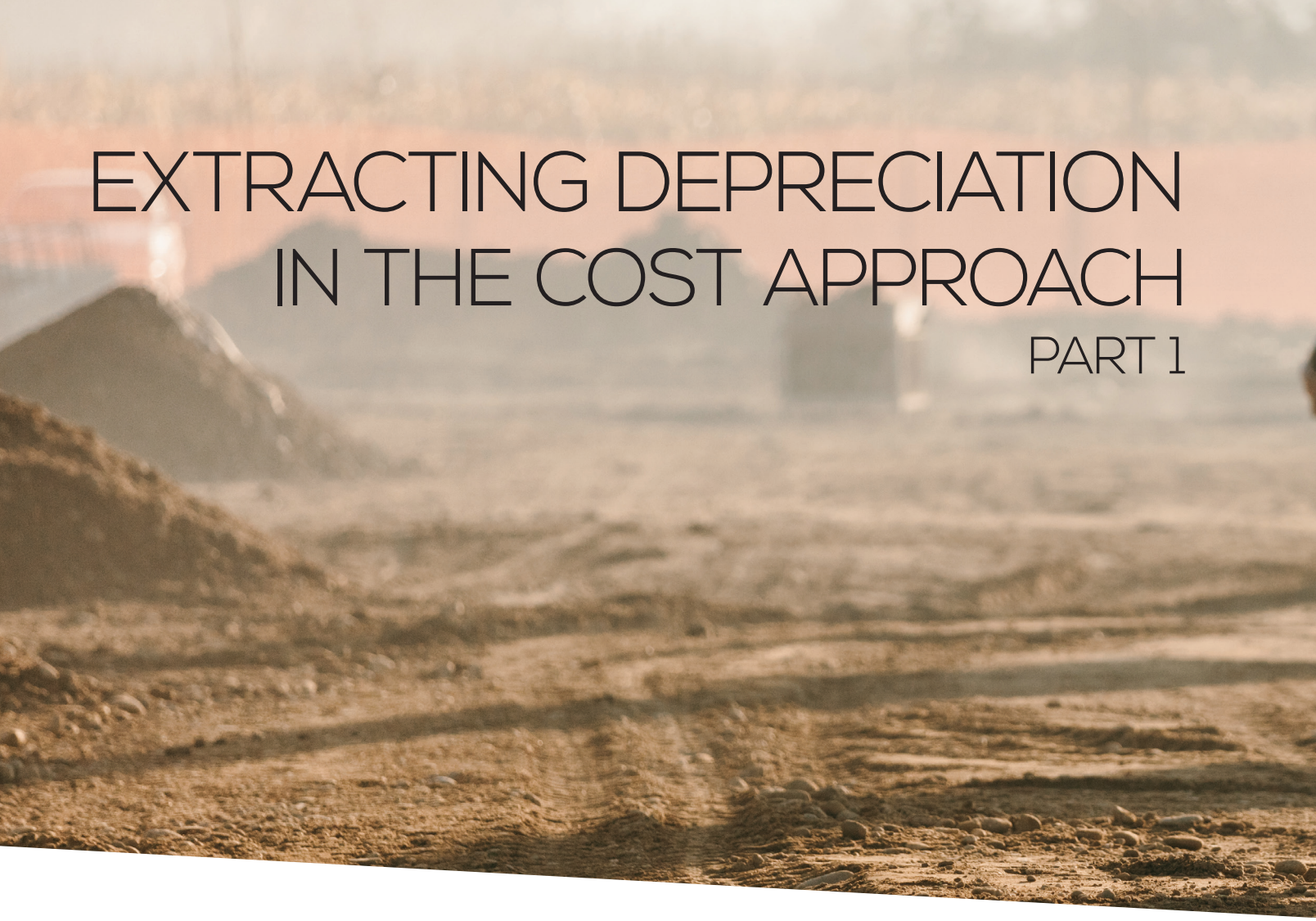


EXTRACTING DEPRECIATION IN THE COST APPROACH

PART 1

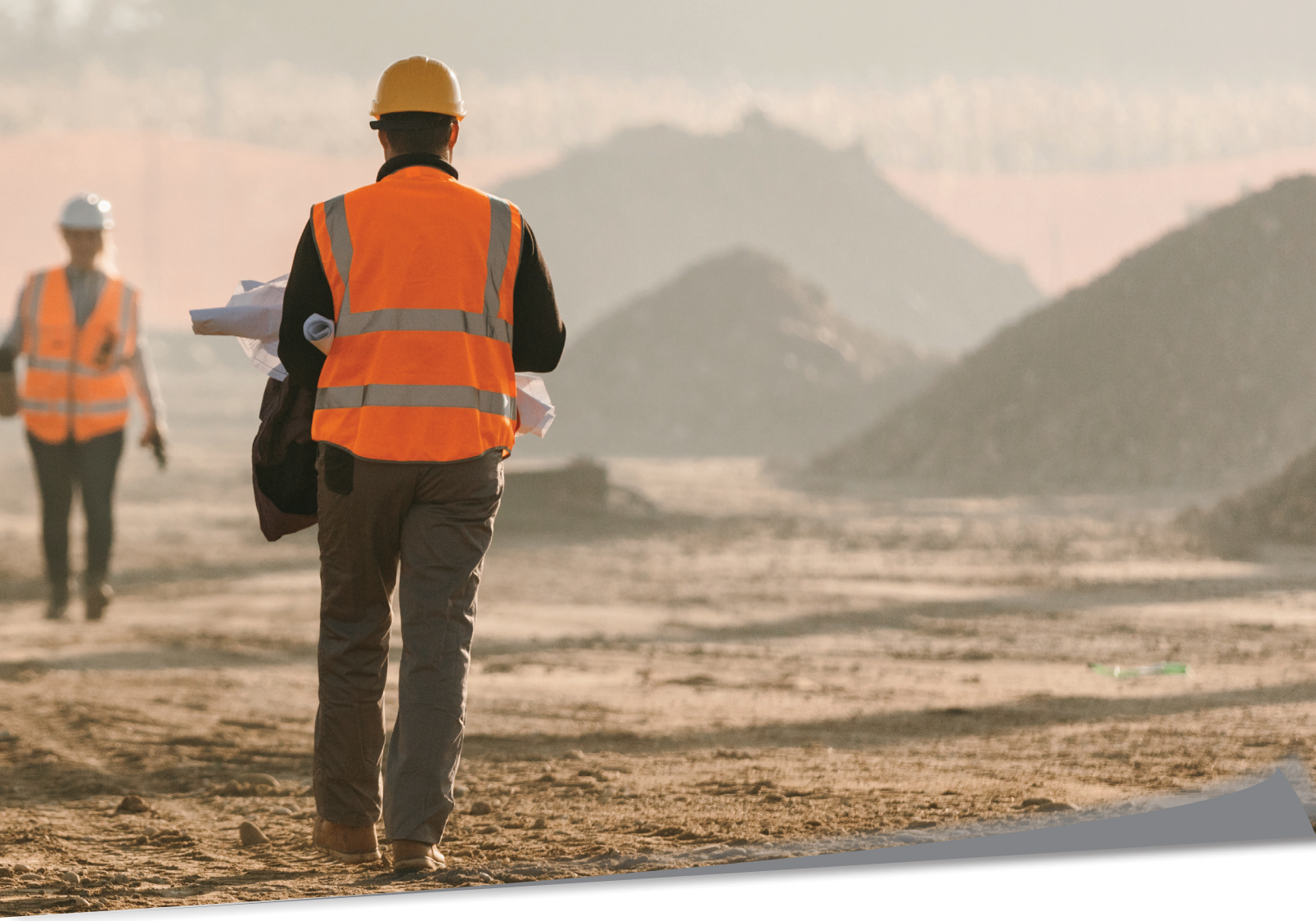
BY MISTY K RAY, MAI, AI-GRS AND DONALD J. SHERWOOD, MAI, SR/WA, R/W-AC

The Cost Approach is an extremely valuable tool in developing an opinion of value. It is particularly useful when a lack of market data limits the applicability of the Sales Comparison Approach and when the property is not amenable to valuation by the Income Capitalization Approach. It is particularly sound when the property being appraised is a special purpose or limited market property.

Although there are many intricacies of the Cost Approach, this article is designed to illustrate use of the extraction method of estimating depreciation by relying on market data for an informed and supported estimate of depreciation and final value indication.

The Cost Approach is a set of procedures in which an appraiser derives a value indication by estimating the current cost to reproduce or replace the structure(s), deducting for all accrued depreciation and adding the estimated land value. It is a method whereby the value of an existing property can be compared to the cost to develop or to renovate a similar property, thus enabling a buyer to judge more accurately the value of the existing property.

Because cost and market value are most closely related when properties are new, the cost approach is important in estimating market value of proposed, new, or relatively new construction; however, the cost approach is also critical in the valuation of special-use properties or properties that are not frequently exchanged in the market. Buyers will measure the price they pay against the cost to build a replacement.



Procedure

After inspecting the neighborhood, the subject site and existing improvements, and after gathering all relevant data, the following steps are taken by the appraiser:

