The Theory of Excess Land

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One of the most commonly misunderstood concepts in real estate appraising is the theory of excess land. We learn from the beginning of our appraisal education about the principle of contribution. Simply put, the principle says that "the value of any individual agent in production depends on how much it adds to the net income because of its presence or detracts by reason of its absence." The principle tells us that the existing improvement may not reflect a proper balance for the total property. A property's present use may represent an underutilization of the land. Many cases arise where the appraisers fail to recognize this underutilization. The most common situation occurs when the property being appraised possesses excess land.

Excess land is the land not needed

to support the existing improvements. Every property will have a proper ratio of building size to land size. That is to say, so many square feet of land are required for each square foot of building that occupies the site. Zoning usually sets minimum standards so items such as sufficient parking will be achieved. Appraisers, for this reason, usually are aware of the valuation problems that are attributable to too little land. However, they seldom recognize when there is a problem of too much land for the existing structure to use the site properly, that is, land beyond the normal needs of a particular use. The result often will be an income approach to value that seems inexplicably lower than the cost approach to value. A practical example will best illustrate how the two approaches can be brought in line to give appraisers a clearer picture of the property's values.

We are appraising a 6,000-square foot office building that is situated on a 1-acre parcel of land. The building is located on the east half of the site. All of the building's parking also is on the east half of the site. The west half of the property is vacant and unimproved. Your cost approach on the subject appears in your appraisal report as follows:

Reproduction Cost New:

6,000 square feet of building at $45 per square foot cost new:		$270,000
Less depreciation:		
Physical deterioration:	22,000	
Functional obsolescence:	0	
External obsolescence:	0	
Total depreciation:		$22,000
Depreciated cost of building:		$248,000
Plus depreciated cost of on-site improvements:		$18,000
Depreciated cost of all improvements:		$266,000
Plus estimated land value:		
43,569 square feet at $3.45 per square foot: $150,282 (rounded to)		$150,000
Total estimated value by cost approach:		$416,000

We are now ready to process the income approach to value. It appears in your report as follows:

Income Approach to Value:
Market Rent:

6,000 square feet of rentable area at $11 per square foot equals $66,000 estimated gross annual rental income.

Gross annual rental income		$66,000
Less vacancy and credit less 6 percent:		$3,960
Effective gross income less annual expenses:		$62,040
Less annual expenses:		
Real-estate taxes:	$8,000	
Insurance:	$4,100	
Management:	$5,000	
Maintenance and repairs:	$2,000	
Reserves for replacements:	$2,000	
Total annual expenses:		$21,100
Net annual rental income:		$40,940

Capitalized Value:

$40,940 net income divided by a 12 percent capitalization rate equals $341,167.

Estimated value by income approach rounded to:	$341,000

Now comes the dilemma. Our cost approach shows us a value conclusion of $416,000. However, our income approach indicated a value of $341,000. Out data in both approaches is sound. We cannot understand the large discrepancy of values. The answer is that we have excess land. Only the east half of the site is necessary for normal building operations. The $11 per square foot rental reflects income generated by the building and the productive land, the east half of the site. The excess land, the west half of the site, generates no rental income. The west half of the site has a value of $75,000, which is 21,780 square feet at $3.45 per square foot. Proper appraisal practice dictates adding the value of the excess land to the value arrived at in the income approach of the building and productive land. The income approach to value should appear in your report as follows:

Income Approach to Value:
Market Rent:

6,000 square feet of rentable area at $11 per square foot equals $66,000 estimated gross annual rental income for building and east half of the site.

Gross annual rental income for productive real estate:		$66,000
Less vacancy and credit less 6 percent:		$3,960
Effective gross income :		$62,040
Less annual expenses:		
Real-estate taxes:	$8,000	
Insurance:	$4,100	
Management:	$5,000	
Maintenance and repairs:	$2,000	
Reserves for replacements:	$2,000	
Total annual expenses:		$21,100
Net annual rental income for productive real estate:		$40,940

Capitalized Value:

$40,940 net income divided by a 12 percent capitalization rate equals $341,167.

Estimated value by income approach for productive real estate (rounded):	$341,000
Plus value of excess land:	$75,000
Total estimated value by income approach:	$416,000

Now both the cost approach and the income approach reflect the same value. The market-data approach would account for the excess land factor by making an adjustment for the difference of the land value of the subject and the land value of the comparable sales.

There are occasions when a large site may not have excess land. If the improvements are situated on the lot in such a manner that the extra land cannot be used separately, you do not have excess land. What might exist is external (economic) obsolescence in the building. In this situation the building would be an insufficient improvement of the large site.

The theory of excess land is a simple one. But due to its simplicity, it is too often overlooked in the appraisal process.