. The Law of Eminent Domain: Condemnation, Zoning & Land Use**

The Lum Library’s second new resource on eminent domain is the 598-page Fifty State Survey. The Law of Eminent Domain: Condemnation, Zoning & Land Use, which provides an extensive, deep look at each of the fifty states’ laws on eminent domain. This publication “represents the culmination of a [multiyear] project that began in 2004 to create a single resource for eminent domain practitioners in each jurisdiction … [which] began as an on-line resource available only to members of the ABA Section of Litigation’s Condemnation, Zoning and Land Use Committee. Each state’s material is written by experienced eminent domain practitioners. Some of the authors may be generally considered lawyers who represent condemnors, and others usually represent condemnees; but the chapters are not slanted or editorialized. Each chapter is a summary of what the law is, not opinions about what it should be.” (page x)

For each state chapter and the District of Columbia, the material is organized by major topics, including, at a minimum:
1. Who is eligible to condemn?
2. What can be condemned?
3. The condemnation proceeding  
   • pre-litigation  
   • appropriation stage  
   • determination of damages  
   • acquisition of property interest  
   • requirement for settlement offer  
4. Challenges to right to take  
   • use of eminent domain for economic development  
5. Inverse condemnation  
6. Just compensation/valuation  
   • measure of damages  
   • methods of valuation  
   • date of valuation  
   • valuation of multiple tracts  
   • reasonable access  
   • evidence generally admissible to prove value  
   • evidence generally not admissible to prove value  
7. Treatment of ownership issues  
8. Attorneys’ fees and costs

Terminology varies somewhat in each summary because of differences in wording in state statutes. Some chapters provide greater detail than others, depending on the nature of the material to be covered for each state. Each chapter has ample references, court cases, and state statute citations. Some of the chapters include material
on private ways-of-necessity\textsuperscript{19} or other provisions for private condemnation, i.e., condemnation by private property owners. Because of the importance of the \textit{Kelo} decision by the US Supreme Court, most chapters have commentary addressing the issues involved.

Depending on the state, additional items may be addressed in the various chapters besides those mentioned above. The book does not include an index to help you find these ad hoc items, but a sampling is listed below along with the page number where you'll find the discussion:

- abandonment [79]
- abandonment and bad faith [62]
- abandonment of condemnation; cost reimbursements [89]
- access loss [87] [348]
- admissibility of offers [48]
- allocation proceedings [349]
- appraisal rules/limitations [95]
- appraisal, appraisal exchange [67]
- benefits—general and special [88]
- best and most advantageous use [182]
- blight of summons [135]
- burden of proof [59]
- business goodwill loss [69]
- compensation calculation [109]
- concept of the larger parcel [44] [60],
- condominiums [350]
- construction impacts [87]
- cost-to-cure, mitigation [121]
- damage to business [48]
- definitions, such as market value, highest and best use [61]
- downzoning [10]
- enhancement, project influence rule [71]
- environmental contamination [87]
- evidence of value—what is not allowed [301]
- inverse condemnation [41]
- jury instructions [37] [273]
- landlord and tenant [349]
- landowner testimony [61]
- leasehold bonus value [70]
- leasehold valuations [50]
- mortgages [350]
- multi-use tracts [95]
- negotiations required before condemnation proceedings [92]
- noise and visibility [87] [349]
- ownership interests, treatment [122]
- partial and temporary takings [277]
- partial takings [87]
- partial takings, value
- personal property [107]
- police power versus eminent domain [56] [270]
- pre-condemnation damages [71]
- proximity damages [49]
- public use [131]
- regulatory takings [39] [133]
- relocation assistance [86]
- relocation costs [156]
- remnant/uneconomic remnant [87] [348]
- right to a jury trial [59]
- rights of appeal [38],
- severance damages [134]
- special benefits [303]
- suitability studies [355]
- tax valuation [110] [315]
- threat of condemnation [136]
- undivided basis rule [78]
- undivided fee rule [134]
- unique or no-market properties [96]
- value considerations and issues [77]
- value determined by commission or jury [77]
- visibility, loss of [78]
- who may testify [45] [71]

