FEATURES

Seller Disclosure and Buyer Knowledge: How They Affect Market Value

ABSTRACT

Confirmation of sales data is critical to any appraisal but takes on additional importance when the purpose of the assignment is to measure the effects of a property condition such as contamination. Often, buyers of both commercial and residential properties have no knowledge or very limited knowledge of a property condition that may greatly affect market value, thus tainting those sales for appraisal purposes. This article discusses what constitutes a well-informed buyer, suggests questions to ask of market participants, and provides examples of how the extent of disclosure affects the market.

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A sometimes-overlooked component of market value is the extent that seller disclosure and buyer knowledge affect property value. Sellers and their intermediaries may have a legal obligation to disclose certain information about a property, but failure to do so is not uncommon. As a result, buyers may unknowingly purchase properties with a serious condition, such as environmental contamination.

Multiple listing service data and other commercial database services, such as COMPS INC., provide a wealth of information to appraisers, but there is a danger in relying on them without additional verification. They frequently omit facts of vital importance. Were the sellers divorcing? Was the seller an owner of a failing business and in desperate need of cash? Did the seller know but fail to disclose that the property had ongoing problems with water penetration, asbestos, or contaminated groundwater?

Transactions affected by these and other issues may not be arm's-length. Using such transactions in a paired sales analysis, statistical analyses, or other methods of valuation could yield a misleading and unreliable opinion of value. This is especially true where the buyer had no knowledge or very limited knowledge of a particular property condition, and the appraiser's assignment is to measure the very impact of that condition on value.

The Appraisal of Real Estate states that "appraisers should verify information to ensure its accuracy and to gain insight into the motivation behind each transaction. The buyer's view of what was being purchased at the time of sale is very important."[1] Further, the Uniform Standards of Professional Appraisal

1. Appraisal Institute, *The Appraisal of Real Estate*, 12th ed. (Chicago: Appraisal Institute, 2001), 423.

Practice provides that "in developing a real property appraisal, an appraiser must collect, verify, and analyze all information necessary for credible assignment results."[2]

The Well-Informed Buyer and the Arm's-Length Transaction

Buyer's knowledge is a necessary component of an arm's-length transaction. The definitions describing this component have changed over time, but the general concept remains unchanged:

- "The buyer is knowledgeable…of all the present or potential elements of value involved."[3]
- "A purchaser, buying with knowledge of all of the uses and purposes to which [the real estate] was adapted and for which it was capable of being used."[4]
- "Both parties are well informed or well advised, and acting in what they consider their best interests."[5]
- "The buyer and seller each acting prudently, knowledgeably, and for self-interest."[6]

The buyer must meet these criteria for the sale to be considered arm's-length.

"Fully Informed" Versus "Well Informed"

The third and fourth definitions mentioned above leave the most room for interpretation, yet they also cover most assignments concerning market value an appraiser will undertake. How informed is "well informed"? How much knowledge makes a buyer "knowledgeable"? To an extent, the definition of a well-informed buyer is left to the appraiser.

A buyer does not have to be fully or perfectly informed for the purchase to be arm's-length. A typical buyer, whether of residential or commercial property, cannot be expected to have the same knowledge as an engineer, hydrologist, or epidemiologist. Indeed, a buyer probably will not have the same knowledge as the appraiser. The appraiser also should not necessarily consider his or her level of knowledge as the baseline for transactions. The baseline for a well-informed buyer depends on the market participants. At a minimum, the market participant's information will include a written seller disclosure, which is required by most states. The required content of this disclosure is defined in each state's property code.

Consider, for example, a property with soil contaminated by heavy metals in excess of legal limits. If the buyer knew of the condition but was unaware of a toxicology report available at the local library, the sale might still be arm's-length. If the buyer discovered the condition from a neighbor six weeks after the purchase, the sale probably would not qualify as arm's-length. The vital question is how the buyer would have acted with additional knowledge that was readily available.

The Role of Publicity, the Seller, and Intermediaries

Does media coverage of a property condition create an informed market? Not necessarily, and never by itself. What percentage of the population reads a local newspaper every day or watches local television news? According to the Pew Research Center, when respondents were asked whether they had read a newspaper yesterday, only 41% answered affirmatively, and only 57% said they watched local television news regularly.[7] Further, media coverage on issues such as contamination is very time sensitive. Occasionally, local media will cover an event very intensely, but only for a very short period. Sales in the affected area could occur well before or after that period, with buyers never having seen the coverage. Also, buyers from another city or state are even less likely to have witnessed a news story regarding the issue. The appraiser should be careful not to assume that the mere existence of media attention indicates widespread public knowledge.

