Comparison of real estate appraisal approaches

Introduction hypothesis, Rationale

Real estate appraisal is not only important to property buyers but also have great influence on the decision making process for other parties, such as the real estate agencies, financing departments, insurance company and the government. Marshall (1920) “ merged supply-cost theory with demand-price theory, which forms the basis for modern-day value theory”. “ His writings provided the theoretical basis for the three basic approaches to value in use today: replacement cost, market comparison, and capitalization of income” (Moore, 2009). Each method may deliver different result in valuing the same property. It is improper to say that one method is superior to the others. In practice, a lot of variables need to be taken into consideration by an appraiser in determining which appraisal method is most applicable.

Statement

This research paper is aimed at identifying the key differences between the three real estate appraisal approaches and explaining why different values may be generated with the three approaches for the same property. The analysis is conducted in three steps: firstly we explore the underlying principles and rationales of the three approaches. The methodologies used by the three approaches will be discussed in detail separately in the second part. Finally, the limitations and applicability of each approach will be discussed.

Exposition

Firstly, in order to illustrate the main differences among the three approaches, we start with the comparison of their underlying principles.

The Cost Summation approach is based on the theory of substitution which assumes that a purchaser would not pay any more to purchase a property than it would cost to buy a similar one and construct an improvement on it with similar utility (McKinley, 2008). For a new property, the cost approach generally involves determining the construction cost of building a given improvement and adding the market value of the land. In the case of existing buildings, the appraiser firstly estimates the cost of replacing the building. The estimate is reduced by deducting any physical deterioration, functional obsolescence, or external obsolescence in arriving at the estimated value of the building.

The Market Comparison approach is based on the theory of supply and demand, as well as upon the principle of substitution (Reinstein, 1994). Market value of a property is decided by the market behaviour of both buyers and sellers and directly related to the sale prices of similar properties. In the sales comparison approach, market valueis estimated by comparing properties similar to the subject property that have recently been sold, are listed for sale, or are under contract. These sales must be “ arm’s length” transactions, or sales between unrelated individuals. Where market comparison approach is used, the current transaction prices are important benchmarks. A major premise of the sales comparison approach is that the market value of a property is directly related to the prices of comparable, competitive properties.

The Income Capitalization approach is based on the principle that the value of a property reflects its ability to produce cash flow over time. When using income capitalization approach to appraise a property, the appraiser should take into account all market factors that can influence the income produced and decide what data to be extracted from recent sales transaction to evaluate the property. The income capitalization approach uses mathematical procedures (discounted cash flow analysis) to analyze a property’s capacity to generate benefits (usually monetary) and convert these benefits into an indication of present value.

Different methodologies adopted by the three approaches to estimate the property value may lead to different results. Take a 10-year-old house as an example.

If Cost Approach is used, we need to firstly estimate the worth of the vacant land, then add the current cost of building the house and then less the estimated amount of accrued depreciation of the property.

Whereas with Market Approach, not only the above matters need to be considered, prices of other comparable properties must be compared and accounted for as well. With Market Approach, the demand and supply factor affects customers buying behavior and influence the values of the property (Kratzer, 2004). In developing the market approach to valuation, the appraiser summarizes and uses the sales transaction data on comparable properties from the market. The sales prices of the comparable properties must be adjusted up or down for each of the differences between the subject property and the comparable properties to the extent that they are different

in size, scale, location, age and quality of the construction. When estimating value using capitalization, there are several ways including gross income multiplier, direct capitalization and yield capitalization (Carter, 2008). The method used depends upon several factors such as the timing and regularity of the cash flow, the period of time the investment is held, and whether or not long term leases are involved and so forth. The gross income multiplier and direct capitalization are more straight forward and simpler approachesto apply. It is used when income is not expected to vary significantly over time. The gross income multiplier is defined as sales price divided by gross income. For example, if a comparable property is sold for 5 times current gross income, the subject property being appraised should sell at a price that has similar estimates of income and market derived cap rates are readily available in the market and reveal a consistent pattern (Bottum, 1994). For example, in this case of estimating the value of the 10-year-old house, if the annual operating income produced is consistent, value can be derived by capitalizing the annual net income with an overall capitalization rate. Yieldcapitalization, on the other hand, requires explicit projections of income, holding period, and property reversion and generally considers the income streams for several years. Yield capitalization does not necessarily rely on comparable sales but does require selection of an appropriatediscount rateand considers the timing of recapture. Conceptually, yield capitalization involves the conversion of future benefits into present value by applying an appropriate yield rate to the various cash flows. These future benefits include any series of periodic incomes with or without resale of the property.

Discussion & Evaluation

Different principles serve different purposes and depend upon the nature of the property category. The Cost Approach is mostly reliable where the structure of the property is relatively new and depreciation does not present serious complications. It becomes less reliable for older properties, especially when adjustments have been made for depreciation and obsolescence and when it is hard to find comparable land sales (Iwan, 1993). However, it is often the only approach when dealing with special use properties, such as large industrial plants and institutional buildings such as schools and hospitals. The Market Comparison approach is commonly used in valuing single-family homes and land. These properties are traded more frequently in the market and data is easier to collect for determination of the property's value. This approach recognizes that a typical buyer will compare asking prices and seek to purchase the property that meets his or her wants and needs for the lowest cost. In developing the Market Comparison approach, the appraiser attempts to interpret andmeasurethe actions of parties involved in the marketplace, including buyers, sellers, and investors. The Income Capitalization approach is used to value commercial and investment properties. Because it is intended to directly reflect or model the expectations and behaviors of typical market participants, this approach is generally considered the most applicable valuation technique for income-producing properties, where sufficient market data exists. In a commercial income-producing property this approach capitalizes an income stream into a value indication. This can be done using revenue multipliers orcapitalization ratesapplied to a Net Operating Income (NOI). Usually, an NOI has been stabilized so as not to place too much weight on a very recent event. Alternatively, multiple years of net operating income can be valued by

adiscounted cash flowanalysis (DCF) model. The DCF model is widely used to value larger and more expensive income-producing properties, such as large office towers or major shopping centers.

http://en. wikipedia. org/wiki/Real_estate_appraisal

The individual nature of the real property leads to a question of determining the most appropriate appraisal procedure for valuation.

