

Industrial and Commercial Real Estate Appraisal Procedures

John C. Ramirez

The application of the asset-based approach to business valuation often involves the appraisal of the subject company's industrial and commercial real estate. This discussion summarizes what valuation analysts—and the parties who rely on their business valuations—need to know about the appraisal of operating company industrial and commercial real estate appraisal as part of the asset-based approach business valuation analysis.

INTRODUCTION

The asset-based approach is a generally accepted approach to the valuation of both operating companies and asset holding companies. Particularly with regard to the asset accumulation (“AA”) method, the asset-based approach encompasses the valuation date appraisal of the following categories of subject company assets: working capital accounts, owned and leased real estate, tangible personal property, and intangible personal property.

Most going-concern businesses own or lease some amount of industrial or commercial real estate. This discussion summarizes the commercial real estate appraisal process from the perspective of the asset-based business valuation approach.

In the asset-based approach to business valuation, the value of the operating company's industrial, commercial, or other real estate is frequently an important component of the valuation. Accordingly, valuation analysts (“analysts”) who perform asset-based approach business valuations often need to work with and rely on commercial real estate appraisers (“appraisers”). Such analysts may need to retain appraisers, instruct appraisers, work with appraisers, review appraisal reports, and understand and use appraisal conclusions.

Likewise, the business valuation clients also need to understand and rely on the results of the industrial and commercial real estate appraisal. And, the parties who rely on the asset-based approach business valuation—including corporate acquirers,

financial institutions and financial intermediaries, government regulators, taxation authorities, and legal counsel and judicial finders of fact—need to understand and rely on the results of the industrial and commercial real estate appraisal.

This discussion summarizes the basic components of a real estate appraisal report, illustrates the typical sections presented in an appraisal report, and summarizes the factors to look for in an appraisal report. The inclusion of these components, sections, and factors should make the real estate appraisal report a useful component to the asset-based approach business valuation process.

THE APPRAISAL REPORT

The *Uniform Standards of Professional Appraisal Practice* (“USPAP”) 2016-2017 edition, defines the term “report” as “any communication, written or oral, of an appraisal or appraisal review that is transmitted to the client upon completion of an assignment.”

USPAP Standard 2 is titled “Real Property Appraisal, Reporting.” USPAP Standards Rule 2-1 allows for the real estate appraiser to issue either a written or an oral real property appraisal report. USPAP Standards Rule 2-2 allows for two types of written appraisal reports:

1. An appraisal report—The contents of an appraisal report are explained in Standards Rule 2-2(a).

2. A restricted appraisal report—The contents of a restricted appraisal report are explained in Standards Rule 2-2(b).

The selection of the appropriate type of real estate appraisal report to prepare in a business valuation assignment is influenced by the specific instructions of the analyst's client, the relevant statutory authority, judicial precedent or administrative rules, and the experience and judgment of the individual analyst. For purposes of this discussion, let's assume the following:

1. The valuation subject is the commercial real estate of the client operating company.
2. The valuation subject bundle of legal rights is a fee simple ownership interest in the subject property.

This discussion assumes that the real estate appraiser prepares a written appraisal report for use in the asset-based approach business valuation of the client operating company. This discussion assumes that the business valuation will be subject to some contrarian review—that is, either an administrative/regulatory challenge or a judicial proceeding.

During any contrarian review regarding the real estate component of the business valuation (whether at an administrative or judicial level), the appraiser will often refer to the written appraisal report during both direct examination and cross examination. In fact, many experienced real estate appraisers consider the written appraisal report to be “the appraiser's best friend” during expert testimony.

REAL ESTATE APPRAISAL REPORT OUTLINE

Exhibit 1 presents an illustrative table of contents (or report outline) for a typical industrial and commercial real estate appraisal report. This illustrative table of contents is consistent with the USPAP requirements for an appraisal report, that is, a report prepared under Standards Rule 2-2(a).