The primary source of information about a property is the seller. As previously mentioned, in most states sellers of residential property are required to submit a disclosure form that describes problems or prior issues of concern; these may include structural

2. Appraisal Standards Board, *Uniform Standards of Professional Appraisal Practice* (Washington, DC: The Appraisal Foundation, 2006), Standards Rule 1-4.
3. *Reservation Eleven Associates v. District of Columbia*, 420 F.2d 153, 155 (CADC 1969).
4. *Sacramento, etc., R.R. Co. v. Heilbron*, 156 Cal. 408, 409, 104 P. 979, 980 (1909).
5. *Federal Register* 55, no. 163 (August 22, 1990): 34228–34229.
6. *The Appraisal of Real Estate*, 22.
7. Pew Research Center, "Public's News Habits Little Changed By September 11: Americans Lack Background to Follow International News" (June 9, 2002).

defects, termites, mold, and flooding. Most states require disclosure of the presence of hazardous or toxic materials, and some require disclosure of lawsuits or governmental actions that might affect the property.

In the case of most commercial properties, parties are deemed to be more knowledgeable, and promulgated disclosure forms are not mandated. Often the potential buyers of commercial property will hire environmental experts to assess the property. Still, sellers must disclose certain aspects of the property and cannot legally conceal such information from buyers.

Another important information source is the broker or agent. A Harris Interactive poll of recent and prospective home purchasers indicated that agents ranked behind only inspectors in terms of who buyers would ask for more information on environmental contamination.[8]

Unfortunately, experience shows that sellers and agents are sometimes less than forthcoming. In practice, disclosure forms frequently fail to mention on-site contamination, even when the seller clearly knows of it. Interviews of purchasers often indicate they learned of contamination only after their purchases. This is not limited to duped home purchasers. In one recent purchase of an industrial property in Texas, the seller knew but failed to disclose that the back lot once held an earthen pit for waste oil, and the waste had migrated off-site. Unfortunately for the buyer, his environmental expert failed to discover the contamination. Only after the purchase did the buyer learn, via a lawsuit, what the seller knew about this badly contaminated property.

Buyers have legal remedies, of course. Issues involving seller disclosure are the second most common type of real estate–related litigation.[9] However, litigation is costly, time-consuming, and not guaranteed to produce the desired result.

The point is that the appraiser must be careful not to infer a buyer is knowledgeable about a particular property condition simply because information about it is available or even plentiful. In a 2005 Appraisal Journal article, Winson-Geideman surveyed several buyers of a condominium built on contaminated soil. Evidence of contamination was contained in their property deeds. Still, a majority of the purchasers stated they would not buy a property in such condition, unaware that they had done just that.[10]

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The Buyer Questionnaire

Personal confirmation of transactions best reveals what the parties knew at the time of sale. Appraisers should conduct their own research to ascertain public knowledge of a property condition and how it has affected the market.

In studying properties affected by some condition or externality, the appraiser must determine whether buyers in the affected area knew of the condition when they purchased the property. If not, the appraiser cannot use the transaction as an impaired sale to measure the condition's effect on value. An exception might be appropriate if a strong majority of buyers did not know of the property condition but claim such knowledge would not have affected their decision to purchase or the agreed-upon price.

A prepared questionnaire can assist the appraiser in determining whether a sale is arm's-length. In formulating the questionnaire, the appraiser should take care to employ simple language, eliminate technical terms to the extent possible, and avoid biased questions.

Following are general questions to ask when confirming the sale of a property potentially affected by some condition or externality; the specific questions in an actual questionnaire will depend on the issues being studied.