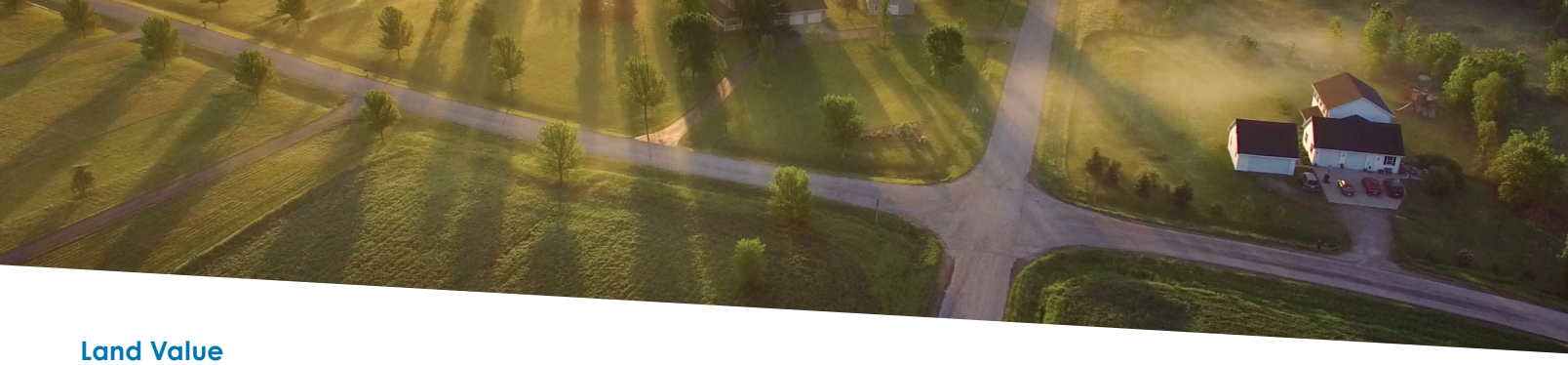
1. Estimate the value of the land as though vacant and available to be developed to its highest and best use.
2. Estimate the reproduction or replacement cost (including both hard and soft costs) of the improvements as of the effective date of appraisal.
3. Estimate an appropriate entrepreneurial incentive from an analysis of the market and add to the hard and soft costs to arrive at a total cost of improvements.
4. Estimate the amount of accrued depreciation in the improvements and deduct from cost new.
5. Add the land value to the total depreciated cost of all improvements to arrive at the indicated value of the property.

Highest and Best Use

Highest and best use is the reasonably probable use of property that results in the highest value. The components for highest and best use are:

- A property's physical, legal and locational attributes;
- The economic demand for potential alternative uses; and
- Estimates of the financial rewards for each alternative use.

This analysis must be completed for the property both as vacant and as improved. It is often the case that a highest and best use conclusion cannot be determined until market data is collected for a variety of property types. The focus of this article is the methodology of extracting depreciation from the market; an in-depth discussion of highest and best use is not presented, but it is a critical part of the analysis which leads the appraiser to the proper selection of comparables. Part 2 of this article, which will appear in the next issue, will illustrate the application of depreciation extraction through an actual appraisal assignment.



Land Value

Sales of vacant land with the same highest and best use as the subject are collected and confirmed to arrive at the value of the land as vacant and available to be put to its highest and best use.

Construction Cost New

Sources of replacement and/or reproduction cost estimates vary. Replacement cost estimates are most commonly used as they are easier to obtain. Also, when extracting depreciation, replacement cost estimates must be made for each of the comparable sales. It is important that the same or similar sources are relied upon for consistency between the data and the subject property. The sources should be clearly identified. Inclusion of multiple sources is a good way to verify the validity. This might include cost estimates from the property owner, a local builder and/or published sources. Estimates of soft costs and entrepreneurial profit must also be consistent between the data.

Depreciation

Depreciation is defined as the loss in value from cost new and is attributable to factors of deterioration, obsolescence or a combination thereof. It is the difference between the value of a property and its cost new and can result from three major causes, physical deterioration, functional obsolescence and/or external obsolescence.

The market extraction method for estimating depreciation can be used for properties which are commonly traded in the market, but is especially applicable to special purpose properties when value conclusions from the sales comparison and income capitalization approaches are not reliable.

Market extraction directly compares the age-life relationship because, in theory, an improvement loses all of its value over the course of its life. In this method, the most important concept is actual age, which is the chronological age of the main improvements and is a verifiable fact. The results of this methodology incorporate all forms of depreciation. The steps for this method include:

1. Find and verify sales of comparable improved properties.
2. If necessary, make appropriate adjustments to the comparables' sale prices.
3. Deduct the value of the land at the time of sale from the sale price of the comparable property to result in the contributory value of the improvements. Eliminating the land value from the sale price will often exclude any locational differences.
4. Estimate the cost of the improvements for each comparable sale at the time of its sale. It is important that these estimates be consistent with the analysis completed for the subject.
5. Subtract the contributory value of the improvements from the current cost new to determine the dollar amount of depreciation of the improvements as of the date of sale.
6. Convert the dollar estimates of depreciation into percentages.
7. The overall percentages of depreciation can be applied to the subject, or the percentages can be annualized for application.

The appraiser then applies the findings to the actual age of the subject to result in a meaningful market supported estimate of depreciation. This estimate is deducted from the cost new, which results in the depreciated value of the improvements. To this is added the land value. The result is the value indication from the Cost Approach.

Conclusion

Using the market extraction method of estimating depreciation in the Cost Approach results in a logical and defensible opinion of value using market evidence. This article detailed the steps necessary to extract depreciation from market data. Stay tuned for Part 2 in the March/April issue, which will provide an example of its application with a special use property and the meaningful results. ✪

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