It is noteworthy that each element in the Exhibit 1 table of contents is not required for USPAP compliance. For example, USPAP Standards Rule 2-2(a) does not require that the appraisal report include photographs. Rather, the Exhibit 1 table of contents is presented to illustrate all of the topics that the appraiser could include in the industrial or commercial real estate appraisal report.

REAL ESTATE APPRAISAL REPORT CONTENTS

The description below summarizes the typical contents of an industrial and commercial real estate appraisal report.

1. Title Page. The title page should clearly identify the subject of the real estate appraisal report. The title page will typically identify the property address, the definition of value, and the “as of” valuation date. And, the title page will identify the name and address of the real estate appraiser and the name and address of the subject appraisal client.
2. Letter of Transmittal. The letter of transmittal typically includes the following information:
 - a. Date of letter and salutation
 - b. Street address of the property and a brief description of the industrial and commercial property
 - c. Identification of the subject property ownership interest
 - d. Statement that a property inspection and other necessary investigations and analyses were made by the real estate appraiser
 - e. Reference that the transmittal letter is an integral component of an accompanying real estate appraisal report
 - f. Identification of the type of property appraisal and type of real estate appraisal report
 - g. Standard of value (or definition of value) concluded in the real estate appraisal report
 - h. Effective date of the industrial and commercial real estate appraisal
 - i. Opinion of value
 - j. Identification of any extraordinary assumptions and hypothetical conditions
 - k. Real estate appraiser's signature
3. Table of Contents. The appraisal report table of contents typically lists all of the report sections in the order in which they are presented.
4. Certification. The certification is typically presented as a separate page in the real estate appraisal report introduction section. The certification typically follows the final value conclusion. The real estate appraiser

Exhibit 1
Industrial and Commercial Real Estate Appraisal Report
Illustrative Table of Contents

Item Topic

Introduction

1. Title Page
2. Letter of Transmittal
3. Table of Contents
4. Certification
5. Summary of Important Conclusions

Identification of the Real Estate Appraisal Problem and Scope of Work

6. Identification of the Type of Appraisal and Type of Appraisal Report
7. Identification of the Client
8. Identification of Any Intended User(s) Other than the Client
9. Statement of Intended Use
10. Identification of the Subject Property
11. Identification of the Property Rights Appraised
12. Type and Definition of Value
13. Effective Date of the Appraisal
14. Extraordinary Assumptions and Hypothetical Conditions
15. General Assumptions and Limiting Conditions
16. Scope of Work

Presentation of Data

17. Legal Description
18. History, including Prior Sales and Current Offers and Listings
19. Identification of Any Personal Property or Other Items That Are Not Real Property
20. Market Area, City, Neighborhood, and Location Data
21. Land Description
22. Improvement Description
23. Taxes and Assessment Rates
24. Marketability Study, If Appropriate

Analysis of Real Estate Appraisal Data and Conclusions

25. Analysis of Highest and Best Use of the Land as Though Vacant
26. Analysis of Highest and Best Use of the Property as Improved
27. Land Value
28. Cost Approach
29. Sales Comparison Approach
30. Income Capitalization Approach
31. Reconciliation and Final Opinion of Value
32. Estimate of Exposure Time
33. Qualifications of the Appraiser

Addenda

34. Detailed Legal Description (if not included in the presentation of data)
35. Detailed Statistical Dates
36. Leases or Lease Summaries
37. Other Appropriate Information
38. Secondary Exhibits

will sign and date the certification. The certification will indicate whether the real estate appraiser has personally conducted the appraisal in accordance with USPAP.

According to USPAP Standards Rule 2-3, each written real estate appraisal report should contain a signed certification.