\textsuperscript{19} This is the term used in Arizona, for example; other states may use other terms for the same concept.
Alan T. Ackerman and Darius W. Dynkowski, editors
(Chicago: American Bar Association, 2006) 411 pages

Another text on eminent domain in the Lum Library is Current Condemnation Law: Takings, Compensation & Benefits, second edition. This book includes coverage of:

- Eminent domain and public purpose in the Kelo decision
- Rules of federal eminent domain proceedings
- Public use limitation
- Valuation analysis and approaches for contaminated property
- Temporary taking valuation process
- Entrepreneurial profit; valuation for utility corridors
- Inverse condemnation including ripeness and abstention, delayed condemnation, and condemnation blight
- Takings of private ways
- Relevance of and admissibility of rezoning
- Incomparable sales after the date of taking

This book, by two authorities in the legal field, is a respected resource, recommended for appraisers dealing with the topic in practice. It is well thought out, documented, and useful.

Recommendation. If you are involved in valuation or counseling in eminent domain matters, these three ABA books on eminent domain will be of interest. They are available to Appraisal Institute professionals through the Y. T. and Louise Lee Lum Library.

About the Author
Dan L. Swango, PhD, MAI, SRA, is president of Swango Real Estate Counseling and Valuation International in Tucson, Arizona. He is experienced in valuation and consulting involving equity investment, debt security, risk reduction, profit optimization, estate planning and settlement, buy/sell opportunities, and eminent domain.
Swango is an instructor and communicator with domestic and international experience. He is namesake of The Appraisal Journal’s Swango Award, past Editorial Board chair and editor-in-chief of The Appraisal Journal, and a current member of the Journal’s Review Panel. Contact: danswango@yahoo.com

If you know of additional resources of interest to real estate analysts and valuers—or would like to suggest topics for this column—please contact the author.
“Appraisers in Arbitration: What Areas of Service Might Valuers Provide?”

To the Editor

The interesting article, “Appraisers in Arbitration: What Areas of Service Might Valuers Provide?” by Paula K. Konikoff, JD, MAI, AI-GRS (Spring 2018), should guide appraisers to broaden their services to provide arbitration services as a rewarding activity. While I suspect that Ms. Konikoff’s book covers some of the things I am suggesting here, my purpose is to provide the potential arbitrator with supplementary information to assist in understanding the subject.

Ms. Konikoff very accurately outlines the sources of confusion in determining the services the appraiser is being retained to provide. It is my experience that the governing document specifying arbitration, even if it is extensive as to the process, will be deficient in answering some major questions. More often than not, the document language can be relatively primitive, omitting important guidance. This suggests that once the appraisers have been selected to serve as arbitrators, they should meet to draft a set of procedural rules that they will follow; this can become a submission agreement under which the parties, on their approval, submit the issue to arbitration.

A submission agreement should (1) define the issue to be arbitrated, (2) provide the definition of value to be used (even if the original document states “market value”), (3) define the time range for sales/lease date to be relevant, (4) detail the valuation process—for example, if the party-appointed appraisers are to provide all data to the neutral, with the neutral able to either do other research as is deemed necessary by the neutral or limit discussion to the party-provided data, (5) disclose if the neutral would not have to complete an independent appraisal or would be required to base all decisions on just the information submitted by the party appraisers, (6) set forth the anticipated time schedule for hearings, (7) establish whether or not the parties are entitled to attend hearings, and (8) disclose the manner of conveying the award and whether or not findings of fact will be provided. In order to eliminate any confusion, a well-crafted submission agreement should answer all questions that are not specifically answered in the original document that triggered the arbitration.

Ms. Konikoff’s article points out that appraisers are required to comply with valuation Standards, which is probably true in most instances. But, there are occasions where compliance is not possible or practical. It is clear that a party appraiser or an appraiser appearing as a valuation witness would be bound by the Uniform Standards of Professional Appraisal Practice (USPAP). But, it is not quite so clear in the case of the designated neutral. If the procedure requires the neutral to conduct an independent appraisal, then it is clear. But, if in the case of baseball arbitration the neutral selects A or B, then it is not possible for the neutral to comply with USPAP as the decision will not turn on which of the two appraisals is correct but rather will turn on which of the two, based on the evidence and analysis, is the most persuasive. In the case of a panel, where a decision comes down to a majority vote, each of the party appraisers and the neutral may need to agree to a number that varies from their appraisal just to achieve a decision. That process could be determined as not compliant. Finally, if the arbitration panel is composed of three appraisers sitting as a panel taking evidence from other valuation experts but not required to provide an independent valuation, the panel cannot practically comply with USPAP as they are required to base their decision on the evidence presented to the panel in the same manner that would be employed by a trial judge.