- What nonphysical factors, besides the property condition in question, may have affected whether

8. Robert Barber, "Environmental Hazards on the Mind of Home Buyers," *Realty Times*, February 7, 2006, http://www.realtytimes.com.
9. Bob Hunt, "Realty Reality: NAR Report Shows Lawsuit Trends," *Realty Times*, January 18, 2006, http://www.realtytimes.com.
10. Kimberly Winson-Geideman, "Environmental Case Studies: Ensuring Suitable Comparables," *The Appraisal Journal* (Summer 2005): 288–295.

the sale was arm's-length? For example, divorce, unemployment, and threat of foreclosure or bankruptcy may have impacted the sale price of a residence, while business strategies and anti-trust issues may affect the sale of a commercial property.

- Was the purchase affected by any other property conditions that impacted the purchase price?
- Did the buyer know that the property was affected by the property condition in question or located in an area of affected properties? If so, what were the sources of information (seller, agent, neighbors, media, government)?
- If the buyer had knowledge, when in the purchase process did he or she obtain this knowledge (prior to visiting property, during negotiations, at closing)?
- If the property condition was essentially incurable by the lone effort of the property owner (say, the property was within an area of widespread groundwater contamination), did the buyer know how the condition would be cured (if at all), who would oversee the effort, and how long the process would take?
- Was the buyer aware of any litigation affecting the property or similarly affected properties in the market area?
- Did the buyer receive any indemnification from the seller?
- If the buyer did have knowledge of the property condition, how did this knowledge affect the transaction?
- If the buyer had no knowledge or (in his or her view) inadequate knowledge of the condition, how would this knowledge have changed the particulars of the purchase, if at all?

The questionnaire is distinct from a formal survey, which requires a random sample and enough respondents for statistical significance. Questionnaire respondents will rarely comprise a random sample needed for a valid survey, and the number of respondents may be very small depending on the appraisal problem. Also, this questionnaire is not used as part of a contingent valuation methodology; rather, it is a means of assessing actual transactions.[11] The questionnaire helps to determine the extent to which the market is knowledgeable of a condition that may affect property value. It provides leads to transactions involving well-informed buyers. Those particular sales, not the entire body of sales in the affected area, can form the basis of an opinion of whether and to what extent the property condition had affected value. The appraiser can also determine whether the affected market is suitable for a broad statistical analysis such as regression.

The Well-Informed Market and Statistical Studies

When contamination or some other property condition is widespread, especially in a residential area, a common method for evaluating possible diminution in value is a statistical model such as regression analysis. Regression analysis is a process of estimating the value of an unknown variable via the measurements of a known (measured) variable or variables.

Regression analysis is a valid method of estimating real estate values. *The Appraisal of Real Estate* recognizes its use, and the Appraisal Institute offers publications and courses on regression analysis. However, it can give misleading results in the absence of a careful study of the market participants.

Most commonly, the regression analysis will compare sales of properties in the affected area to sales of similar but unaffected properties (the control group). If the appraiser determines (through buyer questionnaires or other means) that knowledge of the property condition is widespread among buyers, a regression analysis may accurately measure the diminution (or lack thereof) caused by the condition at issue.

Conversely, a regression analysis that isolates for a particular property condition has no credibility if the buyers were unaware of the condition at the time of purchase. Consider a situation in which buyer knowledge is largely absent and many buyers indicate such knowledge would have affected their decision to purchase or the price paid. A regression analysis in this situation assumes an efficient, well-informed market–one in which prices reflect all known information–when in fact the opposite is true.

As noted in *The Appraisal of Real Estate*, real estate markets are more efficient than they once were but "have never been considered truly efficient."[12] A regression analysis based on a faulty assumption of an

11. Several articles in *The Appraisal Journal* and elsewhere have discussed contingent valuation. Most recently, see Richard J. Roddewig and James D. Frey, "Testing the Reliability of Contingent Valuation in the Real Estate Marketplace," *The Appraisal Journal* (Summer 2006): 267–280.
12. *The Appraisal of Real Estate*, 98; also see Table 6.1, *The Appraisal of Real Estate*, 99, for the differences between efficient markets and real estate markets.

efficient market would probably result in a finding of no diminution whether or not it was actually present. Even if the analysis did find diminution, the results would be suspect. Consequently, regression analysis is not always the right tool for evaluating a particular property condition. Appraisers must be cautious when relying upon advanced statistical methods, and should keep in mind that a poorly designed model can prove almost anything.