5. **Summary of Important Conclusions.** The summary of important conclusions page, sometimes called the executive summary page, typically includes the following items:
 - a. Brief identification of the subject industrial and commercial property
 - b. Estimate of the highest and best use of the land as if vacant
 - c. Estimate of the highest and best use of the industrial and commercial property as improved
 - d. Age of the improvements
 - e. Abbreviated site description
 - f. Land value opinions
 - g. Value indication from the cost approach
 - h. Value indication from the sales comparison approach
 - i. Value indication from the income capitalization approach
 - j. Reconciliation and final value opinion
 - k. Description of any extraordinary assumptions or hypothetical conditions
6. **Identification of the Type of Appraisal and Report Format.** The real estate appraisal report format—that is, either appraisal report or restricted appraisal report—should be stated.
7. **Identification of the Client.** The client is the party who engages the real estate appraiser (or, in the case of the asset-based approach business valuation, the analyst).
8. **Identification of Intended User(s) Other than the Client.** If the names of any intended users are withheld from the real estate appraisal report, that fact should be disclosed.
9. **Statement of Intended Use.** The real estate appraisal report reader should understand the intent of the property appraisal.
10. **Identification of the Subject Property.** A legal description is commonly used to identify the subject industrial and commercial property.
11. **Identification of the Property Rights Appraised.** The real estate appraiser should state and define the particular rights of interests being valued.
12. **Type and Definition of Value.** The definition of the concluded value should be presented. USPAP requires a citation or source for the definition of value presented.
13. **Effective Date of the Appraisal.** The real estate appraisal conclusion may be stated as of a current date, a retrospective date, or a prospective date.
14. **Extraordinary Assumptions and Hypothetical Conditions.** USPAP defines an extraordinary assumption as follows:

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions.

USPAP defines a hypothetical condition as follows:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.
15. **General Assumptions and Limiting Conditions.** The general assumptions deal with such issues as legal and title considerations, liens and encumbrances, property management, information furnished by others, hazardous substances in the property, and compliance with zoning regulations and other state and local laws.
16. **Scope of Work.** USPAP requires that the real estate appraisal report include sufficient information to allow the intended users to understand the scope of work that the appraiser performed.
17. **Legal Description.** The industrial and commercial real estate is identified so that it cannot be confused with any other piece of real estate.
18. **History.** USPAP requires that current history and prior sales of the industrial and commercial property within three years of the effective date be disclosed and analyzed in the real estate appraisal report.
19. **Identification of Any Personal Property or Other Items That Are Not Real Property.** The real estate appraisal report should identify any tangible personal property, intangible personal property, or other intangible

business value that may be included with the real estate appraisal.

20. Market Area, City, Neighborhood, and Location Data. Real estate appraisers often indicate that no other aspect of appraisal is as important as the market area, city, neighborhood, and location analysis. However, defining the subject neighborhood is sometimes difficult in the appraisal of an industrial or commercial property.

Four categories of factors affect the market area analysis: physical factors, economic factors, social factors, and political factors. Each of these factors is summarized below:

- a. Physical and Locational Factors. The physical factors that affect market area desirability and quality include the natural features of location, as well as those created by people. Natural features include topography, trees, lakes, and other visual amenities. Natural features that affect market areas also include climate and geological conditions such as weather, soil quality and flood, slide, and earthquake zones.
- b. Economic Factors. An important economic factor to consider is whether the income level of the area occupants is sufficient to maintain existing structures. This factor strongly relates to employment opportunities available, as well as the stability of existing employment. Other economic factors include growth rate, trend of property values, supply and demand, marketing time for properties and land-use changes.
- c. Social Factors. Area or location desirability is influenced by the many social characteristics of the occupants. Neighborhood desirability depends on the effort and money that neighborhood occupants put into the maintenance and modernization of buildings. Community support for the existing legal and political order is also a factor, since neighborhood attitudes can influence political



decisions, such as the number of city services provided, tax rates, and the quality of the schools.

- d. Political Factors. The level of taxes, assessment fairness, police and fire protection and other city services provided, public education, and protective zoning or planning all have an effect on neighborhood desirability. Governmental positions on air, soil, and water pollution, job safety, social programs and noise, odor, and ecological controls can also be noted. Many political factors are the result of social attitudes, whether regional or local.
- Exhibit 2 presents a listing of data that the real estate appraiser typically considers in a market area, city, neighborhood, and location analysis.
21. Land Description. Land that has been graded and prepared for a specific purpose is typically referred to as a site. A site has features that are classified as physical, locational, legal, and economic. Land is immobile, and, therefore, it is significantly influenced by its surroundings. The value of land is a function of its ability to satisfy a market need and to serve as a site for either existing or proposed improvements.