Finally, not mentioned in the article was whether the appraiser acting as an arbitrator is insulated from litigation. For example, suppose the arbitrator was a party arbitrator and pre-
vailed in the arbitration. The client of the other party arbitrator, in this case the loser, might sue the winning party’s appraiser instead of his arbitrator. Unlikely? Yes, but it has happened. It is important to obtain good legal advice in drafting engagement letters to avoid unwanted or unacceptable legal exposure.

Lloyd D. Hanford, Jr., MAI
Rancho Mirage, California

Author’s Response

I appreciate Mr. Hanford’s comments on the article, most of which is actually chapter 2 of the book Appraisers in Arbitration. As noted by Mr. Hanford, some of his points are covered in other sections of that book. I am responding here as well, however, to clarify certain issues raised in Mr. Hanford’s comments.

Taken in order of importance, Mr. Hanford’s comments on compliance with valuation Standards in the fourth paragraph of his comments are not consistent with the Appraisal Institute’s body of knowledge. Specifically, his comments imply that when serving as a neutral and not developing an opinion of value “it is not possible for the neutral to comply with USPAP.” This is an incorrect interpretation of Standards as well as inconsistent with the body of knowledge. Compliance with valuation Standards—whether the Appraisal Institute Standards of Valuation Practice (SVP), and Code of Professional Ethics (CPE), USPAP, or International Valuation Standards (IVS)—does not always mean complying with specific performance standards, which it appears Mr. Hanford is referencing. When serving as the neutral, or trier of fact, Guide Note 16, Arbitration (http://bit.ly/GuideNote16), makes it clear that the distinction is accurately based on whether the valuation professional is “acting as an appraiser” when serving as an arbitrator, and that determination is based on client expectation of independence and competency rather than on which services are being provided. This issue is discussed in depth in chapter 3 of Appraisers in Arbitration. Mr. Hanford is correct in saying that valuers serving as arbitrators may not be required to comply with Standards, but his reasons for supporting noncompliance are not consistent with the Standards themselves or the advice provided in Guide Note 16.

I am not aware of any arbitrations in which a “submissions agreement” or similar document were used, but that is not relevant; different markets and different types of arbitrations create processes that are sui generis and may not be widely used. My concern is that the process described in Mr. Hanford’s comments appears to have valuation experts—be they labeled “appraisers” or “arbitrators”—making decisions that might modify the lease that controls the arbitration. All arbitrators, experts, and consultants working on an arbitration matter must use care to not modify the controlling documents; this is clear in the jurisdiction’s arbitration law and all rules of arbitration of which I am aware. As an example of more typical practice, I am currently the sole arbitrator in a matter and have asked counsel, as representatives of the parties, to submit briefs on whether information available only after the date of value can be used in the appraisals and also on which properties the arbitrator may appropriately visit. These instructions must come from the parties to the arbitration agreement, and not be imposed on those parties by the experts and/or arbitrators, as that may constitute grounds to vacate the final arbitration award. Both arbitration procedures and vacatur are addressed in depth in Appraisers in Arbitration.

As to appraiser and arbitrator liability risks, Peter Christensen, Esq., General Counsel of LIA Administrators & Insurance Services, contributed a chapter to Appraisers in Arbitration on just that point, which discusses the protection of arbitral immunity as well as engagement letter content.

Paula K. Konikoff, JD, MAI, AI-GRS
Los Angeles, California
In 1995 the Appraisal Institute published the landmark text *Real Estate Valuation in Litigation*. Now, more than 20 years later, we are pleased to announce *Real Property Valuation in Condemnation*, a new text focused specifically on the contentious subject of condemnation.

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