One takes into account the purpose of the appraisal, the type of property, and the adequacy and relative reliability of the data processed in each of the three approaches. These considerations influence the weight to be given to each approach.

After examining the range between the value indications, the appraiser places major emphasis on the one, or on those, which appear to produce the most reliable and applicable solution to the specific appraisal task.

http://www. champlainvalleyappraisal. com/text. html

The market comparison approach is applicable to all types of real property interests when there are sufficient recent, reliable transactions to indicate value patterns or trends in the market.

http://www. timbertax. org/getstarted/appraisal/methods/

When this approach is used, the more differences that the appraisal must be adjusted for, the more dissimilar are the properties being compared, the less reliable the market comparison approach will be.

Moreover, when the market is weak and the number of market transactions is insufficient, the applicability of the sales comparison approach may be limited. The sales comparison approach is a significant and essential part of the valuation process, even when its reliability is limited. Although the dissimilarities in factors affecting property value cannot always be properly identified and quantified, the sales comparison approach may still provide a probable range of value in support of a value indication derived using one of the other approaches.

http://www. timbertax. org/getstarted/appraisal/methods/

The cost approach is particularly important when a lack of market activity limits the usefulness of the sales comparison approach.

http://definitions. uslegal. com/c/cost-approach/(Appr. Inst. 1992, 316).

When the physical characteristics of comparable properties differ significantly, the relative values of these characteristics can sometimes be identified more precisely with the cost approach than with the sales comparison approach. Because the cost approach requires that land and improvements are valued separately, it is also useful in appraisals for insurance purposes. In markets where current rent levels are depressed because of over-supply situations, the extent of upward movement in rental rates will be a function of cost-feasible rent levels. The current market recovery has demonstrated that “ rent spikes” are a market reality. The extent of those increases will be affected by that cost-feasible rent number, since once cost feasible rent levels are achieved in the marketplace new construction will typically become a reality. The point is that understanding

the dynamics of that market process is contingent upon having an estimate of the replacement cost of the property as a basis.

With income capitalization approach, the value of a particular property is theoretically equal to the present value of the current lease portfolio, and the right to get the building back empty. The issue of getting the building back is not literally gaining possession of an empty structure, but having the ability to roll all leases to a stabilized occupancy rate at market rent levels. Therefore, the issue of an estimated holding period should be a function of remaining contract lease terms and the current market position in the real estate cycle.

http://www. freepatentsonline. com/article/Real-Estate-Issues/78397868. html

Considering this view of the investment process, future values cannot be known with certainty, but the discounting process weighs the near term cash flows more heavily than those that will occur in the more distant future. This makes the choice of the discount rate very critical. The analysis of cost and sales data is an integral part of the income capitalization approach, and capitalization techniques are frequently employed in the sales comparison and cost approaches to valuation.

http://www. timbertax. org/getstarted/appraisal/methods/

Conclusions

The individual nature of the real estate property is of vital importance in determining the most appropriate appraisal approach for evaluation of the

property. The appraiser also has to take into account the purpose of the appraisal, the adequacy and reliability of the data available. In fact, since assumptions that are explicit in one approach are implicit in another approach, wide variations in value estimates from the three approaches for a particular property would tend to indicate that the analysis in one of the approaches is flawed. After the appraiser has identified which approach is more appropriate, he then need to address more emphasis on this particular approach. The final appraised value is derived from the various indications of value. The use of various tests of reasonableness in an appraisal can be a very powerful tool to demonstrate the reliability of the value estimate. Therefore, a thorough Market Approach encompassing the Cost Analysis and Income Capitalization Analysis is critical to the appraisal process. http://www. cre. org/memberdata/pdfs/Myth_Wincott. pdf

Bibliography

Bottom, & M. S. (1994). Income and expense estimates and direct capitalisation. *Appraisal Journal* , *62* (2), 314.

Carter, C. C. (2008). Basic real estate appraisal: Principles and procedures (with CD-ROM). *Journal of Real Estate Literature, 16* (3), 427-429

Iwan, G. A. (1993). The cost approach – inflexible or infeasible? *The Appraisal Journal, 61* (1), 136

Kratzer, M. M. (2004). Working with real estate appraisals-tips on appraising an appraisal. *Real Estate Finance, 20* (6), 7-14

Marshall, A. (1920). *Principles of Economics* (8th ed.). London: Macmillan for the Royal Economic Society 1961.

McKinley, M. (2001). Welcome to the 12th edition of the appraisal of real estate: A focus on fundamentals. *The Appraisal Journal, 69* (4), 449-453

McKinley, M. (2008). The making of the 13th edition of THE APPRAISAL OF REAL ESTATE. *The Appraisal Journal, 76* (3), 274-278.

Moore, J. W. (2009). A history of appraisal theory and practice looking back from IAAO's 75th year. *Journal of Property Tax Assessment & Administration, 6* (3), 23-49.

Reinstein, A. (1994). The market value approach: Its impact on the real estate ind. *Real Estate Finance, 11* (3), 42