In addition, land value is determined by its highest and best use under current market conditions. The common factors that the real estate appraiser should consider in the land description include size and shape,

Exhibit 2
Industrial and Commercial Real Estate Appraisal
Typical City, Neighborhood, and Location Data

Typical City, Neighborhood, and Location Data	Typical Types of Information
Area topography	Typical utilities or improvements available (streets, curbs, sidewalks; water; electricity; telephone; gas; sewers)
Available public transportation:	Neighborhood percent built up
Air	Neighborhood boundaries
Rail	Predominant types of buildings
Bus	Typical age of buildings
Subway	Typical condition of buildings
Route maps	Price range of typical neighborhood properties
Area expressways	Typical marketability
Area traffic patterns	Neighborhood land value trends
Regional population trends	Location of facilities: churches, schools, shopping, recreational, cultural
Zoning types	Neighborhood avenues of approach
Typical building codes	Area availability of personnel
Regional employment level	Neighborhood employee amenities (shopping, eating, and banking facilities)
Area average family income	Neighborhood competition for subject property
Typical rents and lease features	Typical types of industry (light, heavy)
Typical percentage of vacancies	Sources of raw materials
Neighborhood new buildings (amount and kind)	Neighborhood hazards and nuisances
Number of building permits issued	Deed restrictions
Property tax structure and rates	Changing use of area

topography, frontage, drainage and water runoff, soil conditions, environmental conditions, site access and transportation patterns, visibility, and neighboring property users.

22. Improvement Description. This section of the industrial and commercial real estate appraisal report presents a description of the physical improvements, which include any structure on the site as well as any improvements added to the site, such as parking lots, utility lines, storm drainage, and landscaping. Each improvement has its own specific characteristics that should be analyzed by the real estate appraiser. Structural improvements consist of a combination of physical components designed to serve a specific purpose.

The typical factors included in the improvements description are listed below:

- a. Use
- b. Size
- c. Architectural style
- d. Construction type
- e. Site preparation and foundation
- f. Frame
- g. Floor structure
- h. Floor covering
- i. Ceiling
- j. Interior constructions
- k. Plumbing
- l. Sprinkler system
- m. Heating, ventilation, and air conditioning
- n. Electrical system
- o. Exterior walls
- p. Roof
- q. Insulation

23. Taxes and Assessment Data. The current property tax assessment is typically reported and the current property tax expense is typically calculated.
24. Marketability Study. In the real estate appraisal of an income-producing commercial property, a marketability study may be performed to find out how the subject property fits into the overall market in terms of supply and demand levels and absorption rates.
25. Analysis of Highest and Best Use as If Vacant. The analysis and conclusion of the subject property highest and best use is a standard procedure in any real estate appraisal. Concluding highest and best use is not only a generally accepted procedure, it is a USPAP requirement.

USPAP Standards Rule 1-3 provides the following instruction with regard to highest and best use:

When necessary for credible assignment results in developing a market value opinion, the real estate appraiser should:

- a. identify and analyze the effect on use and value of existing land use regulations, reasonably probably modifications of such land use regulations, economic supply and demand, the physical adaptability of the real estate and market area trends; and
- b. develop an opinion of the highest and best use of the real estate.

In a highest and best use analysis, the real estate appraiser determines the property use that fulfills the following four tests:

- a. physically possible
- b. legally permitted
- c. economically feasible
- d. maximally productive

26. Analysis of Highest and Best Use as Improved. The real estate appraiser first concludes highest and best use of the site as if vacant and ready for development. Next, the real estate appraiser analyzes the highest and best use of the industrial or commercial property as currently improved. The highest and best use of the industrial or commercial property as improved is the use

that results in the highest present property value.

That present value is the present worth of all projected net cash flow discounted at a market-derived rate of return. If the value of the improvements, based on their highest and best use, is less than the value of the land based on its highest and best use, minus the cost of demolition of the improvements, then the improvements would contribute no value. The highest and best use would be to remove the improvements.