There does not appear to be any empirical research precisely defining the percentage of well-informed buyers needed to create a well-informed market, thus making a regression analysis potentially worthwhile. Not every buyer must be knowledgeable to comprise a well-informed market, just as a fully or perfectly informed buyer is not requisite to an arm's-length sale. The appraiser must carefully study the market to determine that the effects of the property condition are reflected marketwide. This is possible even if some sellers fail to disclose the condition and some buyers are uninformed. If, instead, buyers are largely uninformed and discounts in purchase prices were limited to buyers with knowledge, the appraiser would need to rely on a collection of paired sales analyses based on sales with informed buyers discovered via questionnaires and confirmations of sales.

How Disclosure Affects the Market: Two Studies

Two studies provide examples of how disclosure and knowledge may affect a market.

Study One

Study One involves a residential subdivision located adjacent to an industrial facility. The facility had leaked large quantities of solvents including trichloroethylene into the groundwater, and the contaminants flowed northward over one mile off-site and under several hundred single-family residences. None of the homes used well water, but the contaminants had percolated into owners' basements and were present in the air at levels above what the state permitted.

Interviews of recent property purchasers indicated that barely one-half of the buyers had any knowledge of the contamination, and only one-third of those with any knowledge understood that it had spread over one mile off-site and under several hundred homes. Most respondents believed the responsible parties were actively remediating the off-site contamination or that the state would require them to do so. In fact, neither was true. Media coverage was limited to a small handful of newspaper articles and television reports.

Other issues affected the body of transactions in the affected area. One potentially responsible party had offered indemnification agreements to select buyers closest to the industrial site. Also, some agents were actively buying and selling properties in the affected area in addition to carrying listings. Some of these agents offered very limited or no disclosure to potential buyers.

The questionnaires did reveal several arm's-length transactions with at least some disclosure and with reasonably well-informed buyers from which to estimate property diminution. However, in the authors' opinion, the level of seller disclosure and buyer knowledge was insufficient to support a regression analysis of all sales in the affected market.

Study Two

Like the previous example, Study Two involves a residential subdivision located adjacent to an industrial facility. The facility had been used for a variety of purposes including fuel production, chemical reclamation, and storage. Several hundred homes were constructed about one-half mile from the facility just as it was permanently closing. By the time the subdivision was built out, the industrial facility became a Superfund site because of widespread on-site and off-site contamination with volatile organic compounds and heavy metals.

Though the Environmental Protection Agency (EPA) persistently claimed that the site posed no threat to residents in the subdivision, residents complained of foul odors emanating from the site, particularly in times of high humidity. When the EPA initiated further soil testing in the subdivision, residents observed specialists wearing clean suits and respirators, and the testing revealed that contamination from the site had migrated to residents' yards. Soon after, a local savings association, which had acquired a small number of properties in the subdivision via foreclosure, terminated its leases and ordered its tenants to vacate within six weeks. Later, the local school district voted to close the elementary school located within the subdivision.

In this case, the disclosure of the contamination was widespread and eventually approached 100%. Sales in the subdivision occurred prior to the passage of mandatory seller disclosure, yet most agents required potential buyers to sign copies of newspaper articles discussing the contamination. Many sales involved 100% seller financing of the property and transaction costs.

The high level of disclosure and clearly well-informed market created an ideal situation for regression analysis as well as groups of paired sales. Both analyses revealed property diminution of approximately 33% prior to the closing of the elementary school. When the school closed, lenders (at the direction of the U.S. Department of Housing and Urban Development) ceased lending on homes in the subdivision, and the market essentially collapsed. Ultimately, all of the homes in the contaminated neighborhood were purchased by the responsible parties and were demolished.

Conclusion

In measuring the impact of a particular property condition or externality on market value, the appraiser must ensure that the relevant sales data meets the definition of an arm's-length transaction. In this regard, seller disclosure and buyer knowledge is of critical importance. A buyer does not need full or perfect knowledge for a sale to be arm's-length, but he or she must have sufficient information so that the purchase is not negotiated at a significant disadvantage. Relying on third parties or making assumptions about buyer or marketwide knowledge can result in an invalid and misleading opinion of value. Direct confirmation of sales with the involved parties results in a supportable opinion and better service to the client. Within an area of sales of contaminated properties, a sufficient number of informed buyers are needed so that statistical tools such as regression analysis can be of value. Additional research on these issues will help further define what constitutes an informed purchaser and an arm's-length transaction.

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Additional Reading

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