27. Land Value. The land value can be a major component of the total industrial or commercial property value. Real estate appraisers typically estimate land value separately, even when valuing properties with extensive improvements. The real estate appraiser can use several methods to estimate land value, including the following:

- a. Sales comparison method
- b. Extraction method
- c. Allocation method
- d. Subdivision development method
- e. Land residual method
- f. Ground rent capitalization method

In real estate appraisals performed as a component of the asset-based approach, the most common method to estimate land value is the sales comparison method. However, when few sales are available or when the value indications of the sales comparison method need additional support, the other land valuation methods may be used.

28. Cost Approach. The principal procedures in a cost approach analysis are summarized as follows:

- a. Estimate the highest and best use of the site. This initial procedure provides a basis for selecting comparable site sales. In addition, this procedure provides a basis for setting a benchmark against which accrued depreciation of the improvements is measured.
- b. Estimate the current dollar cost of either reproducing or replacing the subject improvements. In addition to direct costs and indirect costs, current cost estimate typically includes both a developer's profit and an entrepreneurial incentive based on local market evidence.

- c. Estimate the total dollar amount of accrued depreciation from all causes. This total accrued depreciation typically includes three categories of depreciation:
 - i. Physical deterioration
 - ii. Functional obsolescence
 - iii. External obsolescence
- d. Subtract the dollar amount of total accrued depreciation from the estimate of the current reproduction or replacement cost new. This difference, if computed accurately, approximates the current value of the subject major improvements.
- e. Estimate the replacement (or reproduction) cost new less depreciation for any minor buildings and other on-site improvements, such as landscaping, fencing, and driveways. An important component of this procedure is to estimate the value (rather than the cost) that these improvements add to the overall value of the property.
- f. Add the site value to the depreciated cost of (i) the building major improvements and (ii) the other on-site improvements. The resulting sum is the estimated value of the subject property according to the cost approach.

In the estimation of current cost, all cost components should be considered. Total current construction costs (either reproduction or replacement) are often identified as direct and indirect costs. Direct costs are labor and materials and typically include the following:

- a. Labor hired by the general contractors and subcontractors
- b. Materials used, beginning with site clearance to the final cleanup
- c. Equipment, leased or owned
- d. Temporary electric service
- e. Developer's overhead and profit

Indirect costs typically include the following:

- a. Professional service fees, including legal, appraisal, financial feasibility, engineering, architectural, and surveying
- b. Construction and possibly permanent loan charges
- c. Property management commissions

- d. Project management fees
- e. Land lease rent, if appropriate
- f. Real estate taxes
- g. Project promotion charges
- h. Any other interim carrying costs

The common construction cost estimation methods include the following:

- a. Quantity survey method
- b. Unit-in-place construction method
- c. Comparative unit method
- d. Historical cost indexing method

The real estate appraisal report should also describe the analyses related to estimating depreciation. Accrued depreciation is typically defined as a loss in value from any cause. The three types of accrued depreciation are as follows:

- a. Physical deterioration
- b. Functional obsolescence
- c. External obsolescence

The real estate appraisal report should distinguish the concept of cost from the concept of value. Cost is typically a measure of a past expenditure either of labor or materials or both. That is, cost represents a measure of past expenditures. Value, on the other hand, is influenced by the future. This is because value, by definition, constitutes the present worth of future right and benefits. Therefore, cost is the amount of money necessary to acquire or to create an item, while value represents its worth.

- 29. Sales Comparison Approach. The comparability of the selected sale transactions may be a controversial aspect of the sales comparison approach analysis. Therefore, market sale transactions are typically not to be used unless the sales data have been confirmed by the real estate appraiser or by a reliable delegate. This confirmation process may include inquiries into the circumstances causing the sale or affecting the transaction price. Price represents the amount paid for the real estate in terms of dollars.

Before accepting the price as evidence of value, the real estate appraiser may verify the transaction for the following conditions:

- a. Relationship of the parties
- b. Date of sale
- c. Financial terms of sale

Another issue in the real estate appraisal may be the appraiser's adjustments to the comparable sales to account for differences between the comparable properties and the subject property. Any adjustments related to differences due to variations in age, size, and quality of comparable versus subject building construction should be identified and quantified in the appraisal report.

Real estate appraisers may use either the detailed property analysis method or the overall property rating method to justify these market comparison adjustments:

- a. Detailed Property Analysis Method. After confirming the sale prices and terms of sale with respective buyers, sellers, or brokers, the appraiser may inspect comparable properties for size and details of construction. This allows the appraiser to make price adjustments to make each sale as comparable as possible to the subject property.
- b. Overall Property Rating Method. Under this method, market comparison is based on an overall judgment as to the percentage value adjustment called for in order to make each sale comparable with the subject property. The overall percentage applied to each comparable property in turn is justified by the appraiser's explanation that the subject property is better, poorer, or the same in relation to its construction as to type, size, features, age, and building condition. By adjusting the comparable sale prices upward or downward in accordance with the characteristics of the subject property, a market value estimate is derived.

For industrial/commercial properties, sale price adjustments are often made by the unit comparison method based on one or more of the following:

- a. Price per square or cubic foot of building volume



- b. Price per square foot of net rentable area
- c. Price per apartment including land investment
- d. Price per room or price per floor
- e. Gross annual or monthly income multiplier
- f. Its use as a special purpose property (for example, hospital, per bed; restaurant and theater, per seat)

The sales comparison approach is well adapted to situations in which there are an adequate number of similar properties that have recently sold. In using these sales, the real estate appraiser attempts to verify each sale in order to confirm the relationship of the parties, date of sale, and any financing terms. In analyzing comparable sales, it may be necessary to adjust a price if prices have changed between (a) the time that the comparable property sold and (b) the subject appraisal date.

Also, an adjustment is typically required if a comparable sale property's price was influenced by financing terms. The cash equivalency method is often used to adjust for this price influence. The purpose of this adjustment is to reveal the price that a comparable property would have brought without the influence of atypical financing.

There are two methods to analyze comparable sales properties: (a) the detailed

property analysis method and (b) the overall property rating method. The first method requires the real estate appraiser to make a detailed analysis of all features in the industrial or commercial property that influenced the price paid as well as transactional, location, and time influences. The second method allows the real estate appraiser to make an overall price adjustment to the comparable sale price. The overall property rating method is more commonly used in real estate appraisals performed as a component of an asset-based approach valuation.

30. **Income Capitalization Approach.** The income capitalization approach converts the property's expected income or cash flow into a present value. There are two categories of income capitalization methods: (a) direct capitalization and (b) yield capitalization.

Direct capitalization methods rely on direct capitalization rates typically extracted from comparable sales. Yield capitalization methods rely on yield capitalization rates that are typically derived as the internal rate of return required by the typical investor.

Value estimates may be calculated by applying an appropriate multiplier or capitalization rate to the subject property's expected income or cash flow. The term direct capitalization is sometimes used to refer to the procedure of extracting income multipliers or capitalization rates from comparable sales.

Capitalization rates and income multipliers derived from comparable sales do not explicitly address profitability. Rather, they are simply observed ratios of income to value. Nonetheless, such market-derived capitalization rates can provide reliable estimates of value if:

- a. the expected cash flow is a representative income projection and
- b. the income multiplier or capitalization rate is derived from comparable sales with the same potential for future income.

Common direct capitalization multipliers or rates include (a) income multipliers such as potential gross income multiplier ("PGIM"), effective gross income multiplier ("EGIM"), and net income multiplier ("NIM") and (b) several capitalization rates

such as overall capitalization rate, land capitalization rate, and building capitalization rate.

The industrial or commercial property value is commonly estimated by dividing one period of net operating income ("NOI") by an overall capitalization rate. The rate is estimated by (a) extracting overall rates from comparable property sales; (b) comparing the comparable property attributes (physical, locational, financial) to the subject property; and (c) selecting an appropriate overall rate.

As with the PGIM, EGIM, and NIM, an implied assumption is that the future performances of the comparable properties and the subject industrial or commercial property will be similar.

Values are often estimated by projecting cash flow over a typical holding period and discounting the cash flow to a present value estimate using a discount rate. This valuation method is called yield capitalization (or a discounted cash flow analysis). The discount rate directly addresses the expected profitability of the property.

The cash flow components typically projected in an industrial or commercial appraisal are (a) NOI and (b) the net proceeds from the property resale. The discount rate is sometimes called the property yield rate or the overall yield rate.

All income approach methods are categorized as either direct capitalization or yield capitalization. Direct capitalization uses a one period measure of income or cash flow to estimate value. This procedure includes the use of income multipliers such as the potential gross income multiplier, effective gross income multiplier, and net income multiplier. This procedure also includes the use of capitalization rates such as the overall capitalization rate, the land capitalization rate, and the building capitalization rate.

Yield capitalization requires a projection of the estimated future income of the industrial or commercial property. Value is estimated by discounting this income, including any proceeds from reversion, at an appropriate yield rate. A specific procedure of the yield capitalization method is the discounted cash flow analysis.

When estimating value using yield capitalization, the first year NOI is explicitly

estimated. The property income after the first year is either (a) explicitly estimated for each year of the investment holding period or (b) projected to change according to a particular mathematical process. Several common alternative property income patterns include level income, compound change, and straight-line change.

31. **Reconciliation and Final Opinion of Value.** The final procedure is the reconciliation of the various value indications into the final opinion of value. For real estate appraisals performed for many purposes, it may be reasonable to conclude a range of values as the final value opinion. For real estate appraisals performed as part of an asset-based approach analysis, however, it is more common to conclude a point estimate as the final value opinion.

The nature of the reconciliation procedure depends on:

- a. the purpose and objective of the industrial or commercial property appraisal,
- b. the individual valuation approaches and methods used, and
- c. the real estate appraiser's estimate of the reliability of each of the value indications derived.

When all three property valuation approaches are used, the real estate appraiser typically considers the relative dependability and applicability of each approach given (a) the subject property type as well as (b) the quantity and quality of data used.

In the reconciliation section of the property appraisal report, the real estate appraiser may explain variations among the value indications of the different approaches used and account for differences between the value conclusions derived.

32. **Estimate of Exposure Time.** USPAP defines exposure time as follows:

Estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal.

33. **Professional Qualifications of the Appraiser.** The statement of the professional qualifications should describe the appraiser's education and training, experience and expertise, and professional credentials

and designations. For real estate appraisals performed as part of an asset-based approach analysis, this statement should emphasize the appraiser's experience with regard to similar industrial or commercial properties.

34. **Addenda.** The following items may be incorporated in the real estate appraisal report addenda:

- a. Building specifications
- b. Charts and graphs
- c. City, neighborhood, and other maps
- d. Detailed estimates of the replacement or reproduction cost
- e. Historical income and expense data
- f. Lease and lease abstracts
- g. Photographs of properties referred to in the report
- h. Plans and elevations of the buildings
- i. Plot plan
- j. Sales and listing data

SUMMARY AND CONCLUSION

The asset-based approach business valuation involves the appraisal of all of the assets of either an operating company or an asset-holding company. For the typical operating company, these asset categories often include working capital assets, owned and leased real estate, tangible personal property, and intangible personal property.

This discussion focused on the appraisal of an operating company's industrial or commercial real estate—as part of the asset-based approach to business valuation. This discussion summarized what the valuation analyst needs to know about the industrial and commercial real estate appraisal process. Analysts have to work with—and understand—commercial real estate appraisers.

This discussion also summarizes what the parties who rely on the business valuation need to know about the industrial and commercial real estate appraisal process. These parties have to rely on the contributions of commercial real estate appraisals to the asset-based approach business valuation.

John Ramirez is a vice president in our Portland, Oregon, practice office. John can be reached at (503) 243-7506 or at jcramirez@willamette.com.

